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The Philosophy of the Nature, The Environment Theory of the Nature and the Law of Requisite Holism

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Abstract:

»The Philosophy of the Nature, the Environment Theory of the Nature and the Law of Requisite Holism« is a joint effort of the social and natural sciences as quest for knowledge and understanding of the Philosophy of the Nature or, by other words, it is a search for knowledge and understanding of the nature and meaning of the universe and life.

The Law of Requisite Holism has been invented and innovated by social sciences (Mulej, Kajzer, 1998) and has found many useful applications within the world of business and administration, economics and other social sciences, less at technical and vary few at the natural sciences, unfortunately. In them, one-sidedness does not help much, and total holism is impossible.

Putting together and researching joint effect on the understanding of the basics of the Nature of recent the natural sciences hypothetical research and social sciences established the law of requisite holism could be the answer or additional small contribution for the knowledge and understanding of the basics of the Nature. At present “The Age of Globalization” the world global mankind community needs to understand the Nature in order to reach sustainable future.

Keywords:

Environment, Evolvement, Globalization, History, Information, Invention and Innovation, Law of the Requisite Holism, Nature, Philosophy, System thinking.

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Introduction

The Nature has been subject to many mistakes in human treatment of it, because humans used to watch and manage nature one-sidedly rather than requisitely holistically. This caused many oversights, all way to the danger of the current mankind to disappear because humans have ruined their natural preconditions of survival under the label of economic development in un-balance with the nature. Thus our thesis reads: for sustainable future of mankind the requisite holism of approach is unavoidable (Mulej at all, in press)

The Law of Requisite Holism.

Let us commence with the Law of Requisite Holism. Recent publication under printing by: Matjaz MULEJ and coo-authors “DIALECTICAL SYSTEMS THINKING AND THE LAW OF REQUISITE HOLISM CONCERNING INNOVATION”, 2010, is making explanation of the Law of Requisite Holism easier. On 219 pages of the book we have put forward the following:

“Systems thinking as the practice of holistic rather than one-sided thinking had been many millennia old practice of the successful humans, before systems theory as its theoretical generalization was created. Like most other human capabilities, the practice of systems thinking was informal, first, and then received the form of theory for transfer of good practice through teaching to be easier to make. (Mulej et al, 1998; Mulej et al, 2003; Mulej, N., (ed), 2004; Potocan, Mulej, Kajzer, 2002). See Table 1 for our definition of holistic thinking (Mulej, in Mulej et al, 1992, reworked here).

Inside an authors’ (usually tacitly!) selected viewpoint, one tends to consider the object dealt with on the basis of limitation to one part of the really existing attributes only. When specialists of any profession use the word system to call something a system inside their own selected viewpoint – it makes a system fictitiously holistic. It does not include all existing attributes that could be seen from all viewpoints and all their synergies.

A brief summary of the law of requisite holism may thus read:

The law of requisite holism says that one needs always to try and do, what many, but not all, have the habit to do in their behaviour – do one’s best toward avoiding the exaggeration of both types: 1) the fictitious holism, which observers cause by limiting themselves to one single viewpoint in consideration of complex features and processes; 2) the total holism, which observers cause by trying to include totally all attributes with no limitation to any selection of a system of viewpoints in consideration of complex features and processes. Instead, the middle ground between both exaggerations should be covered, which can be achieved by using a “dialectical system”, made as a system as (i.e. network) an entity or network of all essential and only essential viewpoints. See Table 1.

←-----→		
Fictitious holism/realism (inside a single viewpoint)	Requisite holism/realism (a dialectical system of all essential viewpoints)	Total = real holism/realism (a system of all viewpoints)

Table 1: The selected level of holism and realism of consideration of the selected topic between the fictitious, requisite, and total holism and realism

What ‘requisite holism’ consists of, see in Table 2:

