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Review paper

GLOBAL SUSTAINABLE DEVELOPMENT GOALS (GSDGs): What has been achieved in terms of eliminating poverty and hunger, increasing the availability and safety of food and water?

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Abstract. The paper discusses the achievement of the key Global Sustainable Development Goals (UN GSDGs), primarily in terms of eliminating poverty, hunger and malnutrition in the world, as well as the necessity to provide humanity with full and equal availability of safe food and water. Achievements of the GSDGs are viewed as the basis of the global improvement of the health and quality of life of humanity, but also of numerous future activities on the development and consistent application of specific management standards, as a condition for their consistent application, efficient and effective achievement of the desired results, i.e. as a condition for more successful business and more favorable competitiveness.

Keywords: GSDGs, poverty, hunger, availability, safety, food/water, health

Introduction

For a long time, the world has been facing an almost synergistic effect of several significant systemic problems (e.g. poverty, hunger, environment, climate change...), but also an ad-hoc crisis (e.g. economic/financial 2008, the Covid-19 pandemic of 2019 or wars started in 2022 in Ukraine, in 2024 in Gaza/Palestine...), which seriously threaten the safe life of people, and even the survival of humanity. "Ad-hoc" crises, almost as a rule, arise suddenly, most of the time they cannot be predicted, nor can the dynamics and magnitude of the manifestation, especially the level of consequences, be seen. The most important systemic problems, due to their nature, wider significance and serious consequences, are easier to spot, proactively monitor and analyze. All this requires well-designed, generally accepted and wellcoordinated activities at the global level. That is why, in recent years, several significant meetings at the world level (UN, FAO, WHO, G-7 or G-8; G-20...;) have been dedicated to solving them. The last summit, attended by more than 150 world leaders, was held in September 2015 at the UN headquarters in New York. At this meeting, the **Agenda** with an ambitious plan for sustainable development until 2030 was adopted: the so-called "Global Sustainable Development Goals" (GSDGs). The agenda includes a declaration, 17 sustainable development goals and 169 development positions [1, 2]. The goal of the plan was to solve the existing problems, or at least significantly reduce them, that is, to find new opportunities for improving the quality of life of people in the world.

This meant to completely eliminate poverty, misery and hunger, to ensure the constant availability of sufficient quantities of safe food and water, to significantly improve health, promote equal prosperity and well-being of people, to significantly protect the environment, but also that to measures taken against increasingly pronounced climate changes will be more efficient and effective.

Numerous and diverse activities in the field of different quality management systems, in terms of their creation and final formation, consistent application and constant improvement, are realized, both in the world and in Serbia, in an effort to create the most favorable conditions for successful business and optimal competitiveness on the local and global market of goods and services. Achieving the above mentioned goals is significantly more difficult in the environment of the numerous global problems and crises, which we have witnessed in recent decades. That is why the author's wish is to indicate with this paper the level of achievement of the most important GSDGs-2030, primarily in terms of eliminating poverty and hunger, better availability and safety of food and water, and additionally those goals that are directly or indirectly related to the previous one (e.g. environment pollution and climate change). Namely, in most cases, the negative consequences of some cause/generate others, such as, for example, the impact of environmental conditions or climate changes on the volume of production, availability, accessibility and safety of food/water, on the state of health and the level of overall well-being of life. That is why the achievement of GSDGs-2030, at least according to the authors, is an essential element and condition of all future activities on the development of specific management standards, especially for their consistent application, and efficient and effective achievement of the desired results.

GSDGs-2030: What has been achieved, how far did it go?

Extreme poverty, hunger and malnutrition

It is evident, and almost unbelievable, that in the middle of the third decade of the new millennium, humanity is facing such serious existential problems as extreme poverty, unavailability of safe food and water, hunger and malnutrition. It is estimated that prior to the beginning of the Covid-19 pandemic (2019/20), extreme poverty, hunger and malnutrition threatened around **828 million people** around the world, and that the pandemic increased the number of those at risk by an **additional 150 million** (*Asia - 278 million; Africa - 425 million; South America and the Caribbean - 57 million*). If we add to this the crisis with migrants, especially the consequences of the current war in Ukraine and the Middle East, we arrive at the data that poverty and lack of food, i.e. hunger and malnutrition, seriously threaten the life and health of over **900 million people**, or **every 8th inhabitant of the world**. Although there are regional differences, extreme poverty most threatens the inhabitants of Africa - 1 in 5 people or about 20.2% of the population; followed by Asia - 9.1%, Latin America and the Caribbean - 5.8%, while this share in North America and

