

Potential Causes of Global Crisis

Branislav R Tanasic*

National University Sabac, Serbia

Abstract

Modern world is greatly and rapidly changing. The conditions for life work and survival are the more difficult and complex. Overall, modern humanity is going through an extremely complicated process, ranging from the extremes of developed and landscaped socio-economic system to unstable countries and regions in frequent war conflicts. The increasing consumption of natural resources, fossil fuels, then the drinking water, air, and soil pollution, with the evident climate change, can only deepen and generate a crisis. It is generally known the difficulty, a clear threat. Knowledge and awareness of the planet's limited reserves directed to the use of the alternative energy sources. The question is what the vitally important resource is, and that these natural and anthropogenic incidents can cause major crises and disasters?

Keywords: Crisis; disaster; Natural resources; Energy

Introduction

The crisis etymologically derived from the Greek word *crisis* which means a final judgment, thinking, and breakpoint when making the decision or the time of intense difficulty or danger [1]. In everyday use, the crisis means the condition that deviates from the usual, normal order of things. The crisis, disruption to the normal may be caused as a result of effects of natural factors and as a result of harmful human activities. Nature can cause a crisis of catastrophic proportions; earthquake, tsunami, fires, meteorite impact, even infectious diseases as the planet has experienced in the fourteenth century, when the plague (Black death), killed a quarter of Europe's population, and more than 25 million in Africa [2]. The human factor is responsible for the crisis and disasters as well as product activity; ravages of war, terrorism, industrial disaster, even some natural disasters caused by the disruption of ecosystems. Planet Earth is a highly dynamic, marked by numerous events. Meteorologists amounts of data that the planet every day gets hit more than eight million times by lightning. Often electrical discharge of assorted be fatal or can cause a forest fire that spread to enormous proportions. Understanding of plate tectonics explains the earthquakes, although the doctrine is still unable to provide data where and when it can get to the next attack? For years, the accumulated energy is released in the moment and caused incalculable damage scale. Material destruction and many victims may cause the devastating power of the volcano eruption, probably a terrifying display of natural forces, which can extremely affect the vast expanses of the entire surface of the planet. Life on the planet is constantly endangered by anthropogenic effects. War conflicts, then terrorism- monster of the modern era, achieved through a well-functioning individuals and organized groups-religious, political fanatics unable to because of their goals everyday life of an ordinary man into a nightmare. Excessive pollution of air and water, have launched a chain reaction - we are witnessing the current climate change and the consequences that these changes cause, but are we aware of how the situation is bad, even though our planet giving a warning almost daily? One of the main challenges in the XXIth century will be focused on building awareness of environmental security and increase efforts to reduce the pollution of water, air and soil.

This paper is an attempt to draw attention to the situation of essential, vitally important resource of the planet who have been adversely affected, the possible threats and consequences of strong earthquakes and volcanoes, but also the dangers of the universe, the events of the recent past which have led a life on the edge of the Earth Quench, the possibility that a blue planet once again be exposed to similar temptations.

Water

Water is the source of life and the necessity to maintain life. The initiator of the development, but it can be a limiting factor for progress. The average need for a healthy, adult human for drinking water is about 2.5 liters per day. It is estimated that today about 1.1 billion people lack access to clean drinking water, while more than 2.5 billion people do not have secured a healthy sanitation. More than 5 million people die every year from diseases caused by poor or unhealthy drinking water [3]. UN Reports on water and forecasts are higher than black. Every day more than 5,000 dying children younger than 5 years of disease directly caused by polluted water. In the next 20 years, the average amount of drinking water will be decreased by one-third, compared to its current stock [4]. What a paradox- continuously reducing the reserves of fresh water, with a predicted increase in global sea level due to melting glaciers and ice at the poles.

What's this point the situation in Serbia? In Serbia, there is less healthy spring water. Uncontrolled deforestation only accelerates the problem. The bombing of 1999, with the use of depleted uranium, has contaminated some of the karst springs in southern Serbia. After the reserves of drinking water, we are at the 47th place [5]. A special problem is the pollution of groundwater. It should be understood that any waste sooner or later reaches the groundwater and pollute them. Almost no arranged landfills Belgrade directly into the mouth of the Sava and the Danube discharge their waste water at some twenty localities, without any processing.