Interdependent actual general groups of real features’ attributes	Interdependent attributes of the requisitely holistic consideration of real features	Considered attributes of thinking about real features	Attributes of participants of consideration at stake	Surfacing of all these attributes in a given case
Complexity	Systemic	Consideration of the whole's attributes that no part of it has alone	Interdisciplinary team	The final shared model resulting from research as a dialectical system of partial models
Complicatedness	Systematic	Consideration of the single parts' attributes that the whole does not have	One-discipline team /group or individual	Partial models resulting from one-viewpoint based investigation
Relations - basis for complexity	Dialectical	Consideration of interdependences of parts that make parts unite into the new whole – emerging (in process) into synergy (in its outcome)	Ethics and practice of interdependence – path from one-discipline approach to the interdisciplinary teamwork	Shared attributes and complementary different attributes, which interact to make new synergetic attributes, i.e. from systematic to systemic ones
Essence - basis for requisite realism and holism of consideration	All essential	Consideration that selection of the systems of viewpoints must consider reality in line with the law of requisite holism for results of consideration to be applicable – by reduced reductionism	Capability of researchers to deviate from reality as little as possible in order to understand reality, including systemic, systematic and dialectical attributes of it	Findings applicable in practice, due to/ although resulting from theoretical considerations

Table 2: Dialectical system² of basic attributes of requisite holism/realism of thinking, decision making, and action

For the requisite holism to be achieved three preconditions, at least, matter:

- 1) Both specialists and generalists are needed, working in teams that feel ethics of interdependence and co-operate.
- 2) They include professionals from all and only essential professions / disciplines.
- 3) Their values are expressed in their ethics of interdependence and practiced in a creative teamwork, task force, session(s) based on an equal-footed cooperation rather than top-down one-way commanding.

Requisitely holistic thinking cannot include the global attributes only, because they make a part of the really existing attributes only, although they matter very much and tend to be subject to oversight by specialists. Neither can requisitely holistic thinking include the parts’

² A dialectical system comprises in a network/system all crucial viewpoints in order to help the observer attain a requisite holism, once a total, i.e. real holism with all viewpoints, synergies and attributes reaches beyond the human capacity.

attributes only, although they matter very much and tend to be focused by specialists of single disciplines and professions. Oversight of relations, especially interdependences causing influences of parts over each other, may not be forgotten about in (requisitely) holistic thinking; especially specialists, who have not developed the habit to consider specialists different from themselves, tend to make crucial oversights in this respect.

Take a look at experience around you and discover (again): Success has always resulted from absence of oversights with crucial impact. And failure has always resulted from crucial oversights, be it in business, scientific experiments, education, medical care, environmental issues, invention-to-innovation-to-diffusion processes, etc., or wars, all way to World Wars of the 20th century, or the world-wide economic crises.

Holism of thinking is aimed at avoiding crucial oversights. Systems thinking should better be called holistic thinking and be the worldview and methodology of holism, or better and more realistic: requisite holism.

Systemic, i.e. (requisitely) holistic, thinking matters due to scientific reasons, for individual success in whatever activity, and for economic reasons, too. A quick look at the historic and recent changes requiring (requisitely) holistic thinking more and more today e.g. in relation to humans' natural environment, on which humankind's survival depends, but humankind threatens it by one-sided behaviour, which causes its destruction. (See: Ecimovic, Mulej, Mayur, 2002; Stuhler, Vezjak, Mulej, eds, 1995; Ecimovic et al, 2007; Bozicnik et al, 2008; Brown, 2009; Taylor, 2008; etc.).”

“Consequently, with full right, humankind needs the development level of sustainable and socially responsible enterprises. It requires requisitely holistic understanding of the current reality and of the role and importance of all humans in that reality, especially of the critical entities such as enterprises. This means that humans must use requisitely holistic thinking in their behaviour for humankind to survive; they hardly can use it without ethics of interdependence.”

“For millennia, humans have been trying to assure their survival, like all living creatures do. The difference is, that humans have happened to become creative, to start and continue to change the parts of nature in which they were living. Sometimes they were successful and sometimes they were not, on their own criteria. Thus, they have learned from their own and others' experience. They learned more and more. Eventually and gradually, they came to be over-whelmed with the bulky quantity of insights available.”

