
Prof. Dr. Timi Ecimovic, Sir Prof. Dr. Roger Haw et.al.

**“The Sustainable Future of Humankind - V, the Action
Plan”**

**SUSTAINABLE DEVELOPMENT & SUSTAINABLE
FUTURE OF HUMANKIND**



**Zg. Medosi, Korte, Slovenia and Penang, Malaysia, December
2012**



The World Thinker's Panel on the Sustainable Future of Humankind

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»**The Sustainable Future of Humankind - V, the Action Plan**«

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Editors: Boris Maraž, B. Org. Sc, technical and Prof. Dr. Dana M. Barry scientific.

Authors Statement

If you, as a human of good will, wish to use this book with a required respect, reason, morality and wisdom for peace and a sustainable future of humankind, please feel free do so at any time.

Prof. Dr. Timi Ecimovic

Sir Prof. Dr. Roger Haw

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1. Foreword – Executive Summary

»The Sustainable Future of Humankind – V, the Action Plan« is the fifth book on sustainability of humanity or in other words the sustainable future of global community of humankind, which is »*The Sustainable Future of Humankind is Harmonious Complementary Coexistence of Global Community of Humankind and the Nature of the planet Earth*« as short definition.

The commencement was after numerous presentations, publications, discussions and talks on the sustainability world-wide, and the first paper and a digital book was »The Sustainable (Development) Future of Mankind«, 334 pages and CD, Ecimovic, Bunzl, Esposito, Flint, Haw, Mulej, Shankaranarayana, Wilderer, Williams and Udyavar», 2007, ISBN 978-961-91826-2-8. It was the first book of the trilogy on sustainability. Following was a digital book on CD only, »Sustainable Future, Requisite Holism, and Social Responsibility«, Bozicnik, Ecimovic, Mulej, 2008, ISBN 978-961-91826-1-8, and the third digital book was »The Sustainable Future of Mankind III«, Ecimovic, Esposito, Haw, Mulej, 2010, ISBN 978-961-92786-2-8. Fourth book was digital book “The Sustainable Future of Humankind - IV, Xiamen, China and after”, Ecimovic, Haw et al, January 2012, ISBN 978-961-93136-6-4 (pdf). In this book 49 researchers, scientists and professors have been co-operating.

This fifth book, a digital one, »The Sustainable Future of Humankind – V, the Action Plan« is a part of implementation of the sustainable future of humankind. Commencement of the implementation was in October 2012 when three presentations and messages were sent out via Internet. All will be presented in this book.

The sustainable future of humankind is a methodology, social technology or technique coming from a sustainable development. On such way it is an improvement for sustainable development mainly because of taking the real Nature as such and the Nature of the planet Earth as the most important part of the solution for a long life of Homo sapiens on the planet Earth.

On 25th September 2011 in Xiamen, China the declaration “The World Thinker’ Panel on the Sustainable Future of Humankind” “WTP – SFH” was announced, which is later on included as it is. The declaration was a first step for the implementation of the sustainable future of humankind on the planet Earth.

Quite a large work was done during 2012 resulting in this action plan with reasons for a better tomorrow. Let it be an introduction of needed evolvement of humanity to meet challenges of 21 century.

We wish you interdependence, interaction and co-operation for needed peace, respect, morality, wisdom and sustainable future of global community of humankind.

Authors



2. The Authors

The contributions within this book have been worked out by many researchers, scientists and people of good will because of humanitarian goals we are trying to implement. Authors are:

Prof. Dr. Timi Ecimovic, Zg. Medosi, Korte, Slovenia, and Sir Prof. Dr. Roger Haw, Penang, Malaysia, researchers, scientist, and people of good will as - et al - by ABC:

Robert Battison, UK; Prof. Dr. Dana M. Barry, USA; Prof. Dr. Garfield Brown, South Africa; Prof. Dr. Truly Busch, Germany; Dr. Santi Nath Chattopadhyay, India; Prof. Dr. Alexander Chumakov, Russia; Prof. Dr. Elias Demirtzoglou, Greece; Prof. Dr. Jan Dobrowolski, Poland; Hon. Ricaardoe Di Done, Canada; Prof. Dr. Robert G. Dyck, USA; Prof. Dr. Jagdish Gandhi, India; Prof. Dr. Jorn Hamann, Germany; Prof. Dr. James Hanson, USA; Prof. Dr. Marion Hersh, UK – Scotland; Madam Anita Hrast, Slovenia; Prof. Dr. Zinaida Ivanovna, Russia; Prof. Dr. Sait Kacapor, Serbia; Prof. Dr. Igor Kondrashin, Russia and Greece; Prof. Dr. Slavko Kulic, Croatia; Dr. Renate Lavicka, Austria; Prof. Dr. David Linglah, UK; Yogi Swamiji Maheshwarananda, Austria and India; Prof. Dr. Alexander Makarenko, Ukraine; Prof. Dr. Glen T. Martin, USA; Prof. Dr. Jalil Mehrzad, Iran; Prof. Emeritus DDr. Matjaz Mulej, Slovenia; Dr. Moamen Nassr, Palestine; Prof. Dr. Philippos Nicolopoulos, Greece; Prof. Dr. Negoslav P Ostojic, Serbia; Prof. Dr. Hakikur Rahman, Bangladesh and Portugal; Prof. Dr. H A Shankaranarayana, India; Ambassador Dato' Dr. Ang Ban Siong, China and Malaysia; Prof. Dr. Yonghui Song, China; Prof. Dr. T N Sreedhara, India; Prof. Dr. Shahid Sidiki, Canada; Prof. Dr. Shishir Srivastava, India; Prof. Dr. Stuart Unplebay, USA; Prof. Dr. Rajarama Tolpady, India; Dr. V. Shamunga Ratnam, Malaysia; Prof. Dr. Seminur Topal, Turkey; Prof. Dr. Dr. h. c. Felix Unger, Austria; Prof. Dr. Marjan Vezjak, Slovenia; Prof. Dr. Fidel Gutierrez Vivanco, Peru; Prof. Dr. Alexandra Wagner, Poland; Madam Ingrid Mula Pons De Wall, UK; and Prof. Emeritus Dr. Raoul Weiler, Belgium.

This work was progressing with ups and downs for 25 years, and many researchers worldwide have been contributing. Let us mention a few, who are not with us anymore: Late Dr. Terence P. Amerasinghe, Colombo, Sri Lanka; Late Dr. Elmar A. Stuhler, Freising Germany; Late Prof. Dr. Rashmi Mayur, USA and India; Late Prof. Dr. Helmut Metzner, Tubingen, Germany; and Late Prof. Dr. George Petesh, Budapest, Hungary.

Our gratitude is also for all not mentioned members of the SEM Institute for Climate Change, World Thinkers' Forum, The World Thinkers' Panel on the Sustainable Future of Humankind or WTP – SFH, ANSTED University family world-wide and Malaysia, The World Philosophical Forum, Athens, Greece, International Institute for Sustainable Future, India, WACRA Europe, World Constitution and Parliament Association, Organization for Protection of the Children, Canada, Provisional World Parliament, Slovenian Ecological Movement, The United Nations and many others.

Our intention is to bring a sustainable future of humankind to the global community of humankind.



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4. Executive Foreword

By: Prof. Emeritus Dr. Raoul Weiler, World Academy of Art and Sciences, and Club of Rome EU-Chapter

More than half a century has already passed and still humankind looks after significant improvements of the earth's system condition. Since the publications of Rachel Carson's book *Silent Spring* (1962), the ones on *Gaia* (1965 and on) from James Lovelock and the launching of the sustainability concept with the Brundtland report -25 years ago- *Our common future* (1987), quite some time was available for appropriate actions. However, at world scale, not much has happened to reduce the burden of the human activities on the eco-bio-system.

A slow process of public awareness about the status of the environment and the intensity of pollution by human activities started to be recognized. A considerable amount of scientific knowledge has been accumulated and contributed substantially to this awareness process: the phenomenon of Climate Change and the earth's Global Warming were identified. Eminent scientists and space research made significant progress in understanding the complexity of the processes of global warming, especially during the last 25 years.

In fact the entire planet is threatened by human activities, and their intensity continues to increase everywhere: atmosphere, ocean-sphere and the hydro-sphere and the Geo-sphere are all implicated. Life is threatened systematically together with a growing human population density, rising from ca 3 billion in the early nineteen sixties to >7 billion people today, and expected to become ~9 billion people in 2050. Where are humanity and the planet heading to? An existential question for the human species!

International bodies have joined the awareness movement and the UN organized World Summits on Sustainable Development with regular follow ups, protocols were signed for reducing the output of GHG, the international panel on climate change was created for the assessment of scientific papers resulting in the publication of 4-5 year reports about the climate evolution on earth. Political leadership participated. The appeal, by scientists and NGOs for urgent intervention were listened to, at least in the beginning, creating a strong movement for action in the nineteen nineties and the beginning of this century, to reduce the impact of human activities on the natural environment.

The expectations of the scientists and the larger public of the climate conference in Copenhagen in 2009 and the ones later have not been met, resulting in a growing skepticism about the ability of the world leadership and UN bodies to make progress and reach agreements for answering the urgency claim for action. The numerous international conferences have confirmed this inability, leaving the world community with a *business as usual* (BAU) way of doing, instead of motivating governments for action all over the planet.

The absence of decisions and actions has led to a vacuum of non-progress. In developed countries the increasing awareness by the larger public is creating a movement within civil society for moving ahead. In a similar way, the green movement of the nineteen sixties emerged from civil society without any political support, at the start at least.



Indeed, the present political inability and the created vacuum stimulate civil society to take initiative. The challenge is enormous the time scale for observing results of the interventions taken is much longer than the very short term time scale of political processes, even of the business world. The lost time of the past half century, not only will need much higher investments and postpones the appearance of visible results, e.g. in particular the stabilizing resp. the reduction thereafter, the global warming process.

The fundamental question arises: can the Western societal concept or World vision, which inspires the scientific, technological and economic and societal behavior, build a sustainable society or system? Apparently is not. Indeed, in the Western civilization, humankind has been defined 'master' of the 'natural' world system. This is based on the assumption that the human species is the superior being within the living world and therefore is allowed to play the dominant role. Additionally, the 'natural' environment and the earth's resources are for free use.

These fundamental premises of the Western civilization have to be questioned. Can a civilization maintain itself over millenniums with industrial activities based on free use of natural resources? The global decoupling of human societies with the natural environment is hardly possible to sustain. The present anthropocentric world view with its roots in some religious beliefs is not sustainable either, for the decoupling with nature is inherent in these beliefs. Consequently, the world society has to evolve to eco-bio-centric world vision for the sake of its own survival and eventually for the survival of the bio-sphere of the planet.

As has been outlined in the present book, the harmony between the physical and the natural worlds must become the guidance for future development. The present Western assumption of a free earth and endless wealth is a contradiction in terms. Changing the mindset of the world community will take a long time, however it has to start and the today's conditions appear, for first time, more appropriate then decades ago.

Education, education and education, as mentioned rightly in the book, is a necessary step for enlightening the younger generations on which type of earth and planet they will live on and their generations thereafter.

Preparing the young generations for taking the necessary initiatives, which the present and past leadership have omitted to do, is an extraordinary mission. Without education one cannot solve world problems.

The utmost importance of education can be illustrated with a demographic example.

Reducing demographic evolution, through education of girls and women is an obvious case, however barely applied in countries with fast growing population. Astonishingly enough is the fact that the world demographic trend observed today, has been predicted for more than a century and its remediation through education as well. It is still not too late, but why decision makers do not act?

Education applies as well to the young generations in the developed world, the new insights about the planet and the threats on the human species must be communicated. Sustainability for the future has become the objective of and for the young generation.



The present series of publications, in particular the *Part V - The action Plan*, is very important and extremely useful. The way of looking on the sustainability has evolved strongly in the past half century. The complexity of the situation has been recognized as well as the non-linearity of the several phenomena. However, they do not facilitate a global understanding: for the time horizon of 2020/2030 it is already too late, rather 2050 has to be looked at.

Em. Prof. Raoul Weiler
World Academy of Art and Science
Club of Rome EU – Chapter

“Human project” at the biosphere of the planet Earth or epic song on humanity since the birth some 200000 year ago has been evolving successfully to the present. By other words with the evolvement of complex abilities of humans we may see general directions of the evolvements within the civilization as:

- Ecological civilization as one of recent evolvements after sixties of the 20th century,
- Political civilization as soon as social life evolved to the level of governance some 12000 years ago,
- Economic civilization since the steam engine was invented in the eighteenth century,
- Social civilization as a result of new evolvement for a better tomorrow of humanity regardless the civil status of people, and
- Cultural civilization as old as humanity and the main content of the humanity epic song.

At present due to better communications and technical assistance the scientific and applied research has opened new horizons for understanding of complexity of the Nature of the planet Earth and The Nature generally. Today science is asking for interdependence, interaction and co-operation of all contents within The Nature in general as well as within the “human project” of the present civilizations on the planet Earth.

Dependences like the quality of environment of the biosphere to which all “living nature” has to adjust are asking for a better protection of the nature, space and environment; better respect, reason, morality and wisdom within political, economic, social and cultural civilizations; sustainable development and sustainable future of humankind are asking for a better follow up of the nature or needed harmonious complementary coexistence of humanity and the nature of the planet Earth.

We think the epic song of present civilization will continue with an opportunity and hope for a better tomorrow for the “human project” under conditions of improvement of the education system, understanding for needed peace, prosperity, respect, reason, morality and wisdom, which will allow continuum from ancient Confucius, Buddha, Zarathustra, Socrates, Plato, Aristotle and other great minds of humanity to present.

The Authors



5. The Report – how we have come to this fifth book

This work is the result of 25 years of scientific theoretical and applied research. For many authors of this work it is even more, exceeding 40 years of research work. As we are caring and concerned about the sustainable future of humankind, what we have tried in this work is to put together a framework of thought for the implementation of an effective policy for the sustainable future of humankind.

We are using modern research methodological tools like system thinking, philosophy, complex problem solving, case studies, requisite holism, operational research, global studies and globalization, and classical methods of scientific work.

In our research we have been following not only general history of Homo sapiens' civilisation but also the outcome of the thinking of the great human minds as much as possible. We have been observing happenings of the last 60 years, that are fast changing the heart of the present Homo sapiens' civilization, and the quality of the environment of the Biosphere. Ours is a holistic approach as such we are aware that the planet Earth is a small part of the larger solar system, galaxies, and the Universe, and as such the Earth system has a greater degree of interdependence on a much larger system beyond its own. Our holistic approach, which requires interdependency, interaction and co-operation, is opening up numerous blind streets, which have been invented by humans, but did not do well for the Nature of the planet Earth, to which we all have to be interdependent, interacting and co-operating.

The sustainability journey of our civilization has commenced at some time as Homo sapiens evolution, but due to historical options today it does not look good for our humanity.

The sustainability has been discussed at many gatherings of humans for last 25 years but only recently it has gained a new challenging importance. We shall not discuss all this countless experiences but we shall look at present and sustainability as an option for the future of global community of humankind.

As a result the sustainable future of humankind a methodology has a central position in our work. On 25th September at international gathering in Xiamen, China the declaration “The World Thinkers’ Panel on the Sustainable Future of Humankind” was presented. The responsible participants commenced forming an organization and all needed for implementation of the work on the sustainability of humanity. It is somehow a next step or an evolvement of the known “sustainable development” work, from Stockholm, Rio Summit, Rio + 10 years, and Rio + 20 years after 1992 Rio Summit international gathering.

Let us commence with the declaration, which has been translated into 30 + languages and the work continues. Everything done up till now was done on a voluntary basis. Now we know, if we wish to see a better tomorrow, we have to move a global community of humankind from the present questionable quality to the future sustainability. For sure it has to be an action of all and each human on the planet Earth.

The Declaration at Xiamen is bilingual, English and Chinese, but here we shall present its English version which has been originally registered.



6. DECLARATION

**»The World Thinkers' Panel on the Sustainable Future of
Humankind«**

DECLARATION



Zg. Medosi, Korte, Slovenia, 15th December 2011



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The Declaration

»The World thinkers' Panel on the Sustainable Future of Humankind«

Digital presentation at www.institut-climatechange.si

Authors: Prof. Dr. Dr. h. c. Timi Ećimović, Sir. Prof. Dr. Roger Haw, Prof. Dr. Dana M. Barry, Dr. Renate Lavicka, His Holiness Vishwaguru Mahamandaleshwar Paramhans Swami Maheshwarananda, Hon. Ricaardoe Di Done, Ambassador Dato' Dr. Ang Ban Siong, Prof. Tang Shui Yuan, Prof. Dr. Glen T. Martin, Prof. Emeritus DDr. Matjaz Mulej, Prof. Dr. Alexander Chumakov, Prof. Dr. Garfield Brown,

Editors: Boris Maraž, B. Org. Sc, technical and Prof. Dr. Dana M. Barry scientific.

The Declaration for sustainable future of global community of humankind - 2011. CIP of the original English declaration.

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DECLARATION

Of

“The World Thinkers’ Panel on the Sustainable Future of Humankind”

People throughout the world are against the culture of violence and war. They are for a culture of friendship, solidarity, tolerance and peace. (By a decision of 52/13, the decade 2001 to 2010 was unanimously proclaimed “International Decade for a Culture of Peace and non-violence to all children of the world” by the General Assembly of the United Nations.)

By: Prof. Dr. Timi Ecimovic

On 15th August 2011 the World Thinkers’ Forum, Ansted University, Sir Prof. Dr. Major Roger Haw Boon Hong, Penang, Malaysia, SEM Institute for Climate Change, Prof. Dr. Timi Ecimovic, Zg. Medosi, Korte, Slovenia, Prof. Dr. Dana Marie Barry (USA) and Organisation for Protection of Children Rights, Hon. Ricaardoe Di Done, Montreal, Canada, Ambassador Dato’ Dr. Ang Ban Siong (Malaysia), Professor Tang Shui Yuan, Chairman of the “1st International Conference on Protect the Earth and Ocean” in Xiamen, China, and Dr. Garfield Brown, South Africa, proposed founding the panel as follows:

Within the World Thinkers’ Forum is an open and new working panel named: “The World Thinkers’ Panel on the Sustainable Future of Humankind.” For short it is represented by the following acronym “WTP-SFM” and has the sign displayed below.



The address for it is at Korte 124, SI 6310 Izola – Isola, Slovenia.

A long list of people of good will, academicians, scientists, politicians, workers, administration and government officials, and many others are supporting this Declaration. Among them are members of the SEM Institute for Climate Change, the Ansted University family, and honorable and other members of the World Thinkers’ Forum, etc.

The theoretic and practical background for this Declaration can be found in many works about “Sustainable Development” and “Sustainable Future of Humankind.” The trilogy,



“Sustainable Future of Humankind,” Ecimovic, and many more scientists’ work during the first decade of the 21st century could serve as theoretical background. It can be seen at the following link. www.institut-climatechange.si

Members and supporters of the Declaration are free of charge members. The UN, national governments, international corporations, international institutions, national institutions, education institutions and others, are invited to co-operate on the work for the sustainable future of humankind.

The Declaration is giving rights, and is asking for individual social responsibility from members of the human global community: (7000000000+ individuals). The goal is to reach global sustainability of the global humankind community. The global sustainability is a transition from sustainable development societal technique to the sustainable future societal technique. The UN and agencies, especially the UNEP and UNESCO, are welcome to co-operate for the common goal of sustaining the future of humankind.

Our individual lives are very short, and their value and meaning are found substantially in fact that we are integral parts of the “human project”. We must support the continuum of humankind because what we are fundamentally is human beings who are inseparable from the continuum, a continuum that includes our descendents and future generations. As human beings we are responsible for each other and for future generations.

“The World Thinkers’ Panel on the Sustainable Future of Humankind” provides a platform for people (interested in the arts, scientific & cultural activities and peace mission projects) to meet and to work together. The primary goal of the said platform is to create a level of understanding and tolerance between the various peoples of the world and to contribute to the promotion and maintenance of world peace. We welcome all individuals and groups of the world irrespective of race, sex, language and religion. The work of “The World Thinkers’ Panel on the Sustainable Future of Humankind” is based on the respect of human rights and basic liberties of all peoples of the world. This relates directly to the active participation of UNESCO’s project “Culture of Peace”

The task of “The World Thinkers’ Panel on the Sustainable Future of Humankind” is a forum for all non-governmental institutions, ministries, public offices, scientific and cultural organizations as well as institutes, diverse organizations, museums, universities, foundations, unions, associations, business organizations and other establishments. It is also for individuals who are practically, organizationally and scientifically engaged in promoting cultural activities, folk art, culture heritage and scientific activities.

Besides the working order and the activities of our world-wide organization for the practical, organizational, and above all scientific work for culture, we also have to meet a very important, social, humanistic, and cultural-political order. Many of us have learned and grown from being a new member of **“The World Thinkers’ Panel on the Sustainable Future of Humankind”**.

