

# 4 What Kind of Economy Does Sustainable Development Require?

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## **Introduction**

The main goal of this text is to provide a survey of global literature concerning the growth imperative in economics, illustrating its connections to the situation and current practices in Croatia.

From the onset of the financial crisis at the end of the summer of 2007, discussions concerning the causes, consequences, and especially solutions to the crisis have been divided, moving in at least three directions. The first has been widely accepted by the majority of countries. On this view, savings and expenditures constrained by revenues, as well as deficit reduction at the end of each year are presented as an unquestioned mechanism for exiting the crisis, regardless of their consequences for society. The second approach anticipated using the crisis as an agent of change, as a crossroads from which we would ensure economic growth, but with the condition that we would reduce poverty, improve quality of life, and provide long-term protection, maintaining the planet's bio-capacity. This approach is best known as the concept of a "*Green New Deal*" and is promoted by so-called green circles, regardless of whether we are speaking about politics, civil society organisations, international organisations like the UN, interested business circles, the wider public, or media favouring the green cause. The third approach is the least represented and the least well-known, but it runs deepest and widest in its demands for change, for a *new paradigm*.

The reason why the third approach is less visible is that, regardless of the various authors and theoretical underpinnings from which they conduct their research and analyses, they all view economic growth as the ultimate value and goal of a society. Until recently it was primarily recognised by advocacy for and the promotion of localisation, from resource use to alternative currencies, and in recent years, although it is an unattractive name for a world that depends on growth, it is known as the concept of postgrowth

or even more precisely *degrowth*, which is defined as a socially sustainable and equitable reduction (and stabilisation) in society's throughput, where throughput denotes the materials and energy a society extracts, processes, transports and distributes to consume and return back to the environment as waste (CHARONIS 2012).

In this text we engage in a critique of the existing situation, including of the methods used to manage the crisis, as well as of other approaches, each of which in its own way re-examines the very foundations of economics and whose goal is the reordering of values and the manner in which society is organised. The first part of the work will present a critique of the existing system and economy using Robinson's concept (2004) of inherent crisis. Following this, the relationship between the economy and wealth, or prosperity in society and the influence of the dependency of the economy on two main unsustainable features - growth and debt - will be presented. At the end we try to provide an answer to the title question of this article: What kind of economy would really have as a purpose and goal the practical application of sustainable development? There is also a separate analysis of a Croatian position regarding all those questions and concepts.

We will try to present, regardless of whether we are speaking about the economic, social or ecological aspects of sustainable development, a holistic approach that seeks to construct a comprehensive picture before casting our glance in a specific direction. Peter M. Vitousek emphasizes how "humans are forcing qualitative and historical changes on the world that will alter the structure and function of Earth as a system. Hence, it is of utmost importance for the social sciences to take up these issues." We have written this article as a contribution to the idea of "the science of sustainability" or "systematic science," crucial to the understanding and analysis of a new vision and conceptualization of sustainability for the 21st century. (IUCN 2006B, 6).

### **Permanent crises**

Although at the start it was announced as a win-win solution and one that could ensure minimum agreement for consensus regarding future trends in our society, sustainable development today is increasingly mentioned as a complicated model far removed from reality in which all social groups can express their commitment to it, even if they are not applying it at all. Today it is clear that a fundamental problem with sustainable development as one of the basic concepts of the transition from the 20th to the 21st century lies in its very foundations. Establishing the environment, society, and the economy as three overlapping dimensions, or the three supporting pillars, of sustainable development, has been shown to be an

unavoidable trap that appears before almost every concrete step toward a more sustainable and more just society. Right at the very beginning, the problem for sustainable development was that it was an attempt in which the three pillars that should bear its weight were understood to represent equally valid and powerful categories. However, in modern societies, the environment does not have the same level of political strength and acceptance as the economy, and each year, society is losing its capacity to facilitate a wish for continuous growth in the economy. Regarding this conceptual flaw, it is unsurprising that sustainable development has failed in practice.

The economy is a product of society and it does not exist in isolation from it. It must fulfil its function of facilitating the exchange of goods and services among members of a society. The economy emerges from society and it is subordinated to the interests of its members. The environment exists independently of both the economy and society (INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE - IUCN 2006A). Of course, society is not in a position to satisfy its interests if the situation in the environment is continuously deteriorating at an accelerating rate. This was also shown in a piece of ambitious global research by more than 1,000 scientists, the *Millennium Ecosystem Assessment* (2007), which concluded that we have already destroyed 15 of the 24 services of the global ecosystem due to their unsustainable use and an unsustainable approach. Some authors are stressing that we have already reached, or that we are approaching, peak use for the majority of the most important resources (HEINBERG 2007).

We can further add that the aforementioned research has led to an even further-reaching conclusion, which states that if the conditions within ecosystems are destroyed to a level whereby they cannot carry out their services, then in those areas society is not in a position to provide security, to satisfy basic human needs, and to ensure adequate health and social connections. More briefly stated, in the long-term there is no well-being in society or a high quality of life without sustainable ecosystems. Modern civilization overlooks this and behaves as if the status of the economy is a condition for everything and that everything is subordinated to the goal of continuous linear economic growth. In this work we will show why such an out-of-balance situation is the chief cause of all crises, and the cause of a situation in which the environment has been damaged, the cause of the deteriorating situation in most global ecosystems, while the economy has not succeeded in improving quality of life in a satisfying and equitable manner for most of Earth's population.

In other words, to approach the problem from another angle, we want to investigate whether it is possible for the economy to support sustainable development, and to uncover what kind of economy this would be, serving the needs of society and the sustainable management of the en-

vironment. In 2006, the IUCN, one of the largest global organizations for the preservation of the environment, organized a forum on the future of sustainable development in which several hundred participants took part via the Internet. One of the key conclusions in terms of our work was that:

“Participants critiqued the traditional three-pillar model of sustainable development and referred to new models which conceptualize ecosystems as the foundation stone or life support systems of the economy and society.” (IUCN 2006B, VII). So, for the purpose of this work we consider sustainable development only as a process of “improving the quality of human life while living within the carrying capacity of supporting eco-systems.” (IUCN, UNEP AND WWF 1991).