“For centuries, the »academic world« and the »real world« have been developing essentially different values and turning them into cultures, ethics and norms, which have made them two worlds. A long time may be needed for an innovative and requisitely holistic change to come with no intervention, but on an evolutionary basis. Thus, our suggestion alone can hardly become an innovation, although it makes sense, if other conditions are not requisitely supportive. The feeling of interdependence is a real precondition, which requires the practice of a systems approach and leads to creative action. It must include government – politicians and officials/officers – all the time.

The humans' way of solving this problem was and still is obvious: every person has unavoidably to specialize in a selected part of the entire bulk of humankind's knowledge. This specialization, in the next step, unavoidably causes reduction of the entire quantity of insights

into a rather manageable one. Manageability of one's life has been very appealing; it helped and helps person/s and group/s produce insights and outcomes, which they deemed necessary.”

“Most schools teach and educate for a profession. Thus, narrow specialists have never had much education / feeling / appreciation for systems thinking. Very few around the globe had and/or have courses in systems theory. And very few versions of the General Systems Theory / other systems theories cover the seven groups of attributes of systems thinking (See: Mulej et al., 2003). There, we suggested a definition of systems thinking, which we find requisitely holistic, and completed it up on the basis of responses received, later on (Mulej et al., 2006). We will only summarize it here in Table 3:

No	Systems / Systemic / Holistic Thinking	Un-systemic / Traditional Thinking
1	Interdependences, Relations, Openness, Interconnectedness, Dialectical System	Independence, Dependence, Closeness, A single viewpoint/system
2	Complexity (& Complicatedness)	Simplicity, or Complicatedness alone
3	Attractors	No influential force/s, but isolation
4	Emergence	No process of making new attributes
5	Synergy, System, Synthesis	No new attributes resulting from relations
6	Whole, Holism, Big Picture, Holon	Parts and partial attributes only
7	Networking, Interaction, Interplay	No mutual influences

Table 3: The Seven Interdependent Basic Sets of Terms of Systems / Systemic / Holistic vs. Un-systemic Thinking (as a dialectical system)

The following synergy of systems theories might be applicable on this basis – see Table 4:

Life in the contemporary knowledge and innovation driven society, or suffering from neo-colonizing (of the less innovative ones) resulting from globalization and (huge) differences in innovation level		
Cybernetics of Conceptual Systems interfacing society and its individual members, hopefully supporting holism and innovation, including ethics of interdependence in both their routine work and inquiry	→ Humans’ objective conditions (needs & possibilities) in interdependence with humans’ subjective starting points (values/emotions & knowledge/talents & skills, in interdependence), hopefully aimed at holism and innovation, incl. ethics of interdependence in both their routine work and inquiry	← Dialectical Systems Theory providing for education and guidelines for managers and their co-workers to aim at holism and innovation, incl. ethics of interdependence in both their routine work and inquiry
Management based on Critical Systems Thinking & Organization based on Viable Systems Model	Mastering work processes by Soft Systems Methodology, Dialectical Network Thinking, and by routine and framework standardization	
Corporate social responsibility, adaptation to innovative society, and intrinsic motivation for holism and innovation, including methods of creative co-operation and excellent quality etc.		

Table 4: Synergetic applications of several systems theories – a way to requisite holism.

And there is at least one more conclusion resulting: systems thinking may also be implicit, informal. One may be able and willing to use the seven principles and never use the theoretical language of a systems theory. After all, systems thinking surfaced millennia earlier than systems theory! It faces changes in table below demonstrating how much more complex life has become after the 2nd World War (UNESCO, 2006): see table 5.

Attributes of the world	1945	2005
All population (in billions)	2,2	6,5
Urban population (in % of all population)	Under 29 %	49%
Literacy of adult population (%)	Under 50%	81,7%
Life expectancy at birth (in years)	Under 46	65
Countries with parliament	26	186
Women in parliament (in % of all members)	3	16
Fertility (number of children per woman)	Above 5	Under 3
Mortality of children (number of children per 1.000 not reaching 5 years of age)	224	86
Surface under woods (in million square kilometres)	50	39
Yearly consumption of water (in cubic kilometres)	797	2425
Yearly consumption of oil (millions of tons)	Under 470	Above 4000
Tourists (in millions)	Under 25	808

Table 5: Changing conditions of mankind – growing complexity requiring requisite holism.

