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THE HISTORY HAS NO FUTURE**

The contemporary world is stretched between many dilemmas, the most important being how to survive the 21st century, since it can be easily proved that 21st century survival will mean surviving human being for the longer time period. In fact, it is becoming obvious that the type of socioeconomic development based on the approach "if you keep always working the way you have been working, then the results should be the same as those which you have been always getting" will lead this civilization nowhere. In the recent history we have been working based on neoliberal policy hoping that the private sector is capable of transforming economy to law carbon emission. It is obvious that such policy has not shown desired results. In the meantime we have entered globalization which is enriched by flaws of material, knowledge, information, finances and migration of people across borders, where the FDI (Foreign direct investment) usually has major benefit for the home country. Globalization is a dynamic phenomenon which results in an inexorable integration of markets, enabling individuals, corporations, nation states and technologies to reach around the world further, faster, deeper and cheaper (Friedman). This flaw has become a backbone of the global value chain, channeling capital, goods, services and technology being the main characteristic of the contemporary world.

All this has ended in "free market capitalism" which resulted today in "consumer capitalism" with an open, deregulated economy while privatizing it. Certainly, these phenomena introduce the culture homogenization due to massive computerization, digitization, open telecommunication infrastructure, internet, GPS... What is the worse such economy based mainly on the

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uncontrolled transformation of energy ("consumption") has significantly affected the environment threatening existence of humans on this planet. The future now looks as "creative destruction" (Schumpeter) in which innovations, especially technological, are replacing traditions, affecting moral and ethical codes, and even replacing spirituality, globally changing the life of humans. This encourages competition which is now to succeed between collective and individual actions. The past has thus become pushed by present and even more by future.

All of these have resulted in many effects such as a widening income gap, which rose from only 20% difference between rich and poor in 60ies of the last century to reach 50% in 2006 and even more today. Since the failure of "Doha round" of multinational negotiation, the global trade shifted to TPP[1] which accounts for 36% of world output, about 33% of trade and 11% of world population. Further the TPIP, between USA and EU, accounts for 46% of global output and 28% of global trade. In the last year the growth in global trade has been even below the level of global economy what was not the case at the end of the last century. The flow of international investments is performed mainly through the multinational enterprises which employ billions of people worldwide. The reason for wealth and income gaps increases resulting in global rise of inequalities stands the most in the primacy of shareholders, and less in globalization and technology. As long as shareholders have priority over stakeholders it is evident that inequalities will continue to rise. The idea being that the most important object is to achieve maximum profit which will further encourage increase in wealth diversities.

The contemporary world is characterized by many flows. The flow of people, finances, goods., Services has experienced a dramatic increase in the last half century, although barriers still exist due to differences in physical systems, economy, culture, but mostly due to political and legal systems, and even protectionism. International migration of people has reached 3% of world population, although since 2010 the growth of immigration has slowed down. The share of global flows has been changing in the past. The period up to the 2008 crisis was one of unsustainable massive globalization of financial flows. During that period developing countries received more inflows and the international investment has become the major move in global value chain. The rise of growth and global trade volume has recovered after 2010 but it is still on the lower level than before the crises in 2008. There are many factors related to this slowdown, one being that China moved away from manufacturing and low volume

[1] Trans Pacific Partnership, USA and 11 other countries; In 2017 USA withdraw.

production, another the decline in international investment, etc. At the same time happened historic decline in trade barriers, technological decline, disappearance of third world countries and emergency of developing countries.

But, probably, the largest flow has been reached in different types of data. Data flows have increased more than 45 times in the last 15 years mainly due to extensive use of underwater cables, availability of cross border bandwidths in satellite networks, and in particular due to massive use of social networks. Types of data flow include: information by means of emails, webchat, location tracking, communications, electronic payments, doc sharing, voice and video, browsing, searching results, product ratings, etc. These data flows are followed by transactions such as orders, electronic payments (12% of global goods trade), intellectual properties, entertainment, advertising, social media, big data, and internet of things. They are followed by constant decrease in cost what is certain to continue rapidly due to constant technological advancements, what has enabled even small enterprises to become global players.

Today the economic integration of the world has been associated with political disintegration and fragmentation. There are now more autonomous political entities in the world then it has been in any time in the past[2] with forecast that only in a few decades there will exist more than 300 independent states worldwide (Foreign policy). The globalization has resulted in diversions versus integration. By 2100 over 80% of the world population is predicted to live in Africa or Asia (UN population prospects)[3]. At the same time it is forecasted that European population, without new immigrants to ensure work force supply, will fall from 336 billion in 2010, to 300 billion, with an increasing number of elderly (more than 65 years). The rise of immigration has reached already 47% of the work force in US and 70% in EU, with more drastic changes happening in Japan.