The damage to relationships between the environment, society, and the economy have never been clearer than today. And those relationships have become especially vivid since the summer of 2007, following the beginning of the global financial and economic crisis. Many people expected that the crisis would be used as an opportunity for a new beginning. Yet the disproportion between the three supporting pillars of sustainable development – the environment, the economy, and society – only became greater and deeper. Thus, as recently as at the end of 2008, an incredible seven billion dollars was invested in the troubled banks, and this was not the last attempt to “rescue” the economy in this way (JACKSON 2009). The money was being given exactly to those banks that were responsible for the crisis because they had pumped up the balloon of demand and credit, turning around the same amount of money several times and betting on their uninterrupted growth and success. Governments had decided that the best solution to the crisis would be to reward those who created it at the expense of taxpayers, who are the least responsible for it. Furthermore, by this act they have, with regard to today’s monetary and fiscal regulations, about which more will be said later, increased public debt and made dependents of future generations, increased unemployment (because banks do not wish to invest in times of crisis), and decided to compensate all of that spending in a way that reduces a taxpayer’s right to and his or her contributions to social needs, education, health, and other things that are the foundation of the quality of life in any society.

We have already emphasized that this imbalance, or crisis, is to be found in the foundations of the system itself. Although before the global financial crisis became apparent to everyone and achieved its full breadth and scope, this internal instability and the inclination to a perpetual return to crisis, was best observed in the book *A Theory of Global Capitalism* by William Robinson (2004) as several smaller crises within a larger one that encompassed

all of them. Robinson emphasizes that the crisis of capitalism in the 21st century can be viewed in the following aspects or four smaller crises:

1. Overproduction or underconsumption (overaccumulation)
2. Global social polarization.
3. The crisis of state legitimacy and political authority.
4. The crisis of sustainability.

Let us examine each of the above in the context of their importance to our society and the planet.

1. Overproduction or underconsumption (overaccumulation)

Although the messages of mainstream politics and economics emphasise the need for a growth in production and a growth in consumption, and with that the growth of the economy, from the point of sustainability there is a need to slow down, and to change the direction of our development.

At present, we can speak of too large a quantity of production that is being offered to consumers by convincing them that they need those products. There are two publicly known techniques in industrial design that support such unsustainability: planned obsolescence, which mandates placing low-quality products on the market whose lifespan has been intentionally shortened and which cannot be repaired so that we quickly need new products; and perceived obsolescence, whereby we are constantly being convinced that we must have the latest possible product, otherwise we have devalued as people, regardless of whether, for example, our clothing, mobile phone, car or some other device is still functioning well. A problem arises because in this kind of economic system the majority of people never have enough money to buy everything that they think, or are convinced, that they need and so they go deeper into debt. Most of these same people will never be able to break this vicious circle of debt, which leads to a situation of complete dependence on further indebtedness with increasingly risky and dangerous consequences.

We can follow the consequences for the planet itself through the excessive exploitation and destruction at the beginning of this circle, and at the end by the weaker global ecosystems that cannot support this quantity of waste and consumption. As long as it creates the possibility of making a profit and the circulation of money, this economic system will recognize it as beneficial.

The problem with the capitalist system is the need for a never-ending increase in consumption. An even greater problem, as Robinson notices when he speaks about the internal contradictions of capitalism, is that “society is unable to consume the wealth it has created given the nature of capital-

ist relations” (2004, 148). These contradictions ease, or are less apparent, so long as it is possible to raise money and new credit, or as long as new markets can be found that will purchase a surplus. But the moment when this linear direction is disrupted, consumption is reduced and we are in crisis. This is why we can monitor the transition from hyper-production and excessive consumption to a reduction in consumption and overaccumulation.

## 2. The increasingly large gap between the rich and the poor

Whenever we have overaccumulation we have a blockage in society because an excessively large amount of amassed resources stand in the accounts of the wealthier layer of society and if they do not see an opportunity for a return on their investments, it is safer and better for them to keep their money in the bank and earn interest on their savings. Every new economic crisis, including the current one that began in 2007, always works to the detriment of those who have less, creating an even greater gap between the wealthy and the poor. We can note such trends in almost every country in the world, regardless of which group of countries we may belong to – the developed countries, those with a “fast-growing economy,” or any other kind of development.

A society that is increasingly differentiated becomes a society that does not communicate and a society whose citizens are isolated from one another. When there is no communication and we are all mere individuals, or consumers, fear and enmity among the population increases. And where there is fear there is no trust, and without trust there is no sustainable development. The British researchers Richard Wilkinson and Kate Pickett (2010) have demonstrated this many times, bringing their findings together in the book, *The Spirit Level – Why More Equal Societies Almost Always Do Better*. Using the example of developed countries from the Organization for Economic Cooperation and Development (OECD), they showed how countries that have greater inequalities within their society have more problems with a whole range of social categories: the level of trust, mental illness (including alcoholism and drug dependency), lifespan and infant mortality, obesity, education, the teenage pregnancy rate, the murder rate, the percentage of the population in prison, and social mobility. Following Wilkinson and Pickett, many other authors began to gather information on the huge disproportions in society and the cost of inequality (DORLING 2012, LANSLEY 2012, STIGLITZ 2013).

Although the poor in societies with less economic inequality may also have health and social problems, in societies that have a higher rate of inequality, these problems affect more citizens. In this way, Wilkinson and Pickett showed that the level of economic inequality in a country also de-

termines the quality of life, and we might say the level of happiness in that country. Societies that exhibit growth in economic inequality and feelings of isolation and dissatisfaction are “dysfunctional societies” (WILLKINSON and PICKETT 2010).

### 3. Declining confidence in the system of democracy and political authority

The third crisis is a consequence of the previous two. It is logical that a society that cannot ensure happiness and satisfaction, or one in which happiness and satisfaction are achieved primarily through shopping and consumption, leads to a system in which a feeling of discontent prevails because something is always missing and our happiness is constantly slipping away, even though we have the feeling that it is within our grasp. Hyperproduction creates hyperneurosis. This is what the Slovenian theoretician Renata Salecl (2013) calls the greatest success of capitalism – the fact that regardless of the sheer number of choices, people are filled with a sense of dissatisfaction, auto-destruction, and an obsession with themselves and with an individualised life.

The foundation of democracy is that the people govern. However, today people do not have a sense that they are governing, but that they have been dragged into a show of political-media-corporate juggling of attitudes and values. It is logical that a feeling of powerlessness, apathy, and distrust is appearing. The problem is that today this feeling has reached the level of “cultural pathology” - a deeply rooted belief that those in authority are trying to deceive us (BREWER, 2009).