The Declaration is giving rights, and is asking for individual social responsibility of members of the human global community: 7 billion individuals. The goal is to reach global sustainability of the human global community. The global sustainability is a transition from sustainable development societal technique to the sustainable future societal technique.



The UN and agencies, especially the UNEP and UNESCO, are welcome to co-operate for the common goal of sustaining the future of humankind. This declaration will go on to other parts of the world.

We think all members of global humankind community have the responsibility to help when needed. Many grant foundations of Culture, Arts, and Scientific institutions (from local and international levels) will give support to the development of common interests.

We believe that “The World Thinkers’ Panel on the Sustainable Future of Humankind” not only contributes to the attainment and exercise of these rights, but that multiculturalism plays a role in solving some of the problems in modern society.

The founding group of “The World Thinkers’ Panel on the Sustainable Future of Humankind” has established the following categories for making “The World Thinker’s Panel on the Sustainable Future of Humankind.” These categories (that are listed and described below) are important for the panel to achieve its recognition at the international level.

Categories

1. Characteristics of traditional culture
2. Virtues of traditional culture in a modern society
3. Traditional culture and cultural diversity
4. Traditional culture and rights to culture
5. Traditional culture and multiculturalism
6. Plans for the promotion of traditional culture through systematic continuing study of traditional culture, systematization of exchange of traditional culture and regional cooperation, regular conduct of a traditional culture-related forum and development of cultural industry based on traditional culture.

1. Characteristics of traditional culture

A traditional culture is a way and system of life that is practiced by a people for generations, and features an eco-friendly culture where humans coexist with nature, where an individual is relatively less alienated from the others, and when the spiritual culture is pursued more than the material ones.

2. Virtues of traditional culture in a modern society

Since the advent of modernization and industrialization, our modern society has faced a number of obstacles and problems such as the breakdown of ecosystems due to the indiscriminate conquests of nature, severe natural disasters, cut throat competition in the world markets, unbalanced distribution of wealth, widespread human alienation, attachment to



material values at the expense of spiritual values, making it so difficult to lead a humane life. In this context, the traditional culture is of great use for solving such problems in a modern society. In particular, the Confucian cultures in East Asia think highly of ‘filial piety’ and ‘respect’ that are core values, and which are of great worth and merit to remove distrust and enmity between generations and help recover the dignity in human beings.

3. Traditional culture and cultural diversity

The traditional culture is the result of communication and interactions between human beings who have individually adapted themselves to geographical and ecological environments, best representing the individual identity and uniqueness of nations and regions. It can be therefore said that the traditional culture underlies the diversity of world and regional cultures.

4. Traditional culture and rights to culture

The constituents of a nation are entitled to have a political and social life, as well as a culture life. They should have the rights to exercise the freedom to accept the past as well as the present culture. In current times, traditional culture as identified with the past does not belong to the mainstream, therefore, making it difficult for people to appreciate it. In order to satisfy their cultural needs, cultural policies should be set and practiced so that they may have access to traditional culture anywhere and anytime.

5. Traditional culture and multiculturalism

Our contacts and interactions with cultures can make us have a better understanding of other cultures. Therefore, we get to have a better understanding of the different regions and its peoples, further aiding in attaining made and preferentially based on traditional culture. More emphasis on traditional culture and arts is especially needed so that it retains the indigenous ethos of a region.

6. Plans for the promotion of traditional culture

The traditional culture has a meaningful importance as shown above, and for its conservation and promotion, some plans are proposed below. It is so recommended that governments, private groups and communities make active co-operating efforts in realizing this.

(I) Systematization of exchange of traditional culture and regional cooperation.

The exchange of traditional culture has value in promoting multiculturalism. Until today, the exchanges have been made unsystematically and at random, not probably enabling people to gain easy access to other traditional cultures. In order for a community to exercise their equally cultural rights and enjoy any other traditional cultures, more exchanges and regional co-operation should be ensured institutionally. Governments, private groups and communities should give attention to this.



(II) Regular conduct of a traditional culture-related forum.

The forum should be held regularly for enhancing understanding of traditional cultures in areas, for contribution to the peace of mankind and the world at large, and for maintaining diversity of cultures worldwide, thus accepting multiculturalism, and allowing the nation and community to awake to the importance of traditional culture.

(III) Development of a cultural industry based on traditional culture.

For a traditional culture to be sustainable and alive in modern living, its advantaged competitiveness should be ensured and closely adhered to the life of a community. It is also required that the cultural industry such as folk art and craft art should be developed with traditional cultural assets. The cultural industry affects modern living, and so the traditional culture, uniquely separate from other modern cultural assets, should be made to contribute to satisfying the cultural demands of community.

This Declaration is more fundamental than a mere professional production. It reflects the present endangered status of our global community of humankind, and the absolute need for a better tomorrow characterized by global environmental sustainability and knowledge. The Declaration should be the beginning of the road toward a truly sustainable future of humankind, and harmony of humankind living within the biosphere realities of the planet Earth. This should be our contribution toward the lives of our descendants. The UN and national governments have to transcend from the present, and co-operate for needed changes to sustain the future of humankind. We need a planetary perspective, planetary leadership, and planetary values.

Our present time period should be enriched with active work towards a sustainable future. Also we need skillfull, global, humankind community leadership, under preconditions of individual and collective social responsibility. We must support the accurate scientific knowledge of Nature and humanistic sciences, as well as support and promote respect, peace, morality, and wisdom.

I wish to see the global promotion of ideas from this Declaration and a sustainable future of humankind.

Prof. Dr. Timi Ecimovic



Towards end of October 2012 we had opening with sending of via Internet the message of hope and opportunity for the sustainable future of humankind, which a short definition is: »*The Sustainable Future of Humankind is Harmonious Complementary Coexistence of Global Community of Humankind and the Nature of the planet Earth*«. The message follows:

7. The message

Zg. Medosi, Korte, Slovenia, October 2012

To whom it may concern!

Dear Friends, colleagues and researchers!

It is a message from me to you

“The global community of humankind needs to move from a sustainable development to a sustainable future of humankind, which means: *The Sustainable Future of Humankind is a harmonious and complementary coexistence of the global community of humankind and the Nature of the planet Earth*. We need 7 billion trees planted in one year and so on every year – parents for children and children for parents. For this we have to be responsible and have peace, respect, morality, wisdom and sustainable future. Please send this message to relatives, colleagues and friends as”:

As Timi has sent me a message:

“The global community of humankind needs to move from Sustainable Development to Sustainable Future of Humankind and has to plant 7 billion trees in one year and so on every year – parents to children and children to parents. For this we have to be responsible and to have peace, respect, morality, wisdom and sustainable future”.

Timi

(Prof. Dr. Timi Ecimovic, timi.ecimovic@bocosoft.com and www.institut-climatechange.si please, when sending message copy to me for records only, thank you).



8. The Presentations as attachments to the message

The message was supported with three presentations: “The Sustainable Future of Humankind – Roots and Present”, Ecimovic, Haw, Weiler et al, “The Report on Education”, Ecimovic et al. and “The Philosophy of Sustainable Future of Humankind”, Ecimovic et al.

However we are presenting results of our research with intention to open a possibility for a better understanding of needed transition from the sustainable development to a sustainable future of humankind.

Homo sapiens global community 7 + billion individual representative as one of a social creature community at the Nature of the planet Earth has got a dangerous foot print at the biosphere. Present Homo urbanus¹ estimates are around 4 billion people, and Homo slumus estimates are around 2 billion people, and the rest of the global community of humankind estimates are 1 + billion people with their systemic input and output are putting more and more burden to the balance of the nature system of the planet Earth. Systemic background of the nature is requiring more attention from “living nature”² not to disturb equilibrium, which is needed for a long lasting of the present environmental conditions.

The global community of humankind with its own footprint or systemic input and output is closing the final border of a healthy balance at present of the nature of the planet Earth or Biosphere system. Possible consequences could not be foreseen because of many systemic responds options, and all of them are changing the present environmental qualities to which all “living nature” creatures have to get accustomed. Within the biosphere of the planet Earth system only existing are successful creatures³.

Whether the global community of humankind system will last longer or not – the answer is within us and our abilities for understanding the present. We think the answer is within a hope and an option of sustainable future of humankind as the hope and the option for us to survive challenges at the 21st century.

Our final message is good will with “hope and opportunity”⁴ option and universal education for implementation of the sustainable future of humankind.

Our option is to act as a universal system of Homo sapiens global community within the nature of the planet Earth as a harmonious complementary coexisting part of the “living nature”.

“Living nature” system is a moderator of living conditions at the biosphere, which has to have a balance with other systems of the planet Earth. The sooner the better, we need sustainability for a long lasting at the biosphere of the planet Earth.

¹ »Homo urbanus« are people living within urban environment and »Homo slumus« are people living within the barracks, slums environment.

² »Living nature« conditionally used expression because the Nature as whole is living system.

³ Charles Darwin, 19th century.

⁴ As stated at »Our Common Future« report.



9. The Sustainable Future of Humankind – Roots and Present

Let us present roots and present of global community of humankind sustainability.

Zg. Medosi, Korte, Slovenia, September 2012

“Sustainable Future of Humankind – Roots and Present”

By

Prof. Dr. Timi Ecimovic, Sir Prof. Dr. Roger How, and Prof. Emeritus Dr. Raoul Weiler, et al⁵

The Abstract:

Humanity after 200000 years of coexistence at the biosphere of the planet Earth and the Nature have to learn about a harmonious coexistence with the Nature. Present pollution and resource depletion of humanity to biosphere could be described as: “Today overall pollution and resources depletion of humanity versus the Nature of the planet Earth is higher than yesterday and so on for the last hundred years”⁶. The pollution by transport means system is an invention of humans for a direct pumping of poison into a breathing air, with the possibility of a self-mass destruction.

Latest research on the basic principles of the Nature and systemic sustainable future of humankind is opening a path for sustainability of humanity and the Nature of the planet Earth. The global community of humankind needs to have a long-term future, harmonious life with the Nature, and the Nature of the planet Earth, and life with peace, respect, reason, morality, wisdom, and sustainable future.

⁵ Et al - is large soft co-operation world wide and some are listed as follows: Prof. Dr. Dana M Barry, USA, Prof. Dr. Garfield Brown, South Africa, Prof. Dr. Truly Busch, Wolfenbuttel, Germany, Dr. Santhi Nath Chattopadhyay, India, Prof. Dr. Alexander Chumakow, Moscow, Russia, Prof. Dr. Elias Demirtzoglou, Athens, Greece, Prof. Dr. Jan Dobrowolski, Krakow, Poland, Hon. Riccardoe Di Done, Montreal, Canada, Prof. Dr. Robert Dyck, USA, Dr. Jagdish Gandhi, Lucknow, India, Prof. Dr. Jorn Hamann, Kronshagen, Germany, Prof. Dr. Zinaida Ivanovna, Moscow, Russia, Prof. Dr. Sait Kacapor, Novi Pazar, Serbia, Prof. Dr. Igor Kondrashin, Athens, Greece, and Moscow, Russia, Prof. Dr. Slavko Kulic, Zagreb, Croatia, Dr. Renate Lavicka, Vienna, Austria, His Holiness Vishwaguru Mahamandaleshwar Paramhans Swami Maheshwarananda, Vienna, Austria, and Jadan, India, Prof. Dr. Alexander Makarenko, Kiev, Ukraine, Prof. Dr. Glen T. Martin, Radford, USA, Prof. Dr. Jalil Mehrzad, Iran, Prof. Emeritus DDr. Matjaz Mulej, Maribor, Slovenia, Prof. Dr. Marjan Vezjak, Malija, Slovenia, Dr. Mo'min M R Naser, Palestine, Prof. Dr. Philippos Nicolopoulos, Athens, Greece, Prof. Dr. Hakikur Rahman, Bangladesh and Portugal, Dr. V. Shanmuga Ratnam, Kuala Lumpur, Malaysia, Dr. Manuela Shhuttel, Prof. Dr. Mohhamed Shahid Siddiqi, Canada, Ambassador Dato' Dr. Ang Ban Siong, Malaysia, Prof. Dr. H A Shankaranarayana, Bangalore, India, Prof. Dr. Shishir Srivastava, Lucknow, India, Prof. Dr. T N Sredhara, Mangalore, India, Preof. Dr. Rajarama Tolpadi, Mangalore, India, Prof. Dr. Fidel Gutierrez Vivanco, Lima,. Peru, Prof. Dr. Alexandra Wagner, Krakow, Poland, and Prof. Dr. Negoslav P. Ostojic, Belgrade, Serbia

⁶ Statement by Prof. Dr. Timi Ecimovic for this presentation September 2012.



The Key Words:

Agenda 21; Age of Globalization and Global Studies; Global Community of Humankind, Harmonious and Complementary Coexistence; Homo sapiens; Land, Water and Air Basic Environments; Nature, Space and Environment Protection; Pollution; Sustainable Development; Sustainable Future of Humankind; Systems, Requisite Holism; The Planet Earth System; The United Nations.

The Discussion:

“Sustainable Future of Humankind – Roots and Present” has been prepared as a presentation and report. It is a short presentation of Homo sapiens origin, and of last 50 years of work and happenings in connection with the evolvement of the present global community of humankind.

Commencement was the evolution of Homo sapiens some 200000 years ago. Humans have been and are successful species⁷ and in some 120000 years had inhabited almost the whole of the land environments on the planet Earth or better all inhabitable areas. People were living the life in harmony with all conditions of The Nature of the planet Earth.

73000 plus minus 4000 years ago at present Sumatra, Indonesia erupted Toba volcano (today Toba Lake). As a result of this super-eruption 6 – 10 volcano winters occurred. The global community of Homo sapiens decreased and experienced a possible extinction. At Rift Wally in East Africa a group of 10000 to 15000 people was a new origin of humanity.

In 1993 Ann Gibbons suggested “The Genetic Bottleneck Theory” in article at “Science”. Ramping; Self, Ambrose (1998), and together with Ramping (2000) supported this theory.

The bottleneck of human population on the planet Earth occurred some 70000 years ago, and new rapid population increase continued from approximately 15000 people. The Stone age, Neolithic, Ancient Great Civilizations; China, India, Egypt and Persia to mention some, and Greeks, Romans, Germans, Slavic, Africans and other people took lead into Medieval and modern times.

After two world wars in 20th Century the humanity was facing difficult times. Rebirth of the United Nations, evolution with innovations, research and development resulted into present Globalization Age. A part of this is a social methodology titled “Sustainable Development”, which was born as an outcome of the “Our Common Future” report 1987, and Rio Summit 1992.

Among first researchers of the modern era in 1957 British scientist **James Lovelock** in his work and later in the book “Gaja – A New Look at Life on Earth” (1979) opened new frontiers for environmental thinking and understanding of life and nature. The result of his research on the planet Earth as some living form has influenced humanity, and has been a commencement of the environmentalism. The James Lovelock work inspired **Rachel Carson**,

⁷ As taught in 19th century by Charles Robert Darwin (1809 – 1882).



to write the book “Silent Spring” 1962, and the establishment of the NGO’s of environment protection as Greenpeace and others followed.

Let us continue with “**The Club of Rome**”, which is a non-profit, independent organization founded in Rome, Italy, after April 1968 gathering initiated by Hon. Aurelio Paccei, Italian industrialist and Scottish scientist Alexander King. Membership of up to 100 members from the science, politics, and economics and culture individuals recognized for their work.

First and the most known report “The Limits to Growth” was published during 1972. Actually it is dealing with global studies, system thinking, and holistic approach to the global problems of global community of humankind and the Nature.

With the dawn of third millennium their activities followed the global problems of humankind and with a reconstructed organization they became an important international club working for a better tomorrow of humanity. Their activities are coordinated by: International Centre of the Club of Rome at Winterthur, Switzerland, and European Support Centre in Vienna, Austria

“**Stockholm – 72**” was the UN conference on the Environment held in Stockholm, Sweden, in 1972. The Stockholm Declaration and the Stockholm Action Plan have been adopted. Main result of the Stockholm – 72 was establishment of the UN Environment Programme – UNEP.

The UN World Commission on Environment and Development submitted the report “**Our Common Future**” or “**G. H. Brundtland Report**” to the General Assembly in 1987, maybe best report whatsoever presented at highest international political institution of present humankind.

1987 a term - “**Sustainable Development**” - was introduced by a report “Our Common Future” or “G. H. Brundtland Report” from The World Commission on Environment and Development to the General Assembly of the United Nations. “Our Common Future” report had strong impact onto the global society.

At “Common Concerns” report stated: “Those who are poor and hungry will often destroy their immediate environment in order to survive: They will cut down forest; their livestock will overgraze grassland; they will overuse marginal land; and in growing numbers they will crowd into congested cities. The cumulative effect of these changes is so far-reaching as to make poverty itself a major global scourge”.

“Failure to manage the environment and sustain development threatens to overwhelm all countries. Environment and development challenges are not separate challenges; they are inexorably linked. Development cannot subsist in a deteriorating resource base; the environment cannot be protected when growth leaves out of account the costs of environmental destruction. These problems cannot be treated separately by fragmented institutions and policies. They are linked in a complex system of causes and effects.”

Those statements have been overlooked by coming generations. The spirit of complexity was just talks, reality of issues was neglected. Environmental quality of the planet Earth Biosphere was and is (2012) neglected. Interdependences, interaction and co-operation of all matter, energy, information, particles, rays, powers and forces and yet not known contents of Nature



were overpowered by needs of individuals, national elites, security needs, money reproduction, bureaucracies, military needs, wars, riots, genocides etc. up till now (2012).

At “Towards Sustainable Development” in Our Common Future Report the definition of it was stated as: **“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”**. It is a very noble, humanitarian, cosmopolitan, global goal, which after it had been invented was generally misused by countless politicians, bureaucrats and people of individual feelings and not humanitarian quality, knowledge or morality and wisdom.

“Our Common Future” a nice statement was: “Many of us live beyond the world’s ecological means, for instance in our patterns of energy use. Perceived needs are socially and culturally determined, and sustainable development requires the promotion of values that encourage consumption standards that are within the bounds of the ecologically possible and to which all can reasonably aspire”.

“The world must quickly design strategies that will allow nations to move from their present, often destructive, processes of growth and development onto sustainable development paths”. This content was also completely neglected!

“Critical objectives for environment and development policies that follow from concept of sustainable development include:

- Reviving growth;
- Changing the quality of growth;
- Meeting the essential needs for jobs, food, energy, water, and sanitation;
- Ensuring a sustainable level of population;
- Conserving and enhancing the resource base;
- Reorienting technology and managing risk; and
- Merging environment and economics in decision making”.

Objectives stand even today criteria, and have not been ever taken into consideration of politicians, bureaucracies and nations agendas.

Most significant was the statement on “The Urban Challenge”

– “In 1940, only one person in eight lived in an urban centre, while about one in 100 lived in city with a million or more inhabitants (a “million city”)

- “By 1960, more than one in five persons lived in an urban centre, and one in 16 in a “million city”. By 1980, nearly one in three persons was an urban dweller and one in 10 a “million city” resident”.

Hon. Tom McMillan, Minister of Environment, stated at WCED Public Hearing, Ottawa, on 26-27 May 1986: “The challenge ahead is for us to transcend the self-interest of our respective nation-states so to embrace a broader self-interest the survival of the human species in a threatened world”.



Dr. Gro Harlem Brundtland talking on report stated: “This commission’s report, Our Common Future, contains a message of hope and opportunity”.

2nd The UN Conference on the Environment and Development CED-2, Rio de Janeiro 1992 or Rio Summit (the second after Stockholm 1972) attended representatives from 179 countries. A huge document was approved; Agenda for Change and Agenda 21 were adopted. A number of documents were approved, but never implemented.

10 years after Rio at World Summit on Sustainable Development, August – September 2002, Johannesburg, South Africa, was international gathering without visible positive result of cohabitation of the global community of humankind and the Biosphere of the planet Earth. Somehow it is how we have come to 2012 after announcement of “The World Thinkers’ Panel on the Sustainable Future of Humankind” or “The Xiamen Declaration”.

20 years after Rio – Rio + 20 international gathering in Rio de Janeiro, 2012, was just continuity of talks directed by 1% and for remaining 99% of global community of humankind?

In **2009 the conference in Copenhagen**, which was announced to produce the follow up of the Kyoto Protocol of 1997, agreed upon by the UN Framework Convention on Climate Change (UNFCCC), appeared to be total flop. Moreover, the failure was total disruption of many years of efforts and has not yet been overcome by international political institutions.

At Xiamen, China, on 25th September 2011 at gala event a declaration “**The World Thinkers’ Panel on the Sustainable Future of Humankind**” “**WTP-SFH**” was announced as a next possible step forward after the sustainable development social technique, which has not got well around the global community of humankind.