The global economy is usually measured by analyses of WTO, which replaced GATT in 1995. The bilateral trade agreements take place through CETA. These institutions allow special market access to: developing countries, common tariffs, free trade agreements within certain groups of countries, principle of open borders, transparency, barriers against unfairly traded products, removal of non-profit barriers such as quotes, license requirements, substitutes, standards... of water.

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[2] 1871–64 independent state, 1914–59, 1946–74, 1950–89. 1995–192,

[3] Data has been taken from M. Djurovic: The Future has no history, Scholar Press 2017, Mc Grow Hill (2019)

The process goes further. A considerable reduction of population of species has been recorded; Terrestrial species have declined by 39% in the 1970 to 2010 period, the LPI of freshwater species has shown a decline of 76%, and marine species number has declined by 39% in the same period[4]. The ecological footprint, the human demand on the Earth's ecosystem has reached more than 1.5, i. e. we need 1.5 planet Earth to survive living the way we do now. In fact analyzing this in different parts of the Earth shows that, for example, if 7.5 billion people were to live by US consumption standards this would require the capacity of 5 planet Earths to sustain.

The topic which attracts the most interest is climate change[5]. The solar output has increased during most of the last century what does not explain all planetary warming. Such, half the planets in the Solar system seem to be experiencing warming right now, while the global temperature increase we see here on Earth is higher. The problem here on Earth is that we have introduced new factors into the equation which are causing the temperature to change much more rapidly than is normal. As a result of industrial revolutions, the global temperature has risen six tenths of a degree C during the last century. The predicted temperature rise in this century ranges from 1.4 to 5.6 degrees C[6], even some forecasting 8°C...

What is the difference between 2°C and 4 o C? A 4°C temperature increase probably means a global carrying capacity of the Earth below 1 billion people. The "official" objective, of limiting warming to less than 2°C above pre-industrial levels, is likely to produce few meters sea level rise over time, wiping out cities like London, New York, Shanghai and Tokyo in their current form. The current 'Business as usual' policies, if implemented further, are likely to result in temperature increase above 4°C and will produce sea level rise of tens of meters over time, with catastrophic impact on humanity. To limit the temperature rise to 1.4°C will mean that only some 10, or even 5 years are left to undertake all needed actions.

Many other fields have been in the process of transformation with very uncertain outputs. The society has the tendency to increase the speed of transformation in the future. Even, in such transformation the question is: is technology replacing spirituality?

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[4] From 18 century disappeared 88% of water habitat, while in last 400 years disappeared 680 types of the vertebrates, by 2016, 559 of the 6,190 domesticated breeds of mammals used for food and agriculture were extinct. Further one million species face extension.

[5] Carbon dioxide levels hit new landmark at 415 ppm, highest in human history, Mauna Lea, Hawaii. (May, 2019)

[6] Predicted by IPCC.

One of the most present transformation is due to 4th IR which is based on the use of cyber-physical systems[7] and is expected to reach at tipping point around 2025, and which will clearly separate the winners from the losers among countries (The Davos Forum). What differs the IR from all others is that this one is on the edge of artificial intelligence, digital ubiquity, and cyber-physical systems and even on the way to *"Singularity",* where for the first time machines acquired capabilities that we only consider possible in humans.

In such society many problems are still waiting for answers. Certainly, they are different in different areas of human activities. Shortage of water, especially drinking has been already registered in more than 25 countries in the world with a tendency to reach soon 55 countries. Education, democracy and poverty although belonging to the same broad solution are in many ways specific to different societies and regions and cannot be reached by the same pattern. The cost associated with a projected increase in the severity and frequency of droughts, heat waves, and other extreme weather events is expected to cause major impacts over the course of this century. It is certain that one of key issues which causes all others is the rise of population. The tendency is such that we might reach capacity of the Earth as soon as at the beginning of the next century. In brief, these problems will have impacts on natural systems, on human population, impacts on specific regions, on extreme climate events whose magnitude will not depend only on the magnitude of the temperature increase.