Europe is below 2.5% [3, 4]. Data from the organization Global Report on Food Crises (**GFRC**) show that as many as 205.1 million people (*in 42 of the 53 most vulnerable countries in the world*) expect urgent humanitarian food aid [5]. According to FAO estimates, about 2.3 billion people do not have regular access to food due to severe or moderate food supply insecurity; in addition, due to rising prices and current inflation, as many as 3.1 billion people are unable to afford adequate amounts of nutritionally quality food within the requirements of modern nutrition, which is 112 million more than in 2019, i.e. the period before the start of the Covid-19 pandemic [3, 4].

Such an unfavorable situation is significantly influenced by the constant **increase in food prices**, especially expressed in the period from 2020 to 2023. Thus, the FAO food price index (2014-2016=100) reached an average level of as much as 59.7%, while the price increases of basic food items and the most important raw materials for the food industry were, on average, even more pronounced: vegetable oils - 155%, cereals - 87 %, milk - 53%, meat - 19%, and sugar - 15% [6].

The cause of poverty is also very **modest salaries**, since over **830 million** people have a daily income of less than **1.9 USD**, which is the globally adopted "red line" of poverty. Please note that, due to the currently high level of inflation in the world, and in an effort to make calculations (the unit is the so-called "*international dollar*") and statements of the situation more realistic, the World Bank from 26.10.2022. moved the "red line" according to which it expresses its data on poverty and inequality - from \$1.90 to \$2.15 [7-9].

The results of multidimensional research into the causes of poverty (the so-called Multidimensional Poverty Index - MPI), which has been carried out continuously since 2007 by the University of Oxford (Oxford Poverty and Human Development Initiative - OPHI), are very useful for considering the state of global poverty. The research includes ten criteria, classified into three key groups: I - health (food/nutrition and child mortality), **II - education** (school attendance and years of schooling) and III - standard (well-being) of life (availability of accommodation, safe drinking water, necessary sanitary conditions, electricity, fuel for households and stable income / funds). According to the results of those researches, in 111 countries of the world as many as 1.2 billion people (19.1%) live (more precisely survive) in acute multidimensional poverty. Their lives and health are seriously threatened according to all ten observed criteria, and about half of the mentioned number are children and young people - up to 18 years of age (about 593 million). The largest number of life-threatening people live in Sub-Saharan Africa - about 579 million and South Asia - about 385 million [10, 11]. About 14,500 children under the age of 5 die every day due to poverty and deprivation in the world (mainly caused by hunger and malnutrition, diarrhea as a consequence of various types of food and water poisoning, poor accommodation and hygiene conditions, malaria, etc.).

It is indisputable that in the period from 1990 to 2010, with smaller or larger variation of certain results were achieved in terms of the global reduction of extreme poverty. However, the situation is far from good, which is confirmed by the meetings forced

by the situation at the highest level of the UN and the key goals defined twice: the UN Summit in 2000 - Millennium Development Goals (MDGs) and the UN Summit in 2015 - Global Sustainable Development Goals (GSDGs). Therefore, whatever and however much it is achieved - it must not deceive, even less create an impression of satisfaction. There is no reason for that, since much more could have been done and it had to be much better. The powerful people of the world did not pay attention enough to those who live in poverty, they did not have empathy for those who suffer in misery for generations, whose living conditions are not worthy of a human being of the 21st century. The key characteristic of most of the activities so far, undertaken most often by organizations within the UN (e.g. World Food Program - WFP) [12], is that they were mostly partial, limited in time and limited in resources - campaigns, as a rule, within the framework of emergency aid, especially in cases of eliminating the consequences of drastic weather disasters (tornadoes, floods, fires, earthquakes, volcanic eruptions, etc., caused as a result of climate change), in cases of humanitarian assistance to the population in war-affected areas (e.g. in 2024, an adhoc established port of reception and distribution of food intended for the people of Palestine threatened by the war in Gaza), then help to millions of refugee martyrs in convoys and/or camps, who fled from war conflicts, misery, famine... The planned funds needed for the realization of WFP activities in 2023 amount to about 1.4 billion USD, with the monthly operating costs reaching a record level of about 73.6 million USD, which is an increase of about 40% compared to 2019. That level of funding alone would previously have been enough to feed around 4 million starving people. Thus, WFP is faced with the situation that, e.g. Nigeria, South Sudan and Yemen, cuts rations to feed as many people as possible; in other words, it is taken from the hungry in order to feed the hungry [5, 13]. At the same time, hundreds of billions of dollars are allocated for wars all over the world, especially in Ukraine and the Middle East!?