Water covers about 70% of our planet's surface. But only 2.5% of the total quantities (about 35 million cubic kilometers), is usable for drinking, or less than 1% of drinking water is directly accessible to the people for use, which is about 0.007% of all water on earth! [6], another problem is the uneven distribution of fresh water as well as its renewal through atmospheric precipitation.

*Corresponding author: Branislav R Tanasic, Professor, National University Sabac, Serbia, Tel: 00381637730 632; 38115354652; E-mail: tanasicbrana@yahoo.com

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So it is with consumption, one who has a lot of water that spent. A resident of the United States consumes daily about 300 liters of water; while for example, the average resident of Egypt spends the day with 22 liters of water. An interesting fact is that agriculture uses the lion's share of 90% of total water consumption, while industry and households account for only 5% of consumed water. Water knows no national boundaries in the world, there are 276 rivers that flow through more state territory. About 46% of the planet's surface covered rivers that flow through two or more countries. From this, it follows that it is unusually important to the beneficiary countries of this natural resource to each other by mutual agreement regulating the level of consumption, and water conservation from a variety of pollution. More than 90% of wastewater in developing countries flows directly into the river flows, without any pre-treatment and treatment. About 80% of all the water in the world is poured into rivers without any treatment! It seems that the awareness of the dangers of the lack of clean water is growing, as evidenced by the fact that in the period from 1820 to 2007 signed 450 agreements and contracts that solve the problems of exploitation of common waterways, dams, and lakes [7]. A very important event, which can help in solving international problems and crises induced water shortage, is ICWE - International Conference on Water and the Environment - Development, the conference held in Dublin [8].

On January 17, 2014 scientists from NASA satellites Grace retrieve data from troubling content regarding underground reserves of water in California. Hydrologist James Famigliotti with Irvine University, commenting on this "epic drought that has reserves of underground water drastically reduced," the report analyzing satellite, made with 400 km altitude says: "Groundwater is our strategic reserve. This is our support, and where you can get if you support disappeared" [9]. At the same time satellite Grace, confirmed by the emergence of increasing rainfall in the northern hemisphere, but Famigliotti continues: "What we can see is the image that wet (rain) areas on earth become even wetter". During the last decade of pumping out underground water reserves by about 70% faster than in 1990, satellite measurements show a loss of 54 km³ a year! Water consumption has doubled observing period since 1950. The importance and value of water in this century, says: "Water in XXI century can easily become what oil meant for the twentieth century- a source of wealth and conflicts. If you compare the price of mineral water in a supermarket with the price of crude oil on the international market, the water is already the new oil" [10]. The crisis caused by the lack of water can easily turn into a fight for water-armed conflict, and there were at the local level dozens!

Until now it was possible to say about the lack of water, but the sudden excess water also can cause major crises and problems. In April 2014, the portal UNICEF dawned following content: "As a result of prolonged rain and melting snow in the Romanian Carpathians, the twentieth of April, the river is on the Romanian - Serbian border broke through an embankment and sank the village of Jasa Tomic, and on that occasion lost their lives two people" [11]. Destructive and tragic, but at that time no one could guess that this was only a prelude to the disaster that followed. Thirteenth May 2014 dawned rainy in Serbia. For four days, precipitation surpasses all records/Loznica 110 l/m² in 24 hours - the highest in Serbia, which is actually a multi-month average of/and all the rivers are simply wild. Cyclone, a field of low pressure, was named "Tamara" and will remain long remembered in Serbia after the desolation caused by! What really happened? Meteorologists offer an explanation of this phenomenon. Cyclone is a swirling air motion, with the lowest pressure in the middle of the vortex. In the northern hemisphere this reversal in the opposite direction to the movement of