In such situation what might be expected to be possible in the coming time? To enable humanity to survive the next 500 years it is needed to search for solutions in matters like, possibly, having a future beyond the Earth, feeding the Earth without destroying it, figuring out what is dark matter, providing ability to predict natural catastrophes and preventing nuclear catastrophe. Not less important are would we be able one day to: replace all of the tissues in the human body through engineering, to use wearable technologies to detect our emotions, to get control of intractable brain diseases, to generate a technology to eliminate the need for animal testing in drug development, or to reach the gender equality in the society? Certainly, equally will be important to understand: the nature of consciousness, how to reach an adequate health care, how possibility the brain science can change criminal law, how to cure many disease such as Alzheimer (recently discovered the cause), cancer..? (Scientific American). In that process we will have to

[7] Big Data, "robotics," "artificial intelligence," "genomics," "autonomous vehicles," "mobile computing," "smartphone," "virtual reality," "Internet of Things," "3D printing," "metadata," analytics," "crowdfunding," "crowdsourcing," ...

farm oceans extensively and not just for fish, to have ability to communicate through transmission, to create incredibly intelligent humans possibly being immortal (DNA and robotic engineering), to be able to control the weather, to be "open for business" at Antarctica, to have one single worldwide currency with only three languages (B. Walker), to be wired to computers to make our brains work faster, to have Nano robots to flow around our body fixing cells, and recording our memories (A. Brown), and many more. In social relations we might expect that: great percent (eighty) of the world population will have gay marriage (Paul), marriage will be replaced by an annual contract, and women will be routinely impregnated by artificial insemination rather than by men. Certainly, we will have to succeed nuclear fusion, while sovereign nation states will cease to exist and there will be one world government (Krozier). The most important is can we further keep developing future technologies without destroying the Earth and each other in this process?

So, what might be a solution for such a future? Sustainability? The most used phrase in the contemporary world! It is generally and increasingly believed that humanity's survival depends on adoption of sustainable development practices, which are based on an adequate satisfaction of quantitatively defined and interrelated economic, environmental and social criteria. In practice that means: redefining values, reorganizing science and education, thinking in economics of cooperation not on competition, continuing work on Global governance, introducing a new Marshal plan regarding greater equity, having economy beyond GDP based on valuation of nature, rising tax on virgin materials by introducing resources efficiency. Further, there is need for finance sector reform by which the climate + envy risks will be treated more seriously, introducing new types of economy such to elaborate new business models, changing GDP for Equivalent Global Human Wellbeing as the goal to build the world of new. The same attention has to be payed to social relation such as supporting education for all, especially girls. Especially, it is important to turn agriculture from carbon source to carbon sinks. In brief to create sustainable and desirable economy it requires breaking our addition to the growth at all cost while economy paradigm focusing on the wellbeing of the life.

So the question is can sustainability solve already accumulated problems as well as those which are very fast growing? Beyond the social and technological problems the policy signals have been insufficient to induce common actions and behaviors among users (COOPs). Thus, concept of sustainable development looks as a fantasy, so we must quit seeking sustainable development and start seeking survivability. To reach survivability there are many problems to be solved among which two are especially important in the early

part of the 21st century: climate change with energy consumption decline, and redefinition of skills. To solve these problems we must massively reduce the absolute consumption of the environment! There must be a move away from the untenable course we are on today toward a world where we learn to control the diverse forces we are unleashing. Extreme efficiency may allow society to function with about 20% of current consumption. Equally is important to encourage or redefine the following skills: Complex Problem Solving, CriticalThinking, Creativity, People Management, Coordinating with, Others Emotional Intelligence, Judgment and Decision, Making Service Orientation, Negotiation, Cognitive Flexibility, Citizenship, Character Skills (The WorldEconomicForum). In other words it means: redefining economic value added growth of non and renewable resources through science and technology- possibly moving to new economy; designing social development by solving "accesibility bottlenecks" and empowering civil societies; establishing environmental sustainability through science and technology and new materials to enable ecological footprints below the bio-capacity and the life support systems capacity of the Earth; and to construct a coherent vision of sustainable development in the 21st century by analyzing feasible pathways to sustainability s to provide survivability. In fact "For the first time in history, transition is possible and needed from a culture based on domination, imposition and violence to a culture of encounter, dialogue, conciliation, alliance and peace." (F. Mayor) In a world which population will soon reach 9.8 billion people (midlle of the century) there will be no alternative than to de-couple economic growth from the consumption of natural resources, if we do not want to threaten the basic livelihood on this planet.

To finish this speech let me quote the Director General of UNESCO who, only last week, at the occasion of launching the *GlobalAssessment study* said: "We can no longer continue to destroy the diversity of life. ...no one will be able to claim that they did not know".[8]

The above is only one side of the story which is very important and related to humans ability to control many processes such to survive in the Earth's environment. Not less important are the effects of natural processes on the Earth and in the Space which humans still cannot control. Earthquakes, tsunamis, volcano eruptions, meteorites and asteroids are knocking on our doors. Should they be the first to determine our future? Would we wait for one of them to happen?

[8] Speaking in Paris at the launch of the *GlobalAssessment study* — the first such report since 2005 — UNESCO Director-General Audrey Azoulay said that its findings put the world "on notice". "We can no longer continue to destroy the diversity of life. This is our responsibility towards future generations."