What to say about the millions of unfortunate refugees from war-torn Ukraine, about the terrible destruction and huge human casualties? What can be said about the other consequences of this cruel war, above all about the impossibility of supplying food to the otherwise very vulnerable areas/countries of Africa, Asia, the Caribbean..., when it is taken into account that Russia and Ukraine are significant producers and exporters of wheat (30%), corn (20%), sunflower and sunflower seed products (80%), mineral fertilizers (30%)?

The author's pessimistic predictions, expressed in a paper at the XX AQSS meeting five years ago (*Radovanović, 2018*) [14] unfortunately came true, i.e. the **FIRST** goal (out of 17) of the **GSDGs** (*humanity "WITHOUT POVERTY"* or "*NO POVERTY"*) by 2030. will NOT come true. What's more, the published global projections of the FAO and the World Bank are seriously worrying. According to those forecasts, in 2030, about **574 million people** or about 8% of the world's population will be extremely poor, hungry, malnourished, will be seriously at risk of health and life, that is, they will suffer various consequences of living conditions unsuitable for the XXI century and the III millennium [7,8]. As a paradox of the world we live in, we emphasize that the stated number of extremely poor (after nine years, 2024) is equal

to the level of 2015, when the UN Agenda was adopted, and when 17 GSDGs (*Global Sustainable Development Goals*) were defined and too.

Availability, accessibility and security of food and water

It has already been emphasized that, from a global point of view, the availability of food is not at a satisfactory level, and inadequate availability is a concern, primarily as a result of the modest earnings of over 800 million people (below \$1.9/day), the constant increase in food prices (especially expressed since the time of the Covid pandemic -19 and the war in Ukraine), various difficulties in production, transport, distribution, etc. An additional existential global problem relates to the availability of sufficient quantities of safe water - for drinking, maintaining personal hygiene, sanitation, etc. According to UN data, over 733 million people in the world are critically endangered by the lack of safe drinking water, while according to projections it is expected that by 2030, some 1.6 billion people will have certain problems in the supply of drinking water, about 2.8 billion with water for personal maintenance hygiene, and about 1.9 billion with water for basic hand hygiene maintenance [15]. This unfavorable situation is accompanied by an almost unchanged situation in terms of food and water safety. Namely, the detailed data presented in some of the author's previous papers [14, 16, 17, 18] or the World Health Organization (WHO, 2016) [19] have not significantly changed compared to the current information provided by reputable international organizations [3, 15, 20]. According to these data, over 600 million people in the world still have serious health problems every year as a result of using unsafe (contaminated) food (FBD -Foodborne Diseases), with over 420,000 fatal outcomes, loss of 33 million years of so-called disability-adjusted life years (DALY - Disability-Adjusted Life Years) and about 110 billion US dollars in losses in terms of treatment costs, reduced productivity, disruptions in the flow (movement) of goods and services, trade, etc.

Therefore, it is evident that the author's prediction regarding the **SECOND** of the 17 goals of the **GSDGs** until 2030 (*humanity* "**WITHOUT HUNGER**" or "**ZERO HUNGER**") - **WILL NOT BE ACHIEVED** [14]. What's more, the increase in FBD is significantly encouraged by the ever-present globalization of the food supply, more frequent exposure to new dangers and risks (*e.g. food-allergens*), the increasingly pronounced appearance of antimicrobial resistance (resistance) due to the frequent and inappropriate use and/or misuse of antimicrobial agents in human health care, animals and plants, etc. Therefore, it is estimated that by 2050, around 10 million people will be additionally at risk of unsafe food and water, and that the cumulative costs of FBD will significantly exceed the current \$110 billion [19, 20].