Of course, this fear did not appear by itself and data from the largest global public opinion polling agencies show the level of that apathy and distrust is increasing, alongside declining confidence in politics, as well as in the opportunity for and the purpose of political activity (on an equal basis), and especially in representative democracy as it functions today. “Trust,” political scientist Eric Uslaner has written, “is the chicken soup of social life” (WIKE 2008). On a global level, 46% of people state that “they do not believe that politicians in power ever speak the truth” (*The Economist* 2012). Of course, the connection between a low level of trust and a high level of corruption and crime can be even more clearly emphasised.

### 4. The destruction of ecosystems and the foundations of sustainability

Despite the omnipresence of sustainable development in public life, the increased number of protected areas, a greater awareness of the need to protect the environment and the importance of natural resources for our fu-

ture, we have not succeeded at the global level in reducing the destruction of ecosystems and in increasing sustainability compared to the resources that we are taking from nature.

In 2008, the ecological footprint, as an indicator of human influence on the planet, or rather of the level of our consumption, was 50% greater than the biocapacity of the planet, i.e. the biological resources that the planet offers us. That year, the ecological footprint amounted to 2.7 gha (global hectares) per person and the biocapacity limit demanded that we reduce our consumption to 1.8 gha. This means that at a global level we were living with a deficit of 0.9 gha, that is to say, our planet would need one year and five months to compensate for and absorb everything that we consumed that year (WWF and GFN 2012). It is interesting to note that we are in debt to the planet in the same way that we are in debt in strict economic terms.

The level of our capabilities and power to influence the environment and our planet is unparalleled in history. When all of the harmful acts against the environment and the problems of the planet are counted, many observers emphasise that we ought to speak of life on a new, different planet, one on which it will be more difficult to live (MCKIBBEN 2010, FOSTER, CLARK and YORK 2010, HEINBERG 2011). Immanuel Wallerstein has concluded that “historical capitalism is in fact in crisis precisely because it cannot find reasonable solutions to its current dilemmas, of which the inability to contain ecological destruction is a major one, if not the only one” (SPETH 2008, 185).

For the purposes of this work, it is interesting to emphasise the fact that all four of these smaller crises came into existence through the power, rules, and values of the financial sector and the global economy. And the situation in which that financial sector and the economy now find themselves, i.e. caught up in their own crises, further worsens and complicates the situation over the course of these smaller crises. This complication is, in fact, one of the main determinants of the financial-economic system so that fewer people understand what is going on. The extent to which the general confidence and attitude that, despite all the problems discussed and criticisms made, there was no alternative to the prevailing financial-economic system and that it was the only one in which we can believe, was widespread is shown in an analysis carried out by the Dutch academic Dirk Bezemer on a variety of scientific and media texts before the crisis. He found that only twelve people predicted the crisis with supporting arguments and explanations (KEEN 2011).

Although not cited as one of the twelve, Tim Jackson’s seminal book, *Prosperity without Growth* (2009), was extremely important in the period after the crisis and continues to be so for the topic of our work. The book received an incredible amount of publicity and recognition; it has been translated into fourteen languages, and was downloaded for free from the



Internet page of the Sustainable Development Commission (SDC) more than any other previous report. There are many reasons for this kind of success; one of them is, of course, good timing. This is a period when the concept of growth and the general rules and values of economic theory and practice are starting to be questioned. At the same time, some member countries of the European Union (EU), such as Austria, Great Britain, and France, have established expert bodies that have analysed the possibility of sustainable development and have called into question the use of GDP as a measure of progress on the part of some countries (WUPPERTAL INSTITUTE 2010). And in 2009, the European Commission itself announced its own development plan, unconnected with GDP (COM 2009). But it is even more important that Jackson succeeded in posing two mutually related and critical questions:

1. Is it possible to achieve prosperity in society without growth?  
or, more precisely:
2. How to separate prosperity from growth in a society in which prosperity depends on growth?

The basic problem is the structure and foundation of today's economy itself. The economy is designed so that it depends on a continuous increase in consumption, and accordingly, on the gross domestic product (GDP). If GDP does not grow each year by a certain amount, the system reacts negatively and we approach a crisis situation. We can say that if there is no economic growth, most incomes goes down, the government reduces its contributions, consumption declines, unemployment increases, the costs of investing increase, and the spiral of recession begins.

This is also one of the basic arguments of those who approved of the prevailing method of resolving the crisis, which, as we stated earlier, is by pumping incredible amounts of taxpayers' money into the restoration of failing banks and investment funds. The reason for this justification was extremely prosaic, and follows the attitude that a certain part of the financial sector and market is too important to today's economies and societies, that if something bad were to happen to that sector it would automatically have an effect on the rest of the economy, or on other areas of society. The mantra, "too big to fail," which was used to justify the rescue of those companies most responsible for the crisis – the major financial conglomerates on Wall Street – achieved its ideal goal: the possibility of blackmailing all of society because of the prevailing proportions that they had attained. Or as Jackson himself pointed out when considering the questions posed: "Growth may be unsustainable, but de-growth appears to be unstable" (2009, 10).

In the United States it was manifested by paraphrasing the well-known slogan that it was necessary to help Main Street (the true, real economy

– industry – the employment of people) and not Wall Street (the large financial corporations that created the mechanisms for creating the crisis), with the message that Wall Street was the engine that moves Main Street and that the stability and health of the global economy, and society itself, would be impossible without this type of financial sector.

There is no doubt that economic growth has saved millions of people from poverty and has provided them with a more dignified life, which, as we said at the beginning, is one of the basic roles of the economy in society. But today, the question is increasingly being asked of whether this method of providing prosperity has reached its peak because the costs of maintaining it have become too high, and day by day, limitations on the spread of prosperity on a global level are ever more present. Even the United Nations, which is always positively oriented towards economic growth, in one of its most recent publications of the Report on Social Development (HDR 2010) pointed out that there are more countries, especially poor ones, that are making progress in social development, but only because of investment in health and education, and not in economic growth as a category of the Human Development Index (HDI). Other research has also shown to a certain extent the importance of economic growth to quality of life, after which other indicators influence prosperity, feelings of satisfaction and general welfare in society (SPETH 2008, WUPPERTAL INSTITUTE FOR CLIMATE, ENVIRONMENT AND ENERGY 2010, HEINBERG 2011).

When a society reaches a certain level of economic prosperity, approximately 10-15,000 dollars per year per capita, variables such as relations with others, the safety of a local community, free time, health, etc. have more influence on further growth in the feeling of happiness and satisfaction with their own life than on further growth in earnings (WILKINSON and PICKETT 2009). This new realisation has resulted in more frequent research being conducted on the use of different indicators that would show prosperity in its entirety and not only in regard to the circulation of money and consumption as GDP does.

