

ENVIRONMENTAL CRISES TENDENCIES OF GLOBAL INDUSTRIAL CIVILIZATION

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This paper analyzes the current crisis of the global industrial civilization as a coincidence of external and internal reasons, mainly as a coincidence of economic and environmental crises tendencies. The analysis is based on Habermas' distinction between four types of social formation, and according to their internal organizational principles and an extent of their social and system integration, also types of crises that can occur in the given type of the social formation. The paper shows that the common reason of economic and environmental crises which are a part of system crisis of industrial civilization is an imperative of growth. This imperative, as Habermas points out, is the immanent principle of institutions and systems of capitalism. Economic and demographic growth of industrial civilization based on capitalism principles has reached its limits. However, all types of social formation, institutions and civilizations are also determined by the imperative of sustainability. The current crisis is then characterized as a display of antagonism between the imperative of growth and imperative of sustainability. This antagonism creates a new category of transformation for sustainable societies or revolution conflicts in states that break environmental and economic limits of growth. These conflicts result from food and water shortages and could bring a growing instability into the world or lead into the collapse of the industrial civilization.

Keywords: *globalization – industrial civilization – economic crisis tendencies – environmental crisis tendencies – imperative of growth – imperative of sustainability*

A crisis could be defined as a situation in which it has become clear that the existing ways of addressing problems and institutions have failed. It is also a situation requiring prompt decisions¹. Identifying the crisis tendencies enables transformation of the society and its institutions; without transformation the

¹ See (St'ahel 2005a) and also (St'ahel 2008), (St'ahel 2010c).

development can lead to a revolution which will interrupt the continuity of the development or will threaten the identity of the political-economic system. It could lead also to the collapse of civilization as well.

The economic crisis of 2007 – 2008 is the fourth big crisis in the last two centuries². However, it is apparent that it is not only an economic crisis or, regarding the following social and political crises, only a crisis of capitalism. At the same time, facing deepening environmental crisis, we have to think about crisis of the industrial civilization³.

Industrial civilization is the first truly global civilization, firstly, for a global application of the same theoretical and technological principles into all areas of life and reproduction of the society and, secondly, for the consequences of applying these principles – positive or negative. Legitimacy of the term „industrial civilization“ results from the fact that it was industrial technology and organization which for the first time in human history allowed more than half of the human population of the world to live in cities at the end of the 20th century. Life in cities, industrial production and distribution of products and services in such an extent creates unprecedented economic, social, political and environmental problems, which are very similar, if not identical, in all parts of the world. The current crisis is thus unparalleled not only in its global extent but also in deepening the material, food and environmental crises which threaten not only the identity but also the existence of the current global political-economic system. When reflecting on the causes and possible consequences of the crisis of the global industrial civilization we must take all these aspects into consideration and pay attention to their reciprocal conditionality and synergy⁴.

However, more attention is paid to the reflection of economic, social and political aspects of the crisis of the global industrial civilization than to the reflection of its material, food and environmental aspects. The reason is that economic, social and political aspects of the crisis seem more acute and their theoretical reflection has a longer tradition than reflection of material, food and environmental aspects of the crisis. These have been systematically reflected only in the last fifty years⁵. Despite the extent and argumentation

² See (Hauser 2012).

³ See (St'ahel 2005b).

⁴ See (St'ahel 2005b).

⁵ And this despite the fact, that the problem was addressed by T. R. Malthus in his famous essay. See (Malthus1998). One of the possible explanations points to a different time frame of economic, social and political crises on one hand and the environmental crisis on the other, what significantly influences the ability to critically reflect on these phenomena.

accuracy of results of the scientific research on the causes and possible solution of the environmental crisis, no changes that would at least reduce the exploitation and devastation of the environment took place within the global or domestic economic, social or political systems. On the contrary, the population of the planet has almost doubled and the consumer expectations have increased. Therefore, the number of cattle or fish, the amount of fresh water for agricultural and industrial production as well as for human consumption including production of all kinds of products has far exceeded even the rise of human population. In regard to growing population the total consumption of the products, services and energy has been increasing despite the rise of effectiveness and implementation of more environmentally considerate technologies, moreover, despite the decrease of economic activities induced by the economic crisis. The concentration of greenhouse gases in the atmosphere⁶ and chemism of the oceans⁷, the speed of extinction of animal species and plants, deforestation, reduction of arable land and the decrease of fresh water supplies should be added to the list of consequences. The growth of production and consumption as well as the growth of population are always related to the increased exploitation of natural resources and pollution⁸.

The imperative of growth as the immanent part of the majority of systems and institutions of the industrial civilization can be considered the common denominator of these crisis phenomena. The globalization process⁹ allowed for the application of the imperative of growth in the areas and sectors that thirty or forty years ago were arranged on the basis of different imperatives while the process even eliminated or at least weakened the influence of the traditional cultural and political tools which used to regulate the growth itself as well as its side effects.

The extent and the potential of economic, ecological, social, political and cultural consequences of the environmental aspect of the global crisis make it

Another one rests in a persisting faith in the technological progress which should sooner or later bring solution to all crisis phenomena.

⁶ Despite the Kyoto Protocol, the goal of which was to reduce emissions of greenhouse gases by 5% regarding the level in 1990, their concentration in the atmosphere has since the year 2000 increased by 20%.