the clock hands. Trapped air in the middle of the climb, as the only possible choice movement, carrying extra moisture, which results in heavy rain. Most of the cyclone is formed by deforming a front of cold polar air [12]. Something similar happened with Tamara, namely the field of low pressure formed over the Adriatic, as well as the penetration of polar, cold air from Central Europe to the Mediterranean basin. Polar, cold wave in a collision with a moist subtropical air caused the field of very low pressure, which is moved and stationed over the Balkans. Otherwise, this field has taken on huge proportions with a diameter of about 1000 kilometers and a thickness of approximately 100 km! Usually the cyclone of this type still worn in the coastal zone, but thanks to the extremely high humidity air masses over land, the cyclone is an additional "feeding" the scenario of catastrophic rainfall was ready. This was followed by rains that collapsed in quantity all the records recorded in the region. Some weather Centres gave cyclone name Ivette but what prevailed was the named Tamara. Extreme rainfall caused floods in addition to an additional problem, worked through numerous landslides across Serbia. The crisis arose during the floods, has grown into a catastrophe, and all agree that this is the biggest peacetime catastrophe in Serbia ever, with huge material losses, and unfortunately the people. Otherwise, according to preliminary estimates from the European Bank for Reconstruction and Development/EBRD/damage occurred in Serbia from floods and landslides, is in the range of 1.5 to 2 billion euros! [13].

Prof. Dr. Ljubinko Ilic, patented a method of rehabilitation of landslides, called Kolubar's method 15 years ago, and his invention was awarded in Brussels Eureka gold, then gold medal Archimedes and the Order of the Knight of inventions in Moscow and at the fair in Pittsburgh, won the Grand Prize of America. For its innovation inventor says: "My method changes the soil structure because it is through special electrodes that lay in unstable ground leak current, which affects the increase in strength of the country due to the mineralogical changes in the ion exchange between the electrodes and the treated soil. The soil becomes stable and the risk of landslides there. Kolubar's advantage of the method is that it is mobile, compatible and which can be carried out while the landslide "love." Next, Professor Ilic pointed out that this method is about 70% cheaper than the classic approach to the rehabilitation of landslides - machinery [14].

Air

Gaseous layer makes the atmosphere around the planet. The air is a mixture of gases, some of which represented the highest percentage of nitrogen - 78%, then 21% oxygen, with the remaining 1% consists of helium, xenon, krypton etc. [15], the massive burning of fossil fuels, especially coal during the Industrial Revolution, and today more oil and oil derivatives, the atmosphere is emitted huge amounts of carbon dioxide, sulfur oxides, soot, dust. On the other hand, so-called dirty technologies, primarily in the chemical industry give their full contribution to the pollution of the air we breathe. The consequences of air pollution are increasing the number of patients with respiratory problems, ozone depletion, an increasingly frequent occurrence of acid rain, leading to global warming- the greenhouse effect. Global warming melts the ice surface at the poles and glaciers, which reduces the ability to reflect sunlight- which in turn causes an increase in the average temperature of the planet. This is an additional trigger of this process, and all together results in disruption of highly complex and sensitive elements of the climate system. Uncontrolled deforestation generates the problem so that the process further accelerates global warming. Forests are the lungs of the planet, just for illustration: hectare poplar forest, a period full of vegetation, absorbs 100 kg of sulfur- dioxide,

lime forests same area, absorbed about 50 kg of sulfur, for a year in a state that binds approximately 15 tons of CO₂, and releases about 1.5 tons of oxygen [16]. Environmentalists estimate that if all pollution now passed, the planet would need at least another hundred years to bring the atmosphere in order, and to establish the ecological balance of the system. Kyoto Agreement, the international attempt to regulate greenhouse gas emissions, and the determination of specific quotas polluters, annually, for each country separately. The basic idea is that eruption of gasses responsible for the greenhouse effect, reduced by 5.2% compared to 1999. The base agreement is a protocol of the United Nations- the UNFCCC (United Nations Framework Convention on Climate Change), adopted in 1992 in Rio de Janeiro. The agreement reached in Kyoto allows for the possibility of buying quotas CO₂ emissions from a country that is not approved to use its share of the pollution of the atmosphere. Global contribution to the Kyoto Protocol, the amount of emitted GHG (Green House Gases), shall be in accordance with national differences in industrial development, as well as opportunities for reducing emissions [17]. Furthermore, the Protocol provides that 37 industrialized countries and the EU, six basic gas emissions - contaminants, translates into the equivalent CO₂ pollution.