Although related, this topic is separate and too large for the scope of our work and we do not have enough space to enter more deeply into the area of alternative development indicators that applied around the world. We will only add that the Wuppertal Institute for Climate, Environment and Energy published *Towards Sustainable Development – Alternatives to GDP in Measuring Progress* (2010), which is to date the most extensive and systematic review of indicators besides GDP that measure quality of life and social progress in some countries; after analyzing them, presented them with their main characteristics, advantages, and shortcomings. These indicators included: the Genuine Progress Indicator (GPI), Index of Sustainable Economic Welfare (ISEW), Genuine Savings, Human Development Index

(HDI), Ecological Footprint, Happy Planet Index (HPI), Sustainable Development Indicators (SDI), and many others. All of these indicators have experienced a renaissance in popularity after 2008, especially in scientific circles, which are trying to replace and expand in a more precise and empirically based fashion what the classification of countries based on GDP provides.

### **Always dependent**

The end of the latest global financial crisis cannot really be discerned if we follow Robinson's concept of a crisis of the system with which we began this work. Heinberg (2011) emphasised that the economic growth to which we have become accustomed will never return, although short periods of economic upswings spurred by higher sales and consumption are possible, yet in the long-term he thinks we are entering an era without growth. An increasing number of writers are now looking not only at the global economy but at the entire structure of our civilization as a system in which crisis is inherent and constantly self-generating without end.

Although it has already been remarked in this work, we must now explain in greater detail the inherent crisis situation in the global economy, and in capitalism, with regard to its dependency on economic growth and debt:

#### **1. The dependence on growth**

We have already mentioned how the manifestation and rise of the promotion of 'economic growth' has clearly initiated new discussions, analyses and research related to the relationship between the economy and quality of life. We can also monitor the first appearance of new concepts, the accompanying literature, and the public events that have inquired into and criticised the concept of economic growth as such. Although we also had such paradigmatic shifts earlier, from the most well-known - *The Limits to Growth* (1972) - by the Club of Rome, and the joint work of William Nordhaus and James Tobin: *Is Growth Obsolete?* (1972); such attempts for the majority of the public and society as a whole were premature and very quickly forgotten, after which there were cyclical phases of prosperity and increased consumption. Today, this shift is being led by a large group of authors, from the programmatic *Farewell to Growth* (2013) by Serge Latouche to the already-mentioned *The End of Growth* (2011) by Richard Heinberg.

Some other scientists, activists, politicians, and the public are trying to separate this dependence on growth from resources and the ecosystem by separating the growth of energy and resource consumption from GDP

growth. Decoupling, or separation, would ensure future economic growth without an increase in size of the ecological footprint. In 2002, the OECD emphasized that decoupling should find a solution to separate “economic goods” from “environmental bads.” This approach for the continued insistence on the need for growth found its place in the new concept of a “Green New Deal,” or ideas for basing future growth on employment in clean industries, renewable energy sources, energy efficiency, waste management, and a generally green economy. This concept would maintain the level of economic growth necessary for prosperity and social peace, ensure employment in new professions, and reduce pressure on the planet and ecosystem thanks to lower consumption rates via the use of green technologies. It calls for a “green engine of growth” (JACKSON 2009).

The United Nations Environment Program (UNEP), the institution that most energetically promotes the green new deal, stressed that a green economy is a winning combination that is simultaneously “pro-growth, pro-jobs and pro-poor,” and an economy that results in “an improvement in the quality of life and social equality, and which significantly reduces the exhaustion of and risk to the environment (UNEP 2011, 16). The special driving force here should be renewable energy sources, which in 2011, directly or indirectly, employed 5.7 million people (REN21 2013). Global investment in 2011 grew by 17 percent compared to the previous year to a total amount of 257 billion dollars, which was a new record. Perhaps even more importantly, renewable energy sources in that year accounted for 44 percent of all new generation capacity (UNEP 2012). All of these developments are most welcome, but they only reveal part of the picture, and we have already stated at the beginning that our goal is to provide a comprehensive and holistic consideration of the relationship between the economy and sustainable development.

The problem is that today we might be facing a “relative decoupling,” or the ability of technology to produce more with less consumption and less use of resources. We have a whole range of energy efficient technological solutions and there is no disputing the outcome of a reduction of energy intensity in highly developed and wealthy societies. We have already written about this elsewhere (ŠIMLEŠA 2011), so we will only reiterate the facts provided by the data that show how, since the 1970s, energy intensity - by which we mean how much energy we need to expend in order to achieve a certain level of GDP - has declined by 33 percent, especially in the wealthier countries. Since 1990, it has fallen every year by 0.7 percent. Despite this, since the 1970s, CO<sub>2</sub> emissions have increased by 70 percent, and since the 1990s by 40 percent, because of an overall increase in energy consumption. Stabilising emissions requires an annual reduction in emissions of 4.9 percent (we now have growth at the level of 3 percent), and the index

of energy intensity should be declining by at least ten times more than it does at present. This means that despite energy efficiency, consumption is growing, as is the pressure on and exploitation of the ecosystem.

The term “rebound effect” (POLIMENI ET AL. 2008) summarises this and what is interesting is that in the UNEP plan for green development only half a page out of a total of 626 is devoted to this, although the report points out that in Western developed countries there is a parallel process as concerns the introduction of energy efficient devices or technology and growth in consumption, greenhouse gas emissions, and ecological footprint.

That is why it is a mistake to approach this problem only as a technological one and not also as a political-economic or evolutionary one, because countries with the greatest efficiency are those that use the greatest amount of natural resources (FOSTER, CLARK AND YORK 2011).

We have not succeeded in attaining “absolute decoupling” or an overall reduction of the resource footprint only because in that situation this kind of global economy would not exist. Together with the accepted externalization of costs as a legitimate form of operation by global business and political elites (HEINBERG 2011), dependence on growth is woven into the very foundation, into the heart, into the bloodstream of the global economy. The problem, of course, is that this is unsustainable. Today, it does not pay to invest in savings or in an efficient design that would reduce absolute consumption, nor does it pay off economically to aim for a sustainable lifestyle directly, for that would really reduce economic growth, and the importance of growth is unquestionable.