These data say clearly why the industrial paradigm must be replaced with the systemic behaviour for humankind to survive. This is a crucial non-technological innovation.

How problematic a one-sided innovation may be due to oversight of another viewpoint and resulting attributes, the following case can say well (Tihec, 2006):

‘Research detects that a flat screen TV set with a screen beyond 24 inches consumes three times the electric energy as a usual TV set. Such TV sets sell very well. Consequences include that only in United Kingdom the modern large screen TV sets will be responsible for a 70 % increase of carbon in the air, by 2010. In UK, they have 63 million TV sets consuming 9.6 KWh of electricity per year causing a million ton of additional carbon in the atmosphere. The increase of TV sets by 2010 is expected to reach 67 million TV sets, which may cause the electricity consumption to reach 15.7 million KWh per year and result in 1.7 million ton of carbon more in the atmosphere. Politicians must stop the population’s desire to have larger and larger screens on their TV sets and prevent people from buying appliances consuming much energy, using all available measures.’

Application of the law of requisite holism and consideration of ethics of interdependence may belong to measures of systems approach to such decisions of humans as politicians, businesspersons, and consumers. Then, one may hope for more humankind’s capacity to prevent or diminish dangers, which result from wrong decisions due to humans’ lack of requisite holism and ethics of interdependence; it is humans who are facing these dangers, and so it their/our natural environment.

Hence: let us do our best to attain the requisite holism and let us therefore develop and apply ethics of interdependence – by explicit or tacit/informal use of the (Dialectical) Systems thinking and Theory. For millennia, this has been the practice of the successful humans, and much less so of the failing ones.”

“The humans’ way of solving this problem was and still is obvious: every person has unavoidably to specialize in a selected part of the entire bulk of humankind's knowledge. This specialization, in the next step, unavoidably causes reduction of the entire quantity of insights into a rather manageable one. Manageability of one's life has been very appealing; it helped and helps person/s and group/s produce insights and outcomes, which they deemed necessary.”

Requisite holistic view at the present status of the biosphere of the planet Earth

The present status at the Biosphere of the planet Earth, living conditions and daily events or living of Homo Sapiens present civilization and the rest of the living creatures are showing signs of adaptation to the changing living conditions resulting from changes in the planet Earth’s Biosphere environment.

After 1960’s the visible changes have become more as just cyclic events within the Solar system and the planet Earth system. Most acute issues have been changes within the weather patterns and most significant change was commencement of the ozone layer destruction because of the chlorofluorocarbons CFC’s introduction to the atmosphere by our civilization.

With coming of the third millennium climate change become important for politicians and the scientific world was separated into two fractions:

- The first fraction is advocating humans’ responsibility; it has been gathering around the International Panel on Climate Change – IPCC and has been supported by United Nations – UN, “developed” and other national governments, politicians, administration, media etc and they are presenting “official” version of the climate change issues, and
- The second fraction is much smaller by number but including fine scientist and good thinking abilities; it is advocating cyclic reasons for the climate changes as events within the Solar system.

During the end of the XXth century and until now our team of scientist and researchers have been researching independently, and with use of system theory, thinking, analysis and synthesis, case studies and complex problem solving techniques.

After 20 years of research works we have published a book of 302 pages (Ecimovic at all, 2002), soft cover paper edition and CD. It was our first publication in the book form after many presentations worldwide on systemic background of the climate change and introduction of the **climate change system**.

The next in line was published in 2006 (Ecimovic at all), followed by (Ecimovic at all) 2007, and (Ecimovic 2010). As usually in our life the things are having a turned-around following order and the last should be the first. Together, these books match criteria of requisite holism in consideration of the nature.

Discussing that the philosophy is the search for knowledge and understanding of the Nature, and meaning of the universe and life, we would rather say »The Environment Theory of the

Nature« is commencement of systemic approach to the meaning of the environment, “*basic environment*”³, Universe and Cosmos as precondition for existence of the Nature.

Let us present the case studies from our two recent theories »The Theory of the Environment« and »The Information Theory of the Nature«, which are the most recent research results of our thinking and researching.