Developed countries, in principle, are big polluters, but also led the countries that are making efforts to reduce emissions. As reported by International Business Times, in an article dated 02 June 2014, the US EPA/Environmental Protection Agency/requires an average reduction of CO₂ emissions by 25% by 2020 and 30% by 2030. Applicable law prohibits the construction of new coal power plants, and the new law, the EPA is expected to put pressure on the existing power plants to install new technology that will enable the reduction of harmful emissions. Daniel J. Weiss, from the Center for American Progress, said that the implementation of the new law: "Contribute to the biggest achievement in reducing carbon pollution in the US ever" [18].

The Olympic Games are the most important sporting competition, the competition of global proportions. In 2008 he organized in Beijing, have brought the city and big problems. Enormous air pollution forced authorities to weeks before the start of the Games drastically reduce traffic in the city, in an attempt to improve air and to be more tolerable for the competitors. The strong wind from the north, instead of stifling the air cleared a little complicated the situation by bringing large amounts of desert sand! This additional problem produces the desert Gobi/Mongolian title, the Chinese call it Shamo/which is so expanded that now free to be closer to locating, like the desert near Beijing. The desert is expanding to the south, devouring every year about 3600 km² of new space. In the capital of China, collapsed around 500 000 tons of sand each year, often reducing visibility to the point that the nearby skyscrapers barely discernible, interrupted air traffic, and people were forced to stay indoors" [19].

Air is the only natural resource, fair and evenly distributed around the entire planet. How do we as individual nations and deal with it depends only on us, we are the only creatures that can redefine the environment and living conditions, but the question is at what price?

Earthquakes

The Earth's crust is covered with tectonic plates, it is estimated that the consolidated pre approximately 3 billion years ago are composed of elements such as retro football, not static - range. The theory of plate tectonics was developed by Alfred Wegener in 1912. He correctly understood and explained the "seams" between the plates on the Earth's crust, but could not explain why the plates move. Becky Austin

explains the reconstruction of the geological history of the planet based on the tectonics of the earth's crust and says: "As a result of the movement of tectonic plates, they are an occasion merged into one giant supercontinent, unique soil. One of the oldest supercontinents Rodinia was formed about a billion years. The latest in a series of supercontinents Pangea has formed about 300 million years ago". The Institute of Hydrometeorology and Seismology gives an explanation about the origin of the earthquake: "It was only after collecting numerous geophysical and geological data of the sixties, which are scientifically supported this idea, thanks to a number of researchers designed the final and complete hypothesis of tectonic plates, and called "new global tectonics". According to this theory, the Earth's crust is broken down into a series of fragments that make up the continents, and which is easy to move in certain directions relatively small but steady speeds (between 1 and 12 centimeters in one year). Movement, there is a collision segment of the plate, whereby in the zone of debates occur additional tectonic processes and their companions- earthquakes". French physicist Paul Langevin/1872-1964/has developed a method of determining a distance using an ultrasonic echo-sonar [20]. The survey of the seabed of the Atlantic with the help of sonar devices, taken by William Ewing/1906-74/Bruce Heeze/1924-77/revealed a large ridge that ran the entire length of the ocean, but also prolongs the canyon the axis of the ridge- United global cracks. This cracking and akin deployed across the globe, share the earth's crust on large plates, long and after a few thousand kilometers, with a thickness varying from 70 to 150 km [21].

In 1906, 18 April at 05 hours and 12 minutes, the citizens of San Francisco were awakened by a strong earthquake, various estimates of its strength- the most widely accepted the value of magnitude 7.9 on the Richter scale [22]. The central part of the city was completely destroyed, there was a fire which raged for three days, running a strong downpour has managed to contain the firestorm. Why is this particularly interesting earthquake? Frisco, as it is affectionately called the residents of San Francisco, located on the baseline, the demarcation line between the Pacific and North American plates, known human as the San Andreas. American geologist Harry Fielding Reid/1895-1944/ made a study of this earthquake and announced the discovery that occurred along the baseline landslides to six meters in comparison to the other edge crack San Andreas [23]. To facilitate understanding of the mechanism of this earthquake, but actually, represents the general pattern explanations of earthquakes in general.