It is similar situation with the **SIXTH** goal of the **GSDGs** - "**CLEAN WATER & SANITATION**", that is to, by 2030 provide humanity with the availability, accessibility and equal use of safe drinking water, but also water for the usual maintenance of personal hygiene, and efficient and effective sanitation. There is every chance that even this goal (GSDG) **WILL NOT BE ACHIEVED**, since UN estimates show that in 2050, out of about 9.7 billion people in the world, as many as **1.6 - 2.8 billion will be threatened** by the lack of sufficient quantities of safe water for drinking, personal hygiene and sanitation [15].

Significant direct or indirect impact on the availability, accessibility and safety of food and water is having increasingly pronounced climatic and ecological changes, which are mainly the result of various human activities over a long period of time. Due to their undeniable global importance, climate (directly) and ecology (indirectly) include three important goals of the GSDGs: Climate action (goal 13), i.e. Life below water (goal 14) and Life on land (goal 15). Since the current situation in these areas is not even close to the desired level, it is certain that the defined goals will NOT be achieved. Namely, the emission of harmful gases (CO2; CH4; N2O eq.CO2), the appearance of the effects of the so-called "greenhouses" (Green House *Gases* - *GHG*) and their impact on global warming are not decreasing, but increasing. Despite significant investments to maintain or reduce global warming below 1.5 ^oC (an average of 48.7 billion US\$ per year) [15], the 13th goal of the GSDG, confirmed by the Climate Agreement at the UN summit in Paris (Climate Agreement, Paris, 26.04.2016)), will not come true. What's more, estimates are that global warming will increase significantly by the end of the century and exceed the level of +2.7 OC [4, 21-23].

The state of environmental contamination (*air, water, soil*) is a serious concern. Waters, especially oceans and seas, are getting warmer and more acidic (*due to CO2 binding*), the so-called "blooming" of the sea/ocean (*eutrophication*), the level of pollution is high (*especially with plastic and fossil fuel residues*), etc. All of this affects the reduction of oxygen in the seas and oceans, which is necessary for the normal maintenance of plant and animal life, and thus also the reduction in the number or even the extinction of certain plant species (*e.g. algae*) and fish (*lack of oxygen and food*). That is why the number of so-called "**dead zones**" in the world increased from **400** (2008) to as many as **700** (*2019*), and it is still increasing. This means that fishing, as an important activity in the food supply chain, is seriously threatened, and thus about 3 billion people around the world - not only small fishermen for whom fishing is the key activity and almost the only source of income, but also a huge number of people who mainly eat fish and seafood [4].

Instead of a conclusion

The issues of extreme poverty, hunger and malnutrition, as well as the availability and accessibility of safe food and water are of great importance for humanity, and therefore constitute an important part of the so-called Global Sustainable Development Goals - **GSDGs** [1]. The above-mentioned issues and goals, which, unfortunately, will not be achieved by 2030, should be resolved much more efficiently and successfully in the time to come. It would have to, but with a well-thought-out, joint effort of all important actors, both decision-makers and immediate implementers - at the national and international level. However, at least according to the author's opinion, this will be difficult to achieve in such an

unfavorable general situation in the world, which has lasted for several decades and is continuously worsening (various periodic pandemics, current wars in Ukraine and the Middle East, problems in stable energy supply and key raw materials, high level of inflation, refugee crisis, etc.).

The efforts of the richest and most powerful part of the so-called "international community" to impose the environment of a unipolar world is, at least according to the experiences so far, unsustainable - since it inevitably leads to confrontations, conflicts and other types of catastrophic outcomes. In such circumstances, attention is diverted from key, essential issues, and the existential problems of humanity are minimized. It is an environment in which there are frequent conflicts, wars, desertions, poverty, hunger, shortages, disruptions in the flow of goods, market crises, rising prices, uncontrolled inflation, etc., as consequence of unrealistic attempts to decide the fate of the world through geopolitical redistribution of power and influence in near future. At the same time, it seems little, or at least not enough, to change the existing situation and make the life of the largest part of humanity better and easier. What's more, priorities are established that go in the complete opposite direction. Thus, in the conditions of a seriously shaken and fragile world economy, we are witnessing the incredible expansion of the military-industrial complex on a global level, especially within the USA.