⁷ Emission of greenhouse gases increased acidity of the oceans in last two centuries by 25%. In consequence, it could start mass extinction of the sea animals. See also (Lovelock 2012, 174).

⁸ See (Naess 1996, 301).

⁹ See (S'ahel 2013a).

then historically and by extent such a unique phenomenon that it „is not possible to formulate traditional philosophical questions without regard to the fact of the current ecological crisis anymore” (Kolářský 2011, 30). We can only agree with R. Kolářský’s statement that the task of the current philosophy is to rethink the philosophical concepts of the past and the present (Kolářský 2011, 130) from the aspect of the environmental global crisis. When reflecting economic, social and political crises we have to take the phenomenon of the environmental crisis into account and study their interaction. This attitude enables one to think of the current crisis as the system crisis of the industrial civilization and economic, social, political, demographic, food and environmental crises to understand them as individual manifestations or aspects of this system crisis¹⁰.

1. Habermas’s Crisis Theory

All these phenomena could be interpreted by a coherent crisis theory which was formulated by J. Habermas in the early 1970s in his *Legitimation Crisis*¹¹. This theory, connected with some kind of philosophy of history, has also offered the basis for reflection on the current crisis. However, as R. Plant reminds, the “Legitimation Crisis is a research programme, not a final report” (Plant 1982, 346). But this fact enables the application of the Habermas’ approach to the reflection of the current civilization crisis.

According to Habermas, “only when members of a society experience structural alterations as critical for continued existence and feel their social identity threatened can we speak of crises” (Habermas 2005, 3). He based this on the assertion that also “social systems have identities and can lose them” (Habermas 2005, 3). It is an open question then, if the global industrial civilization can be perceived as an analogical social system. Since the scientific and publicistic discourses work with the term “civilization crisis” even in case of the current global crisis, and many economic, demographic and environmental phenomena are reflected on in global connections, the answer is tentatively positive.

In general, according to Habermas, “crisis occurrences owe their

¹⁰ See also (Stahel 2013b).

¹¹ (Habermas 2005). *Legitimation Crisis* was first published as *Legitimationsprobleme im Spätkapitalismus* in 1973 (Frankfurt am Main: Suhrkamp Verlag) and in English translation in 1976.

objectivity to the fact that they issue from unresolved steering problems” (Habermas 2005, 4). However, Habermas “distinguishes four social formations: primitive [*vorhochkulturelle*], traditional, capitalist, post-capitalist” (Habermas 2005, 17).¹² Each of them faces different problems of governance and the failure to manage them or to solve them can lead to a crisis. According to the inner organizational principle and the extent of the social and system integration¹³ of these types of the social formation, Habermas distinguishes types of crises that can occur.

Primitive Social Formations are organized on the basis of the age and gender principles which are institutionalized in a kinship system. Usual source of social crises are contradictory imperatives of socio-economical system, but “no contradictory imperatives follow from this principle of organization” (Habermas 2005, 18). Therefore such societies, states Habermas, are largely affected by external identity crises where “the usual source of change is demographic growth in connection with ecological factors” (Habermas 2005, 18). According to Habermas only primitive or archaic social formations can face an external caused crises, all others faces mainly internal caused crises.

Traditional Social Formations are created on the civilizational level of development. Their basic “principle of organization is class domination in political form” (Habermas 2005, 18). These are socially and by class divided societies which need to pay attention to justifying and legitimizing this division because they bring internal contradictions. Traditional societies are then threatened by internal identity crises as Habermas states: “In traditional societies the type of the crisis that arises proceeds from internal contradictions” (Habermas 2005, 20). Relations of production are then at the same time political relations, owners of means of production, primarily of the land, are owners of the political power; in other words, the political and economic powers are the same. According to Habermas “in traditional societies, crises appear when, and only when, steering problems cannot be resolved within the possibility space circumscribed by the principle of organization and therefore produce dangers to system integration that threaten

¹² By the term post-capitalist social formation Habermas „designates state-socialist societies“ (Habermas 1980, 17), which are in his view also class societies, the difference is that production means are handled by political elites.

¹³ In other text coming from the first half of 1970s Habermas differentiates societies according to the level of social integration. He differentiates Neolithic societies, Archaic civilizations and Developed premodern civilizations (Habermas 1975, 295).

the identity of the society” (Habermas 1980, 25).