Many times, the earth shook in its geological history, but some earthquakes have remained particularly remembered, either in scope or destruction of the number of victims. Back in 1755, god the capital of Portugal, Lisbon hit the devastating earthquake, with its epicenter close to the shore. Today, with the help of computer models and simulations that account was 8.7 Richter. The city was completely devastated, and hit a nuclear bomb, killing about 60,000 people. Tokyo-Yokohama earthquake of 1923 was magnitude 7.9 occurred at noon on 1 September 1923. It is estimated that the death toll surpassed 140,000, was destroyed over half a million housing units [24]. The earthquake that on 31 May 1970 struck Peru is characterized by an extremely powerful avalanche of rocks, snow and mud that came crashing down from Mount Huascaran and wiped out the cities of maps Yungay and Ranrahirca. "The magnitude 7.8 earthquake that killed 66.794 people, caused damages of \$250 million. Landslide and floods are caused one of the greatest devastation in the Southern Hemisphere" [25].

Japan is located on the edge of the Eurasian plate, which borders the Pacific tectonic plate. The normal speed of the plate was about 9 cm annually, and it is a process known as subduction, underlining the

Pacific plate. In March 2011, the plate slid as much as 80 meters and pushed the seabed 10 meters, which was initiated following a terrible earthquake and tsunami that damaged the Fukushima Daiichi nuclear plant, causing core meltdown and a massive release of radioactivity" [26].

Philips Campbell in his book "Earthquakes: the 10 largest in the history" of the catastrophe that befell Japan says: "The earthquake that struck the Pacific coast of Japan on 11 March 2011 as reported by USGS/US Geological Survey/was magnitude 8.9, but the Japan meteorological Agency/Japan meteorological Agency/reports that the quake was magnitude 9.0, making this earthquake ranks fourth in strength since the measure and record earthquakes" [27].

Volcanoes

Nail Firth's essay, which considers the fate of the Neanderthals, conveys some research findings and says: "It is possible that European Neanderthals deleted catastrophic volcanic eruption that occurred before about 40,000 years ago. A new study reveals that explosions of the volcano caused "volcanic winter" that devastated their entire population". Head of the research team, archaeologist Golovanova Love with ANO Laboratory of Prehistory, adds: "For the first time we have identified evidence that the disappearance Neanderthals from the Caucasus associated with volcanic eruptions over 40,000 years ago" [28]. Before about 74,000 years ago, Toba volcano exploded in one of the largest volcanic eruptions in the last 20 million years! It is estimated that at least 2800 km³ of volcanic material slipped into the air. As an improvement of work, one of the biggest explosions in recorded history was the eruption of the volcano Krakatau in 1883 and released the 12 km³ of magma [29]. It is considered that the first two years after the Toba eruption, there was no difference between day and night. Huge amounts of dust, soot, sulfur dioxide/acid rain falling for years/slip is in the air at 30 km altitude, blocking the sunlight. Temperatures plummet, even should the lede, ugniča plants and animals were massive, and this has resulted in the murder of human population. Some estimates suggest that on the whole planet less than 10,000 people, mostly in the equatorial part of Africa [30]. Engvild newspaper for Agricultural and Forest Meteorology says that most of the plants died within a few weeks after the eruption. Larger plants are much more able to withstand, but it is slowly killing them and a lack of sunlight, the metabolic process of photosynthesis was abruptly interrupted by a fatal outcome was inevitable [31].

Brute force, released in a short time, able to make damage unforeseeable proportions. If today some of these volcanoes erupted suddenly/but there are real opportunities, especially can be dangerous supervolcano in the USA - Yellowstone/consequences would be unimaginably catastrophic. In addition to the physical damage, evident climate changes, what effect on us left eruption? To solve the problem of global humanity lack of food, even in these call normal conditions, a good part of the population of the planet is starving! In order to adapt to modern man arduous living conditions in general disarray, would solve wars redistribution of scarce resources in these apocalyptic terms?