The Sustainable Future of Humankind a societal methodology, concept, technique and technology for needed change of global community of humankind survival under challenging condition at the Nature of the planet Earth in 21st century

It is an alternative, which short description could be as: »**The Sustainable Future of Humankind is Harmonious and Complementary Coexistence of Global Community of Humankind and the Nature of the planet Earth**»⁸, and by transcendence from the sustainable development to sustainable future it is a new approach for a better tomorrow of humanity.

Our past and present are reason for needed change. As every living creature within the Biosphere of the planet Earth, also all 7 billion + members of global community of humankind have to comply with living conditions offered by the nature system of the planet Earth.

At the home page of the World Philosophical Forum, Athens, Greece, there is an exceptional presentation of the distribution of the mentality and understanding of the individuals in the global community of humankind. In summary it reads as follows:

⁸ »The Sustainable future of Humankind is Harmonious and Complementary Coexistence of Global Community of Humankind and The Nature of the planet Earth«, and it is short definition of very large, global, and complex societal methodology, technique, technology or qualitative change in the human society towards peace, respect, morality, wisdom and sustainability needed for long term existence of humans on the planet Earth.



Mentality of present humans - 2012

XXI century	up to	5 %
XX century		10 %
IXX century		20 %
XVIII century		15 %
XVII century		10 %
XVI century		10 %
XV century		10 %
XIV century		10 %
XIII century	up to	5 %
Before XIII century	up to	5 %

And the distribution according to abilities is

Geniuses, philosophers, personalities	very few
Intelligent people	1 %
Intellectuals	3 – 5 %
Citizens	10 – 50 %
Humanitarians	10 – 50 %
Philistines	30 – 70 %
Mental underdeveloped	10 – 30 %

We think the present status - catastrophe of global community of humankind is not at his best. After viewing those numbers it is easy to understand how it is possible to have today's present situation: 1 % against 99 %; Global community of humankind leadership by "Monster Master Money"; Great Pollutions of all three basic environments – Land, Water and Air; Human population explosion, and lack of respect, peace, reason, morality, wisdom and sustainability,

The Sustainable Future of Humankind is a renewal of Sustainable Development and Agenda 21 Processes adjusted to the needs of 21st century.

Let us conclude as Gro Harlem Brundtland did in 1987 - "This report contains a message of hope and opportunity".

To all responsible humans we wish peace, respect, reason, morality, wisdom and sustainable future.

The Authors



10. The Report on Education

Let us continue with recent report on education.

Zg. Medosi, Korte, Slovenia, October 2012

Re.: Report on a 60- day- research mission in June and July 2012 - by Prof. Dr. Timi Ecimovic, et al⁹

Et al - are researchers, professors and colleagues who somehow contributed to this report. The truth is that without them the Report would not have seen the light of day.

The Report on Education

This report has been rewritten with suggestions from colleagues already mentioned as co-authors. The global community of humankind needs peace, respect, reason, morality and wisdom for the next historical step to reach a sustainable future during the 21st century.

Introduction:

With the evolvement of the sustainable future of humankind - societal methodology, technology, and societal technique, which could have short definition as *“The Sustainable Future of Humankind is Harmonious Complementary Coexistence of Global Community of Humankind and the Nature of the planet Earth”*, and by means of the written contributions of the trilogy, two other books, and the Xiamen Declaration “The World Thinkers’ Panel on the Sustainable Future of Humankind”, Xiamen, China, 25th September 2011, which has already been translated into 30 languages, we have opened new frontiers for the sustainable future of humankind and a possible long term survival of humankind on the planet Earth. The goal of this research mission was to find which cornerstone issue was the most influential on the present status of the global community of humankind, within the framework of the numerous problems that we are dealing with.

There are a number of issues which are preoccupying human society – The Monster Master Money Leadership; The Basic Land, Water and Air Environments or Biosphere; Human Eco Sphere; The Local, National, Regional and Global Societal Structures; Scientific and Applied Research; Individual and Corporate Social Responsibility; Security, Military and War Issues;

⁹ Et al - Prof. Dr. Raoul Weiler, Belgium,; Sir Prof. Dr. Roger B. Haw, Malaysia, Prof. Dr. Igor Kondarshin, Russia and Greece, Prof. Dr. Fidel Gutierrez Vivanco, Peru, Prof. Dr. Truly Busch, Germany, Prof. Dr. Sait Kacapor, Serbia, Prof. Dr. Ostojic P Negoslav, Serbia, Prof. Dr. Jorn Hamann, Germany, Prof. Dr. Daniella Tilbury, UK, Prof. Dr. Dana M. Barry, USA, Dr. Renate Lavicka, Austria, His Holiness Vishwaguru Mahamandaleshwar Paramhans Swami Maheshwarananda, Austria and India, Hon. Ricardoe Di Done, Canada, Ambassador Dato' Dr. Ang Ban Siong, Malaysia, Prof. Tang Shui Yuan, China, Prof. Dr. Glen T. Martin, USA, Prof. Emeritus DDr. Matjaz Mulej, Slovenia, Prof. Dr. Alexander Chumakov, Russia, Prof. Dr. Garfield Brown, Republic of South Africa, Dr. Moamen Nassr, Palestine, Madam Ingrid Mula Pons De Wall, UK, Prof. Dr. H A Shankaranarayana, India, Prof. Dr. T N Sredhara, India, Prof. Dr. Rajarama Tolpady, India, Prof. Dr. Jagdish Gandhi, and Prof. Dr. Shishir Srivastava, Lucknow, India, and Anita Hrast, Maribor, Slovenia.



Agriculture and Food Supply Situation; The Drinking Water Supply; The Climate Change System Impact; The Protection of Nature, Space and Environment Happenings; Understanding of the Nature System, Universe System, Milky Way Galaxy System, Solar System and Planet Earth System; Understanding of the Nature of the Planet Earth System; The Biosphere and Impact of the Global Humankind Community; The Education System; and many more aspects of human life.

We have been researching a philosophy of them, and possibly of the long term survival of the humanity on the planet Earth.

Due to the population explosion, and considering historical, philosophical, scientific, industrial, war and armaments, societal, urban constructions and inhabitations of Homo urbanus¹⁰ and Homo slumus¹¹, and other respected heritages, we took a close look at Education and the Teaching of humans from birth through their whole life-span.

We think that the Whole Life Education System could improve the existence and survival of the global community of humankind on the Journey to a Sustainable Future.

Discussion:

Confucius (551 – 479 BC) Chinese, according to the book “Confucius - A Philosopher for the Ages” by Xu Yuanxiang, 2007, Confucius is considered to have contributed priceless values of morality and wisdom to humanity. As a thinker and educator in Chinese history, he is known as the first educator in a private school, which was the commencement of the education system among humans world-wide.

Far from China three great philosophers in Greece also contributed great legacy to the education system: Socrates (470 – 399 BC), Plato (427 – 347 BC) and Aristotle (384 – 322 BC). It was a contribution of reason, morality and wisdom for the western civilization.

More than 2000 years after the inspiration by them the possibility of establishing a vanguard of the Earth population – “Citizen of the Earth – XXI” has been presented. Please see <http://wpf.unesco-tee.org/eng/socr-sch.htm> . The World Philosophical Forum from Athens, Greece, has an important role to play for the upbringing of reason, morality and wisdom of the global community of humankind. You are welcome to cooperate.

Charlemagne (742 - 814) the King of Franks (768 – 814) was working on the same question regarding the education system in his kingdom. As a result he introduced a number of knowledgeable Roman Catholic Fathers and monks, who educated the Franks. Consequently, even today France is among the most educated nations in the World.

On the home page of the World Philosophical Forum, Athens, Greece, there is an exceptional presentation of the distribution of the mentality and understanding of the individuals in the global community of humankind. In summary it reads as follows:

¹⁰ Homo urbanus is the inhabitant of the constructed urban areas. By 2040 approximately 5,6 billion people will be Homo urbanus.

¹¹ Homo slumus is the inhabitant of the slums or barracke centres. By 2012 the number of Homo slumus are estimated at 2 billion, and it is included as part of Homo urbanus.



Mentality of present humans - 2012

XXI century	up to	5 %
XX century		10 %
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And the distribution according to abilities is

Geniuses, philosophers, personalities	very few
Intelligent people	1 %
Intellectuals	3 – 5 %
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Humanitarians	10 – 50 %
Philistines	30 – 70 %
Mental underdeveloped	10 – 30 %

We did not challenge these numbers but we looked at them philosophically as a way to contribute to our thinking process. Through our research we have come to conclusion that the present **education system** is most **responsible** for the present status of the human society.

The second most important reason is the lack of the mother's ability to transfer the needed knowledge and experience to her children from birth to school age. In a modern society within the human eco sphere – mostly urban environments, mothers may lack the time to properly educate their new-born children until they are of the age to attend school. The mother is the first educator of a new-born child. If a mother does not know that she has to educate her children, then she does not transfer the knowledge or is not able to do so. This is a common occurrence in urban societies, but is less common in rural areas.

However the formation of the mothers is a result of the education system. The inability of mothers to transfer their knowledge and experience also reflects the failure of the education system.

Mothers must learn basic information about the nature of the planet Earth and its systems, and about the need for a harmonious complementary coexistence or life between humans and Nature. The human origin is from Nature. Therefore, humans have to learn good and also the problems and issues that deal with Nature. **A very important task is how to teach children to learn.** The learning process should not end when one leaves school. It should be the choice of humans to learn throughout their whole life.

Back in 1989 we had an interesting targeted meeting about “What people know” and the result was:



- “Humans know that what their mothers were transferred to them from their birth until school age (the knowledge, skills and experiences).
- Humans know what they have learned in a schooling system process.
- After completing school, many humans DO NOT LEARN AT ALL.”

Or in other words: “Most of the humans on the Earth after completing their education through a schooling system process DO NOT show any responsibility about the future of Humankind and later on DO NOT LEARN anything related to this knowledge and DO NOT ACT to make this future sustainable AT ALL.”

This is where the goal of our education system and method has failed – the method of universal education. The goal of the education system is related to the conservation of the individual, society, humanity and the Nature system. In order to achieve this, the education system should aim toward universal human formation or instruction. The method of the education system is related to knowledge of the laws and principles of the universe – **The Nature system**, allowing us to synthesize and systematize human knowledge, so that we can transfer the universal knowledge or instruction of one generation to another.

For instance, the present schooling system in Europe is based on transmitting knowledge the “education” of the person. It has not been made explicit in the system. Intelligence is valued by what young persons have learned and memorized, and not by an understanding of the Earth and planet on which they are living; in other words about Nature. In the present economic system, knowledge is expressed in monetary value, destroying any humanistic content.

Of course life is not so simple, but is, on the contrary, very complicated and complex. An individual’s ability as a human is to decide on his/her life style and content.

When we analyse the present education system using the results from statistics that are available, it is clear that this system is a total failure in itself. The final result of a student who is taught with the present education system is an obedient servant and not an intelligent, innovative, individually responsible person who should be able to bear the responsibility of humankind on the planet Earth.

We are spending time as well as human and other resources on the education of countless specialists. The overall results do not meet needed expectations; not in life and not in the human sciences. This is because there is no clarity of purpose of an education system in the global era, nor is there a universal method to achieve the goal. Universal culture, universal science, universal knowledge, universal rights, global issues, and the global era, raise the need for a universal human formation or instruction. And for this we need the universal method of an education system that responds to the preservation of humanity in harmony with Nature - the sustainable future of humankind.

Since the 19th century, Charles Robert Darwin (1809 – 1882) stated that only successful creatures could live with Nature. The majority of humans even today do not understand this. Also many more researchers after Darwin were experiencing and researching about the complexity of the life system on the planet Earth. However, improvement of the schooling



curricula did not follow. “Life as usual” 1 % against 99 % of humans on the planet Earth has been the formula for “success”.

This occurs because of an individualistic model of the education system. We emphasize the individual over the collective. On this basis, only one is winning and the others are losers. This is an education system model error that produces asymmetry between humans. In nature, we all depend on each other (all are interdependent, interacting and cooperating). In the universe of stable systems there are symmetric interdependence, interaction and co-operation of all the elements, contents, happenings etc.

Whether it is “a success” is questionable for 99 % of the population but for the rest - 1 % - it is very profitable. We think that global community of humankind is on the wrong path or even on a suicidal path. The proof of it is the history of Easter Island’s civilization in the middle ages. Before the end of the last representatives of the entire civilization, a common activity was cannibalism. Cannibalism is presently repeated in social and economic human eco spheres.

In various areas of science, we have developed “human sciences”, which mostly do not reflect the Nature system and the Nature system of the planet Earth. The result is a critical present, which does not allow any possibility of success for humankind. Present global studies are researching humanity and not the relationship between humanity and Nature. Nature is still to be researched and the discovery of real systems will follow. Many theories are advanced but with no effect on the education system. All theories of the education system lack a logical, epistemological, axiological and anthropological foundation so they do not give positive results for the formation or instruction of humans in the universe. The Sustainable Development and the Sustainable Future of Humankind as Harmonious Complementary Coexistence of the Global Community of Humankind and the Nature are among not mentioned contents.

Many people are researching the human sciences but not many of them are reporting on the failure of the education system. We do not consider this to be adequate for the time we are living and experiencing.

We are happy to follow the initiative of Prof. Dr. Daniella Tilbury, UK, and Copernicus Alliance who are asking for a reform of the higher and university education. We hope to open a research to the level of understanding of the complex issues involved with a possible renewal of the whole education system.

In conclusion we wish to see a better education system based upon learning throughout one’s whole life and an improved quality of the global community of humankind with individual human responsibility to help sustain the future of humankind, peace, respect, reason, morality and wisdom.

To achieve this improvement of humankind, it is necessary to build the path; the path is the method of universal human formation or instruction.

Prof. Dr. Timi Ecimovic

Ps.: Many thanks to all the colleagues who have contributed to this report!



11. The Philosophy of the Sustainable Future of Humankind

We have updated our presentation “The Philosophy of the Sustainable Future of Humankind” to the present or year 2012.

“THE PHILOSOPHY OF THE SUSTAINABLE FUTURE OF HUMANKIND”

Zg. Medosi, Korte, Slovenia, October 2012

“The Philosophy of the Sustainable Future of Humankind”¹² has been prepared for information, education, media and Global Community of Humankind, by Prof. Dr. Timi Ecimovic et al

1. The Abstract

Humanity after 200000 years of coexistence at the biosphere of the planet Earth and the Nature have to learn about a harmonious and complementary coexistence with the Nature. Present pollution and resource depletion of humanity to biosphere could be described as: “Today overall pollution and resources depletion of humanity versus the Nature of the planet Earth is higher than yesterday and so on for the last hundred years”¹³. The pollution by transport means system is an invention of humans for a direct pumping of poison into a breathing air, with the possibility of a self-mass destruction.

Latest research on the basic principles of the Nature and systemic sustainable future of humankind is opening a path for sustainability of humanity and the Nature of the planet Earth. The global community of humankind needs to have a long-term future, harmonious complementary coexistence and life with the Nature, and the Nature of the planet Earth, and life with peace, respect, reason, morality, wisdom, and sustainable future.

2. The Key Words:

Age of Globalization and Global Studies; Global Community of Humankind; Harmonious and Complementary Coexistence; Homo sapiens; Land, Water and Air Basic Environments; Nature, Space and Environment Protection; Pollution; Resources Depletion; Sustainable Development; Sustainable Future of Humankind; Systems, Requisite Holism; The Planet Earth System; The United Nations.

¹² »The Philosophy of the Sustainable Future of Humankind« is revised presentation, October 2012, and is result of international co-operation of many researchers and scientist (3.11; 92; 93; 94),

¹³ Statement by Prof. Dr. Timi Ecimovic for this presentation October 2012.



3. The Foreword

Philosophy of Sustainable Future of Humankind is the search for knowledge and understanding of the nature and meaning of the universe and life. The knowledge is most important achievement of Homo sapiens present civilization (3.9; 92; 93; 94).

Under progressing the threat of the impact of the climate change system to the biosphere of the planet Earth, which is changing living conditions, our civilization has to meet the challenges and establish a path for long term survival (3.11; 94).

Present global social order, life style, education, ethics and daily practice of humans needs to undergo a fundamental renewal to meet the needs for long term survival during and after the third millennium (3.11; 91; 93; 94).

The discussion present a contemporary sciences approach to the present the *Nature, energy, drinking water, food, credit and societal crisis* of humankind at 2009 - 2012.

The present civilization of our humankind is facing the largest complex societal crisis, which is also closely inter-related with the impact of the climate change system or evolving planet Earth Biosphere »crisis« (3.4; 3.9; 3.11; 91; 92; 93; 94).

The impact of the climate change system may in the long run change: biology, geography and living conditions within the biosphere, from suitable ones of the last 12.000 years, to environment not suitable for Homo sapiens to live.

It is making more complicated present crisis of: society, energy, drinking water, food and credit. In 2008 and 2009 we entered difficult times for humankind, which is here also in 2012 (0; 1; 3.2; 3.9; 92; 93; 94).

The corporate and individual (3.1.; 3.3.; 3.9.; 3.11.; 79.) social responsibility is a part of our society with much more importance as we are thinking at present. The possibility for survival is closely connected with social technology, technique of the *»Sustainable Future of Humankind« or harmonious and complementary coexistence of our civilization with the Nature or particularly the Biosphere of the planet Earth*¹⁴. The corporate and individual social responsibility will have to play a more important part in future, for new great achievement of our civilization to overcome the crisis of living conditions within the biosphere of the planet Earth and present societal, energy, drinking water, food, and credit crisis of our global community (3.4; 3.9; 92; 93; 94)..

The sustainable future of humankind or harmonious and complementary coexistence of our civilization with the nature of the planet Earth is an option for humankind to survive approaching impact of the climate change system at the biosphere of the planet Earth (3; 3.1.; 3.2.; 3.3.; 3.4.; 3.9.; 3.11; 91; 92; 93; 94).

¹⁴ Please see: Ecimovic at al: The Sustainable (Development) Future of Mankind, 2007, displayed at www.institut-climatechange.si; and Bozicnik, Ecimovic, Mulej at al: Sustainable Future, Requisite Holism, and Social Responsibility, 2008, available at IRDO. And 3.10; 3.11; 94; 95.



4. The Discussion

Ending of the year 2008 opened new horizons for heavy crisis situations of present global humankind civilization. Because of poor leadership of USA in 2000 – 2008 not only USA society but also the whole global humankind society commence to face a serious societal crisis.¹⁵ Multiple resources and societal crisis is entering an age of the climate change system and its impact as a crisis, which is adding to the complexity of the situation during 2009 – 2012 (3.4; 3.9; 3.11; 91; 92; 93; 94).

The scenario of USA and the global humankind society entering globalization age or the energy, drinking water, food, credit and societal crisis has been excellently elaborated and presented at Global Future Analysis 2008 by Planck Foundation, www.planck.org and the second presentation Global Resources Analysis draft version 2008 by Induscorp.nl at volume1@induscorp.nl. Both analyses were managed by excellent researchers' teams. The brilliant social scientists have been dealing with humankind and its humankind-centric thinking. The teams' complex system thinking and their co-operation with nature scientists enabled a more complex but more truthful analysis (3.4; 3.9; 3.11; 91; 92; 93; 94).

Actually, what is the missing part is the climate change system's impact and changes in the biosphere (0 – 3.3.; 12-14; 38; 41; 45; 91; 92; 93; 94), which are going to have broad impact on the present living conditions for all creatures living on the planet Earth.

The group of enthusiastic philanthropist many years ago commenced everlasting path of global human society leadership on direct democracy basis by The World Parliament, The Constitution of the Earth Federation, and The World Government (1-3.3; 58; 84; 95; 91; 92; 93; 94).

Let us discuss the issue of the sustainable future of humankind (3.-3.3; 3.4; 3.9; 3.10; 3.11; 91; 93; 94).

The question which we are putting forward is the sustainable future of humankind. The integrated complex system thinking style is needed for analysing it. Globalization age has its complex issues as they are, regardless whether humankind does see them or not. Or otherwise very complex issues of the humankind problems of 2008 - 2012 should be put into the frame of living space, environment of humans – the human eco sphere within the biosphere of the planet Earth, taking into account the simultaneous problems evolving within the biosphere, plus their synergies (3.-3.3; 3.4; 3.9; 3.10; 3.11; 78; 92; 93; 94).

What we are presenting is a broader analysis of more complicated and complex Nature of the planet Earth and global humankind society situation at 2008 - 2012. As system thinkers we are analysing statuses of the different origin of both humankind as a system, entity of its own and a part of the planet Earth system – THE BIOSPHERE.

The biosphere, which is the frame within which global humankind civilization has a living space, has evolved the situation of the climate change system impact, during the rise of the Globalization Age.