Liberal-capitalist societies are organized around the relations of capital and wage labour. Relations of production are differentiated from the political relations, from which also the “civil society” is differentiated. Economic system is thus free from limitations of the socially integrative subsystems. It enables the state to intensify the dynamics of growth and with it also crises that are manifested mainly as economic crises. However, these crises finally affect the whole social system. Liberal capitalism is thus affected by system crises. Habermas can therefore emphasize that “in liberal-capitalist societies ... crises become endemic because temporarily unresolved steering problems, which the process of economic growth produces at more or less regular intervals, *as such* endanger social integration” (Habermas 2005, 25). A crisis is then a recurrent phenomenon, a cyclic phenomenon and in its occurrence specific general signs can be identified. It is then not an accidental, one-time occurrence, but it is connected with its growth, it is its accompaniment and one of its unwanted consequences. “No previous social formation lived so much in fear and expectation of sudden system change, even though the idea of a temporally condensed transformation – that is, of a revolutionary leap – is oddly in contrast to the form of motion of system crisis as a permanent crisis” (Habermas 2005, 25). At least the threat of the return of the crisis has become a permanent part of the social system, together with revolutionary and counter-revolutionary movements and their conflicts. “Economic growth takes place through periodically recurring crises because the class structure, transplanted into the economic steering system, has transformed *the contradiction of class interests into a contradiction of system imperatives*” (Habermas 2005, 26). We can therefore talk about a crisis cycle or cyclic crises which affect not only the economic subsystem of the society. Moreover, according to Habermas, the economic crisis in liberal-capitalist systems is specific and historically unique in that that it is a consequence of contradictions of system imperatives which cannot be structurally solved because its source is the structure of the society organized on the basis of certain rationality. Systems crises then “have the appearance of natural catastrophes that break forth from the center of a system of purposive rational action” (Habermas 2005, 30). In other words, a crisis arises because the society and its subjects perform strictly “rationally”, i.e. under the system imperatives and these imperatives are contradictory. Finally, Habermas asks, if in the organized capitalism the so outlined logic of the crisis has preserved or changed, i.e. if capitalism has “been fully transformed into a post-capitalist social formation that has overcome the crisis-ridden form of an economic

growth?” (Habermas 2005, 31) The development of (at least) the last decade has answered this question – the economic growth has been constantly interrupted by acute crises, appearing because economic subjects are trying to achieve the highest-possible economic growth in accordance with the basic system imperative.

Organized or advanced capitalist social formation (state-regulated capitalism) appears after World War II as a reaction to the fail of the liberal capitalism in the crisis of 1930s which led to a world conflict. According to Habermas “the state intervenes in the market as functional gaps developed” (Habermas 2005, 33), so as to at least reduce the conflict potential of system imperative intensified by acute crises. The economic and social politics of the Western European countries in the first three decades after World War II can be regarded as a reaction to the phenomenon of the economic crisis. “The structures of advanced capitalism can be understood as reaction formations to endemic crisis. To ward off system crisis, advanced capitalist societies focus all forces of social integration at the point of structurally most probable conflict – in order all the more effectively to keep it latent” (Habermas 2005, 37 – 38). Habermas at the same time points out that state intervention to the economic sphere, which in liberal capitalism is differentiated from the politics, brings new types of problems in the organized capitalism. “Re-coupling the economic system to the political – which in a way repoliticizes the relations of production – creates an increased need for legitimation” (Habermas 2005, 36). An effort of the political sphere to ease the conflict potential of cyclic crises arising as a consequence of the unregulated economic growth leads not only to an increase of the influence of the political system on the economic one, but also to a transfer of steering problems from the economic to the political sphere.

“In decades since World War II the most advanced capitalist countries have succeeded (the May 1968 events in Paris notwithstanding) in keeping class conflict latent in its decisive areas; in extending the business cycle and transforming periodic phases of capital devaluation into a permanent inflationary crisis with milder business fluctuations” (Habermas 2005, 38). A state has taken a role of a partaker and a regulator of the market and simultaneously a compensator of its negative social, cultural and later also ecologic consequences so as to prevent a breakout of acute crises. The price we pay is a systematic overload of public budgets in the form of long-term deficits.

Moreover, in 1970s the western countries were hit by some acute crises

caused by the stop in an oil supply. These could be called externally produced crises. The Western European countries thus faced other type of crisis, different to what their institutions were prepared for. However, Habermas points out that, “If governmental crisis management fails, it lags behind programmatic demands *that it has placed on itself*. The penalty for this failure is withdrawal of legitimation. Thus, the scope for action contracts precisely at those moments in which it needs to drastically expand” (Habermas 2005, 69). At the same time, it seems there is no difference if it concerns crises caused primarily externally or internally. Trustworthiness of the state as an institution in the role of a protector against crises as well as the legitimacy of the political elites has considerably suffered. As J. Habermas states, one of the features and conditions of the postwar class compromise was “civic privatism – that is, political abstinence combined with an orientation to career, leisure, and consumption”, which “promotes the expectation of suitable rewards within the system (money, leisure time, and security)” (Habermas 2005, 37). By the end of the 1970s it became clear that the state, as in the pre-war period, is again not able to give the chance for career and employment to all and is certainly not able to provide a steady growth in consumption. All this happens despite the steady increase of the tax burden and despite the broadening of the areas over which the state is trying to gain bureaucratic or legislative control. As R. Plant reminds us, “capitalism has built up expectations about consumption, and these have increased pressures on governments to steer the economy to produce more goods. The non-provision of goods to meet expectations becomes a dysfunctional feature of market which it has become a task of government to correct” (Plant 1982, 343). However, the development over the last decade has clearly shown that governments must also intervene when production is growing faster than possibilities of consumption of what has been produced. The support of consumerism, regardless of its social, cultural and environmental consequences, is a problem of producers as well as governments.