Mankind’s⁴ local communities include variety of many different contents of the human life styles, etc. A major part of it has connections with origin of the people living within the local community, and with the natural characteristics of their environment, within which the local community has site. Geography, biology, physics, chemistry, and history cover in general the main deciding contents.

Common thinking and understanding are day-by-day life issues, local events and communal life stories. All of us are living in a local community, but very seldom we understand individuality of the local community. Countless local communities of the humans on the planet Earth are countless individual approaches of the humans to make living. Beside the family the local community is the basic unit of the present human civilization.

It is very difficult not to see similarity with star systems, planets, galaxies and other energy/matter forms within the known Universe.

As we seldom have opportunities to see individuality of the local community of mankind on the planet Earth, so it is even more difficult or impossible to understand individuality of other planets and the planet Earth. To the countless number of the planets within the Milky Way Galaxy we have to add even more countless number of the planets within the rest of the Universe.

To make it more complex, we have to say, that what humans understand of the Universe is a very small part of it, and even less we know how small part of it is our Universe in reality.

The Nature⁵, the origin of the Earth, the origin of humans, etc, are parts of large content we call »The Nature«. It is hard to answer to all questions of the Nature. But some of them need to be answered for sake of philosophy and understanding of the life and other issues connected with it.

The present science has to undergo future evolvement to be able to answer the basic questions about the Nature. That is why we are putting our recent research in this presentation in order to put on records new theories and possibilities for tomorrow. And of course, tomorrow we expect better environment for humankind and sustainable future⁶ for our descendants.

³ “*The basic environment*” is novelty in understanding of the Universe as environmental precondition for having anything – The Nature and evolvements within it.

⁴ From the book »The Sustainable Future of Mankind III«, digital book, ISBN 978-961-92786-2-8 Ecimovic at all please see at: www.institute-climatechange.si.

⁵ From the book »The Sustainable Future of Mankind III«, digital book, ISBN 978-961-92786-2-8, 2010, and partly from the books »The Sustainable (Development) Future of Mankind«, Ecimovic et all, 2007, and digital book »Sustainable Future, Requisite Holism, and Social Responsibility (Against the current abuse of free market society) edited by Bozicnik, S., Ecimovic, T., and Mulej, M., 2008, all displayed at: www.institut-climatechange.si

⁶ The sustainable future of humankind is harmony of our civilization with the nature of the planet Earth..

»The Information Theory of the Nature« was published in 2006. Here we shall present our recent research and new theory »The Theory of the Environment«, which is opening new horizons for research of all issues of the Nature. It is an environment-centric theory, which offers understanding of the present in general and allows for new dimension of research of the Nature.

The theory of the environment is taking environment as precondition for anything. »Basic environment« of the Nature is the Universe or the Cosmos. Within it the Nature exist in countless forms, dimensions and contents as »**interdependence, interaction and co-operation**« of all matters, energy, information, light, rays, powers, forces, particles and yet unknown contents of the Nature.

The beginning or end of the basic environment does not exist, but it is »**continuum**« of the Nature, which makes/holds/transforms all contents. The basic environment (the Universe or the Cosmos) should get proper description, which according to system thinking does not commence with beginning and end, but it exists as »**continuum**«.

The present thinking ability of humans could not accept reality of the immensity of the basic environment - the Universe or the Cosmos. For present researching techniques the basic environment is immeasurable. At present we have researching possibilities for exploring our neighbourhood within the basic environment - the Universe or the Cosmos.

Our horizon is limited with our techniques and researching abilities/possibilities. For our understanding of the dimensions within the Universe, we are also limited by our scientific language – mathematics, which is not yet evolved for the needs of the Universe researching.

That is why humans have discovered the Big-bang theory, black holes, unified theory, strings, particles and even “divine particle« expectation, and many more brilliant thoughts and applications of the researchers, but could not properly describe the basic environment or the Universe.

Putting the “continuum” at centre of the Nature is making a huge difference in possibilities for research.

So we have now the basic environment and the continuum, we have basic relationships such as **interdependence, interaction, and co-operation** of all matter, energy, information, light, rays, powers, forces, particles, dimensions and yet unknown contents of the Nature, where some of statements need to be described, for instance the information theory of the Nature.