¹⁵ Please see: Planck Foundation (www.planck.org): Global Future Analysis, 2008, ISBN 978-94-6012-001-5, and Global Resources Analysis by Induscorp, NL; e-mail: volume1@induscorp.nl



The Climate Change System¹⁶ (0.-3.3; 3.9; 14.-16; 32.-35.; 37.-41.; 43.; 45.; 76.; 77: 86; 92; 93; 94) **provide, makes, holds and guards** living conditions within the biosphere of the Earth, it has a more important role as humans were thinking in the past. To these conditions all living creatures must adjust to survive. A number of the extinctions of species, smaller and larger alike have resulted from changed environmental qualities, caused by changes within the climate change system.

Systemic thinking (0.-3.3; 3.9; 3.11; 39.-40; 46; 78; 92; 93; 94) enables us, better than single specialists alone, to see that the Earth's biosphere is made as a synergy resulting from **interdependences, interactions and co-operation** of matter, energy, and information, and has three bases – Water, Land and Air environments.

To be ready for changes, and mitigations due to the climate change system impacts, all of us single representatives of humankind must learn more about the basics of the biosphere and the Nature.

Systems theory (0; 3 - 3.2; 3.3; 3.9; 92; 93; 94) – **A tool for humans to understand the climate change**

System theory, thinking, synthesis and analysis as researcher tools are allowing researchers to reach beyond the classical science approaches. As thinking process it could define the climate change system in an understandable presentation.

The term system has many contents. Here it will mean to us neither the mental picture about the event or process dealt with nor a usual method of work or a socio-economic or other order nor a network, complex of plants or stones or humans fitting together somehow. The term system will here rather mean to us a feature, event, process that is so complex in its components, relations and influences between them and their consequences that it is difficult to comprehend and even more difficult to control.

This is why we call the climate change a **system** (0; 3 - 3.2; 3.3; 92; 93; 94). Understanding and or controlling it per parts is not very helpful, because as a whole a system has attributes that differ essentially from attributes of each one of its parts alone.

Clear cases: the edible salt is a synergy and a system of two poisons; water is a synergy and system of two gases; an organization is a synergy and a system of many – different from each other, unavoidably, and hence complementary – professionals; a house is a synergy or a system of bricks, concrete, wood, doors, windows, electric, water and other works, etc.

Synergies emerging from their attributes provide to the new whole a system of new attributes.

Therefore, the truth will be easier to discover, and difficulties and happenings easier to control, if the feature, event, process is considered as holistically as possible rather than per single parts. This is called systemic or systems thinking.

¹⁶ Please see “System Thinking and Climate Change System – (Against a big “Tragedy of Commons” of all of us)”, pp149 Ecimovic, Mulej, Mayur, et al, 2002, ISBN 961-236-380-3, and “The Climate Change System – Introduction”, pp 35, Ecimovic, Mulej, 2008, ISBN 978-961-91826-5-9, both displayed at: www.institut-climatechange.si



A total holism of human behaviour, i.e. monitoring, perception, thinking, emotional and spiritual life, decision making and action, and a total wholeness of insights and outcomes, is usually impossible to attain, but a single specialization – a single viewpoint of profession – limits humans to fictitious holism providing for fictitious wholeness. This fact makes us apply the Mulej, Kajzer (1998) law of requisite holism as the suitable one.

In the case of the climate change system this would mean the understanding that synergies of insights from physics, chemistry, biology, history, technology, economy and several more disciplines and practices are needed. One would choose and collect professions and viewpoints that one would consider essential and interdependent for mutual completing up by differences.

Following the ancient Greek philosophy one would link them on the basis of their interdependence or – in the Greek wording – dialectics (0.). A dialectical system would show up (Mulej, 1974, see Mulej et al, in press). In this case a system is not meant to be a complex feature, but a mental picture about it, which we introduce in order to attain the requisite holism of human behaviour and requisite wholeness of its outcomes.

For over 12 thousands or more years of Homo sapiens evolution, human society was first scattered in the most suitable environments which offered security, water and food, and later shelter and a fire place. Humans have progressed from a hunting and gathering tribal life, to antiquity, medieval, pre-industrial, industrial, post-industrial, informative, innovative, and now to a global society – Globalization Age. The synergy of this represents the leading edge of current existence; a reality borne of a fast changing environment in terms of the quality of planet Earth's environment. The biosphere and the living environment have been changing from a suitable one lasting some 12.000 years to a threatening one as a result of recent evolution (0 – 3 – 3.3; 3.4; 3.9; 91; 92; 93; 94).

The planet Earth's natural system has been maintaining itself for more than 4.6 billion years (4.600.000.000) with many ups and downs with respect to quality of living conditions and other complex contents. With the evolution of humanity's environment (human eco system or human eco sphere), the natural system has recently come under stress, and changes in the quality of living conditions are consequently taking a new turn. The natural system is using its system qualities and quantities as its permanent practice under the rules of **interdependencies, interactions and co-operation**. We cannot change living conditions but we may or may not fit into them. When we explore and gain knowledge of how the natural system and its ceaseless 24-hour processes operate, we will have a chance to properly understand the good and bad impacts of our society on its operation (0.-3.4; 3.9; 3.11; 92; 93, 94).

The planet Earth is not our civilization's personal playground, and it does not belong to us. In fact quite the opposite since we (our civilization as a whole) are only one group of living creatures living on the globe's surface (mainly the terrestrial environment). We have been, and are trying, to accommodate ourselves very well to the quality of living conditions during our civilization's time. But recently (during the last 200 – 300 years of the industrial and subsequent era) our impact on the biosphere has been triggering a reaction from the natural system. The resulting new conditions do not benefit our civilization, but rather the contrary.

The impact of our civilization could be summarized in the following way: Our civilization's first settlements were built some 14,000 years ago, as a result of the social life-improvements of pre-



antiquity humans. The first settlements on European lands were built in swampy areas for security reasons, and the population consisted of up to 10,000. This was a result of the changed conditions within the biosphere which evolved after the last ice-age, which ended some 60,000 – 16,000 years ago. Since then the climate change system conditions at the biosphere of the planet Earth have been of almost the same quality right up to the present time. Changes have, of course, occurred but not as extreme as the ones we face now. The difference between today and 200 years ago is due to the extreme input of our civilization's output into biosphere including all sorts of waste, the side-effects of nuclear technologies, synthetic chemicals, the human population explosion and its consequence, which can be seen in the destruction of the biosphere due to the ways that human needs have been met.

The climate change system as an integral part of the Earth's biosphere has a bigger influence on our civilization than humans think or believe. In absolute terms the climate change system is **provider, holder, maker and guardian** (0.-3.4; 3.9; 3.11; 92; 93; 94) of the living conditions which make our life possible. But we humans are doing our best, through our "modern" relationship with nature and each other, not to appreciate this fact. Instead we harm the climate change system as much as we can, yet fortunately not as much as we think we may.

It is *not the planet Earth* that is the home of our civilization, but *the biosphere*, which is a tiny part of the planet Earth system. Vulnerability of the two is two different things not even comparable issues.

With present global societal complex relations, systems, and characteristics: Human environment or human eco sphere, which has not much of connections with the Nature rather the opposite; Homo urbanus, which will reach peak of 80% of total global humankind civilization soon (2035), meaning the total of 80 % of population will live at fragile environment of our cities; global human society has replaced the Nature knowledge by urban ethics and life style at human environment or human eco sphere. We think our global society philosophy, education, morality, wisdom, family life, and societal complex issues should undergo renovations for the needs at third millennium.

Our civilization common enemy (1; 2; 94) are consequences of the impact of the climate change system at the planet Earth biosphere or our living space. It has been elaborated at the book "Our Common Enemy (The Climate Change System Threat)", Ecimovic et al 2006, discussing and directing to the quality of the living conditions at the Biosphere. The quality of the living conditions within the Biosphere has been changing due to combine action of the impact of our civilization and respond of the climate change system and other the Nature systems. Beginning was when release of the Chlorine atoms as result of use of CFC's – chlorofluorocarbons (0; 3.2; 3.3; 94) in commerce, society, industry, households etc. of Homo sapiens civilization. Chlorine atoms commence destruction of the ozone layer, the planet Earth only defence system against harmful rays coming from the outer space within the star Sun living system. The ozone layer is one of preconditions for success of "living nature"¹⁷ on the planet Earth.

¹⁷ »Living nature« has been used conditionally because humans use term living nature, actually the Nature as whole is alive system somehow.



It is elementary to have common threat, which may bring our civilization to have better chance for survival. *“Our Common Enemy”¹⁸ is the climate change system.*

The Nature – it is complicated situation with our understanding of the Nature. Great achievements, discoveries and research has been done in past and present and hopefully will be done in future, but it looks like our understanding of the Nature and the Nature itself are on two banks of the same river.

Let us present the theories (0 – 3.4; 3.9; 3.11; 92; 93; 94).

Let us demonstrate it by presenting new views on the reality of the Nature. The new »The Environment Theory of the Nature« (Ecimovic 2009) is philosophy of the Nature or by other words it is search for knowledge and understanding of the nature and meaning of the universe and life.

The term “environment or surrounding” has many meanings and in our opinion it needs definitions and classifications of different meanings. In regards to our research related to the Nature, it matters more for understanding the philosophy of the Nature, as any other known meaning.

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 becomes important for politicians and the scientific world were 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 scientific and good thinking abilities; it is advocating cyclic reasons for the climate changes as events within the Solar system.

Towards the end of the 20th century and until now we have been researching independently but in co-operation with large number of scientists (0; 3 - 3.11, 92; 93; 94), and with use of system theory, thinking, analysis and synthesis. After 20 years of research works we have

¹⁸ From the Executive Summary of the complementary book: »Our Common Enemy (The Climate Change System Threat)«, Ecimovic, Amerasinghe, Breki, Shankaranarayana, Chumakov, Haw, Wilderer, and Martin, 2006, ISBN 961-91826-0-X, displayed at: www.institut-climatechange.si



published “System Thinking and Climate Change System (Against a big “Tragedy of the Commons” for all of us), T. Ecimovic, R. Mayur, M. Mulej, and co-author’s 2002, ISBN 961-236-380-3, a book of 302 pages, 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 “The Information Theory of the Nature” published in 2006, and final part was “The Environment Theory of the Nature” which was published in “The Three Applications of the System Thinking”, Ecimovic, 2010, ISBN 978-961-92786-0-4. As usually in our life the things are having a turned-around following order and the last should be the first.

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*”¹⁹, Universe and Cosmos as precondition for existence of the Nature.

Let us present the case studies of 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.

Humankind’s²⁰ 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 lies. 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 and matter forms within the known Universe. As we seldom have opportunities to see individuality of the local community of humankind 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 we 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 Nature²¹, 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

¹⁹ “*The basic environment*” is novelty in understanding of the Universe as environmental precondition for having anything – The Nature and evolvments within it.

²⁰ From the book »The Sustainable Future of Mankind III« Ecimovic et al please see at: www.institute-climatechange.si.

²¹ From the book »The Sustainable Future of Mankind III«, 2010, and partly from the books »The Sustainable (Development) Future of Mankind«, Ecimovic et al, 2007, 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



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 future²² for our descendants.

»The Information Theory of the Nature« was published in 2006. Here we will 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 exists 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 and 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 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 system thinking, and the philosophy. The “information” was understood as a system of the abilities, quantities, qualities, relationships, instructions of each and every matter, energy, information, light, rays, powers, forces, particles, dimensions and

²² ***»The Sustainable Future of Humankind is Harmonious and Complementary Coexistence of Global Community of Humankind and the Nature of the planet Earth«***, 2012 revised short definition.



yet unknown contents of the Nature under prerequisite of **interdependence, interaction and co-operation**.

Transformation of the matter and energy with their information, it is event, process happening simultaneously according to the environment qualities. 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 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 time as all its internal systems are in stable mode. Whenever external reasons or instability of internal system have been moved, changed, impacted, or etc., the system as complex entity commences to move. It is not possible to predict the direction of the movement of the system (0 – 3.4; 3.9; 3.11; 92; 93; 94).

For instance, after “Big-bang” (Hawking) 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, our star Sun system, and it is going on even today. 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 (0 – 3.4; 3.9; 3.11; 92; 93; 94).

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

Here we have to rethink and 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 practically in use.

When looking from the Nature's viewpoint, we may see it 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, interaction and co-operation in case.

We think the TIME is our civilization 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 present. 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 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:

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 the beginning or the end, but has 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 it is making possible 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 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 stars and planets systems and countless meteorites and other forms, and 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 app 800 000 km/hour speed 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 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 terrestrial, the water and the atmosphere’s lower part environments.
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 and sanitary 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.

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. Humankind make 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.

We would like to discuss the environmental sciences, which are quest for knowledge and understanding of environment and there are so many sciences as many environments.

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 commencement of the environmental sciences and others could follow.

Our civilization should commence The Book of Physics with Environment (“basic environment” the Universe or the Cosmos). We think it has served the purpose of presenting the gap between present knowledge and the knowledge possibilities for research and learning in future.

And

Life, even survival of us, the modern civilization, depends on conditions provided by the *Nature* in which we human all live, and by the climate change system as an integral part of it. The Nature, Cosmos/Universe, Milky Way, Solar System, Earth, Biosphere, climate and climate change systems, terrestrial, water and air environments are *no simple systems* (features, entities, and processes), but very complex and complicated.

The time – *duration, continuance* (*Webster*) as it is accepted, used and understood by humans and our civilization may look completely different from the *nature* point of view. The nature does not recognize our common term “time”.

The climate change system impact is changing living conditions at biosphere of the planet Earth, in general, and is the result from natural processes and or human interventions. Both kinds of impacts can cause consequences, which are both good and bad by human criteria. E.g. from a rather one-sided, narrow, shallow, and oversimplifying viewpoint the changes in the human life over the last 2 – 3 centuries are bringing the so called *progress*: more comfort, a higher standard of living (for part of humanity) on the basis of many technological and non-technological innovations.

Philosophy of sustainable future of humankind is the search for knowledge and understanding of the nature and meaning of the universe and life.



“The Sustainable Future of Humankind or Harmonious and Complementary Coexistence of Global Community of Humankind and the Nature of the planet Earth”, and its coexistence with other creatures in nature as a part of the Earth’s biosphere is the solution, to the best of our knowledge, which should be adopted as the vision for our survival.

We need a society wide global approach, and not the dilution of scarce financial means, for *it is impossible to buy the survival of mankind with a financial approach however great.*

With commencement of awakening of mankind in sixties of 20th century, on needed quality of environment, as basis for life of humankind and all creatures on the planet Earth, it is also commencement of sustainable development concept, strategy, and vision (50.).

Our collective awakening regarding the difficulties that our Earth faces was excellent; however, it did not change most people’s short term values. The problems of sustainability of humankind and the planet Earth are much more complex than were understood at the end of the 20th century.

The first part of the “sustainable development” (0.-3.3.; 4.-13.; 15.-40.; 43.; 46.; 48.; 50.; 56.-57.; 62.-75.; 77.) – “sustainability”, is much more important and has real value for the future of humankind.

Second part, “development” is a term that is often misused from the industrial revolution and world of economics, and has nothing to do with Nature of the planet Earth. When we use the term “development”, we are referring to products, construction, man-made systems, repairs, machines, armaments, etc.

Development is a part of human society of post-industrial era. Nature has no “development” whatsoever, and natural system works on contents and under the rules of *interdependences, interactions and co-operation*²³ relations and it is always at present.²⁴

What is needed is a New Approach²⁵ (57.) as the introduction of global society system relations, values, ethics, contents and mechanisms, which should assist as to transcend to a sustainable future of planet Earth’s global community of humankind.

What is necessary for the survival of humankind is to introduce the method, concept, and vision of a sustainable future of humankind by attaining harmonious complementary coexistence with our environment and the Nature, since present society have lost touch with the Nature.

Sustainable future of local community leads to the sustainable future of humankind (3 - 3.11).

It would be easy to write at length on the concept of sustainable development, but that is not the purpose of this presentation. Our purpose is to transcend from sustainable development to

²³ *Interdependence, interaction and co-operation* as constant engine of the Nature has been described at the book System Thinking and Climate Change System, please see www.institut-climatechange.si .

²⁴ System Thinking and Climate Change System – Against a big »Tragedy of Commons« of all of us, 2002, Ecimovic, Majur, Mulej et al, and “The Information Theory of Nature, and”, 2006, Ecimovic, are opening discussions for understanding present by our civilization, and this presentation.

²⁵ New Approach as needs for restructuring of global society has been introduced by Prof. Dr. Slavko Kulic, IOM, from Zagreb, Croatia, but it is still within science, and is waiting for better time to be understood and used.



sustainable future as methodology, concept, vision, policy, and technique that is needed for the survival of humankind.

The follow up from sustainable development should be accomplished with all possible consent and co-operation of humankind to sustainable future, and by mitigations of the climate change system impact within the biosphere of the planet Earth.²⁶ The goal of sustainable future is a most complex issue, which could be undertaken with consent and co-operation of all humankind and with a real dedication to fulfilling its goals.

It is pertinent at this point to provide a short description of “sustainable future”: **“The Sustainable Future of Humankind is Harmonious and Complementary Coexistence of the Global Community of Humankind and The Nature of the planet Earth”**.

It is a short description of a very complicated and complex method, concept, vision, and societal technology of present global human society and its basis – the Biosphere of the planet Earth.

We believe that all good work of countless individuals towards achieving sustainable development should now be reoriented to the more complex method, and concept of achieving a “sustainable future”.

5. The Conclusions

We have mentioned many important issues and yet there are still many others we have not mentioned.

We believe that it is important to understand all simple and complex issues needed for to transcend the present global society to sustainable future or sustainable society of humankind of the third millennium.

People, values and knowledge have been making an epic song of our civilization, which has been going on since humans have existed. And so has other nature, including *whole* Universe; Milky Way; The Solar System; The planet Earth; The Biosphere; etc. down to fundamental particles – quarks, protons, neutrons, electrons, relativity theory, and the information theory of the Nature, the environment theory of the Nature, quantum mechanics and atom structural understandings. We people are a part of nature, although this has been admitted less over the last three centuries than ever before.

The climate change system ultimately would change living conditions within the biosphere and geography of the Earth so much that our civilization will end.

Therefore we are presenting the climate change system as common enemy of our civilization, and sustainable future methodology, concept, and technique as path for survival or future of our civilization, and we are therefore

²⁶ Please see complementary book »Our common Enemy – The Climate Change System Threat« at www.institut-climatechange.si.



RECOMMENDING²⁷

***One planet, one government* is first recommendation. Of course, The Constitution of the planet Earth Federation is first and the planet Earth Parliament and Government follow in line, after ratification of The Constitution of the planet Earth Federation (2; 4; 3.4; 3.9).**

Secondly recommendation is a new approach to the *social order*, which has to reflect the present experience, and the establishment of a *new contract for humankind* living on the planet Earth. The goal is to prevent explosion of humankind reproduction, enforce peace, respect, morality, wisdom and sustainable future amongst peoples of the Earth, enforces (a globally holistic!) law and order, and with skilful governing allow the coming generations to live and have sustainable future²⁸ on the planet Earth.

Third recommendation is *redirections of scientific work* from innovations of war armaments techniques and technologies for destruction, too narrowly market and money-oriented synthetic chemicals technologies, too narrowly market and money-oriented energy technologies, too narrowly market and money-oriented genetic manipulation techniques, societal management based on money monster - the master practices, etc., to discovering viable global systems of nature, space, the environment and universe or cosmos, as essential elements of knowledge needed for survival and sustainable future or harmonious and complementary coexistence of our civilization with the Nature.

In conclusion: “Be the change you want to see in the world” (Gandhi).

²⁷ Taken from Recommendations rewritten at the book Our Common Enemy (The Climate Change System Threat).

²⁸ Sustainable future is harmony of humankind and the Nature of the planet Earth.



12. The Discussion

In discussing the sustainable future of humankind we are dealing with global community of humankind present and past. We are thinking that truth-centric philosophy is most appropriate together with global approach.

The Globalization of the present has got roots in the past, and could be described as »Globalization is amalgamation of national economies into united world system based on rapid capital movement, new informational openness of the world, technological revolution, adherence of the developed industrialized countries to liberalization of the movement of goods and capital, communicational integration, planetary scientific revolution, international social movements, new means of transportation, telecommunication technologies and internationalized education«. ²⁹ We know there are many more definitions but we do agree with the one presented.

Interesting definition of globalization could be humankind centric thinking, where the globalization is sum of individual representatives of Homo sapiens or 7 + billion people and their living.

However for the purpose of herewith discussion we think it is most important to STOP future predicting habit of great minds of present global community of humankind, and governing national elites with supporters as means on non-skilful governing of global humankind issues.

Let us put forward irresponsibility's versus responsibilities. As responsible human being we think people with understanding and abilities needed for support of humankind on the journey to sustainability.