All this, within the framework of a single common goal (*increasing profit - capital*), enables and directs the financial center of power with its "headquarters" on Wall Street at the foothill of New York's Manhattan, while concrete support is realized through various bilateral or multilateral arrangements of the banking lobby, in the first place the World Bank, the IMF, the EBRD and others. How else to explain that in 2020, the US military budget increased to over **\$820 billion**, with a share of **54%** in the total world export of weapons and military equipment; it is almost twice as much as all other countries (*e.g. China - 13%; UK - 7%; Russia - 5%; France - 4.7%; Germany - 1.7%...*).

The paradox we are talking about is all the greater if one takes into account that the procurement of weapons and military equipment in the poorest parts of the world reached record amounts in 2022: Africa - \$39.7 billion (*Northern Africa - 19.6; Sub-Saharan Africa - 20.1*); Asia - \$550 billion; Central America and the Caribbean - \$11 billion; South America - \$45.3 billion. Only the various types of military aid to the war-affected Ukraine, so far sent by the USA and the EU, have exceeded several hundred billion dollars [24,25]. The previous drastic examples refer only to the last year or two, although the environment of conflicts and wars after World War II - with more or less the same and well-known "initiators", similar motives and reasons are almost constant (*Korea, Vietnam, liberation wars from colonial authorities, Congo, Algeria, Suez crisis, Afghanistan, Somalia, Iraq, Yemen, Syria, "Arab Spring"...*).

Is there was anyone in this world normal and well-intentioned, and influential, to see what and how many benefits humanity would have if only a small part of the resources wasted on destruction were directed to the welfare of humanity. The course of events throughout history shows that there were few wise, benevolent, creative and

determined visionaries, but the power of their influence was insufficient, and that the situation is very similar in the time of our contemporaries and the events we have been witnessing for a long time. A lot of things are just the opposite. Confirmation of what was said can be found, among other things, in the so-called World Economic Forum [26] (WEF). This "instrument" of the world oligarchy (when it was founded in 1971 - the European Management Forum, renamed in 1987 to WEF) for more than five decades systematically, although ideologically unchanged, directly or indirectly directs the most important global flows and purposefully "covers" the realization of the interests of the "elite" - primarily the banking lobby, military-industrial complex, and powerful pharmaceutical brokers. Before writing the text of this paper, the 54th WEF [26] was held (from 15 to 19 January 2024) in the Swiss winter center of Davos. As usual, it was a gathering of the world's political and economic elite, attended by over seventy heads of state or government, the highest representatives of the banking sector and the world's largest companies, and the event was followed by the world's most influential electronic and print media. At the opening, the founder and chairman of the WEF, Dr. Klaus Schwab, said: "Today's world is at a critical turning point. Covid-19 and the war in Ukraine have significantly shaken the already fragile global system. The economic growth of the world's largest economies is at a standstill, while a decrease in supply and an increase in food and energy prices are evident. For the first time since the 1970s, the world is facing uncertain and unbalanced economic growth and inflation moving in opposite directions. This is happening alongside increased geo-economic divisions, vulnerabilities of the financial sector (frequent interest rate hikes, high debt levels, rising real estate prices, etc.), along with an outof-control climate crisis, all of which could increase the slowdown in economic growth, especially the economy/developing markets. Unless we address these systematic and interconnected risks, the promise of decades of action may turn into decades of uncertainty and weakness. The world is increasingly interdependent and is in a period of reglobalization". The key role of the WEF, at least as stated by its founder and chairman (K.Schwab), is "that the meeting provides a space for leaders to engage in mutual discussions in the spirit of improving the state of the world".

And what has been improved over the past 50 years and how much has the WEF contributed to these "improvements"? What did the "elite" of the globalist world advance? Poverty and hunger are not decreasing - they are increasing, instead of the environment and natural resources (air, water, soil, flora and fauna) being more effectively protected - the environment is increasingly endangered, climate changes are becoming more unfavorable year after year, war conflicts are not decreasing, but are expanding and becoming more and more cruel. Only the wealth of members of the world's economic elite has changed and improved (read drastically increased). And precisely in those circumstances, in the gloomy reality of the modern world, at the last WEF (54. 2024) within 206 thematic sessions - not a word about poverty, about the (una)availability of safe food and water, about hunger and malnutrition, about global environmental pollution, about Instead, Dr. Klaus Schwab basically only expresses the "vision" and the views of the arrogant world oligarchy, that it is necessary to install a new world order (the so-called "great reset") or a new great beginning. i.e. approach reglobalization ("new approach to to the