That is why it should not surprise us that according to data from the Institut für Weltwirtschaft of the University of Kiel, only 13 % of the total global amount invested in economic recovery and labelled *green economy* was invested so as to result in the reduction of carbon dioxide emissions. These actual investments in absolute decoupling were so insignificant that they resulted in a reduction of only 0.5 percent of potential global emissions (WUPPERTAL INSTITUTE 2009). Also, proponents of the “Green New Deal” predict that the growth of investments in renewable energy (RE) or energy efficiency depends on the growth of the general, if not to say the “dirty,” economy, so the media have rushed to announce the news of the decline in investments in RE by 11 percent in 2012 compared to the previous year because of the worsening crisis in the United States and the EU and the continued reductions in subsidies for green technologies (*The Guardian* 2013). In this sense, we should also be aware of the various types of developmental support that policy directs - for example, there are 300 billion dollars in annual investments for all of RE, but use of fossil fuels alone is being subsidized at the level of 650 billion dollars per year at a global level.

The Wuppertal Institute has drafted a report, *A Green New Deal for Europe*, where it was concluded that “support to eco-industries is not enough because even green economic growth can be damaging if it only contributes to an increase in already unsustainable high levels of consumption of natural resources” (2009, 12) and that we need more than a technological platform for “eco-industries;” we need structural changes at all levels of society.

## 2. The dependence on debt

Dependence on debt is linked to a dependence on a belief in the need for ever increasing economic growth. The global economy is dependent upon the creation of new credit. The accumulation and growth of debt that today has reached unsustainable levels, means that it is now impossible to repay. The problem that emerges has likely grown as the process is this completely intangible. It is played out on computer screens and electronically stored, yet has a serious effect on the real economy and peoples’ lives.

We do not have space here to delve deeper into a review of the emergence of the fractional reserve system upon which the current banking system of debt production rests, but with regard to what has been said until now, we deserve an explanation as to why it is impossible to get out of debt.

Economic growth depends on cheap loans and an increase in overall debt, and for us as consumers this provides the possibility to buy greater quantities of goods and services. The entire story is based on an unsustainable system of interest, and that is why today there is always more debt than there is money to pay for it (KENNEDY 2011). This is often neglected, because as individuals if we are lucky and/or able to, we can get out of debt, or a country might get out of debt if it engages in the massive production of goods or services that the world wants and thus make a huge profit in a short period of time. But here we forget that on the other side of the seesaw there is always someone or some country that had to go into debt in order to be able to buy the offered and desired good or service.

Ninety-seven percent of today’s money has been created as debt, from the users’ perspective, as a credit that the user promises to pay back with added interest. What is concerning is that private institutions – banks – are creating that debt and entire countries can be in debt to them. Of even greater concern is the fact that the banks themselves are not holding that money (BROWN 2010). There is virtually no limit to lending as long as there is some confidence that the credit will be paid back. In the real world we do not accept a promise from someone when they offer to lend us something that they actually do not have. Banks would not be able to do this without policy support.

The only way that we can settle a debt is to convert more of our life into tangible objects, or by borrowing even more. This is why debt is always larger than the amount of money that is available; the creation of money in essence always generates the creation of more debt. For an economy, everything is fine when the growth in interest can follow economic growth by converting more of one's life into tangible objects and their sale on the market. Possible social, ecological, and other consequences of this are omitted in such an analysis. In economics these are known as boom years. But even during those years, debt is almost always growing. We simply do not worry about growing debt because the economy is also growing (EISENSTEIN 2011).

Today, we are in crisis because there are fewer natural, social, cultural, spiritual, and other types of capital to transform into goods. Or at least there is not a large enough amount as today's economy requires.

Oliver Tickell (2013) explains that the banks are provoking the crisis via their "normal" business operations, so that we ignore other causes. In good years credit is cheap and optimism reigns, regardless of the fact that it is not founded on anything real. This is how it was in the years before the crisis; getting credit was not a problem. In bad years, those of so-called "belt tightening," banks behaved completely differently and became very selective in determining who is worthy of receiving credit. Since everyone took on debt during the good years, and they went into debt cheaply and easily, following the crisis citizens and businesses were unable to go further without incurring new debt, and if the crisis turns out to be long and serious, like the current one, such people would declare bankruptcy, leading to further crises in the property sector and others, whereby those who cannot survive the bad years are left with nothing. When the financial crisis also spills over into what we call real economy, we come to a reduction in consumption; a fear of the future emerges and unemployment increases, so that many everyday people have an even more difficult time paying back what once seemed to be easy credit. Money is then transformed into a scarce resource, even though there is enough of it, those who control it do not want to put it into circulation, and in that way they raise money's value and power, and also theirs as its owners.

Classical economics explains crises as part of the normal and almost natural cyclical movement between good and bad years, as if nothing structural or in the social sphere occurs as a result of these crises. The wealthy always come out of a crisis even wealthier, in the sense of ownership. They are then the only ones who have enough money to buy real estate, companies, etc. whose value has declined.

### How can we achieve a sustainable economy?

Now we will turn to answer the main topic of the paper, i.e. the question posed in the title of the paper.

From everything written so far, it should be clear that creating a sustainable economy means creating a completely different kind of economy; deep reforms in the economic sector are also a condition for change as regards the environment, social justice, solidarity and equality, alongside social participation in political decision making by all citizens. It is also clear that it will also be necessary to change the manner in which money functions and is created if we want to apply and live by sustainable principles. In his latest book, Bernard Lietaer (2013), one of the most well-known and active authors in the field of alternative economics says that we must “rethink money” in order to move from resources that are scarce to resources that ensure prosperity and well-being.

Heinberg (2011, 237) cites the economic historian Niall Ferguson of Harvard, who states that states have six options at their disposal to resolve a debt crisis:

1. increasing the rate of GDP
2. reducing interest rates
3. offering bailout
4. accepting fiscal pain – reductions in benefits and standard of living
5. injecting more money into the economy
6. accepting defaults, including every type of non-compliance with the original terms of the debt contract.

As a proponent of “the end of growth,” Heinberg emphasizes that in the long term we can immediately ignore the first option. In many highly consumer-oriented countries interest rates are already at record lows, so this does not help. As debt grows, the third option is more expensive and less effective. The fourth option is now occurring, but not only does it fail to reduce debt, it also destroys social cohesion and increases poverty. The fifth option is an option only for the United States, which can recycle dollars at the global level, but this is not sustainable in the long term. The conventional wisdom is that the sixth option, if widely applied, would lead to a collapse of the monetary-financial system.

However, Heinberg states that the last two options should be considered in a post-growth economy. It is necessary to implement a kind of organised and structured “debt jubilee” because the total debt is impossible to repay and its existence is a burden to all of society and is dragging down the quality of life of hundreds of millions of people.