However the history is teaching us about the past life. We may learn about glamorous life of great people like Alexander Macedonian the Great, Julius Caesar from Rome, Hannibal from Carthaginian, Charlemagne King of Franks, Celeia Dukes from Slovenia, Djingis Khan of Mongols, Maria Teresa of Austrians, Napoleon Bonaparte of France and many more. But the history is teaching on their achievements with simple reporting on them. On the other side good thinker and writer Nassim Nicholas Taleb in his book "Black Swan" did explained "silent witnesses" - people who could not report due to loss of their lives. 23 million victims of the Second World War in Europe, due to genocide action of German Nazi did not have a human rights as well as similar victims of many warriors of the past and present. To us they have been great warriors but very much irresponsible people. Their victims could not put them in court due to then been "silent witnesses". The point is in reality, truth, and actual happenings reporting. Usually the winners are writing the history books.

Not to go far from our targeted content, let us continue with the action plan for implementation of the sustainable future of global community of humankind.

Over 60 years of good work on the sustainable development did not open real perspective for the nature, space and environment protection. We have to learn from those happenings. During meetings of Rio + 10, Johannesburg, 2002, and Rio + 20, Rio de Janeiro, 2012, it was

²⁹ At page 220 of »Global Studies Encyclopedia« ISBN 5-05-005719-1, 2003.



recorded the failure of action towards better nature, space and environment protection. With inability to stop human explosive reproduction we have reached 7.1 billion of humans within the biosphere of the planet Earth, where the pollution is closely related with the number of individual representatives of Homo sapiens. More people more pollution.

Global education network is working as usual. Global community of humankind is working as usual. National and international elites (1 %) continue to have “Money Master Monster” as leader. 99% of the people are experiencing more and more severe environmental conditions, societal degradation, and poverty is taking more and more percentage of the population, Children protection is experiencing more and more severe difficulties. Global, regional and local environments are changing according to the changes of the climate change system and biosphere. During 2012 most of people lives and property losses have been due to natural disasters.

We think it is time for action for better tomorrow of the global community of humankind.

Our proposal is to undertake global action for sustainable future of humankind or as short definition: The sustainable future is harmonious complementary coexistence of the global community of humankind and the Nature or biosphere of the planet Earth.

We know how much efforts have been put into better environmental conditions of the biosphere with more or less success, but it is obvious that all efforts did not produce better conditions but rather contrary. Only relatively successful action was protection of the ozone layer against destruction by human made and released chlorine, which was destructor of the ozone protection band in the atmosphere.

We are not discussing up to date results, but we are offering opportunity and optimistic view of action, work, activities, respect, peace, morality, wisdom, for better tomorrow of the global community of humankind.

Our first recommendation is: Education, education and education. We need renewed curriculum at all educational levels from mother educating new born child, and till the age for school, primary, secondary and high education schooling programmes to produce intelligent, respectable, peace-makers, individually responsible, and with high morality and wisdom people needed to meet difficulties of the 21st century, and to lead the way towards the sustainable future of humankind.

We are asking all people of good will to contribute as active supporters of the sustainable future of humankind. We have three levels: local community, national state and international institution up to the UN on top. At all mentioned levels we need universal approach to existing problems and possible solutions,

Our plan of action is offering practical solutions needed for better tomorrow.

We are recommending all at present who are working for sustainable development to learn about sustainable future of humankind as possibility to continue their best services to



humanity. NGO's working on the sustainable development could be best promoters, facilitators or active contributors toward the sustainable future of humankind.

Present NGO's and new established could get need information for their work, and support for co-operation. Most important work is on the NGO's work. We think their work is ambassadorship of better tomorrow; Target should not be critics but constructive interdependent, interacting and co-operating work towards sustainable future of humankind. We are offering co-operation and we may provide literature, seminars, lectures and workshops on targeted issues.

Targeted issues are:

- Co-operation for establishment of the NGO's.
- To provide technical assistance to needy at large for improving the quality of life for all peoples through an improvement of human settlements.
- To assist in evaluating and supervising of drug control treaties and review lawful drug requirements and movements.
- To assist research and training institutions for the advancement of needy women and men to improve their status and integrate them into societies.
- To give assistance in human rights activities by promoting and protecting the enjoyment of all civil, cultural, economic and social rights.
- To create a platform for trade and improvement, promote international trade to accelerate economic improvement, negotiate multilateral trade agreements, and seek to harmonize trade policies.
- To seek durable solutions for solving refugee problems.
- To help needy countries to improve the quality of life of their children, through community based services in maternal and child health, nutrition, sanitation and education as well as emergency relief.
- To carry out research, training and information activities on prevention and control of crime.
- To undertake independent research on disarmament in international and national security.
- To maintain international peace and the promotion of economic and social improvement.
- To operate through worldwide networks of associated institutions, research departments and scholars to help to solve global issues of human survival, improvement and welfare.
- To invite and motivate worldwide professionals sharing skills on volunteer terms in WTP-SFH platform for improvement, humanitarian relief, peace and direct democracy.
- To work with needy country to set up national trade promotion programmes for expanding their exports and improving their import operations.
- To assist in sourcing grants for sustainable human improvement, supporting projects and constructions in those needy countries.
- To help needy countries and economies in transition in their quest for peace, social stability, economic growth and sustainable future.
- To examine social improvement problems and policies with a view to improving the livelihood of the poor community and increasing their participation in future.



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- To bring together representatives of government, organizations, labour and management to improve working conditions through international conventions, to increase labour productivity and to seek economic and social stability through cultivating social responsibility practice.
 - To help to increase the output of farmlands, forests and fisheries and raise nutrition levels and standards of living.
 - To free humankind from illiteracy, advance the spread of all types of arts and scientific knowledge, and increase international understanding through the exchange of research and learning activities, education, science and culture.
 - To work closely with hospital and health organisation towards the goal of the highest possible level of health for all humankind.
 - To promote economic improvement through investments in private enterprise.
 - To give advisory services to help countries create an attractive investment climate.
 - To promote the protection of intellectual property such matters as copyright, trademarks, industrial design and patents.
 - To promote industrial construction in needy countries and organisations, assist them to expand and modernize their industries, provide a forum for contacts and negotiations, and promote cooperation through supply and demand principles.
 - To work closely with all kinds of academic and non-academic accreditation agencies globally.
 - To establish a collaboration with United Nations Organisation networks and its non-Governmental Liaison agencies as well as NGOs in different parts of the world in evolving a new dimension of strategies to promote and cultivate the value of sustainable future of humankind.
 - To provide support to Governments in new policy measures and initiatives to promote inclusive “societies for all” with the aim to ensure that individuals and communities are enabled to participate in society and contribute to a national better while enjoying basic fundamental freedoms.
 - To organize events, to produce and compile series of publications in relation to all subjects related to the scope of coverage in WTP-SFH platform for the benefits of the world citizen that will become reference resources for users at large.
 - To establish WTP-SFH system engagement with NGOs, civil society, the private sector and other actors as a vital role to play in meeting the challenges facing humankind across the globe and introducing the international goals as a peace building platform for the prevention of deadly conflict.
 - To make possible a sustainable future by “From sustainability of local community to the sustainable future of global humankind community”
 - To enable a sustainable future of humankind on the planet Earth or to reach harmony of humankind with the Nature of the planet. Those unlisted scopes of coverage at this point in time will be included in due course.
 - Team work, initiatives, inventions and innovations, best technologies and many more known approaches for better idea, work, organization, input and output, improvements, education, management and quest for better tomorrow of humankind will be incorporated to the daily work.

The list remains open for new or better proposals all towards better tomorrow of the global community of humankind.



The knowledge is treasure of our civilisation. Let us see some of knowledge with questionable qualities for better tomorrow of humankind.

At our presentation of **“Self-destruction of Humankind due to Lack of Knowledge 2”** we are presenting second philosophical contribution to the globalization processes of humankind during commencement of the third millennium.

The globalization ages we are at this very same present is most complex society and the Nature phenomenon ever developed since birth of humankind. It is systemic process of the global humankind community moving according to the Nature principles and under interpretation of 7000000000+ individual representatives of global community of humankind.

There are activities of humankind which has got special ability of self-destruction of humankind and destruction of other life, and “living nature”³⁰ on the planet Earth. We shall try to put research on possible self-destruction of humankind as contribution towards the globalization, culture cum civilization issues.

After putting together trilogies “The Nature”, and “The Sustainable Future of Humankind”, Xiamen declaration “World Thinkers’ Panel on the Sustainable future of humankind” “WTP – SFH”, “Sustainable Future of Humankind – IV, Xiamen, China and after” please see at www.institut-climatechange.si and after publishing “The Principia Nature – Nature and Homo sapiens Global Community”, Ecimovic, ISBN 978-961-92786-7-5, 1st May 2011, we have been researching possibility for self-destruction of present humankind. As usually we are researching from zero ground position, but as second presentation on possible self – destruction of humankind and let us see it as it is. We are thinking to initiate complex problem solving, and present it as contribution toward better future of humankind or sustainable future of humankind. Let others contribute and improve situation.

The Nature – interpretation of the form and content of the Nature by humankind has got new turn. First the understanding of humanistic sciences was questionable due to subjectivity of interpretation. Since commencement of the humankind it was newer content of the nature under research but form. So it is even today, and we think it is time to look and research deeply the content of the Nature.

So by 2013 we may report the following high dangerous activities, living practices, and technologies, which could end humankind present civilization. At our first presentation on the self-destruction of humankind due to lack of knowledge we have put on top the nuclear technologies, and follows the climate change system, the global humankind population explosion of reproduction, synthetic chemicals, money master monster leadership, management of technologies was sixth statement. In this second presentation we shall discuss the synthetic chemicals.

³⁰ »Living nature« is conditionally used, because there is living nature only in the minds of humankind, The Nature does not recognize living and non living nature – it is just one nature, which is interdependent, interacting and co-operating.



7. Synthetic chemicals³¹

Discussing the synthetic chemicals we have to bear in mind that synthetic chemicals are placed as forth most dangerous activity of present global community of humankind. There are many issues within this research, production, marketing and application of the synthetic chemicals. Just to mention; Pollution of agricultural lands by fertilizers, pesticides, and other synthetic chemical products in agriculture practices; Plastics; Food additives, and other additives or catalyst; Pharmaceutical substances; Technical products with use of synthetic chemicals, Armaments with use of synthetic chemicals, Medicine, Education, Sport, Construction, Clothing, Catering, Fishing and Hunting, and other humankind activities with use of synthetic chemicals.

For better understanding we are stating the basic operational practice by nature. The Nature (Universe or Cosmos), and the nature of the planet Earth is operating ceaselessly as long as successful operation is going on. In the nature there are only successful cases³². The operating principles are: interdependence, interaction, and co-operation of all matter, energy, powers, particles, dimensions, light rays and not yet known contents of the nature³³.

Man-made synthetic chemical products are alien to the nature.

Today we estimate that synthetic chemical research and production recognize synthetic chemical substances and compounds in millions

With development of chemistry it was possible to develop synthetic chemical compounds using different techniques. As result many known chemist invented countless number of synthetic chemical products. The use of them, production, commercial, and business success were only important. Almost all of synthetic chemical products of modern humanity have no research on short, medium and long term impact and consequences of them to the nature.

In theory or academic discussion we think, it is possible for chemist to invent synthetic chemical product, which could commence chain reaction in the air, and as result, the oxygen from the air could get status as was during primordial times – zero or non, ultimately meaning also zero or non “living nature” including humankind.

- A. Today common agriculture production after use of synthetic chemical fertilizers, pesticides and protecting substances has been for over hundred year source of alien substances within the agriculture lands. Today we know how much we have done wrong for our future. Unfortunately use of them was not stopped due to financial gains of the owners of the production facilities and commercial activities.
- B. Plastics as synthetic chemical products are very useful at present living practices of humans on the Earth and outside in cosmos. From automobiles, aircrafts, rockets, and many other technical commercial products to packing materials of almost all human final products packing, and many more cases. Actually after innovation of the Bakelite

³¹ Synthetic chemicals are produced by synthesising, and are arteficial, man made products, are not naturally produced and are alien to the Nature.

³² Philosophical application of the Charles Darwin statement about existence of only successful creatures in the nature.

³³ Please see »The Principia Nature – The Nature and Homo sapiens Global Community«, Ecimovic, 2011, displayed at www.institut-climatechange.si



in XIX century many more plastics have been successfully introduced, and even today are coming new products. To all of them is common to be “very handy” for many kind of uses. All plastics are alien substances to the Nature. As for PCB’s – genetic structure destroyers, CFS’s ozone destroyers and plastic foil including large list of them – the source of “female hormone like substances”. During use of plastic foil with ability to release female hormone like substances as they are in common use for clothing, packing, technical products – mobile phones, and other electronic devices, TV, radio, PC, etc. automobiles, aircrafts, boats, sport equipment etc. with time they are releasing female hormone like substances, which could affect the health of humans. There are two sources of female hormone and female hormone like substances. Pharmaceutical industry with products for protection against pregnancy, which are with 7 billion + humans on the Earth more and more important, and plastics with countless use at our society. The result of both is affecting male sperm quantity and ability to fertilize female. Many countries are reporting on reduction of sperm quantities and fertilize abilities of man. Of course plastics are overtaking pharmaceutical production many folds and secondly plastics are more affecting health of humans, due to direct impact after release of female hormone like substances within the body of humans. As important issue is the release of the female hormone like substances within the living creature’s environment of the planet Earth.

- C. GMO and GMP activities have very strong possibility to change biosphere of the planet Earth. Humankind is testing the nature abilities without knowing what result will get. There are many possibilities and the last but not a list should be to understand what could be after it happens.

Something is common to all self-destruction issues of humankind interference with the nature of the planet Earth it is lack of knowledge of immediate, medium, and long-time consequences.

Presented activities are result of governing by “money master monster”, who took over leadership of the global community of humankind. Both 1 % and 99 % of humans should have a chance to learn, and upon the knowledge make decisions as they are in practice today.

It is obvious that present humankind has to commence right path among which is also research of the possibilities that alien substances together with natural ones could produce new natural substances much more dangerous for existence of the “living nature” on the planet Earth.

We have seen bird using plastics as for making the nest. That is direct poisoning of the reproduction of the bird kind.

The list of possible self-destructions of humans by humans could not be concluded, because the activities are innumerable and many new innovations are coming without the knowledge of their short, medium and long term use implications with the natural environment of the planet Earth.

Our intention with this presentation is not to correct present humankind practices and life styles but to commence long term process of by morality and wisdom guided global humankind community sustainable future, what we hope is our contribution towards life of our and all humankind descendants.



Effectively, we cannot change the state of the world, since we are reaping the crops of the past. The destructive activity of man today is the design of the past. The man has not provided the global impact on the destruction of nature and life.

Our voice alert, since knowledge is our seed will be harvested in the future with concrete actions in forming the new man for the harmonious coexistence of man with man and of man with nature. To achieve this goal, the man has to follow three ways as mentioned by Dr. Timi Ecimovic in the Manila conference: 1) Education, 2) education and 3) Education.

Education has the objective of universal human formation. Global problems involves a global solution this requires a global vision of man. This man of global vision is absent in humanity today. Therefore, the solution to the self-destruction of humanity begins with education. The education of the new man requires knowledge of the same man - this means a new anthropological philosophy.

Human has to be understood in its biological, social and spiritual, as an inseparable unit. The biological needs food in calories, workforce needs social, and spiritual needs the energy of understanding and wisdom.

Wisdom is the integration of man to the universe. Therefore, education is a way of integrating the individual to the family, society, nature and the universe.

We are advocating for interdependences, interaction and co-operation of all members of the global community of humankind 7.1 billion + individual humans, who could contribute to sustainable future of humankind, themselves and their descendants.

We shall co-operate and support establishment of local, national and international Institutes for Sustainable Future as centres for research, information, support and co-operation with local communities, national states, regional and world institutions.

We shall support and co-operate with local, urban, regional, country and international NGO-s supporting and co-operating with implementation of the sustainable future of humankind.

We shall support and co-operate with individuals, education system facilities, institutions, governments, local, regional, continental and world citizens, institutions and governing bodies.

Our target is sustainable future of global community of humankind, which is as short definition>

“The Sustainable Future of Humankind is Harmonious Complementary Coexistence of the Global Community of Humankind and the Nature of the planet Earth”.

Let us learn more to be better.



13. The Recommendations and Conclusion

We are recommending The World Institute for Sustainable Future of Humankind to be established at proper location and to have world-wide branches.

Secondly for implementation of the sustainable future of the citizens within certain region we recommend to be established The Institute for Sustainable Development and Sustainable Future of Humankind.

We are recommending large world-wide distribution of the information of the global and local communities of humankind about the sustainable future of humankind.

The final recommendation is to let us see what will happen, and let us see to happen what we are recommending – The Sustainable Future of Humankind. For this we need peace, respect, reason, morality and wisdom of all of us. The individually responsible people are needed for better tomorrow of global community of humankind.

As conclusion we hope that our global community of humankind will have continuum with present and future generations living in harmonious complementary coexistence with the nature of the planet Earth.



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15. Annex one

Prof. Dr. Timi Ecimovic, Sir Prof. Dr. Roger Haw et.al.

“The Sustainable Future of Humankind - V, the Action Plan”

Annex one

**SUSTAINABLE DEVELOPMENT & SUSTAINABLE
FUTURE OF HUMANKIND**



**Zg. Medosi, Korte, Slovenia and Penang, Malaysia, December
2012**



16. ENVIRONMENTAL CRISIS NEEDS REQUISITE HOLISM OF INDIVIDUALS

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ABSTRACT

Environmental problems are basically mental problems, caused by humans as (one-sided rather than requisitely holistic) individuals and their organizations. Prerequisites for prevention of repetition of (financial, economic and also social) crises, including the environmental part and consequences of them, as well as for their abolition, include requisitely holistic individuals. Hence the organizations' owners, governors and managers should look at humans as multi-layered, not only as professional entities. In synergy, not only individually, we define humans as: (1) physical, (2) mental, (3) social, (4) spiritual, and (5) economic entities, marked by requisitely, though not absolutely, holistic pattern of relatively permanent characteristics, due to which the individuals differ from each other as humans and as specialized professionals. All these and other attributes of humans and societies form synergies, including their impact over environment and from environment.

Thus, we define the requisite holism of a human being as an individual existing and conscious of self as:

- Physical person, implementing active techniques to gain physical balance,
- Mental entity, enriching sentiment, perception, mind and will-power by life balancing techniques,
- Social entity, building quality communication with others by the techniques of professional and working development and social integrity,
- Spiritual entity, longing after self-actualization and the sense of life, carrying it into effect by the techniques of spiritual development,
- Economic entity, striving to satisfy her material needs as a person, family member, co-worker, and as a member of a wider society.

In this way the behaviour of individuals, who are willing to practice interdisciplinary cooperation, becomes more socially responsible, including their natural and social environments. It offers a possible answer to crisis that has shown up in 2008; hence the individuals evolve from being merely owners to requisitely holistic creators, who enjoy subjective and objective welfare more than the others. Measures toward this end are suggested.



Key words: crisis, environment, individuals, requisite holism

0. The Selected problem and Viewpoint of Dealing With it here

The environmental problems belong to the neo-liberal economic model of the entire period after the Second World War that does not cover governance of enterprises only, but all organizations. But this model is now finally found obsolete by many around the world; it causes *prevailing of one-sidedness* over holistic decision-making and action, including the international, national and local politics with very dangerous consequences, such as the current global social, economic, and environmental crises. The model's consequences cannot be solved by itself, because it has caused them. The old-main-stream economists offer no new solutions, but theorists of systems and cybernetic theories, United Nations, European Union, and the International Standard Organization (ISO) do, although on the level of basic principles, so far. Market alone has not proved to be able to rebalance crucial consequences of human one-sidedness, neither have governments alone. Systems theory and cybernetics have offered *holism of approach for wholeness of outcomes* for close to seven decades; now United Nations, European Union and ISO do it with their new concept of *social responsibility* (ISO 2010; EU 2011). We will not discuss the links between systemic behavior that offers most of holism, and social responsibility, to offer a suggestion toward the transition from the current fictitious holism in running families, enterprises, regions, societies, and international community to a more real one (see: Mulej, Dyck, editors, forthcoming), but a part of its background, which we call *requisite holism of individuals* (Šarotar Žižek, 2012). We think that the *essence of good contemporary management is the highest possible level of holism in decision making and taking rather than one-way commanding*. We are afraid that the hierarchical organizing of enterprises cannot be overcome yet (Grün, Zeitz, 2012). But the individual behavior and management process can be made more holistic in its approach and lead to more wholeness in its outcomes. We will show the basis for it in this contribution.

1. One-sidedness as the basic Cause of the Environmental Crisis

The modern environmental crisis is older than the socio-economic crises of 2008- and makes a part of their causes (Ećimović et al, 2002; 2007; 2012, and references in them).

Neither of them was caused by the organizations, but by their influential members, to whom the influential members of the social organs – such as the state/government etc. – permitted to separate responsibility from rights (Božičnik, Mulej, Ećimović, editors, 2008).