(*re*)*globalization*"). Since the past "**results**" of the world powers are evident, I can only imagine what is in store for humanity in the framework of a new great beginning and reglobalization when we have long witnessed the rule of corrupt politicians with modest capabilities, and the lack of real leaders - visionary statesmen. Do our "**saviors**" find solutions within the increasingly frequent promotion of alternative food sources, such as various types of insects, seaweed, and even "good" microorganisms [20,27,28]? Is that offered to us in an effort to eradicate poverty and misery on a global level, to prevent hunger? **How much longer**?

And what about us, passionate workers of improving health, availability, safety and quality of food/water, well-being of life...? Do we ever ask ourselves: What are we doing and what are the real scope of our efforts and activities that we have been carrying out for a long time, consistently and so dedicatedly, but in such an unfavorable global and local environment, on which we have little or no influence at all? Are we all so naive that we discuss with so much enthusiasm and passion, for example, general and specific issues of quality management systems (*eg ISO 9000; ISO 14000, ISO 22000; ISO 45000;...*), while we achieve all this in circumstances where powerful decision-makers at the global level are doing the opposite. The consequences of such (**mis)deeds** of theirs are huge: They collapse what has been built or reduce the achieved results, while making the established paths of essential progress impossible. The problems are all the greater if you bear in mind that the numerous existential issues of humanity that we are talking about are very interconnected, what's more, they often cause and encourage each other. There are countless examples.

WE, the employees of improving health, safety and quality of food/water, well-being of life, occupational health protection, environmental protection, etc., strive, for example, for a detailed and correct interpretation, consistent application and correct evaluation of the fulfillment of the specific requirements of the standards that are related to environmental protection, and at the global level we have non-signing or non-implementation of internationally adopted goals in the field of global climate change (Kyoto Protocol, 1997; Agreements at the UN summits in Copenhagen, 2009 and Paris, 2015). Increased climate changes are primarily the result of an inappropriately high level of harmful gas emissions, the effects of the so-called , freen house", destruction of huge areas under forests, pollution of air, water and soil. I guess it is clear that the key responsibility is not on underdeveloped regions, small and poor countries and peoples, but on the global makers of bad decisions, on the unprecedented "performance" of the banking lobby, multinational companies and the military-industrial complex within the most powerful countries, the "elite" representatives of the so-called "international communities". As an example of the paradox we live in, we state that only the 10 "biggest" manufacturers in the food industry - Associated British Foods (ABF), Coca-Cola, Danone, General Mills, Kellogg, Mars, Mondelez International (formerly Kraft Foods), Nestlé, Pepsi Co and Unilever - are the largest emitters of gases that cause the greenhouse effect - with a total of 263.7 million tons per year; that's more greenhouse gas emissions than Finland, Sweden, Denmark and Norway together [29].

While **WE**, the employees of improving health, safety and quality of food/water, well-being of life, health protection at work, preservation of the environment, etc., discuss the reduction of poverty and hunger, greater availability, balanced (*more equal*) availability of safe food/water, the powerful cause cruel war conflicts, so, for example, millions of inhabitants of Africa, Asia, the Caribbean... are deprived of huge amounts of necessary food (*maize, wheat, sunflower*...) or artificial fertilizers (*yield condition*), in the circumstances of the current war in Ukraine (*reduced volume of production, disabled exports, blockade of roads, ports, etc.*). Due to reduced production and high prices of mineral fertilizers, gas, fuel and other key input materials for primary production, it is almost certain that the global production of basic agricultural crops - *corn, wheat, soybeans and rice - will be significantly reduced* in 2023/24, and probably later.

WE are discussing various aspects of food safety (*e.g. inadequately resolved internal communication routes as a possible cause of cross-contamination of food*), while in the world, among other things and due to the consequences of climate change, about 30% of cereal seeds are contaminated with mycotoxins and their metabolites, otherwise very dangerous for the health of the user. In the conditions of huge environmental pollution and increased climate changes, mutations of microorganisms and an almost worrying level of their resistance, only increase the already existing problems regarding the availability and safety of food (greater use of means for the preventive protection of plants and animals, weaker effects of the application of disinfectants, means of protection from pest, etc.).