2. The return of the acute crisis phenomenon

The process of economic globalization can be understood as the result of an effort to support further growth of production and consumption which was limited by resources and capacities of national markets. The result of globalization of the preceding three decades has been expressed in the industrially developed countries in the form of liberalization and privatization

not only of productive capacities but also of infrastructure and public services, including health and welfare system, education, science and culture, so we can talk about the dismantling, twilight or progressive reduction of a social state.¹⁴ A considerable part of regulation mechanisms, which were meant to prevent a formation of acute crises or to reduce their possible consequences, was eliminated. To describe the social formation of the current industrial civilization it is better to take Habermas' characteristics of the classic liberal capitalism than to adopt the characteristics of a so-called late or regulated capitalism of 1970s. With liberalization, deregulation (desocialization)¹⁵ of the economic-political system in 1990s the acute economic crises returned, which corresponds with Habermas' characteristics of a crisis that affects the liberal capitalism: "The economic crisis results from contradictory system imperatives and threatens social integration. It is, *at the same time*, a social crisis, in which the interests of groups collide and place in question the social integration of the society" (Habermas 2005, 29 – 30). These words also characterize the crisis of 2008. In the euphoria of 1989 Habermas warned in his essay *Die Nachholende Revolution*¹⁶ that the fall of the Berlin Wall did not solve any of the system problems which have specifically arisen. Habermas states: "The indifference of a market economy to its external costs, which it off-loads on to the social and natural environment, is sowing the path of a crisis-prone economic growth with the familiar disparities and marginalizations on the inside; with economic backwardness, if not regression, and consequently with barbaric living conditions, cultural expropriation and catastrophic famines in the Third World; not to mention the worldwide risk caused by disrupting the balance of nature" (Habermas 1990, 17). All these problems are still unsolved and even more complex in today's global civilization. Two decades later, reflecting the 2008 crisis Habermas points out its historical uniqueness when he writes: "In autumn 2008, for the first time in the history of capitalism, the backbone of the financial market-driven global economic system could be rescued from the brink of collapse only by the guarantees of the taxpayers" (Habermas 2012, 125). Contradiction of system imperatives didn't disappear but they have become even deeper. According to Habermas it became obvious that "capitalism is no longer able to reproduce itself under its own steam"

¹⁴ See (Keller 2005).

¹⁵ Term used by P. Ricœur, see in (Ricœur 1992).

¹⁶ In English published under title *What Does Socialism Mean Today? The Rectifying Revolution and the Need for New Thinking on the Left* (Habermas 1990).

(Habermas 2012, 125), so we can talk not only about “system crisis” but also about “system failure”. We can even suggest that the current managing structures cannot handle the consequent problems of the growth identified in 1970s by Habermas as the crisis tendencies of the late-capitalist system, although they make every effort and use all means.

The lack of resources of growth became evident before 2008. As P. Staněk states, growth of production, consumption and profit was to a great extent possible only by growth of indebtedness of individuals, businesses and countries. This indebtedness is one of the main reasons of the current economic crisis (Staněk 2012, 36). Indebtedness as one of the by-products of the process of polarization of income has been accelerating since 1970s. While the income of most of the population stagnates or even decreases, income of the most rich multiplies. This has led, aside from the growth of the social tension, to a global decrease of consumption which could be saturated for a short period of time only by credit expansion (Staněk 2012, 61 – 62). Despite this fact, many attempts to overcome the current crisis focus on stimulation of consumption. The attempts of governments to save the financial system and support consumption have only led to steep growth of national debts. One of the main system conflicts has been accentuated – on one hand, the governments try to persuade their citizens that they need to economize, which legitimizes the elimination of the social state institutes¹⁷, on the other hand they encourage the citizens not to limit their consumption and keep buying all sorts of products and services. It means that the system faces also the crisis of rationality, as Habermas had anticipated.

3. The Environmental Aspect of Crisis

However, artificially stimulated consumption also means acceleration of exploiting natural resources and pollution of environment which intensifies the environmental aspect of the crisis. In 1990s this connection was pointed out by L. Hohoš when he observed that “ecologic and economic systems are closely connected and therefore we are confronted with different aspects of one and the same crisis; after all, the degradation of the environment directly endangers economic systems” (Hohoš 1993, 120). Today even economists admit that the economic damages caused by climate changes and extreme weather along with expenses necessitated by the need to adapt the

¹⁷ See (Štáhel 2010a).

infrastructure to the climate changes will intensify the economic, social and political aspects of the crisis (Staněk 2012, 64 – 65).

As Habermas states the crisis threatens the identity of a social formation. The failure to control crisis can then lead to a transformational or revolutionary change of the political-economic system.¹⁸ This conclusion can be accepted provided that reflection will focus mainly on economic, social and political aspects of the current crisis, i.e. on those aspects causes of which are considered internal. In words of I. Dubnička: “History has often confirmed that revolutions and destabilization of an established system happen in the moment when the extent of unequally redistributed property (accumulated overproduction) becomes unacceptable by the majority of the society” (Dubnička 2007, 418). The political-economic system can collapse in a dramatic form of revolution, an international or even global conflict or internal conflict; however, the form and extent of the current threats shows that reflection on the crisis of the global industrial civilization which focuses only on the economic, social, and political level is insufficient. It does not consider the existential threat for the civilization as a whole. This threat will become apparent in its full extent when reflection on the global industrial civilization covers material, food and environmental aspects, i.e. aspects the causes of which can be called mainly external. Habermas regards these as relevant mainly for archaic societies, but at the same time he identifies them as possible consequent problems of the growth (Habermas 2005, 41 – 43).¹⁹

Environmental and demographic threats produce those types of crises which, Habermas says, were faced mainly by archaic or traditional social formations, meaning agrarian or rural societies. Capitalist societies are industrial and urban. In the preceding century the environmental problems were marginalized or partly resolved by technological development or by exporting environmentally demanding productions and waste to distant areas. The resulting demographic and social problems were solved by mass displacement, lack of soil and food by territorial, mainly colonial expansion²⁰

¹⁸ The change can have a character of a revolution, transformation or a collapse of a political-economic system.