Anthropogenic Incidents

Since it started a controlled, if desired, and the need to use fire, man has constantly progressed. The findings led the improvement of standards, extending a life led others advanced discoveries. Unfortunately, many of those advancing were directed specifically against people. Mushroom cloud over Hiroshima has announced to the world entered the atomic age. Atoms are hiding a lot of energy, man has mastered the skill to relieve the process is controlled fission,

and so started the construction of nuclear power plants. In addition to constant trouble with the disposal and safe storage of nuclear waste, some facilities had trouble during operation. One of the first incidents in nuclear power was in the US nuclear power plant Three Mile Island, 28th March 1979. The US EPA/Environmental Protection Agency/sends already the next day a team of experts to examine the vulnerability of the environment and the possible impact on the health of people living near the plant.

Finding EPA shows that the average dose in the vicinity of a nuclear power plant about 1 millirem, which represents 1/6 of exposure during X-ray of the chest, or 1/100 part of natural radioactivity which they are exposed residents of the area. World Nuclear Association [32] the meltdown of the reactor core, it is a nightmare for operators and engineers in nuclear power, the planet is, unfortunately, the consequences of this kind of crisis experienced on 26 April 1986, the explosion of a nuclear power plant in the Ukrainian town of Chernobyl. According to WNA conclusion, the aforementioned World Nuclear Association defined the accident in Chernobyl: "The product is missing security culture. From the standpoint of safety procedures, the design of the reactor was evaluated as bad, combined with unforgivable mistakes operators together is provoked the state of emergency".

David Biello in his text devoted to the disaster in Fukushima, says: "The damaged reactors in Fukushima are still hot, almost three years since the accident, due to radioactive decay of damaged nuclear fuel. Radioactive debris in Fukushima still throws heat, according to a rough estimate, the value of about 1 million watts. In cold weather, no fog, it is vapor above the remains of a nuclear reactor".

The international organization for the protection of the environment Greenpeace on its website regarding the nuclear accident in Japan, Fukushima Disaster Nuclear, among other things, reminds is the following: "Fukushima nuclear disaster shows us once again that the nuclear reactors are fundamentally dangerous. None of the 436 nuclear power plants in the world, it is not immune to human error, natural disaster or some of the many serious incidents that may be the cause of the accident".

When in 1979 the American multinational company, Union-Carbide launched the production of methyl/Methyl Isocyanate - MIC/* in Bhopal, the computer it's a great opportunity and incentives for agriculture multimillion India-program known as the Green Revolution. Everything was done in accordance with the plans and desires of both sides, to the fateful night between 2 and 3 December 1983. Much water has penetrated into the underground storage tank and caused the MIC highlighting about 42 tons of hazardous chemicals. The workers just before midnight felt a burning sensation in the eyes, reported to the supervisor, he did not take anything and the scenario for the biggest chemical accident he was ready. Relatively cold weather, about 14°C, led to concentrating easily volatile gas, which is significantly increased grip and disaster situation [33,34]. Estimates of the number of victims vary considerably and are in the range of 4000, then 8000, to approximate 20 or as many as 30,000 casualties in total [35].

Equal threat to the safety and lives of present the ideas of some people that is the way they are ready to realize their visions and goals. Whether you are running political, religious, economic or other motives, some people and organizations are ready for anything. Regardless of popsedice their activities, they want to inflict the greatest possible damage to the striking to draw worldwide attention to his movement and its goals. Terrorism! The plague of the modern world. Bruce Hoffman is its basic characteristics [36].

- Inevitably present political aims and motives.
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- Violent methods, or equally important- the threat of violence.
- Atak is designed to have far-reaching psychological effects outside the target or victim.
- Is implemented by an organization with recognized chain of command or conspiratorial cell structure/members wear a kind of uniform or identification marks
- The perpetrators subnational groups or non-state entities.