This separation opposes to the A. Smith's model of liberal economy (Toth 2008). Maybe they caused it even intentionally (Klein 2007, sum. after: Štefančič 2009), in order to perform the neo-liberal privatisation/monopolization more easily; private ownership is due to Roman law defined as 'the right to use and abuse' – of everything, including uncontrolled seizing in favour of a small minority of people. The neoliberal economists forgot or left aside that:



(1) The liberal capitalism has, according to the A. Smith's theory (Smith, 2010), emerged against the misuse and abuse, which the people suffered from for centuries of slaves owning and feudal societies, but they resisted it finally, and therefore liquidated them by capitalism; though, the latter turned to 'feudal capitalism' under the neoliberal capitalism of the recent decades (Goerner et al., 2008);

(2) The humans are multi-layered entities. In synergy – not only in separation – humans are: (1) physical/biological, (2) mental, (3) social, (4) spiritual, and (5) economic entities. Therefore they are marked by the whole pattern of relatively permanent characteristics, according to which individuals differ one from each other; at the same time everybody is a specialized expert with more or less developed capability of creative interdisciplinary co-operation (Šarotar Žižek, 2012). On such bases humans developed values and knowledge through the time.

(3) The concept of liberalism is essentially different from neoliberalism; the historian Prunk (2011) summarised the liberal concept as follows: individual freedom of humans; tolerance; power sharing as the basis of democracy; the biggest subjective and objective well-being for the most of humans; free economic activity, entrepreneurship, free trade; class-free society in a longer term; prevailing middle class; no essential differences in richness; laissez-faire without limitations by governments, institutions, traditions and old beliefs; freedom from government and its self-will; a political order providing to individuals unlimited economic activity, development of talents and free application of spiritual forces; rule of law with no personal impact and providing the feeling of security; power-holding interdependent with responsibility executed by elected parliament responsible to population and based on constitution; development of science and education and arts, and non-governmental organizations. In the neoliberal practice most of these attributes are neglected, monopolies are favoured, middle class is disappearing, tax heavens are flourishing, richness is concentrating in pockets of fewer and fewer persons (Nixon, 2004; Plešnar, 2012; Roach, 2012; Vitali et al, 2011).

Obviously, in the recent decades (if the period before the WWII is left aside) the human official impact over human knowledge and values (by politics and education etc.) was not requisitely holistic, but rather one-sided (O'Sullivan, Torunski, Wyrebek, editors, 2011). Neither was the ethics of advertisement and public relations, which is very influential (Hrast et al, editors, 2013) requisitely holistic; responsibility was too rarely a personal value (Urukalo, 2010).

It is no longer enough to admit the huge impact of the Covey's '7 habits of the highly successful people' and follow them; the 8th habit must be added to them in the current 'knowledge worker age' in which one must reach beyond effectiveness toward greatness, i.e. fulfilment, passionate execution, and significant contribution. Thus, the crucial challenge of



our world is this: to find our voice and to inspire others to find theirs; this is what Covey (2004) calls the 8th habit. It shows how to solve such common dilemmas as:

- People want peace of mind and good relationships, but they also want to keep their lifestyle and habits.
- Relationships are built on trust, but most people think in terms of ‘me’ – *my* wants, *my* needs, *my* rights.
- Management wants *more for less*: employees want more of ‘what is in it for me’ for *less* time and effort.
- Businesses are run by the *economic* rules of the marketplace; organizations are run by the *cultural* rules of the workplace.
- Society operates by its dominant social values, but most live with the consequence of the inviolable operation of the natural laws and principles.

Under the influence of circumstances, exposing only the competition, the individuals became increasingly spiritually apathetic specialists, as they have not implemented the essence of their existence to be the whole, creative and interdependent entities. Only in the ‘visionary companies’ who passed their way ‘from good to great’ this was different and brought them to the world top for a century, on average (Collins, Porras, 1994; Collins, 2001; Collins, 2005).

Mulej (2010) points out that the 2008- crisis had not been caused in 2008; it only surfaced then, caused by the long-prevailing one-sidedness rather than requisite holism of decisive humans. Now, one sees that the Planet Earth is like a bottle with no chance to become bigger, but fuller all way to the danger that the current civilization disappears.

To settle the crisis, which became visible in 2008, and to prevent similar crises from emerging, it is necessary to bring individuals near to the requisite holism, which guarantees them creating and enjoying subjective and objective wealth. The personal development, and particularly its essential element – the personality development, can make a contribution to such a crucial new state.

One may not see the solution in growth of GDP, as the habit has been so far and still is: while in the richest countries of the world GDP has been growing very much over the last six decades, the humans’ satisfaction has remained on the same level (Cassiers et al., 2011). At the same time, growth of GDP has caused a crucial growth of environmental problems.

E.g., it is true that a non-competitive enterprise is not socially responsible (Grbič, 2011), but it is neither so, if it causes environmental and human or social problems in order to be competitive. This would be very costly, in a longer term, at least, and a sign of neglected ethics (Belak et al, 2010; Boršič, Štrukelj, ed., 2012; Duh, Štrukelj, 2011; Stojan, 2011), especially of ethics of interdependence and requisite holism (Mulej, 1974; Mulej, Kajzer, 1998). It brought the rich nations to the brink (Barboza, 2011; Bošković, 2011; Brady, 2011; Čibej, 2011a; Čibej, 2011b; Kopušar, 2011; Kovačič, 2011; Kužet, 2011; Leonhardt, 2011; Lynn, 2011; Rizman, 2011;



Soban, 2011; Vidic, 2011; Vinter, 2011; Zimmermann, 2011). A new strategy is needed (Ferk, 2011; Ferluga, 2011; Glavič, 2011; Kužet, 2011; Mulej, 2011; Mulej, Hrast, 2011a,b; Petkovšek Štakul, 2011; Plut, 2011; Plut, 2012; Radej, 2012; Repovž, 2011; Roubini, 2010; Sachs, 2011; Senge et al, 2004; Senge et al, 2008; Sočan, 2011; Stepišnik, Stojan, 2011; Stojan, 2011a, b; Šarotar Žižek et al, 2010; Šarotar Žižek, 2012; Terček, 2011; Vrečko, 2011; Zgonik, 2011; Ziegler, 2011; Žabot, 2011; Ženko, 2010; Ženko, 2011; Ženko et al., 2008; Ženko et al, 2010; Ženko, Mulej, 2011; Ženko, Mulej, 2012).

What is the point, actually?

2. THE SO CALLED FINANCIAL CRISIS

The global financial crisis, as the crisis of 2008 is superficially called in daily press also by the experts, gains new extensiveness each day anew. Thus it becomes the worst crisis after the great recession in the years 1928-1933 (if we leave the World War aside, as the biggest crisis ever). Kovač (2008) finds the worldwide crisis similar to a new Bermuda Triangle that becomes clearer; the combination of bad news is increasingly dramatic. The starting financial crisis has spread from the narrow field of bad mortgage loans to the other financial markets and banks. He considers that the 2nd leg of the Triangle is a recession of real economy in capitalistic center, while a global inflation wave creates the third danger, gaining threatening stagflation extensions. Kovač (2008) states that all three points mean a big defeat of the 20-years lasting market liberalism ideology, and that the current crisis in all three fields has been started by the excessive "laissez-faire", absence of legal responsibility and the crisis of business ethics. He thinks that we are approaching a new global institutional shift towards state capitalism and economic interventionism. In fact, it is not a liberalism but its negation, a neo-liberalism, because A. Smith has neither planned nor permitted founding a joint stock company, a limited company - a company, which is that big that no global institutional local supervision over it is possible (Dyck 2008; Goerner et al., 2008; Toth 2008; Mulej and Hrast 2008; Mulej 2008 and 2009; Mulej et al., 2009). In addition, neoliberalism has lasted far more than 20 years, if 11 September 1973 has been mentioned as a crucial victory day of Friedman's economic theory in one of the South American countries.

The financial crisis reflects in stock index fall from Asia to Wall Street, US dollar depreciation comparing to EUR, fall in prices of real estate in the USA and consequently in Europe, downfall of numerous great financial institutions, drastic reduction of credit activity, intervention by financial injections of central banks that changed their goals regarding alteration of basic interest rate, risk of runs on banks, decrease of economic growth, etc. (Prašnikar and Cirman 2008: 7). Equal processes are here in 2011-12, too, we see in public press.

Mulej et al. (2009: 1) state that the main sources of the current financial, wider economic and social crisis of contemporary human civilization, emerging in 2008, include also the specialization and one-sidedness lacking interdisciplinary co-operation. Prašnikar and Cirman



(2008: 11) expose as an essential element of the financial crisis the problem of moral hazard, information asymmetry, requiring an adequate regulation within global economy. It should be pointed out that the global financial market has been marked by an extensive economic growth during the last three decades. It was seemingly so, but fictitious in reality due to financing with big debts in financial and environmental terms.

For solving the current crisis from economic point of view Mrak (2008: 76-82) defines the following measures for the future: (a) macroeconomic politics for overcoming the present economic crisis, (b) arrangements for short-term stabilization of financial sector, and (c) key measures for a long-term, systemic regulation of international financial system. The mentioned interventions are interesting, but superficial. They do not touch the real needs and their life cycle. To prevent the current human civilization disappearance Mulej et al. (2009: 1) state that it is inevitable to stress – at least in decision making and preparations for it – the action of people; it must match the law of requisite holism rather than an one-sided deciding according to, for instance, solely banking and similar financial standards, regardless of the human, production, ecological, social responsibility criteria, etc. (Comp.: Božičnik et al., 2008). Social responsibility is able to help humans solve the problem (EU, 2011; ISO, 2010; Mulej, Hrast, editors, 2010; Mulej and Dyck, ed., forthcoming). It supports requisite holism based in interdependence (Mulej et al., 2012), if knowledge is used strategically (O’Sullivan et al., editors, 2011) and is diffused to many users (Zenko, Mulej, 2011).

It should be stressed again that in the background of the current crisis is not the liberalism but the neo-liberalism, a misuse of the liberalism. A. Smith first wrote his book on moral sentiments and has included them in the presumptions of his later book on wealth of nations (Smith, 2010). His ‘invisible hand’ means ethics of interdependence rather than independence, dependence, and resulting abuse of the bargaining power; consequences of latter are too expensive to last. The neo-liberalism of Friedman’s school rejected interdependence, including the care for nature and co-workers (Halimi 2008). The success of capitalism is no less fictitious than the success of endeavours for an increased progress, called Soviet communism and Yugoslav socialism, which basically provided for a development of transition from pre-industrial to capitalist society (Mulej 2006).

Thus, the so called financial crisis of 2008 and the problems arisen with it cannot be solved by the measures from which they emerged; it is therefore necessary to create new solutions. One of the options is that the organizations and the world as such should be led by individuals, coming close to their own requisite holism of behaviour resulting in requisite wholeness of its outcomes based on the principle of requisite holism (Mulej 1974 and 1979; Mulej et al., 1992, 2000, 2004, 2008; 2012; Mulej and Kajzer 1998a, b; etc.). The individuals approach it by their personal and personality development. It is about the behaviour in the sense of a requisite holism - based on a dialectical system of essential aspects (Mulej, 1974 and 1979; Mulej et al., 1992, 2000, 2008, 2012; Mulej and Kajzer 1998a, b; etc.) - that can be achieved by a synergic implementation of several techniques.



3. HOLISM AND INDIVIDUAL REQUISITE HOLISM

In examining the individual's holism we are going to apply the views of several authors. The Bertalanffy's dealing with the holism/wholeness (1968) is important, and on the other hand the treating of the holism as a requisite rather than absolute one is so, too, such as studied by Mulej (1968 and 2000), Treven and Mulej (2005), Mulej and Kajzer (1998a and b), Sruk (1995), Senge et al (2005), Mautner (1995),... It was also included into the encyclopedia, (François, 2004). We introduce a few definitions below.

Mulej and co-authors (2000: 32) define the holism as an approach made of synergetic consideration of: (1) the whole (systemic), (2) parts (systematic), (3) relations (correlation, dialectics, or interdependence) and (4) realism (closeness to reality, materialism), as a dialectical system: that is, all at one time and intertwined, correlated and interrelated.

»Everything starts with understanding the nature of wholes, and how parts and wholes are interrelated. Our normal way of thinking cheats us. It leads us to think of wholes as made up of many parts; in this way of thinking, the whole is assembled from the parts and depends upon them to work effectively. If a part is broken, it must be repaired or replaced. This is a very logical way of thinking about machines. But living systems are different. Unlike machines, living systems, such as your body or a tree, create themselves. They are not mere assemblages of their parts but are continually growing and changing along with their elements.« (Senge et al, 2005: 5).

In the Merriam-Webster's Online Dictionary the holism is defined as a theory that the universe and especially living nature is correctly seen in terms of interacting wholes (as of living organisms) that are more than the mere sum of elementary particles. According to Wikipedia the holism is an idea that all the properties of a given system cannot be determined or explained by its component parts alone. Instead, the system as a whole determines in an important way how the parts behave.

The latter is superficial: holism means that all attributes from all viewpoints and all their relations and resulting synergies are considered (Mulej, et al., 2000; Mulej, 2007). This reality can of course not be captured by humans; therefore humans, to attain their individual requisite holism, need Mulej/Kajzer's law of requisite holism (1998).

4. THE LAW OF REQUISITE HOLISM

The human's complex comprehension of life is lower than human's ability of influencing it, deciding, acting and omission. The huge complexity brings the individuals face to face with inevitability of specialisation as well as of holism (Mulej et al., 2000: 33). The contemporary debate on complexity requires combining the specialisation and (dialectical) system style of thinking and acting into a capability, which is interdisciplinary cooperation, in order to exceed



the boundaries of single sciences and poor link-up of sciences, thus practising the interdisciplinary and creative co-operation, yet not at any level but at a level of the “requisite holism” (Mulej et al., 2000: 65).

As mentioned before the perfect rather than requisite holism is not practicable and often not indispensable, and the one-sidedness is limited to a single viewpoint and hence insufficient many times. Therefore the individuals strive to be requisitely holistic, thus successful enough to be able to overcome – at least temporarily - the law of entropy. They try to find a middle way between too much complexity and uniformity, but there is no uniform, so called scientific solution, because of intertwining of science, intuition and good luck in the everyday life (Mulej et al., 2000: 73-74).

Inside an authors’ (usually tacitly!) selected viewpoint, one tends to consider the object dealt with (via simplified models) 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. See Table 1.

4 interdependent actual general groups of real features’ attributes	4 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 interdependence s of parts and viewpoints 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 / materialism 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 its	Capability of researchers to deviate from reality as little as possible in order to understand reality, including systemic,	Findings applicable in practice, due to/ although resulting from theoretical considerations



		results to be applicable – by reduced reductionism	systematic and dialectical attributes of it	
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Table 1: Dialectical system of basic attributes of requisite holism/realism of human behavior

Thus, summary of the law of requisite holism (Table 2) reads:

One needs always to try and do, what many, but not all, have the habit to do in their behavior –**avoid 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 via “**dialectical system**”, made by the author/s as a system (i.e. network) as an entity or **network of all essential and only essential viewpoints**.

←-----→		
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 2: The selected level of holism and realism of consideration of the selected topic between the fictitious, requisite, and total holism and realism

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 care, invention-to-innovation-to-diffusion processes, etc., or wars, all way to World Wars of the 20th century, or the world-wide economic crises. The practical need for survival makes systemic behavior unavoidable; this requires humans to understand their essence.

5. THE COMPLEXITY AND REQUISITE HOLISM OF INDIVIDUALS

The human has to become as holistic as possible and has to consider all important attributes to the highest possible extent (Mulej 2000: iv). Nobody, neither the human race as a whole, nor the human as an individual, can exist or even live well, if one does not stop to be extremely one-sided in the subjective part of one’s starting points within the process of human’s action and behaviour. Thus, it is not surprising that Mulej (1979: 61) defines the holism as one of the ten rules of methodology for a requisite holism of human acting (observing, comprehension, consideration, emotional and spiritual life, decision making and activity) called the Dialectic Systems Theory.

Having in mind that the human is (in synergy) a physical, mental, social and spiritual entity, implementing devotedly different life roles, one has to be requisitely holistic – one has to consider all that is important to a highest possible level. Thus, the (requisite) holism of the individual as a human being should be established by a set of techniques, all way from the techniques enabling physical balance, the techniques of life art, of personality development, to



the techniques of professional and working development. The requisite holism of individuals as employees has a positive influence on the success of organisations, through the successful managing of stress, work satisfaction and wellbeing. Thus, the organizations should create conditions for the implementation of the mentioned techniques for developing and strengthening of the requisite holism of individuals as employees, because bosses will get, what bosses will enable and appreciate.

Prerequisites for prevention of repetition of (environmental, financial, economic and also social) crises, as well as for their abolition, include requisitely holistic individuals. Hence the organizations should look at humans as multi-layered, not only as professional entities. In synergy, not only separately, we define humans as: (a) physical, (b) mental, (c) social, (d) spiritual and (e) economic entities, marked by requisitely, though not absolutely, holistic pattern of relatively permanent characteristics, due to which the individuals differ from each other, and also as specialized professionals. All these and other attributes form synergies. (For details see Šarotar Žižek, 2012.)

Thus, we define the requisite holism of a human being as an individual existing and conscious of self as:

- Natural, physical and biological person respectively, implementing active techniques to gain physical balance (healthy food, Ayurveda, massage and aromatherapy, relaxation, breathing techniques, physical activity, observance of biological rhythm, additional medical treatments etc.);
- Mental entity, enriching sentiment, perception, mind and will-power by life balancing techniques (emotional intelligence, life in present moment, positive thinking etc.);
- Social entity, building quality communication with others by the techniques of professional and working development and social integrity (education, training, gaining working experience within professional career, etc.);
- Spiritual entity, longing after self-actualization and the sense of life, carrying it into effect by the techniques of spiritual development (spiritual intelligence, meditation, mantras, yoga, logo-therapy, practical Buddhist principles for building balance, etc.);
- Economic entity, striving to satisfy one's material needs as a person, family member, as a co-worker and as a member of a wider society (partnership, parent-ship, employment, membership in associations and political parties, etc.).

In this way the behaviour of individuals, who are willing to practice interdisciplinary co-operation, becomes both productive and socially responsible. Social responsibility offers a possible answer to crisis, arisen in 2008; hence the individuals evolve from being merely owners to requisitely holistic creators, which was considered necessary already by Erich Fromm, and before him also by A. Smith; such individuals enjoy subjective and objective wellbeing more than the others do.



6. Necessary Action toward a socially responsible/systemic Society

The current affluence phase and the current crisis of affluence might be a dead alley, if people lose ambition for creation (so far they did normally so, in history). People therefore need either a prolonged innovation phase based on RH of IIDP rather than one-sided processes, or a new phase, after competitiveness based on ownership of natural resources, on investment, on innovation, and affluence. The essence of the new phase is creative happiness based on ethics of interdependence and interdisciplinary creative co-operation with SR replacing the phase of affluence; for selfish reasons, people are less selfish, short-term thinking, and narrow-minded, and they apply more RH (Prosenak, Mulej, 2008; Mulej, Hrast, editors, 2010).

Several lines of action might be necessary:

1. Humans as individuals act in the roles of consumers. Practice has already shown up that consumers prefer suppliers, who have the public image of SR. Greed is also less popular than it used to be (Gerzema, 2010; Zgonik, 2011). After a level of material satisfaction well-being depends on other factors (Šarotar Žižek et al., 2010).
2. Humans as organizations act in three basic roles: (1) suppliers, (2) customers, (3) public awareness makers and users. In all of them they compete with others. The ones with the best image of RH innovators at the top of business excellence and SR actors in the market attract most customers and succeed.
3. The basic criteria of their success might include: (1) normal and regularly provided pay role; (2) normal investment funds; (3) business excellence in line with EFQM criteria; (4) managers' and owners' income that are both high and low enough to not make people wonder for which purposes these persons need so much money in reality rather than for greed rather than need and psychological compensation for minor-value complexes; (5) sustained circle of business partners who demonstrate their business excellence, SR and innovation, both on the supply and sale part of the business chain; (6) no legally questionable businesses; (7) prevailing of the longer-term and broader criteria of business over the short-term and narrow-minded criteria; no abuse and misuse of one's impact over humans and natural preconditions of humankind's survival; (9) rewarding of the influential persons on a long-term basis, including payment in shares etc.; (10) organizational and ownership relations that are very close to the Mondragon co-operatives practice that has worked very well for decades; (11) nomination of persons on the most influential jobs/positions in line with the experience of the 'visionary companies' as detected by Collins (2001; 2005) and Collins/Porras (1994); (12) use of the General Creech (1994) experience of cooperative leadership; (13) use of models/practices of creative cooperation (Mulej and Mulej, 2006; Malik, 2011; Steiner, 2011, etc.); (14) use of criteria of the Horus Award (www.horus.si) for organizations and individuals; (15) investment criteria are not short-term and narrow-minded. (16) Reaching beyond law toward SR and RH helps competitiveness.