¹⁹ But also French revolution in 1789 could be interpreted as at least co-caused by external causes, mainly environmental. See (Gore 2000, 57 – 58). It means that this kind of threats (climate fluctuation) could destabilize not only archaic social formations, as Habermas claims.

²⁰ Following up T. R. Malthus J. S. Mill in his *Principles of Political Economy*, first published in 1848, where he states, that due to the growing population and a need to feed it, Great Britain “no longer depends on the fertility of her own soil ... but on the soil of the

and also by business, which owing to development of transportation and storage technologies allowed import of food and other resources from the other side of the world²¹. However, this process has only put off – in time and space – the recognition that environmental and demographic crisis tendencies threaten also societies of the industrial civilization and that they have the same conflict potential as other types of threats²².

whole world” (Mill 1994, 114). That is why: “This limited source of supply, unless great improvements take place in agriculture, cannot be expected to keep pace with the growing demand of so rapidly increasing a population as that of Great Britain; and if our population and capital continue to increase with their present rapidity, the only mode in which food can continue to be supplied cheaply to the one, is by sending the other abroad to produce it” (Mill 1994, 115). Not every European country could solve these problems by the „export of the poor” to their colonies, by the import of food and other resources from them. In this connection we need to point out that the fascist movements in Italy and Germany began to have the support of the masses shortly after the USA in the early 1920s limited immigration and these and other countries couldn't reduce their social tension by emigration.

²¹ Trade accelerates processes of the division of labour and deepening of the social differences, but it also enables man as a biological species to circumvent limits resulting from the climate conditions and material resources of specific areas. Men could then populate and live in areas that have not offered a possibility to produce sufficient renewable and unrenovable sources necessary for the life of human communities. Since the prehistoric times the trade has helped to at least reduce immediate determination of specific natural conditions.

²² At least in some regions of the world these threats have specific consequences. One of the main causes of series of revolutions and conflicts in the countries of North Africa and Middle East is the depletion of raw materials and exceeding environmental limits of population growth and its consumption and subsequent long-term inability of these countries to supply the population with food and drinking water from their own reserves. This was most vividly expressed in the key country of the region – Egypt, the world's top wheat importer. “The Egyptian authorities have been wary of touching food subsidies since rioting swept Egyptian cities in 1977 after government decided to raise the prices of staples. The authorities were forced to rescind their decision to restore order. During the food crisis of 2007-08, which pushed the cost of wheat to an all-time high, many families became reliant on subsidised bread, with long queues in front of bakeries and frequent scuffles breaking out. Army bakeries were drafted in to augment the supply” (Terazono – Saleh 2013, 2). The situation worsened when Russia in 2010 due to the drought and extensive fires banned export of wheat and its prices increased to such an amount that due to the increase in basic food prices riots broke out not only in Egypt but also in other North African countries reliant on its import. These riots destabilized the whole region and in many areas grew into a real war of all against all. The subsequent regime change in Egypt has not improved the situation because the oil production and its sale, which has been the source of foreign exchange used for purchase of wheat, are decreasing and therefore the

All the aspects of the current crisis (economic, social, political, material, food, demographic and environmental) have a conflict potential that was manifested many times in the past. Due to growth of the population we can assert that their conflict potential has also grown. As one recent study shows: “If future populations respond similarly to past populations, then anthropogenic climate change has the potential to substantially increase conflicts around the world, relative to a world without climate change” (Hsiang 2013). This study summarizes results of many previous researches and has pointed out causal connections between the climate variability and human conflicts in the past.²³ The climate changes caused by the industrial civilization will very probably be faster and more extensive than those in the past. The environmental crisis caused by climate variations or by other causes will be expressed primarily as a food or humanitarian crisis²⁴ which can quite rapidly turn into a social or political crisis. The analysis of the past crises, but especially of this current one, will have to cover the climate and environmental aspects more extensively. It is becoming more and more evident that the collapse of the social system can result not only from internal conflicts or conflicts of the system imperatives but also from external crises or their combination, which can happen also in complex societies. However, the question remains, if overpopulation or climate changes can be regarded as external or internal causes of the crisis phenomena.²⁵

Potential solutions of the global economic crisis must have a character of

riots continue. Since 2010 Egypt has spent most of its foreign reserves on wheat import which it is not able to grow for its population because of the lack of suitable farmland and water for irrigation. See also (Čilek 2012).

²³ As an example we can take the consequences of the typhoon Haiyan from November 2013. Only in Philippines thousands of people died. The consequent lack of drinking water, food and medicines led to looting and attacks on convoys with humanitarian help.