As a second solution, a government itself should undertake to print money that is free from debt for strategic investment, public works, and generally those areas and sectors that benefit everyone.

None of these options is without its shortcomings and risks, but they are the only options that can ease the transition. Of course, the greatest fear is of unstoppable inflation if a government begins to print money, but Brown (2009) emphasises that this is a realistic option only if there is neither production nor work. Today, there is demand, but there is no offer because the banks do not want to lend money. There is no money because it is better, more fruitful and safer to hold it in the banks.

Both of these decisions lead to reduced economic activity, which the world has before it anyway, but they will at least mitigate the terrifying combination of recession and increased debt. Of course, a law should be enacted that all property below a certain size should be protected from repossession. Debt above some limit should be reduced by simply removing one zero. Such a proposal is controversial, painful, and confusing because it would rearrange relations in the economic field. But, according to Brown, such a process would allow us to take advantage of the crisis to transform the economy into one that is sustainable and resilient. In any case, the printing of money should be returned to the government; one without the other will not work. Douhtwaite (HEINBERG 2011) states that we should also reward those who are currently not in debt or those whose savings will be reduced, so that once the available money is shared out equally to everyone they end up in a slightly better position. Everyone should accept that with a deepening of the crisis their money would lose its value anyway in the long term.

We can find such proposals among all proponents of deep economic reforms: the previously mentioned Ellen Brown (2010), the economics think tank New Economics Foundation (NEF 2008, 2009), Thomas Greco (2010) and many others. In addition to the government printing money free from debt and a global jubilee day, they cite the following necessary measures and activities for a more sustainable and more just economy and society:

- abolishing the fractional reserve system, or the ability of banks to lend money that they do not have;
- strong taxing or at least greater supervision over the entire stock speculation mechanism and the models of business operations that have transformed the financial sector into a casino;
- separating the banking sector, in which are deposited salaries, pensions, and savings, from the investment, which risks their value;
- media reforms to reduce the influence of the private sector on the democratic process and elections;

- the establishment of local and regional banks on the model of the Bank of North Dakota, which is owned by the state government and whose primary goal is to support local entrepreneurship and farmers so that they do not fall into the slavery of indebtedness.

The economist Peter Victor has perhaps gone the farthest in his criticism of the existing economic system, the foundations upon which it rests, and the manner in which it functions. In his book *Managing Without Growth* (2008) he stated a direct and concrete proposal for Canada to reduce its dependence on economic growth with an increase in employment and the quality of life over a period of thirty years. The changes that Victor is proposing relate to the investment sector in which the role of the government is strengthened, a more just and general tax system, the establishment of an equitable and realistic taxation of greenhouse gas emissions, and discouraging consumerism of the kind “buying for buying’s sake”. Nevertheless, his major proposals are in the area of the labour market – a reduction in the length of the working week and in the number of working hours.

This also involves the globalisation of these localised solutions, so there are a series of proposals for the creation of a system for the exchange of national currencies according to an agreed upon index of standardised prices or on an agreed upon “basket” of products and their value (GRECO 2009, BROWN 2010, LIATAER, 2013).

With this approach and solutions, the economy would become one of the pillars of sustainable development.

### **A post-growth Croatia?**

We are now in a position to pose a fundamental question concerning Croatia’s position in relation to the topic of this paper. Croatia as a state is an example of a state in a dependent position as concerns economic growth and debt - the primary basis of our criticism of the global economy in our work. We can argue that such a typical crisis situation in Croatia offers the perfect moment to make the required deep reforms in line with the well-known saying that a crisis is the best time for change. On the other hand, it must be emphasised that at present there is no relevant nor influential political option that could take advantage of the current crisis for the changes that we need (DOMAZET, DOLENEC and ANČIĆ 2012), or for changing the paradigm.

First impressions suggest the conclusion that, in the best case scenario, Croatia is at present far from the solutions advocated by Heinberg, Brown and others. The country has been in recession for several years. Since the beginning of the crisis in 2008, GDP has fallen by 7.2 percent, industrial production by 12 percent and the number of unemployed has increased to

the limit of 20 percent, whilst amongst younger people it is even higher. In addition, public debt is growing and the government claims to be unable to ensure normal functioning without taking on new debt under increasingly unsatisfactory terms. Therefore, many people are asking how realistic and how possible the “less work, less consumption” option is for Croatia. Wouldn't a more appropriate solution be “green growth” and a “green economy” (MATUTINOVIĆ 2012, STUBBS 2013) Here the solution is being sought in the sectors of eco-friendly food production and the use of renewable energy sources. Of course, we have earlier cited that a better variant of post-growth or degrowth is considered to be inappropriate for Croatia, but we can say that the worse variant, degrowth, in the context of limiting economic growth, is considered a more certain means for the strengthening of extreme and radical political options. An additional problem is one of psychology and the insufficiently long period of enjoyment of a consumer paradise, which after the war and the postwar years (until the year 2000), lasted but a few years until 2008. Croatia's citizens are now having a difficult time accepting the idea that unsustainable indebtedness and consumption are an obstacle, so a concept or strategy that advocates this will have a difficult road to public acceptance (DOMAZET, DOLENEC and ANČIĆ 2012).

However, it should be emphasised that proponents of the degrowth concept are not advocating an unprepared and momentary halt to economic activities that would lead to “less work and less consumption.” The degrowth concept implies a gradual, organized, and just transition to a society designed to ensure that a better quality of life can be achieved with “less work and less consumption.” In addition, they warn that in any case there will be reduced growth for reasons that were explained at the beginning of this work and the only dilemma is whether we will do this in an organised way or leave it to the uncontrolled or unpredicted economic crashes ‘elements’ as we have until now (MARTINEZ-IGLESIAS and GARCIA 2012, CHARONIS 2012). But it is clear that it is impossible to begin to make such a huge change without a greater understanding, awareness, and increased level of solidarity in society and it is questionable whether such a sufficient level of these characteristics exists in Croatian society. In addition, research shows a growth in economic inequality and social polarisation between the wealthy and the poor and a low level of trust within society, not only in institutions and the political-economic elites, but amongst the citizens themselves (UNDP, 2007; UNDP, 2013). As Sandel has stated: “An increasingly socially stratified society has little chance of engaging in a democratic debate about alternative developmental trajectories” (DOMAZET, CVIJANOVIĆ and DOLENEC 2012).