The present understanding of the Nature has been going on as long as the present civilization has been evolving. As mentioned before in 2006 the book “The Information Theory of the Nature, and” by Ecimovic, T., ISBN961-91826-1-8 was published with the Information Theory of the Nature, and before within this presentation “The Environment Theory” was discussed.

The novelty of the information theory of the nature is research of the term “information”, which has been researched in connection with the dialectical system thinking (Mulej, in Mulej at all., in press and earlier, since 1974) and the philosophy. The “information” was understood as a system of the abilities, quantities, qualities, relationships, instructions of each and every matter, energy, light, rays, powers, forces, particles, dimensions and yet unknown contents of the Nature under prerequisite of **interdependence, interaction and co-operation**.

Transformation of the matter and energy with their information, takes place simultaneously according to the environment qualities of information. New transformation has its information in same manner as the genetic code of living creatures. It is precondition of their continuum, and it is composed at the moment of transformation. In living creatures it is according to prearranged (by the nature) genetic structure, and in the other parts of the Nature the genetic structure is exchanged for abilities, qualities, quantities and other characteristics of the environment, within which the transformation of matter and energy is takes place. By the continuum the systemic process is upgrading all characteristics of the Nature.

It is important to discuss the system – as a complex entity, rather than mental picture in living creatures' mind - from the operational content. Any system is in stable mode as long as all its internal systems are in stable mode. Whenever external reasons or instability of internal system have been moved/changed/impacted, etc., the system as complex entity commences to move. At present time for humans it is not possible to predict the direction of the movement of the system as complex entity, which can only be understood with requisite holism as approach.

For instance, after “Big-bang” (as Hawking says)) had happened, being responsible for our part of the Universe, the transformation of matter and energy has resulted with formation of the Milky Way Galaxy, countless star systems and our star Sun system. From commencement of the Big-bang the energy and matter transformation resulted in new transformed contents, and it has been simultaneously enriched with information of its abilities, and so on. We think a major part of the information is composed by characteristics of the environment within which various processes were and are going on. Of course the environment's characteristics are also changing or transforming accordingly.

Finally, some 4.560.000.000 years ago the star Sun system evolved in the planetary systems including with our planet Earth. Each part of the system has its own information according to which the evolvments are possible. In our research we think this possibility is opening the door for researching further contents of the Nature.

To be able to conclude these case studies we have to present a short discussion about the time.

Here we have to rethink/discuss our human achievement called the TIME. We humans have a long history of use of the time as practiced. At present the time is a very important dimension of our living. Practically it is very difficult to imagine our living without the time in practical use.

When looking from the Nature's viewpoint, we may see the nature does not use the time. **The Nature is always in the present.** We may discuss it as the Nature is taking as much time as needed for a certain process. And due to its systemic abilities the Nature is evolving in only one direction – “the multidimensional evolvment ahead”. Direction of the evolvment is not known, but it is result of interdependences, interactions and co-operation in case.

We think the TIME is our civilization's imaginative dimension, which is very useful to our living, thinking, discussing, researching, etc, but the Nature does not have the time as its dimension. Processes in the nature are having their evolvment according to the direction of the evolvment and the information, which is assisting it, and it exist only at its own present time.

Due to its systemic quality and human understanding of it by the requisite-holism principle of the human approach (Mulej, M., Kajzer, S., 1998; based on the concept of the “dialectical system”

as a synergetic network of all essential viewpoints, by Mulej, M., 1974), the system qualities, and environment within which the requisite holism and wholeness of the nature exist THE PRESENT is viable (to our understanding) or not as a continuum, but it has constant continuum be it to us understandable or not.