4. Humans as nations act via government and non-governmental organizations. Their bodies support competition and fight monopolies and other bases of abuse of influence of the more influential ones in their relations with the others. Thus, they support RH and SR with legal and moral tools.
5. Humans as nations do the same on the international levels, all way to the world-wide democracy, including a world government, made of very honest persons and co-workers.
6. Educators on all levels of schools, parents, journalists, other public opinion makers provide knowledge and values of RH/SR and of ways to attain, maintain, and fortify them, such as methods of creative cooperation, e.g. USOMID and 6 Thinking Hats combined (Mulej, M. and N., 2006) or others (e.g. Malik, 2011; Steiner, 2011).
7. As a short-term action with influence government should reach beyond cutting revenues and jobs by creation of demand, which can result from provoking new needs bringing people away from complacency and affluence (e.g. Šoštarič, 2012). This action should also consider giving priority to the best bidders in terms of SR, business excellence and innovation combined.
8. Managers' income must have a longer-term basis (Roubini, 2010).

7. CONCLUSION

Crisis results from one-sided individuals having the duty and right to make global decisions as scientists, business persons, employees, or politicians. Their impact has been reaching beyond their capacity of requisite holism, intentionally or not. Consequences require innovation of their behaviour in the direction of social responsibility as an informal way of attainment of the requisite holism of behaviour and requisite wholeness of outcomes. Times of separation of rights and duties of decision-making persons must be over for humankind's current civilization to survive. The requisite holism of individuals is an essential part of this necessary effort. Values, culture, ethics and norms must be innovated in general, not technology only; other-wise the contemporary humankind will fall victim of its own mistake, which Albert Einstein has called the danger that humankind possesses wonderful tools for unclear or even stupid objectives. The price of leaving this fact aside has been very high, e.g. in USA (Sachs, 2011). Customers are changing their habits and support social responsibility more than ever (Gerzema, 2010) and less shopping addicted (Zgonik, 2011); thus, they are more holistic personalities.



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17. Sustainable Biodiversity Needs and Social Responsibility Concepts
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Abstract

Sustainable development (SD), demands that we seek ways of living, working and being that enable all people of the world to lead healthy, fulfilling, and economically secure lives without destroying the environment and without endangering the future welfare of people and the planet. SD has been widely debated and description of “life on the earth” is very difficult, because of its incredible complex structure. It is fact that; ecosystems are not negotiable and nature does not conduct consensus speaks. They need full of social responsibility applications and claim protection of sources. The living creatures’ environment could be divided in: internal and external environment. The information theory of nature is a case study of system theory/thinking implementation, as contribution towards a better understanding of the nature by mankind civilization. The approach of evaluating the quality of species communities in agro-ecosystems mainly on the basis of “biodiversity”, must be analysed critically. Hence, the generic term biodiversity forms a hierarchic system relevant for different scale levels sum of elements of a genome, a population, a species community, an ecosystem or a landscape, compositions and functions. Biodiversity covers, all livelihoods are a complementary part of a bigger system. Because of these, a new dimension of biodiversity started a discussion about “hope - satisfaction - suspect” of human being from the current transgenic technology developments.

Biodiversity is related with human activities and natural resources. It affects the species composition and the spatial distribution of plants and animals. This will require a challenging combination of incentives and disincentives, economic benefits and law enforcement, education and awareness, employment in the protected area and employment opportunities outside, enhanced land tenure and control of new immigration. Under the theme of «Working together for biodiversity: Regional and international initiatives contributing to achieving and measuring progress towards the near past target», a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth». In the long term, however, both are critically important to the well-being of human kind and the Earth's systems that sustain them. We will be able to teach the world, and the policymakers, that the short term policies they develop have long term impact, and from this, we can help influence the long term well-being of the planet, and humankind.

Social responsibility is an attribute of humans and their organizations. It prevents or diminishes, at least, the danger of humans' abuse of their influence leading to damage experienced by their co-workers, other business or personal partners, broader society or nature on which the human existence or quality of life, at least, depend. Earth is a kind of global organization, so we have to understand the sustainable biodiversity or not has a crucial



importance for the local community life, and gives questionable chances to the long-term of survival of mankind – it requires sustainable future. So now we have the basic environment and the continuum, in also basic relationships such as interdependence, interaction, and co-operation of all matter, related with nature. The present thinking ability of humans could not accept reality of the immensity of the basic environment. The discussion of this topic from the side of related sustainable biodiversity and CSR relationship is just before it is too late. If we do not act now, when will we act?

Introduction

Geographical facts of the Earth is very well known, such as latitude, longitude, and altitude are qualities decisive for warmth and light, which are reflected in the quality of local environment. The distribution of this quality depends on the basic characteristic of land or aquatic environment. The most important inferior system of our biosphere is life on the planet Earth. As soon as the primordial Earth was ready to host life, it appeared. In ocean waters the anaerobic bacterial life was the first to influence all latter evolvments. Due to the exceptional reaches of ocean waters full of inorganic compounds the first bacterial cells had an excellent life environment. The ocean waters protected them from UV rays and the temperature of waters was suitable. The light and warmth from the Sun had a lower radiation than today. All phases of the anaerobic life lasted from its commencement on from around 3.8 billion years ago until the appearance of oxygen in the atmosphere around 2 billion years ago. The bacteria have changed the Earth's biosphere from an oxygen-free to an oxygen-rich one, from an environment unprotected against UV rays, to environment with ozone layer as UV protection zone. Sterile terrestrial lands changed to lands rich with life. After the change from the anaerobic to the aerobic life the biosphere changed, and many complex life forms evolved.

The water cycle, the oxygen cycles, the carbon dioxide cycles, the sulphur cycle, and waste of organic compounds together with life itself have been an integral part of the biosphere's environment. The basic influence transferred the fragile environments into life- friendly environments, and resulted in protection of the Earth surface against erosion and it consequences such as destruction of lands, ocean water currents, and air movements that have been established as regular or temporary (Ecimovic et.al. 2010).

The biosphere was evolving and became the space for life and living creatures. Physical, geographical, chemical, biological and systemic interdependences/interactions and co-operation enabled an environment supportive of evolvment of life. Today, we may find at the same time within the Earth biosphere primordial conditions as well as any later evolvments, which followed them later on. Our present biosphere has a countless number of biological sub-systems, which are, along with their synergies, ensuring the life continuity in the present and many other possible and changed environments. As an environment it has excellent transport and interaction abilities, which probably, together with other sub-systems: cloud formation and movements, lightening and natural electricity, assisted the birth of life. Life appeared in aquatic environment, and it took almost two billions years for life to move from the aquatic environment into terrestrial lands. Yet water is a needed quality of biosphere, as a precondition of life. Most living creatures have between 75 and 95% and more of water content within their bodies. Water is the main transport system within cells, tissues and all the body. Water is the main environment for chemical processes in nature. Water is the main architect of nature, when carving mountains, lakes, rivers, and shaping the Earth surface (Ecimovic et.al. 2010).



It's accepted that; the origin of our ancestor, the Homo sapiens has been dated some 200.000 years ago and our first settlements some 14.000 years ago (the first settlements in Eurasia), and great cultures (China, India, Mesopotamia, Egypt, Persia) 7.000 – 3.000 years ago, we may discuss from where we are. But what we are, from the point of view of the natural sciences – biology of the biosphere and planet Earth, this issue is not included into any old script or our predecessors' philosophy. Religions – the permanent supporters of our civilization are our predecessors' innovations, but they have never discussed the origin of the civilization. Their focus has always been on human being and how to take from people as much as possible. Existence, economics, and ideology have always been interdependent.

Warriors, kings, rulers, democrats from the past (such as the ancient Greeks some 2.500 years ago) and present, religious / spiritual leaders, politicians and many others, who have been self-appointed, elected or appointed, were products of their time and ruled as they ruled. The tribe stories – on and by people, chiefs, and spiritual leaders – describe what we are, but do not discuss what are we doing for our living, and what is our civilization's impact on the biosphere.

We humans are an integral part of the planet Earth biosphere – nature, and the peak of the life tree on the planet Earth, from the natural sciences point of view, and take system theory as our thinking tool; may say that we belong to the planet Earth biosphere as interdependent part/content/living creature system. Thus, our civilization is one of the many living systems inside the planet Earth biosphere and we may say that we are one of the planet Earth civilizations. The other civilizations are; many living creatures and large civilization, which are also out-numbering Homo sapiens by the number of their members many times. Among the largest populations are microbial species, etc. It is known that survival is based upon availability of food, water, air, and space, but what has never been considered, is the impact of the species on the food/water/air/space availability. In nature many species are known, which have a short lifetime, as individuals/individual representatives of their species, but as species they have been around for very long time. The classical case are microbial cultures – parasites, which destroy their host and themselves, but not as species, but as a present culture invading the host. This is a life story, one among many others. And the nature has taken care of matter transition within the kingdom of life. It is a permanent system of matter transition from “ashes to ashes”, not used for ruling the humans but presenting the circling of matter within the biology of the biosphere.

Globalization and Natural Systems

Scattered settlements were where the food, water, air, and space were abundant, and settlements flourished are related subjects in this context. When settlements had joined, the cultures/nations were established. And as long as the food, water, air, and space were abundant the culture was in good shape, but when food, water, air or space became restricted, the culture went down. So finally our civilization has come to Age of Globalization and became our and global ruler of the planet Earth. After a few millennia, food has still been abundant (in 1960's), and water was abundant (in 1960's), and air is abundant (at the beginning of the third millennium), and space looks like being abundant. But at the end of second millennium the food was no more abundant, the water was no more abundant, the air was no more abundant and only space still looked like abundant, which in fact is neither so any more. From the natural sciences point of view, the end of our civilization is approaching



us. But, any culture in the biology of the biosphere has its time of birth, childhood, adulthood, old ages, and history, anyway. At present majority of human population of our civilization has settlement at coastal lands. The pollution of coastal waters is taking place, and soon we shall be able to read results of our continuous action damaging the quality of sea and ocean waters. They will be unpleasant (Ecimovic et.al. 2010).

With our civilization constructions and developments more and more land is changing natural characteristics. At present in Europe land use distribution is: 47% agriculture, 36% forestry and 17% constructions and developments or sealed land, taken from the Nature / Biosphere. According to these; many individuals and organizations need to learn and apply system/holistic, actually a requisitely holistic thinking/behaviours. Both the past and present experiences of our civilization's impact on a large number of natural systems are calling for more effective nature, space, and environment protection from members of our civilization. In reality, we need diffusion of the requisitely holistic thinking for a broader impact towards better and more sustainable behaviour, in order to attain our civilization's long-term responsibility and preserve our nature of our Earth/Biosphere rather than to suffer a global tragedy of our commons. Climate change system operates under preconditions given by the dynamic evolvement of physics, geography, and biology of the Earth and its environment. The humans, with their life practice over the last 300 years of industrial and post-industrial civilization, have been proving their ability to influence constructively and destructively their natural environment, and are going beyond the border of a sustainable life and its long-term influence on the biosphere of the planet Earth. Therefore the selected problem is how to attain a better and more systemic long-term responsibility of humans to humans (individual social responsibility), including the one towards the nature. This viewpoint considers the potential political measures toward this responsibility. It would be proper to think that the "Age of Globalization" is asking for a new approach. The present pollution on the global scale (synthetic chemicals, nuclear etc. technologies, and also similar substances, pesticides, genetic modifications, hormones-like substances from our civilization's synthetic chemical production and medication, technologies' impact – combustion engines and others, transport equipment, armaments and other war equipment's, other chemicals with impact on gene structure, etc.) reflects samples of our civilization's short-term and narrow-minded behaviour. What we need for our sustainable future is our long-term social responsibility together with individual social responsibility of each and one, for our civilization's impact within the biosphere; it impacts us via nature (Ecimovic et.al. 2010).

Global Environmental Problems

At the dawn of the third millennium, a powerful and complex web of interactions is contributing to unprecedented global trends in environmental degradation. These forces include rapid globalization and urbanization, pervasive poverty, unsustainable consumption patterns and population growth. Often serving to compound the effects and intensity of the environmental problems, global environmental challenges require concerted responses on the part of the international community. Global climate change, the depletion of the ozone layer, desertification, deforestation, the loss of the planet's biological diversity and the Trans boundary movements of hazardous wastes and chemicals are all environmental problems that touch every nation and adversely affect the lives and health of their populations. As with other environment related challenges, children suffer most from the effects of these global trends and are disproportionately vulnerable. Moreover, all of these global environmental trends



have long-term effects on people and societies and are either difficult or impossible to reverse over the period of one generation (Chiras 1991, UNEP, UNICEF & WHO 2002).

For the purposes of biodiversity monitoring, focus on two scales is an offer: regional and global, and two levels: species and ecosystems. These levels of biodiversity have particular implications at each scale for the delivery of ecosystem services. Diversity is complex and multi-dimensional systems of something. Current biodiversity monitoring programmes suffer from three main constraints: incomplete taxonomic and spatial coverage; lack of compatibility between data sets owing to different collection methodologies; and insufficient integration at different scales. A pragmatic approach proposed to the global monitoring of biodiversity to tackle, with global and regional scale programmes at the species and ecosystem levels (Pereira and Cooper 2005).

The need for biodiversity monitoring The Convention on Biological Diversity (CBD; <http://www.biodiv.org>) aims ‘to achieve by 2010, a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth’. The European Union has set an even more stringent target: to halt biodiversity decline by 2010. Examination of current trends, as well as the exploration of plausible future scenarios, suggests that the CBD 2010 target is unlikely to be achieved unless an unprecedented effort is made, both at the policy and institutional levels, to improve current conservation efforts and to develop new strategies. This would include the implementation of measures targeted at biodiversity conservation inside and outside protected areas and at limiting the causes of biodiversity loss in all economic sectors, from energy production to agriculture. To determine how current conservation efforts can be improved and to guide new strategies, it is crucial that our progress towards the CBD 2010 target and beyond is monitored. How this should be done is now the subject of much debate. Most of the discussion has been directed at what indicators should be used based on existing data. A global monitoring network of biodiversity covers to gather new data for these measures and to integrate current monitoring initiatives (Pereira and Cooper 2005).

Sustainability on Agriculture and Biodiversity

Sustainable agriculture integrates three main goals; environmental stewardship, farm profitability, and prosperous farming communities. These goals have been defined by a variety of philosophies, policies and practices, from the vision of farmers and consumers. Sustainable development (SD), demands that we seek ways of living, working and being that enable all people of the world to lead healthy, fulfilling, and economically secure lives without destroying the environment and without endangering the future welfare of people and the planet. The precise meaning of SD has been widely debated. Detailed description of “life on the earth” is very difficult, because of its incredible complex structure. So biologists separate life, in units as hierarchic level, because of making easy for working. The cooperation between international relations and technological developments brought the globalization concept. So “Universal Market” spread over as a new approach in the intercommunity trade platform. By the “Global Market” results of the current combined studies on biotechnology and genetic actualised; a great deal of discussions has been started of the human being on, some suspicion at the new dimensions of the biodiversity. Sustainable development has become a widely used term today. This term seems to have become a universal consensus. But this is true only at first sight. A closer investigation reveals that there are many contradictory definitions and that the dissent about a sustainable path to the future is



hidden in these definitions. For classification of “sustainability definitions” an axis of anthropocentricity is proposed along which the different definitions can be located. “The social systems can only grow to the extent that such growth backed by greater economic performance” or: “The economic system should be designed in such a way that it promotes personal initiative and subordinates personal interest to public interest”. While the scientific prerequisites for ecological sustainability can be at least roughly defined, this is the case for social, economic and cultural sustainability. But while societal discourses in the social and cultural area can lead to progress, they can have only disastrous consequences in the ecological area. It is fact that; ecosystems are not negotiable and nature does not conduct consensus talks. They needs full of social responsibility applications and claim protection of sources, so sustainability is very important and inevitable rule for environment and also CSR (Schauer 2002, Topal 2003, 2004, 2005, Topal and Crowther 2004).

Biodiversity and Social Responsibility Concepts

The approach of evaluating the quality of species communities in agro ecosystems mainly on the basis of “biodiversity” (in the sense of species richness), must be analysed critically. As Büch et al. (2003) were carried out that, evaluation problems consist not of the limitations of the assessment of conventionally managed fields, but in the practical translation into action and application of the procedures within current farming practices as well as in the control of the success of the measurements. Therefore, biodiversity consists of two components, the diversity component and the expression of dominance structure -frequency and percentage of each element within the whole subset considered. So, the same level of biodiversity can be achieved by a considerable richness of different elements or by less richness but a balanced frequency of each element. An exact interpretation is possible using the term “evenness” (probability of selecting a certain element taken from a whole subset. However, in common use and mainly by “secondary users” the “frequency” component and its interpretation “evenness” are mostly neglected. So, the term biodiversity is actually very often used to express in an almost diffuse sense, the number of different elements (mostly species) within a subset underlayed by a “the more-the better” interpretation. More recent interpretations of the term biodiversity are not only restricted to “species richness”, but are also related to varieties, races, life forms and genotypes as well as landscape units, habitat types, structural elements (e.g. shrubs, stonewalls, hedgerows, ponds), crop or land use diversity, etc. Finally, the term (bio)diversity is used in areas with only a very indirect relation to the biological component of biodiversity. Hence, the generic term biodiversity forms a hierarchic system relevant for different scale levels sum of elements of a genome, a population, a species community, an ecosystem or a landscape (population, species, biocoenosis, habitat and landscape), compositions and functions (Anon. 2006a,b,c). The quality and/or quantity of a component of a higher (scale or hierarchic) level has a direct effect on the quality and/or quantity of components in lower (scale or hierarchic) levels. For example, a change of the landscape pattern (structural component) as a result of a change in land use (functional component) affects the species composition (compositional component) and finally, processes running in ecosystems (functional component). However, the interrelations between hierarchic scale levels can also be the other way round, as so called “ecosystem engineers” as Lawton, and Jones (1995) may influence structures and processes in ecosystems. According to these explanations (Büchs, 2003):



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- that biodiversity is based upon many interlinked mechanisms which depend on the heterogeneity or “richness” of their elements in the same way as on the development of functional processes;
 - That the knowledge of rules within and between the components and the hierarchic scale levels is a basic requirement for a sound interpretation of the data recorded, and for the development of advanced concepts on biodiversity management.

The term biodiversity, however, became more public only after the signing of the “Convention for Biodiversity” (e.g. UNEP-Conference Nairobi, Kenya, May 1992; “Earth Summit” Rio de Janeiro, Brazil, June 1992) by 168 countries. Today biodiversity is a term familiar to many: hardly any research programme with an ecological intention is able to manage without using the term biodiversity. Similar to the term “ecology” which was coined more than 30 years ago, the term biodiversity has also been picked up by several groups of society in central Europe with completely different goals. Biodiversity covers, all livelihoods are a complementary part of a big system. This system includes atmosphere, oceans, water resources, rocks and soil, which are thought as non-livelihood as humanity we are the functions of this life. According to the II/15 decision of corresponding parties in FAO’s “Biodiversity Consensus Committee” suggested that; “A possible agricultural biodiversity can affect the natural structure in the future”. These natures are consisted as biological diversity for food and agriculture those include crops genetic resources, wild relatives and harvested wild food plants, animal genetic resources, forests, fish and aquatic life, microorganisms, soil biota, pollinators and predators (FAO 2001a,b, Topal 2003, 2004).

The quality and/or quantity of a component of a higher scale or hierarchic level have a direct effect on the quality and/or quantity of components in lower scale or hierarchic levels. For example, a change of the landscape pattern (structural component) as a result of a change in land use (functional component) affects the species composition (compositional component), as given by Waldhardt and Otte (2000).

Particularly in applied research, functional aspects of biodiversity and consequently also structural components of agricultural ecosystems are increasingly important. Although there is no doubt about the ethical justifications of maintaining and recovering biodiversity, only known about whether a certain biodiversity level (higher or lower) or different dominance structures of species communities do influence the functionality of food webs, or whether the quality (and quantity) of the biological control (by natural enemies) of pest organisms in agro-ecosystems is affected. These natural enemies accompanied by a low abundance level of each species highlighted three general points of view regarding biodiversity (Büchs, 2003):

- Biodiversity as a concept (expressed as the “variety of life” it is completely abstract and extremely difficult to understand).
- Biodiversity as a measurable entity.
- Biodiversity as a social/political construct.