Historically, terrorism goes far back into the past. Since the time of the Zealots were organized extremist groups in the Judean province vast Roman Empire, the early first century AD. After the unsuccessful rebellion of the Jews were killed in an organized some prominent associates of the Romans [37]. The term terrorism originally was used to describe the activity of the Jacobin Club, during the Reign of Terror during the French Revolution. The first organization that started to apply on modern terrorist techniques Brotherhood was the Republic of Ireland/Irish Republican Brotherhood/was founded in 1858. They initiated Fenian's dynamiters/Fenian dynamite campaign/as the first modern terrorist organization, using time-controlled explosive devices. They sow terror and fear in the heart of Britain, in order to achieve their political goals.

Technique and tactics of terror during the XXI century has not significantly changed. Mainly used "infernal machines" with timers to detonate explosives at the desired time or firearms. However, it essentially alters the 11 September 2001 attacks on the World Trade Center towers in New York. This attack showed what strength can strike well organized and trained group, with good logistics and careful planning. The Council met for the first time terrifying novelty and power of terrorist organizations. They used the kidnapped passenger planes for a suicide attack. Activists of the Al-Qaeda network, 19 of them, hijacked four passenger planes. Two were crashed into the North and the South Tower shopping center. Race plane collapsed at the Pentagon, destroying part of the building on the west side. The fourth plane was aimed at Washington but crashed after passengers tried to overcome the hijackers [38]. The effect of this terrorist act was awesome. A total of nearly 3,000 casualties, including 227 civilians and 19 hijackers boarded the four planes calculated that destroyed around 2.960.000 m² of office space [39,40].

The Dangers from Space

On March 9, 1989 over six million people in Quebec were left without electricity. Interruption lasted for hours, many transformers and electrical lines basis were severely damaged, or burned extremely high voltage. What really happened and who was to blame for the resulting breakdown? The sun is a huge ball of hot plasma in which fusion is a process of providing energy. This process every second consumes about 600t of hydrogen which transforms the 596t of helium, and 4tons, mass defect gets transformed into pure energy. This exothermic reaction is known as the proton-proton. The core of the light elements hydrogen, (actually 4 cores, in conditions of very high pressure and temperature, have high energy sufficient for breaking the Coulomb's barrier), create a nest of helium with the release of large amounts of energy. The sun does not have a single magnetic field, it is formed in the forming region of the spot- a region with lower temperature, due to the interaction of differently oriented domains come up with powerful jets

of plasma ejections, high-energy particles, during which broadcasting may take up to 1/6 of the total energy emitted by the sun every second. These casts are called solar flares, which are actually coronary mass ejection- sometimes the spray is directed toward our planet, causing the appearance of which is called the solar wind [41].

Therefore, it is the first character to be strong casting, forming a sunspot. Astronomers have spotted some lows, or to form freckles average in periods of 11 years. How does Canada remain without electricity? The event took place in the solar cycle 22', when there was a strong coronal mass ejection/Coronal Mass Ejections/X15'' class a couple of days later the planet was hit by magnetic storms/SolarWind. The first sign of the presence of highly ionized particles in the Earth's atmosphere did an attractive sunset, atmospheric phenomenon also known as the aurora borealis- the northern lights. Since the Earth is a natural electromagnet becomes part of the particles trapped in the magnetic field of the planet, and deployed along the magnetic field lines, are concentrated at the poles and make the optical phenomenon of spectacular sunsets, and sometimes visible from lower latitudes. And it's the only nice thing we bring the solar wind, actually a magnetic storm, which broke through the earth's magnetic shield and wreaking havoc on electrical and radio connections. This is a very strong variable magnetic field magnetic induction causes an extremely high voltage power lines, transformers, and generators.

Planet Earth and the other planets of the solar system are constantly bombarded various missiles from space. Just for shorter time buckets used slightly stronger binoculars see the moon's surface, and the more you can see many traces of the attack. The approach of a disaster is the fact: "On the Moon, there are about 30,000 craters whose diameters vary between one kilometer and even more than 200 kilometers- and each of them marked the racing collision with a piece of matter" [42]. Since the moon has no atmosphere, all these scars fossilize freely and remain mute witnesses of the events next million years, or until the current violent landscape does not change any other attack. The largest crater on Earth as a meteorite impact incurred when actually the Ungava Lake in Canada, which is observed only aero- photography. The footage shows around lake 3.34km in diameter, depth of about 300m, and about a hundred meters of surface and coast elevated in relation to the environment, which is to squeeze the material upon impact. Near the US city of Winslow, there Beringer crater with a diameter of 1.2km and a depth of 180m, with a raised rim of some 70m, named after the man who found that this is caused by a meteorite impact- Daniel Moreau Berringer. The largest meteorite that is known is planted in the soil of Namibia, is considered to weigh about 66 tons! Estimated time of impact to approximately 50,000 years ago and the question arises: what would be the consequences that this incident happens at the present time in a populated area?