The environment definitions resulting from these findings include:

1. The **basic environment** (the Universe or the Cosmos) it is environment within which the Nature exist as **continuum** of all matter, energy, information, rays, particles, dimensions, powers and forces, and yet unknown contents of the Nature. The basic environment (the Universe or the Cosmos) does not have any beginning or end, but countless forms of matter, energy and information transformations, dimensions and systems and it is a system of the Nature.
2. Second to the basic environment (the Universe or the Cosmos) are countless form of matter, energy and information of larger and smaller dimensions of star systems, the galaxy systems, and within them individual star systems, such as our star Sun system.,
3. The basic environment (the Universe or the Cosmos) as system enables the **interdependence, interaction and co-operation** of all matter, energy, information, rays, particles, dimensions, powers and forces and yet unknown contents of the Nature. Consequently each and every case system under observation: big and small bangs, seen or dark energy, black holes, galaxies, star systems, particles and even expected “divine particle”, and all other forms of systems within it are having their contents and characteristics (individuality).
4. The star system environment it is a particular star system with its internal and external environments and systems.
5. The planetary system is a part of the star system and it has its external and internal environments and systems.
6. The star Sun system is a part of the Milky Way Galaxy, which has 100.000.000.000+ other star/planets systems and countless meteorites and other forms/systems of matter or energy. All of them are moving like a top and circular movement around each other. According to **interdependences, interactions and co-operation** the star Sun system is moving like a top and with speed of app 800 000 km/hour circling around the centre of the Milky Way Galaxy. The circular movement is the main physical characteristic of all larger and smaller forms of matter and energy within the Nature.
7. The planet Earth is one of eight planets, but the only one of them with environmental characteristics allowing “the living Nature”. The planet Earth contains its three basic environments (the planet Earth basic environments): the Land, the Water, and the Atmosphere environments.
8. “The living Nature” in the planet Earth’s natural system has countless living creature’s larger and smaller forms and systems, amongst which there it is also Homo sapiens’ civilization. All of them share the environment or the Biosphere, which is a tiny and thin part of the planet Earth system’s surface, within the water and atmosphere’s lower part.
9. The Homo sapiens’ civilization has its own environment of different characteristics but in the third millennium the urban environment prevails as its internal environment made by humans. Other forms include: rural areas; agriculture; forestry; transport means systems including roads, railways, airports and ports; industry; sports including sport facilities, etc.; military with barracks, armaments and other facilities; education with schools, universities, researching facilities, etc.; healthcare system with hospitals, researching and other facilities etc.; and etc. In 2008 in Europe (EU) 17 % of total area

has been sealed land or land taken from the Nature and occupied by the Homo sapiens' civilization. The latter results from actions without requisite holism.

10. The living creatures' environment could be divided in: internal and external environment. Typical internal environment (within the body) is cell liquid or blood as environment for blood cells etc., while the external one consist of family, local community, society, surrounding, water (bathing, drinking, etc.), air for breathing, etc.
11. Man-made system has internal and external environment – for instance the car has its combustion engine as a part of its internal environment, and roads as part of its external environment. Homo sapiens' civilization's environment and its natural environment are parts of the general natural environment.

There are many word uses and definitions about environment connected with content of issues like the nature environment or surrounding, etc,

At the end we may discuss the environmental sciences, which search for knowledge and understanding of environment there are as many sciences as many environments, due to human specialization in parts of knowledge about parts of reality. Generally, we think that “the basic environment” (the Universe, the Cosmos) as the largest possible environment and the only environment with only internal environments could be the commencement of the environmental sciences and other could follow. Our civilization should commence its “The Book of Physics” with Environment (“basic environment” the Universe or the Cosmos).

The Recommendations

We are recommending as follows:

1. Rethinking of the present use of the term environment and consequently the introduction of proper terms.
2. Introduction of the dialectical system thinking for any use of environment-related word or issues. (Several other system theories tend to precisely describe part of the reality from single selected viewpoints, thus not meeting the requisite holism as discussed here).
3. Introduction of the environmental sciences as humans' scientific approach to the Nature and “basic environment” (the Universe or the Cosmos), and other environment systems.
4. Use of system thinking as research tool. One should combine systems theories working on a requisitely holistic approach such as Dialectical System Theory by Prof. Dr. (economics) and Dr. (management) Matjaz Mulej with nature-describing systems theories such as the complexity and chaos theories etc. to provide the requisite wholeness of understanding and description and preciseness in its elaboration per parts/viewpoints.
5. And our special recommendation goes to use of the Law of Requisite Holism as assisting tool for research within the natural science. For instance it is more describing to name the planet Earth as the requisite holistic unit of the Nature within which our civilization exist.

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