²⁴ The first consequence of floods, earthquakes or tornados are many people being hurt or losing their homes. Devastated sources of drinking water, food reserves or a loss of harvest will come later. If the administration of the affected country is not able to deal with the humanitarian crisis in time, the consequences will probably influence also the stability of the social and political system. Crisis management in Pakistan after the floods in 2010 was not managed well and it deepened the political crisis in the country. The response of Barack Obama Administration to Hurricane Sandy in October 2012 influenced many voters in the US presidential elections.

²⁵ The need of philosophical reflection on economic, social and political consequences of climate changes would be topical even if there was no anthropogenic reason. From this point of view, the discussion about its origins, be they anthropic or cosmic, i.e. from the viewpoint of civilization, be they internal or external causes, is irrelevant.

internal system changes, e.g. in a form suggested by J. Lovelock, who states: “Maybe we will have to accept certain limits, ration system²⁶ and compulsory military service like in periods of war and moreover, give up our freedom for a certain time” (Lovelock 2008, 179). These changes could have a character of Hobbes’s limit of freedom in the name of security or survival. If these were not only short-term limits, it would be such a significant change of political, economic and legal subsystems that we could talk about threatening the identity of the social formation. A. Palazzo states that the “climate change is a further amplification of the coming Revolution of Limits” (Palazzo 2014) by which the period of growth ends. The signs of “the age of resource limits” have already become apparent and they will bring not only new types of conflicts for the reducing resources but also another Military Revolution. Today’s military and civil infrastructure and technologies are based mainly on finite resources. Pressure of populations’ growth and in the same time growth of consumption expectations²⁷ will tone up existing contradictions and conflicts within and between societies. “Preparing for a most hostile world in which war is more common is also a necessity” (Palazzo 2014). According to Palazzo the question is not if the coming Revolution of Limits and climate change will influence economic-political systems but how will these systems be able to deal with them on the theoretical and practical level.²⁸

Environmental crisis can be regarded then as a consequence of conflicting system imperatives threatening the system integration. The interests of acting groups collide alike as by social crisis (Habermas 2005, 29 – 30) and this can result not only in disintegration of the society it but can also endanger its potential to reproduce. Moreover, this does not entail only the reproduction of an economic-political and cultural system but also the biological reproduction of a society, as far as the environmental crisis threatens also the ecosystem

²⁶ When at the end of October 2012 the storm Sandy hit the U.S. East and Canada, it killed several dozens of people, caused flooding over wide areas and other damages exceeding 50 billion US dollars. As a result a supply system of wide areas collapsed, so for example rationing of fuel and several other commodities was introduced in New York temporarily and some rights and freedoms were restricted. It is clear that Lovelock’s vision is more real than it would seem several years ago.

²⁷ “The supply of all resources is finite. Yet, the expectation of governments, and their citizens, is that growth is required and desirable. Growth is the norm” (Palazzo 2014).

²⁸ Also Palazzo used the example of Egypt “there is some suggestion that rising food prices are a factor of growing instability in Egypt” (Palazzo 2014). Rising food prices as a consequence of climate fluctuation, which lead to decrease in food production, were some of the reasons of French royal regime collapse at the end of 18th century, as far as the response of political elites to this situation was inadequate.

conditions of the civilization existence. The revolution of limits and climate change require in extent quite revolutionary transformation of basic imperatives of the economic-political system. Habermas' concept of crisis can thus be applied also to the environmental crisis as a display of antagonism between imperatives of growth and sustainability.

4. The imperative of growth vs. the limits of growth

In connection with the imperative of growth in capitalist social formations Habermas in 1970s stated that: "Ecological balance designates an absolute limit to growth" (Habermas 2005, 41). Many things suggest that one of the causes of the current crisis is that growth of population, production and productivity – hits this absolute limit line. As Habermas points out, "with capital accumulation, economic growth is institutionalized in an unplanned, nature like way, so that no option for self-conscious control of this process exists. Growth imperatives originally followed by capitalism have meanwhile achieved global validity through system competition and worldwide diffusion... The established mechanisms of growth are forcing an increase in both population and production on worldwide scale." (Habermas 1980, 41) These established mechanisms of growth are so characteristic of the capitalist social formation, that: "Capitalist societies cannot follow imperatives of growth limitation without abandoning their principle of organization" (Habermas 1980, 42). However, if they do not limit them, not only their identity but also forms of social integration or forms of organized mass loyalty but also their basic external requirements of the system reproduction and maybe even life in any human society or the reproduction of human species itself will be threatened. This is the key contradiction and the main reason of current civilization crisis.

Habermas suggests the basic system imperative of capitalism which should differentiate this social formation from traditional and especially archaic societies as systems, in which "no systematic motive for producing more goods than are necessary to satisfy basic needs, even though the state of the productive forces may permit a surplus" (Habermas 2005, 18). We can object that the cause of not producing an overproduction is more due to low productivity of work or available technologies and limited possibilities of storage and conserving the overproduction. I. Dubnička's hypothesis brings convincing arguments: the production of overproduction is the primary

evolution strategy of homo sapiens and “does not depend on time and space on the level of cultural development nor on its consumption” (Dubnička 2009, 86), which is documented by different forms of destruction of possession, i.e. overproduction in the cultures of the Native Americans. At the same time, according to I. Dubnička, “the production of overproduction, its accumulation and its consumption, are the main causal phenomena of the global environmental crisis” (Dubnička 2007, 20). The global environmental crisis is then a consequence of this human strategy, application of which at present hits the limits of natural resources and the ability of nature to absorb pollution created by production and consumption of overproduction. This would support the thesis that environmental crises threaten all kinds of social formations, primarily as a result of the population growth, which in itself leads to a necessity of production growth and by this to exploitation of natural resources as well as pollution of the environment.