Asteroids are bodies with generally safe, well-established paths, however, those with less weight more easily susceptible to disturbances and changes in established routes. And that is exactly what happened about 65 million years ago, and with a fatal outcome after the dinosaurs, and a good portion of other species on Earth. For scientists has long been a mystery of the sudden disappearance of dinosaurs from the face of the planet. Various theories were offered, but due to various

*Solar Cycle 22 - to 22 year cycle from 1755. since it is recorded, mapped and counting sunspots. 1989. maximum numbers of spot was a 158.5, and minimum observed is 8 spots.

**Solar flares - coronal mass ejection, classes: A, B, C, M and X, the division performed by the maximum during the energy of X-rays, each class is 10 times more powerful than the previous one. X-class 0,0001 w/m²

deficiencies were quickly dismissed as insufficiently substantiated. Increasingly, as a hypothesis, there is a possibility of a large asteroid impact, but that impact is clear to leave a scar somewhere on the ground. During the exploration for Solar Cycle 22 - to 22 year cycle from 1755 since it is recorded, mapped and counting sunspots, 1989 max. No spot was a 158.5 min. 8 observed. Solar flares - coronal mass ejection, classes: A, B, C, M and X, the division performed by the maximum during the energy of X-rays, each class is 10 times more powerful than the previous one. X-class 0.0001 w/m² oil, 1970 in the area of Mexico's Yucatan Peninsula, satellite imaging discovered the crater whose characteristics suggest that the impact created a massive body from space. Before about 65 million years ago the Earth was hit by an asteroid with a diameter of 10 km, has caused havoc, destroyed the dinosaurs and put the very existence of life on the edge shutdowns [43-48]. It is estimated that the energy released by this shock is so great, straight to the sum of the energy of the atomic bomb dropped on Hiroshima, which should explode every second for a period of three years! The hot shock wave has reached a temperature of 1700°C and more than twice toured the globe. Then he formed a tsunami height of over 160 meters. Survivors are just a few forms in greater depths of the sea and small animals burrowed into deep holes and caves. The mammals of the time were only the size of a field mouse. Inducer of this cosmic drama was Baptistina asteroid.

Conclusion

A brief overview of potential disaster is actually a chronicle already seen disasters that have befallen the inhabitants of the planet. As the research progressed, looking at the effect of disasters, and the growing understanding that this terrible accident can really repeat, with the current number and density to be cataclysmic events with immeasurable consequences for people and what everything created for generations. This paper is just a reminder, a kind of warning of how vulnerable we really are, we often forget.

* Baptistina the asteroid came from deep space, even before 160 million years. He burst in Cooper's belt, struck a large asteroid smashed it on par fragments of which one traveled deep cosmos some 55 million years ago, hit the Moon, other hit the Earth about 40 million of years later! Discovering crater Silverprint- Kingdom, /which is about 60km in diameter/then Boltysk-Ukraine Shiva India, all dating back to the roughly the same period, the theory is gaining weight because synergy effects of the asteroid impact more than sufficient for the damage. It should be noted that the program was launched by NASA, WISE - Wide Field Infrared Survey Explorer. Located measurement infrared light "Baptistina Family" asteroid belt in a Cooper, shorten weather shock Baptistine to 80 million years ago a coup fragment to Earth only 15 million years old! If this claim is substantiated with sufficient evidence and the scientific community accepts it as a fact, there is an extremely important question: whether it is 15 million years old enough to mammalian evolutionary shift, from a small mouse/the biggest mammal in the age of the dinosaur extinction/ over the next evolutionary step to modern man?

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