On a more general level the biggest problem with the degrowth strategy, especially valid for states such as Croatia, is that there are few places where

it has been attempted and practiced. If we were to close our eyes to Kallis's explanation in defence of the degrowth concept, some might think that we are speaking about a green economy. In many places it also acknowledges integrating into "an economy after growth" certain characteristics of a green economy, such as attitudes toward waste, efficiency, energy savings, and others. Compared to the green economy, degrowth offers a next step, the advanced version, a long-term goal within which the limits of the growth of the economy and debt are clearly set. There remains only the question of whether it is possible to reach that goal without making the initial steps - whether it is possible to reach it without a greening of the economy.

More concretely, the greatest problem for Croatia remains its low level of production (which is also an obstacle for a quality degrowth strategy, although we would not think so at first glance), and the state's too great dependence on the import of energy, food and money: in short almost everything comes from abroad. Here it is important to emphasise again how we are talking about "selective degrowth" (LATOUCHE 2009), meaning that as a civilisation there is a need for less extraction-production-consumption activities, whilst there is obviously a need for more locally produced goods-designed for small input-products and services for quality living conditions.

The combination of insufficient production and debt that is burdening all sectors of society and strangling Croatia's production potential represents a slowing down of the movement towards a more just and sustainable society. From such a position it would be very demanding, to say the least, to transform the economy into one that is not based on debt and growth. In this context, it is rather unrealistic to copy the strategy of some Latin American countries that decided to invalidate a portion of their debt and to refuse to repay it (TOUSSAINT 2012).

Of Croatia's total foreign debt of 46.6 billion euros, a significant portion is citizens' private debts. The fact that these private debts amount to 41 percent of GDP tells us that the accumulation of debt was done in full awareness of the alluring framework of consumer capitalism. This means that it would be very difficult in Croatia to delegitimise debt by a dictatorial manipulation and by barring ordinary people from yielding responsibility for the results of the growth of debt. Here, Croatia is "hostage" to the possible success of global efforts to write off debt that was described earlier, where its legitimacy is disputed because of the impossibility of paying back the total debt and the devastating consequences of that on all of society. Because of its position, if Croatia were to pull off some instant act for negating its debt, this would certainly result in an even graver economic and social situation. The alternative to this would be the willingness of citizens for "external punishment" that would bring for most of the population an

unimaginably more modest and less prodigal lifestyle, to which, according to public opinion polling, the residents of Croatia are disinclined.

We can say that there are enough indications that confirm the position that “capitalist society is an immature system that intrinsically pursues growth as long as it is not kept in check by a response from the system at higher levels – in this case the natural environment. This means that only after the shock of a physical limitation will the capitalist system be in a position to accept radical reforms, or comprehensive institutional reforms in the economy” (MATUTINOVIĆ 2012). But even if we believe in the possibility of institutional and structural changes from above, in the right place and at the right time, or if we think that this system is in a state to being undergoing the necessary changes for greater sustainability and equality only after outside circumstances and limitations “force” it to do so, then we are faced with the necessary and unquestioned need to prepare and strengthen as much as possible the most vital and essential sectors of that system so that the “day after” would be experienced more as a recovery, however difficult, than as a total collapse and chaos.

Croatia is definitely too small a country to initiate major global changes and that is a burden that it should not have to bear. But Croatia can use the “snowball effect” to bring together a large number of smaller local projects and approaches that could move in the direction of important changes to the economic and political paradigm. Then they could be gathered together and assisted in their expansion and strengthening of local production with longer term development. And here the situation does not look so bad. People are increasingly interested in the practical applications of sustainable living and are attending lectures, workshops, and fairs that promote “post-growth” solutions.

In several cities exchange groups have been established for food that link small producers with people in the city who want to become part of the food production cycle once again and to control what they are supporting with their money. There are also very frequent gatherings because of surplus or large quantities of some crops, fruits, and other foods that must be picked, gathered for free, or shared so they do not spoil. Both as regards food and energy there are an increasing number of examples of returning power to the people through the establishment of energy cooperatives to the benefit of local resources and the local community. There are also real and already functional models on city levels, such as at Krk, Čakovec or Koprivnica where they proved to provide at capacity levels and have gained public acceptance for responsible and sustainable waste management, the renewable use of resources and environmentally friendly buildings. Perhaps most important at this moment is the rise of social enterprises and cooperatives, which should receive institutional and systematic support

very soon with a new state back-up Strategy for the Development of Social Enterprises. Although the process of social enterprise development hasn't had an easy history and acceptance, today we can talk about a hundred of these kinds of business model that are not based on growth, but on economic stability, use of resources with awareness, social cohesion and local community development.

Although the situation here has lately become more muted compared to examples from the rest of the world, some initiatives are slowly being implemented here for strengthening a sustainable and just economy. We have seen initiatives such as the "time bank" project in Pula, where people divide up their own time to help those who need help, volunteering for the general good, and creating initiatives for founding ethical banks and transition cities. Such examples are worth following if we care about the future of Croatia.

## Conclusion

"Every society has its myths. Our myth is economic growth."  
(JACKSON 2009, 8).

It is clear that every society takes its myths seriously as they constitute the foundation of its identity and values. How big is the influence of prevailing values in any given society? Our self-analysis of how much we have satisfied certain expectations is indicated by data that shows that of the 13 percent of the population of the United States that lives below the poverty level, 80 percent of them have air-conditioners, 75 percent of them have at least one vehicle, and 33 percent of them have a computer, a dishwasher, and a second car (WILKINSON and PICKETT 2010). This is why an increasing number of authors (KORTEN 2006, RIFKIN 2010, HEINBERG 2011) emphasise that, above all, we are faced with changes in the social aspect of sustainability, where psychology, pedagogy, epigenetics and anthropology will have much to say, because without these approaches it will not be possible to enact the required deep changes in society.

Changes in the use and consumption of energy are always followed by changes in communication that shape the way in which our brain understands and organises reality. New energy/communications revolutions have led to new social contracts. In his work *Emphatic Civilization* (2010) Rifkin states that we are on the brink of a new social contract, a contract that will encompass our entire planet and the life on it and that will lead us in the direction of true sustainable development.

Heinberg states that we are facing the fifth major turning point in the history of our species. The appearance of language, the discovery of fire,

the agricultural revolution and the industrial revolution were the first four epochs that delimited the key changes and processes that were essential to the shaping of our species. “We are now participating in the turn from fossil-fueled, debt and growth-based industrial civilization toward a sustainable, renewable and steady-state society” (2011, 284).