Further enumeration of examples similar to the previous ones would be long and unnecessary, since many absurd circumstances and specific situations that surround us are more or less known. By their nature, the world and humanity are not uniform, nor are they unique, but are characterized by a wealth of differences - in every respect. Differences are evident not only at the global level, but also within individual regions, within countries, and even within their specific areas. Perhaps the author's thinking is naive, unrealistic, utopian, but the only opportunity that exists on a global level is to, within the framework of a multipolar world, use the existing differences in much better and more equal way, primarily in terms of looking at reality and a more humane relationship between the "rich" and the "richest" towards the "poor" and the most vulnerable countries and people. Only such an approach has a chance to be sustainable, and humanity to successfully solve numerous accumulated problems, to steadily move forward and achieve the defined goals (GSDGs) - in full or at least for the most part. In this way, WE, the employees of improving health, safety and quality of food/water, well-being of life, occupational health protection, environmental protection, etc., would have the opportunity to continue our work and specific activities in a much better environment, which would enable achieving much better results.

Regardless of the hope and expressed wishes (*at least it is immanent to people*), the author is not an optimist. At an already advanced age, after more than 50 years of work in humane and privileged activities, such as scientific-research and educational-pedagogical work in the field of food production, safety and quality, the author of this

paper retires - with a bitter sense of helplessness and disappointment, without considering the forces that humanity should (*could and had to!*) set in motion - all in an effort to change in the direction of its own equal progress, towards a far better, more certain and sustainable - future.

References

- UN (2016): Transforming our world: The 2030 Agenda for Sustainable Development (*Resolution adopted by the General Assembly on 25 September 2015*); A/RES/70/1, New York. (*sustainabledevelopment.un.org*)
- [2] UN (2017): Transforming world: The 2030 Agenda for Sustainable Development (A/RES/70/1).
- [3] FAO, IFAD, UNICEF, WFP and WHO (2022a): The state of food security and nutrition in the world. Rome.
- [4] FAO (2022b): Thinking about the future of food safety A foresight report. Rome. (<u>https://doi.org/10.4060/cb8667en</u>)
- [5] **GFRC & FSIN** *Global Network Against Food Crises & Food security Information Network* (2022): Global report on food crises - 2022.
- [6] FAO (2022c): Food Price Index (on-line, dostupno 04-10.2022). Rome. (<u>https://www.fao.org/worldfoodsituation/foodpricesindex</u> /en/)
- [7] World Bank (2022a): Global poverty update from the World Bank (<u>Poverty and Inequality Platform</u>). Washington, DC.
- [8] World Bank (2022b): Poverty and shared prosperity. Washington, DC.
- [9] Hasell, J. (2022): From \$1.90 to \$2.15 a day: The updated International Poverty Line. OWD, England & Wales (on-line, dostupno 26.10.2022 na <u>https://ourworldindata.org/from-1-90-to-2-15-a-day-the-updated-international-poverty-line</u>
- [10] **OPHI** *Oxford Poverty and Human Initiative* (**2022a**): Global MPI 2022 report and key findings. University of Oxford.
- [11] OPHI (2022b): Working Papers series (ISSN 2040-8188). University of Oxford.
- [12] **WFP (2022):** War in Ukraine drives global food crisis. Hungry world at critical crossroads.
- [13] Solidarite International (2022): Analysis of the global food crisis and links with Ukraine war. Clishy, France (<u>https://www.solidarites.org/wp-</u> <u>content/uploads/2022/10/global-food-crisis-analysis-2022.pdf</u>; dostupno: 18.8.2022)
- [14] Radovanović, R. (2018): Raspoloživost i bezbednost hrane: Od vizije do realnosti (mada može i obrnutim redom). XX nacionalni i VI međunarodni naučno-stručni skup Sistem kvaliteta uslov za uspešno poslovanje i konkurentnost. Zbornik radova. Kopaonik, 28-30.11.2018.
- [15] UN (2022): The sustainable development goals report 2022. UN Dept.of Economic and Social Affairs.New York
- [16] **Radovanović, R. (2017):** Bezbednost hrane u svetu: Aktuelno stanje i aktivnosti za poboljšanja. Rad saopšten na manifestaciji Nedelja kvaliteta 2017.
- [17] Radovanovic, R. (2011): Food Safety: The Global Problem as a Challenge for Future Initiatives and Activities. In.: ADVANCE IN FOOD PROTECTION - Focus on Food Safety and Difence. Ed.Prof.dr Magdy Hefnawy. Chapter 3, pp.27-48. Springer Series A: Chemistry and Biology. ISBN 978-94-007-1102-0; ISSN 1874-6489