The growth of human population is a key factor which every type of social formation needs to deal with. Apart from several, short and rare periods in history, Malthus’s perception holds true –population grows more quickly than its ability to secure enough food.²⁹ For thousands of years, territorial expansion, i.e. colonizing the uninhabited areas used to be the human solution to population excess pressure. Populating of the world, except for the remote islands, was completed in prehistoric times and due to the population growth it was a necessity. In most of the newly populated areas people were able to produce more food than necessary for the basic reproduction of the human population or other commodities that could be exchanged for food. This helped them survive in times of poor harvest but in a good year it led to the growth of the population. This led to populating of the new areas. In the antiquity, the territorial expansion was possible only at the expense of other human communities, so the indigenous people were driven out or eliminated by more successful societies. D. Šmihula points out that for most of the history the ability to keep high reproduction potential was the key ability for the survival of the society. Societies that were not successful almost always became extinct, because they were not able to protect themselves (Šmihula 2010, 42). The population growth then had proved to be existential. On the other hand, the growth itself caused a necessity for territorial expansion as a way of gaining the space needed for life and production of food for the growing population.

In modern times the population growth intensified and the period after the

²⁹ See (Malthus 1998).

Napoleonic Wars is commonly referred to as the population explosion. Its results were reduced by mass emigration, often even forced one (at the expense of indigenous inhabitants in America, Africa and Australia and New Zealand) and by fertilizing till then untouched biotopes as well as more intensive exploitation of all kinds of renewable and unrenewable resources. More colonies were built because the overpopulated European countries needed food and territory to which they could relocate at least a part of their own population. Despite the fact, many conflicts came up due to these resources alone, including the two world wars. In the second half of the 20th century the environmental consequences of continuous population growth and intensified exploitation of this planet had become evident and for neither side of the so-called Iron Curtain it was possible to ignore or trivialize them anymore. As P. Jemelka states, “the truly essential problems are universal (to a certain extent independent from a specific social-economic formation)” (Jemelka 2009, 345). This also means that the growth of production, productivity and population is not only a basic system imperative of capitalism but eventually of all social formations. In capitalism, it is only more intensive.

The imperative of population growth is then eventually a prerequisite of reproduction (in competition with other societies – clan, tribes), a prerequisite of social sustainability, a system imperative in archaic and traditional societies. Therefore, already in preindustrial societies the growth of production, especially of the agricultural production realized by territorial expansion, becomes an imperative, too. The territorial expansion was in the long run possible only with relatively low world population. By the end of the 19th century territorial expansion was no longer a legitimate tool of dealing with the population growth and the related growth of resource needs. The efforts to hold on to it led to local³⁰ and global conflicts.

Another possibility are innovations of agrotechnologies (creativity,

³⁰ Processes of enclosure and expropriation and social conflicts caused by them were many times described and analyzed in the past. See famous chapter 27 in the first volume of *Capital* (Marx 1999, 366 – 371). These processes continue till today in many ways not only in the Third World countries (Latin America, Africa) but also in countries of former Eastern Bloc, e.g. a condemnation of small owners due to foreign investor or to mining corporation. It pointed to the soil, surface of Earth as such, as a space for living, as the most basic source, furthermore as the source finite or nonrenewable, because in overpopulated world it could be obtained only at the expense of other peoples’ (communities) or animals.

development of production forces or an ability to learn³¹), which in the 20th century led to intensification and industrialization of the agricultural production, which is at present the only possibility of increasing the food production since there are no unused arable lands, pastures, or fisheries anymore (Cílek 2012, 783). On the contrary, because of the expansion of the transport, residential, and energy infrastructure as well as the consequences of erosion, desert expansion and rise in the level of oceans the arable land is diminishing. Its expansion by deforestation disrupts the water circulation in the global ecosystem and its ability to keep the planet's climate. As V. Cílek reminds us, "the moment when we lose the land and water, no creativity will help" (Cílek 2012, 772). At present the "agriculture uses 70 – 75 % of the available fresh water" (Bajer 2011, 283). Moreover, "present-day agriculture uses up ten times more energy than it produces in the form of food" (Cílek 2012, 776) and at the same time it is an important source of greenhouse gasses, so that: "Overall, the impact of agriculture on the climate is comparable to the burning of fossil fuels" (Lovelock 2012, 116). Intensification and industrialization of the agricultural production has such devastating impact on the environment, that the ability of the civilization to produce food could later become considerably limited or even impossible due to climate changes and the change in the chemism of the atmosphere and oceans. It is still possible to increase the global food production, but only at the expense of biodiversity and quality of the environment which enables this production, and thus at the expense of the possibility to produce food in the future.