We have already stated that it is crucial for the government to take an active role in the creation of money that is free from debt.

One of the pioneers of a steady-state economy, Herman Daly, states that, in addition to government printing of money that is free from debt, the following actions are also required:

1. a cap-auction-trade (or cap-and-dividend) system for extraction rights for basic natural resources.
2. a shift away from taxing income toward taxing resource depletion and environmental pollutants.
3. limits on income inequality.
4. more flexible workdays.
5. the adoption of a system of tariffs that would allow countries that implement sustainable policies to remain competitive in the global marketplace with countries that do not. (see HEINBERG 2011, 251-252).

It is clear that Daly - as regards ecosystems and the social dimension of society - is advocating the strengthening of the *commons*, which David Bolier (2012) considers the “DNA for creating our economy, politics, and culture again.” The first meaning of the *commons* is that it is something given to us as a gift and that we all use that gift. We can divide the common good into three groups:

1. Natural: air, water, photosynthesis, oceans, soil, minerals, solar energy
2. Community: public areas, vacations, libraries, museums, markets, playgrounds, universities
3. Culture: languages, science, music, astronomy, the internet (BARNES 2004).

*Commons* offers us a new perspective. Instead of ownership it focuses on management and administration, on the long-term protection of collective social and ecological interests, and not on short-term and quick profit. *Commons* refers not only to resources, but resources plus community with its protocols and values for the management of joint resources (BARNES 2006, EISENSTEIN 2011, ROWE 2013).

In this sense, alternative currencies of a local or regional character are also *commons* because ownership is less important; more important is the relationship itself toward a resource and the need for a just and equitable way for it to circulate, so that the resource is managed for the long-term

benefit of the user. Local currencies that are successful are always designed in a way that discourages accumulation and ownership, or control and power, and more movement and circulation. In some examples, the value of a local currency is reduced as time passes in order to encourage circulation fulfilling its main function, which is to make exchanges flow more freely. This would be a kind of tax on the possession of or a negative interest rate on the value of the money. The German-Argentine economist Silvio Gesell wrote about this in his epochal work from 1906 *The Natural Economic Order*.

The main idea is that people should not become rich by possessing nature, resources or money. If they have something, they are guardians and caretakers, and if they cannot guard it or care for it in a socially useful sense, then ownership should be given to someone who wants to and can.

We have tried in this work to explain the manner in which money becomes ownership, in which it becomes energy, a resource by which someone who accumulates it acquires power and influence. As with the commons, in alternative local currencies money again becomes only a means of exchange and it is difficult to manipulate it.

Unfortunately at this moment it is more certain that those who control production and the flow of money, i.e. those who have ownership of it, will not move towards a more sustainably designed economy and money. We have explained what would be a responsible and progressive role for policy in an economy designed on the principles of sustainable development. But as Rob Hopkins (2008, 2011), a permaculture designer and the founder of the concept and the movement Transition Towns, says: “If we wait for governments, it will be too late; if we act as individuals, it will be too little; but if we act as communities, it might be just enough, just in time.”

Transition Town is a global movement of local and regional communities of activist citizens who in an organized way confront and find solutions for the major problems in the world today: climate change, the destruction of resources and their increasingly difficult availability, and the financial crisis. Hopkins also states that any concrete response to climate change and the excessive use of resources requires a response by and the participation of governments and the business sector. But he also emphasises that there is no longer time to wait for them and the strengthening resilience of local communities to the challenges and risks that they are facing today can only help alongside a possible, serious and coordinated series of actions coming from above.

It is important to emphasise that in addition to the opportunities and activities required for an economy based on sustainable development to emerge, it is necessary to carry out reforms from above, yet there is also a need for solutions that should be started and practiced today from below, for at least with regards to money ‘the people’ again become sovereign. The



best proof of local, regional, and credit solutions can be found in the book *People Money* (2012) by Margrit Kennedy, Bernard Lietaer and John Rogers, written after several years of research into alternative, complementary currencies around the world. The book cites 4,000 such economic initiatives from below and although they stress that while no currency has a wide influence on the overall economy, with the exception of the Swiss WIR Bank, a great number of them do play a role in strengthening local economies and social roles linking actors at the local level and the making of local community resilience. Also, following the unforeseen influence of major crises, they remain possible economic systems that will have to be adapted and improved, but are nonetheless present as living models ready for use.

Nevertheless, what is encouraging is that in contrast to times past, when the political elites, central governments, and banks destroyed vital and economically and socially important projects for local currencies without objection (such as in the 1930s with the Austrian Wörgl or in the 1950s with the French Lignières-en-Berry), today we have several examples of more friendly relationships. The central bank of Brazil and government agencies for “economic solidarity” are cooperating with the Institute Palmas, which started a regional currency, Banco Palmas, with the goal of expanding and promoting their concept. Another new currency, the Bristol Pound, has the support of the municipal council, which has employed one full-time person to assist in expanding and strengthening the project. In Nantes, France, an initiative has been undertaken for the creation of a regional currency, which has been included in the municipal Agenda 21 from 2006, but which the now advanced financial crisis has accelerated through the initial steps. Today the project is being supported by the chamber of commerce and the regional cooperative bank *Crédit Municipal de Nantes*. Such support and cooperation was impossible and unimaginable until a few years ago. For a positive exit from this general crisis it is not enough only to declare that global capitalism is passing through an organic crisis that contains within itself both a structural (objective) component and a legitimating (subjective) component (SPETH 2008).

For progressive and profound change we also need a visible and positive alternative that makes sense to people, and local currencies fulfill exactly that role.

In any case, we are of the opinion that it is rather unrealistic to expect it to be possible to return to the old way of doing things. The reasons for this are: reduced accessibility to the most important resources, a strengthening and widening of ecological problems arising from excessive and inefficient use of resources which then snowball into even greater ecological problems with resources and a financial crisis that is not able to solve the most important of today's problems. This is a situation out of balance. Although

it is clear that there cannot be a return to the old way, it is still not clear to the majority of people what a new way might entail, especially as regards the economy. We hope that we have succeeded in this work in presenting what this “new way” might entail.

Heinberg emphasises how the past behaviour of political and economic elites has shown us that we will learnt to live more sustainably, but across and through a crisis that will be more than a little unpleasant. The economist Peter Victor points out that we are faced with the need to build economies that are “slower by design, not by disaster” (JACKSON 2009, 19). In this work we have tried to approach, explain, and present this kind of design for an economy that sustainable development requires. ●