- [18] **Radovanovic, R. (2009):** Bezbednost hrane: Stanje i problemi u uslovima globalne ekonomske krize. Kvalitet (XIX) 9-10, pp.36-42.
- [19] WHO (2016): WHO estimates of the global burden of foodborne diseases. Foodborne disease burden epidemiology reference group 2007- 2015. WHO, Geneva, Switzerland (<u>https://apps.who.int/iris/handle/10665/199350</u>)
- [20] WHO (2022): Global Strategy for Food Safety 2022-2030: Towards stronger food safety systems and global cooperation. WHO, Geneva, Switzerland (*electronic version - ISBN 978-92-4-005768-5*)
- [21] IPCC (2021): Summary for Policymakers. In: V. Masson-Delmotte et al, eds. Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, pp. 1–41. Cambridge, UK, Cambridge University Press, In Press. <u>https://www.ipcc.ch/report/ar6/wg1/</u>

downloads/report/IPCC_AR6_WGI_Full_Report.pdf

- [22] UNEP (2021): Emissions Gap Report 2021: The Heat is On A world of Climate Promises Not Yet Delivered. In: United Nations Environment Progr. Nairobi. <u>https://www.unep.org/resources/emissions-gap-report-2021</u>.
- [23] UNFCCC (2021): Nationally determined contributions under the Paris Agreement. Synthesis report. Conference of the Parties serving as the meeting of the Parties to the Paris Agreement. Third session. 31.10. to 12.11.2021. Glasgow. https://unfccc.int/sites/default/files/ resource/cma2021_08_adv_1.pdf
- [24] **SIPRI** *Stockholm International Peace Research Institute* (**2023**): SIPRI Yearbook 2023 Armaments, Disarmament and International Security. Solna, Sweden.
- [25] **SIPRI** *Stockholm International Peace Research Institute* (**2022**): SIPRI Yearbook 2022 Armaments, Disarmament and International Security. Solna, Sweden.
- [26] WEF (2023): World Economic Forum, Davos 2023 (on-line, dostupno 16-12.1.2023 https://www.iberdrola.com> ibe)
- [27] **FAO-Wageningen (2013):** Edible insects: future prospects for food & feed security.FAO Paper 171.Rome.
- [28] EC (2023): Commission implementing regulation (EU) 2023/58 of 5 January 2023, authorising the placing on the market of the frozen, paste, dried and powder forms of *Alphitobius diaperinus* larvae (lesser mealworm) as a novel food and amending Implementing Regulation (EU) 2017/2470
- [29] **OXFAM International (2014):** Standing on the sidelines Why food and beverage companies must do more to tackle climate change ? Oxfam briefing paper No. 186.

GLOBALNI CILJEVI ODRŽIVOG RAZVOJA (GSDGs): Šta je ostvareno u pogledu eliminisanja siromaštva i gladi, povećanja raspoloživosti i bezbednosti hrane i vode?

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Sažetak. U radu se razmatraju ostvarenja ključnih Globalnih ciljeva održivog razvoja (UN - GSDGs), pre svega u pogledu eliminisanja siromaštva, gladi i pothranjenosti u svetu, te neophodnosti da se čovečanstvu obezbedi puna i ravnopravna raspoloživost bezbedne hrane i vode. Ostvarenja GSDGs se posmatraju kao osnova globalnog unapređenja zdravlja i kvaliteta života čovečanstva, ali i brojnih budućih aktivnosti na razvoju i doslednoj primeni specifičnih menadžment standarda, kao uslov za njihovu doslednu primenu, efikasno i efektivno ostvarenje željenih rezultata, odnosno kao uslov za uspešnije poslovanje i konkurentnost.

Ključne reči: GSDGs, siromaštvo, glad, raspoloživost, bezbednost, hrana/voda, zdravlje