Besides, the growth of the population and production, the basic imperative of each social formation is to secure its own reproduction – biological and cultural – including the reproduction of economic-political system. All living things, living not only in biological but also in cultural, political and social meaning, strive to sustain or at least to survive. For many kinds of subjects and institutions it is, at the very least, a means to preserve existing conditions of life. The tendency to struggle for survival can be identified in all kinds of social formations and on all levels or stages of development. Actually, the origin of institutions like clans, tribes or states could be interpreted as a direct consequence of this tendency and as the main reason for legitimizing its further existence. I mean, this phenomenon could be described as an

³¹ (Habermas 1975, 297).

imperative of sustainability³². Even the growth itself could be perceived as a strategy to fulfill this basic imperative. Surviving in biological and also in cultural and socio-political³³ meaning is the consequence of self-preservative instinct but also the basic condition of all reproduction and growth. Long term sustainability is based on early identification of the real threat. If the growth itself (of population, production, consumption, pollution, etc.) appears to be the threat, its limitation could be a reasonable response. The limitation of population or consumption growth in favor of sustainability could therefore serve as an example. In the history of ancient world, many cultures learned the connection between possibility of food production and stability and sustainability of society and its political organization. As a consequence, often very severe institutes were developed for limitation of the population growth and they were consistently enforced. These kinds of rules and institutions are known also in preliterate tribes which live in limited areas (e.g. isles or infertile territories). By contrast, traditional and capitalist social formations used to prefer the imperative of growth and territorial and market expansion. Even market subjects themselves, mainly companies and corporations that are fully determined by growth imperative often collapse because they are forced to grow at any price. Imperative of sustainability can be easily identified on the stages of clan, tribe and also nation or state organization levels but in the global account it is still merely theoretically conceived. However, in general, one can say the imperative of sustainability is the first and immanent imperative which is incorporated in all social and cultural institutions.

This imperative is in conflict with the imperative of growth because of the limited resources³⁴ as well as the limited ability of the environment to absorb

³² I prefer to use the term imperative of sustainability before the Jonas' famous imperative of responsibility: "act in such a way that the effects of your action are compatible with permanency of an authentically human life on Earth" (Jonas 1997, 35), because the real aim is sustainability of conditions for life of mankind and civilization as well, and responsibility is only a tool how achieve it.

³³ Take for instance the survival of society and its social and political organization or its political and cultural identity in the war. In the name of sustainability societies often agree with a sacrifice of many of its members and also in the extreme situations individuals sacrifice themselves on behalf of survival of community or society. In the same time in the name of collective egoism they do not hesitate to oppress and exploit or even eliminate other communities.

³⁴ Sources are "basic material, energy and process conditions of life that are irretrievable" (Cílek 2012, 769). The sources include drinking water, unpolluted or at least breathable air, living space, working space, space for production of at least basic food and stable climate

the side effects of reproduction of numerous, more complex and more energy demanding social formations. The contradiction of the imperative of growth and imperative of sustainability can be found in all social formations; on the level of the civilization development the contradiction of system imperatives intensifies. It is fully manifested in the global society³⁵ because none of the previous ways of overcoming it – territorial expansion, mass emigration, global trade – has ever, not at least temporarily, solved or reduced this contradiction, but on the contrary – they have only deepened it.

5. Conclusion

The industrial civilization faces threats that have a character of internally and externally induced crises and in connection with the current situation of the global parallel environmental and economic crisis we can also speak about a system crisis which threatens the very identity of the industrial civilization. The source of internally induced crises resides in the system of production and redistribution, the source of externally induced crisis rests in the finality of resources as a condition of all the production. The solution to economic and social crises introduced in the form of a production growth only deepens the environmental crisis. Growth of the global population only leads to a growth of food production but this production significantly contributes to the deepening of the environmental crisis; its consequences mainly in the form of climate changes threaten the sustainability of the global food production on the current level. These contradictions are insoluble within the existing social, economic and political possibilities of the industrial civilization. Two system imperatives collide – growth and sustainability of the possibility of reproduction. At the same time, this contradiction deepens the conflict potential of the past crisis tendencies present in different social formations. The basic source of conflicts rests in an unequal distribution of limited resources. The effort to solve these conflicts by production growth, that would

conditions. The lack of these sources cannot be retrieved even by use of potential technologies that would allow us to mine minerals from the interplanetary space and transport them to Earth.

³⁵ Accordingly it is needed to emphasize the need of spread the global education in order to present knowledge about the issue of global market and global economy in the context of sustainability of. One of the main goals of this new approach in the education is to lead young people to a sense of global responsibility in global society. See (Svitačova – Mravcová 2014, 43 – 61).

allow even the most poor to have enough for dignified life, which would not be reduced to everyday fight for basic survival, collides with the lack of resources. If the sources are depleted or devastated, it will endanger the possibilities of production and that will deepen the social and political conflicts even more.

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The contribution is a partial presentation of the outcomes of the research project VEGA No. 2/0175/12 From Phenomenology to Metaphysics and to Reflection of the Contemporary Crisis of Society and Art which has been pursued at the Institute of Philosophy of Slovak Academy of Sciences and the Department of Philosophy, Faculty of Arts of the Constantine the Philosopher University in Nitra.

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