Biological diversity is concentrated in areas inhabited by socio-economically marginal and traditional societies, and so it is a key indicator of sustainability and buffering capacity: highly diverse ecosystems are, for instance, more efficient in capturing energy, water,



nutrients and sediments than homogenous systems. Thus, the high technical standard of central European societies seems to be a contradiction to achieve considerable biodiversity levels. Biodiversity as indicators of those: (a) should be holistic, but closely related to the assessment goals, (b) are important to then structure and function of the agro-ecosystem, (c) are a response to a range of environmental stresses (d) can be easily measured, quantified and interpreted and (e) show an integrative potential in the long term. Also “biodiversity indicators have to be common and widespread. They should occur under the different environmental conditions that are of relevance according to the qualities of biodiversity under consideration”. But more related to ecosystem features than anthropocentric goals has been developed by using soil staphylinid beetle assemblages as an indicator system for (Büchs, 2003):

- Productive systems (e.g. arable crops) considering the abundance of beneficial species (predators) only;
- Self-sustaining ecosystems (e.g. revegetated mine waste) considering only a selected set of species associated with ecosystems not receiving external nutrient inputs and associated with litter decomposition;
- Biogeographically characteristic ecosystems (e.g. calcareous fens) considering species which are of local occurrence and stenotopic.

Corporate social responsibility (CSR) is an expression used to describe what some see as a company’s obligation to be sensitive to the needs of all of its stakeholders in its business operations. The principle is closely linked with the imperative of ensuring that these operations are "sustainable" i.e. that it is recognized that it is necessary to take account not only of the financial/economic dimension in decision making also the social and environmental consequences (Anon 2005, Topal and Öngen 2008). Sustainability is very important and inevitable rule for environment and also CSR. The sustainability offers research and consultancy in the area of CSR (Anon. 2006c) Sustainability by rural people for thousands of years, is often as an important part of the culture. But the increasing population, more sophisticated technology, and changing social, economic and political structures of today have removed most traditional controls on how resources are managed. If sustainable benefits are to be provided to local communities, as a primary objective of development, more effective controls may be required to ensure that populations of plants and animals are maintained at productive levels. The means of doing this will vary from place to place, but management of protected areas for sustainable development should be based on main principles (McNeely, 2004).

Biodiversity and its Role - Function on Agro ecosystems

Increasingly research suggests that the level of internal regulation of function in agro ecosystems is largely dependent on the level of plant and animal biodiversity present. In agro ecosystems, biodiversity performs a variety of ecological services beyond the production of food, including recycling of nutrients, regulation of microclimate and local hydrological processes, suppression of undesirable organisms and detoxification of noxious chemicals. The role of biodiversity in securing crop protection and soil fertility is explored. It is argued that because biodiversity mediated renewal processes and ecological services are largely



biological, their persistence depends upon the maintenance of biological integrity and diversity in agro ecosystems. Various options of agro ecosystem management and design which is enhance functional biodiversity in crop fields. In agricultural systems, biodiversity performs ecosystem services beyond production of food, fibre, fuel, and income. Renewal processes and ecosystem services are largely biological, therefore their persistence depends upon maintenance of biological diversity renewal processes and ecosystem services are largely biological, therefore their persistence depends upon maintenance of biological diversity decreased soil, water, and food quality when pesticide and/or nitrate contamination occurs. The net result of biodiversity simplification for agricultural purposes is an artificial ecosystem that requires constant human intervention, whereas in natural ecosystems the internal regulation of function is a product of plant biodiversity through flows of energy and nutrients. This form of control is progressively lost under agricultural intensification. Thus commercial seed-bed preparation and mechanized planting replace natural methods of seed dispersal; chemical pesticides replace natural controls on populations of weeds, insects, and pathogens; and genetic manipulation replaces natural processes of plant evolution and selection. Even decomposition is altered because plant growth is harvested and soil fertility maintained, not through nutrient recycling, but with fertilizers. Thus modern agricultural systems have become productive but only by being highly dependent on external inputs. A growing number of scientists, farmers and the general public fear for the long-term sustainability of such highly input-dependent and ecologically simplified food production systems. Questions are being raised about the growing dependence of modern farming on non-renewable resources, the loss of biodiversity, the loss of land through soil erosion and the heavy reliance on chemical fertilizers and pesticides (Altieri, 1999, Saxena, et al. 1999).

Farm chemicals are questioned on grounds of cost but their widespread use also has implications for human and animal health, food quality and safety and environmental quality. The commercial agricultural sectors of developing countries suffer from similar problems but the greater challenge for them is to determine new ways to increase small farm productivity that not only benefit the rural poor under marginal agricultural conditions, but also conserve and regenerate the resource base. The development of agro-ecological technologies and systems which emphasize the conservation, regeneration of biodiversity, soil, water and other resources is urgently needed to meet the growing array of socioeconomic and environmental challenges. Enhancing functional biodiversity in agro ecosystems is a key ecological strategy to bring sustainability to production. The roles of biodiversity (predators, parasitoids, antagonists and soil micro flora and micro fauna) in securing crop protection and soil fertility is explored. Modern (!) agriculture implies the simplification of the structure of the environment over vast areas, replacing nature's diversity with a small number of cultivated plants and domesticated animals. Genetically agriculture is shockingly dependent on a handful of varieties for its major crops. Researchers have repeatedly warned about the extreme vulnerability associated with this genetic uniformity. In contrast, biodiversity is not foreign to traditional farmers in the Third World.

In fact the species richness of all biotic components of traditional agro ecosystems is comparable with that of many natural ecosystems. These systems offer a means of promoting diversity of diet and income, stability of production, minimization of risk, reduced insect and disease incidence, efficient use of labour, intensification of production with limited resources, and maximization of returns under low levels of technology. Traditional cropping systems are also genetically diverse, containing numerous varieties of domesticated crop species as well as their wild relatives. Maintaining genetic diversity appears to be of even greater importance



as land becomes more marginal and hence farming more risky. The type and abundance of biodiversity in agriculture will differ across agro ecosystems which differ in age, diversity, structure, and management. In fact, there is great variability in basic ecological and agronomic patterns among the various dominant agro ecosystems. In general, the degree of biodiversity in agro ecosystems depends on four main characteristics of the agro-ecosystem (Altieri, 1999):

1. The diversity of vegetation within and around the agro-ecosystem.
2. The permanence of the various crops within the agro-ecosystem.
3. The intensity of management.
4. The extent of the isolation of the agro-ecosystem from natural vegetation.

The biodiversity components of agro ecosystems can be classified in relation to the role they play in the functioning of cropping systems. According to this, agricultural biodiversity can be grouped as follows. Productive biota: crops, trees and animals chosen by farmers which play a determining role in the diversity and complexity of the agro-ecosystem. Resource biota: organisms that contribute to productivity through pollination, biological control, decomposition, etc. Destructive biota: weeds, insect pests, microbial pathogens, etc. which farmers aim at reducing through cultural management. Two distinct components of biodiversity can be recognized in agro ecosystems. The first component; planned biodiversity, is the biodiversity associated with the crops and livestock purposely included in the agro ecosystem by the farmer, and which will vary depending on the management inputs and crop spatial/temporal arrangements. The second component, associated biodiversity, includes all soil flora and fauna, herbivores, carnivores, decomposers, etc. that colonize the agro ecosystem from surrounding environments and that will thrive in the agro ecosystem depending on its Management and structure. The search for self-sustaining, low-input, diversified, and energy efficient agricultural systems is now a major concern of many researchers, farmers, and policymakers worldwide. A key strategy in sustainable agriculture is to restore functional biodiversity of the agricultural landscape, as given at Altieri's results (1994). Biodiversity performs as key for ecological services and if correctly assembled in time and space can lead to agro ecosystems capable of sponsoring their own soil fertility, crop protection and productivity. Diversity can be enhanced in time through crop rotations and sequences and in space in the form of cover crops, intercropping, agroforestry, crop/livestock mixtures, etc. Correct biodiversification results in pest regulation through restoration of natural control of insect pests, diseases and nematodes and also produces optimal nutrient recycling and soil conservation by activating soil biota, all factors leading to sustainable yields, energy conservation, and less dependence on external inputs.

Diversification can also take place outside the farm, e.g., in crop, field boundaries with windbreaks, shelterbelts, and living fences, which can improve habitat for wildlife and beneficial insects, provide sources of wood, organic matter, resources for pollinating bees, and, in addition, modify wind speed and the microclimate. Such structures can also serve as biological corridors for the circulation of biodiversity across large scale agricultural landscapes. Agro ecological design is improved economic and ecological sustainability of the agro ecosystem, with proposed Management systems specifically in tune with the locally available biodiversity and with the existing environmental and socioeconomic conditions



(Altieri 1999). Instead of this; some important results show that, ecological farming significantly increases biological and landscape diversity and decreases the risk of nutrient leaching and soil erosion. Marginal areas, where low intensity agriculture creates less pollution load and supports biodiversity, have the most potential for conversion to ecological agriculture. However, owing to the greater impacts of ecological agriculture on biodiversity in intensively managed agricultural areas, ecological farming should be developed within the core areas of intensive agricultural production. Therefore, instead of developing ecological farms on marginal areas, agricultural policy should pay more attention to support ecological farming in the heart of intensive production areas (Mander et al. 1999). Although Hole et al. (2005) also determined four key issues, for attention. Those are:

1. It remains unclear whether a “holistic” whole-farm approach (i.e. organic) provides greater benefits to biodiversity than carefully targeted prescriptions applied to relatively small areas of cropped and/or non-cropped habitats within conventional agriculture (i.e. agro- environment schemes),
2. Many comparative studies encounter methodological problems, limiting their ability to draw quantitative conclusions;
3. Knowledge’s of the impacts of organic farming in pastoral and upland agriculture is limited;
4. There remains a pressing need for longitudinal, system level studies in order to address these issues and to fill in the gaps in our knowledge of the impacts of organic farming, before a full appraisal of its potential role in biodiversity conservation in agro ecosystems can be made.

Because of these, a new dimension of biodiversity started a discussion about “hope / satisfaction / suspect” of human being from the current transgenic technology developments. Agricultural biodiversity is a topic, which includes all of the corresponding components of agriculture and ecosystem functions. If the agricultural ecosystem functions are thought together in the case of sustainability, animals, plants, microorganisms have a key function in a level of “genetics-practice-ecosystem” for species and diversity. Optimization and increasing productivity at natural resources, environment and social standards will be obtained basically by well-organized regulations and continuity of current technological developments. But instead of these advantages some cases like controlling and monitoring of new products, services and processes should be guaranteed for social safety and ethics. These are the basic dimensions of production and domestication in agriculture and part of the “planned agricultural diversity”. All of these are discussing currently, those positive realities like creating new recourses, increasing the productivity and resistance (Topal 2004).

We need to conserve and sustainable use biological diversity, in this case:

- Agricultural diversity should provide enough food and safety for basic needs of human being,
- The sustainability of components and managing agricultural diversity should be established (FAO 2001a, Fresco 2000, Topal 2004).



The current dimensions of agricultural biodiversity practices are shown widespread applications in developed countries as farming and marketing level, but as also consuming level at underdeveloped and 3rd world countries. The unknown nature of this risk and the unusual method of transmission make highly alarming to consumers. On the other side it is important for sustainability of the agricultural products from the side of local varieties (Topal 2003, 2004).

Biological diversity is decreasing worldwide drastically. Comprehensive studies show that presently 24% of mammal and 12% of bird species are threatened by extinction. With respect to plants less is known as not even all plant species have been described and many of them may be destroyed without even having been discovered. The main reason for the decrease of biological diversity is the destruction of precious biotopes both in developing and in developed countries. The discussion from the side of related economic globalization: The displacement of native plants and animals by invasive species. For example, neophytes are plant species which invade biotopes and change their natural equilibrium. This in itself is neither unusual nor negative. However, the immigration of foreign species has increased to such an extent today, that is natural rate is exceeded. Scientists have imported organisms from all regions of the planet and inevitably some species have travelled as stowaways. Most of the imported species were unable to adapt to the conditions of the same local conditions. In the past the formation of international markets for agricultural products had a very negative effect on agricultural biodiversity. International competition forced farmers to cultivate just those species and varieties which returned the highest short term income. Therefore, regionally cultivated varieties which would have been a very valuable resource for future plant breeding but which have lower yields, were no longer cultivated (FAO 2003, Topal 2004). These are other obligations for “consumer consciousness” work also succeeded, such emergency precautions became very important and urgent in planning’s of developing countries. All researchers and consumers must be aware of the developments from the wide perspective (Topal 2004).

Offered Worldwide Environmental Policy from the Side of Corporate Environmental Performance

A lot of improvements in environmental performance and the management system have been achieved within the companies which are still beneficial. However, the question remains how “Environmental Management Systems” can be growing up in future especially at the political level. Also appropriate accounting instruments for controlling are essential for the continuous improvement of corporate environmental performance. The researches on the corporate input-output balance and the life cycle assessment were first developed as environmental management accounting instruments. In the 1990s further instruments were developed including environmental performance indicators (EPI), different approaches to environmental cost accounting and various methods for calculating ecological impact, e.g. ecological footprint, impact equivalents - best known for measuring CO₂ emissions (Loew et al. 2002, Anon. 2006c).

All of us are responsible to the communities in which we live and work and to the world community as well as each other’s. We must maintain in good order the property we are privileged to use, protecting the environment and natural resources. Most of the important strategy is committed to environmental leadership, instilling the highest environmental values



in all employees, utilizing the best environmental practices in all we do, and focusing on sustainable growth that it means statement of “Environmental Policy”. Main necessities are:

- Operating beyond compliance with all applicable laws and regulations by uniformly global environmental policies and standards,
- Environmental management system standards and other voluntary principles to which we subscribe.
- Maintaining structure at the corporate and operating companies that assures proper oversight, using environmental accountability as a measure for management performance.
- “Integrating Environmental Goals” into our business strategies and plans while publicly reporting on our progress.
- Striving for “Zero waste” and “100% resource efficiency, and enhancement” of the environment.
- Utilizing Innovative Technologies and leveraging best practices globally for the greatest environmental gain and continuous improvement.
- Fostering an Environmental Ethic among our management, employees, stockholders, customers, suppliers and communities worldwide.
- Building relationships with regulatory agencies, interest groups, thought leaders, and communities to engender collaboration, cooperation, and mutual understanding.
- Enhancing CSR by supporting environmental health and education, conservation and community-based programs worldwide (Anon. 2006a,b,c,d).

On the other hand, a lot of improvements in environmental performance and the management system have been achieved within the companies which are still beneficial. However, the question remains how “Environmental Management Systems” can be growing up in future especially at the political level. Also appropriate accounting instruments for controlling are essential for the continuous improvement of corporate environmental performance. The researches on the corporate input-output balance and the life cycle assessment were first developed as environmental management accounting instruments.

Protected Areas and Ecosystem Assessment (MA)

The MA synthesizes information from the scientific literature, datasets, and scientific models, and makes use of knowledge held by the private sector, practitioners, local communities and indigenous peoples. All of the MA findings undergo rigorous peer review. The MA is governed by a Board comprised of representatives of international conventions, UN agencies, scientific organizations and leaders from the private sector, civil society, and indigenous organizations. More than 500 authors are involved in four expert working groups of United Nations Environment Programme, preparing the global assessment and hundreds more are undertaking more than a dozen sub-global assessments (Lucas 2003). As summarized by Lucas; the first report of the Millennium Ecosystem Assessment describes the conceptual framework that is being used in the MA. It is not a formal assessment of the literature, but rather a scientifically informed presentation of the choices made by the assessment team in structuring the analysis and framing the issues. The conceptual framework elaborated in this report describes the approach and assumptions that will underlie the analysis conducted in the Millennium Ecosystem Assessment. The framework was developed through interactions among the experts involved in the MA as well as stakeholders who will use its findings. It represents one means of examining “the linkages between ecosystems and human well-being that is both scientifically credible and relevant to decision makers”. This framework for



analysis and decision making should be of use to a wide array of individuals and institutions in government, the private sector, and civil society that seek to incorporate considerations of ecosystem services in their assessments, plans, and actions. The conceptual framework for the MA places human well-being as the central focus for assessment, while recognizing that biodiversity and ecosystems also have intrinsic value and that people take decisions concerning ecosystems based on considerations of well-being as well as intrinsic value.

As briefly determined by Lucas; the assessment framework developed for the MA offers decision makers a mechanism to:

- Identify options that can better achieve core human development and sustainability goals.
- Better understand the trade-offs involved—across sectors and stakeholders—in decisions concerning the environment.
- Align response options with the level of governance where they can be most effective.

As also discussed by Paulsen (2001) biodiversity is related with human activities and natural resources. It affects the species composition and the spatial distribution of plants and animals. Thereby, it affects the availability of natural forest resources, such as non-timber-forest products, to people who live in, and who are entirely dependent upon the resources found in, forests. People strongly dependent upon local forest resources will be more affected by a changing spatial and temporal distribution in forest resources, than people who are less dependent on those resources. Indigenous people living in the interior parts of the forest away from developed infrastructure, and hence often having few or no alternative income sources/options are therefore more sensitive to, i.e., more likely to be affected by, changes in the availability of local natural resources (such as non-timber-forest resources).

Protecting and Sharing Biodiversity and Traditional Knowledge Relationship from the Side of Holder and User Tools

Some of the major concepts used in the current debate: biodiversity, (traditional) knowledge, holders and users. For a wide and in-depth tour from horizon of the legal instruments which can serve to protect biodiversity and traditional knowledge, can see from the perspective of biodiversity and traditional knowledge holders. Also, the legal tools are explored which can be helpful in sharing the benefits resulting from biodiversity and traditional knowledge, from the perspective of responsible users. As given above in description of biodiversity by CBD; the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. “Biological resources” include “genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity”. “Genetic resources” means “genetic material of actual or potential value”. While the language of the CBD provides a broad scope for action, CBD discussion documents suggest that the parties are at present focusing on “Nonhuman Biological Materials (NHBMs)” and their natural habitats. Those resources thus encompass pharmaceutical as well as natural product resources and crop genetic resources. NHBMs are components of “common pool resources” and are themselves common pool goods. The question arises to which extent this economic qualification has/should have any effect on our thinking on intellectual property concepts in the field of biodiversity. This question calls for further investigation (van Overwalle 2005).



For a decade or more, scientists have built up a picture of Earth as a similarly complex, interconnected system — resilient in places but vulnerable in others. Progress has been slower than many hoped, but planetary models now go beyond simple atmospheric chemistry and the carbon cycle to include cryosphere, ocean and land processes. The basics of the nitrogen cycle are being included, as are elementary descriptions of social and economic systems such as energy and agriculture. As a result, there has been an explosion in our knowledge of Earth as a complex system. One conclusion is clear: our behaviour will shape our future. Despite these advances, the UN still doesn't seem to see that Earth's restless and powerful social system operates within a complex and intricately linked ecological system — let alone manage it. The UN system currently includes more than 500 international treaties and agreements related to the environment. In addition to the semantic discussion on the notion of biodiversity, there has been an interesting debate on the economic nature and value of biodiversity (Seitzinger 2010).

Key Biodiversity Issues for Protected Areas and Importance

IUCN — The World Conservation Union defines a protected area as an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. The Convention on Biological Diversity (1992) describes a protected area as a geographically defined area, which is designated or regulated and managed to achieve specific conservation objective. Protected areas—national parks, wildlife reserves, wilderness areas, etc. — are the cornerstones of national and international conservation strategies. They act as refuges for species and help maintain critical ecological processes and ecosystem services that intensely managed landscapes and seascapes cannot provide.

These places provide space for natural evolution and future ecological restoration. In recent years there has been growing recognition of the benefits that protected areas provide for people: genetic resources for pharmaceuticals and agriculture, traditional medicines; recreational opportunities and ecotourism revenues; sustainable sources of goods such as non-timber forest products; and refuge for traditional and vulnerable human societies (Dudley et al. 2005).

Building on the recent developments, CBD enables Parties, other Governments, and relevant organizations to effectively implement provisions on in-situ conservation by canalizing efforts and resources in support of an effective global protected area network. The ultimate result of the implementation of the programme of work is the establishment and maintenance of an effectively managed, ecologically representative global system of protected area networks, where human activities are managed to maintain the structure and functioning of the full range of ecosystems, in order to provide benefits to both present and future generations and achieve a significant reduction in the rate of biological diversity loss (Gidda and Mulongoy, 2004).

A wide range of management objectives, approaches and types of governance are used within protected areas in different countries. In terms of management objectives, these range from strict protection and exclusion of humans to broad-scale approaches that include cultural landscapes such as farms and managed forests. IUCN—The World Conservation Union subdivides protected areas into six categories based on management objectives: I a: strict nature reserve/wilderness protection area; I b: wilderness area; II:national park; III:natural



monument; IV:habitat/species management area; V:protected landscape/ seascape; and VI: managed resource protected area. In terms of governance types, protected areas may be managed directly by a government, co-managed with other actors such as non-governmental organizations, or even declared and managed collectively by indigenous peoples and local communities or by the relevant individual or corporate landowner (Dudley et al. 2005).

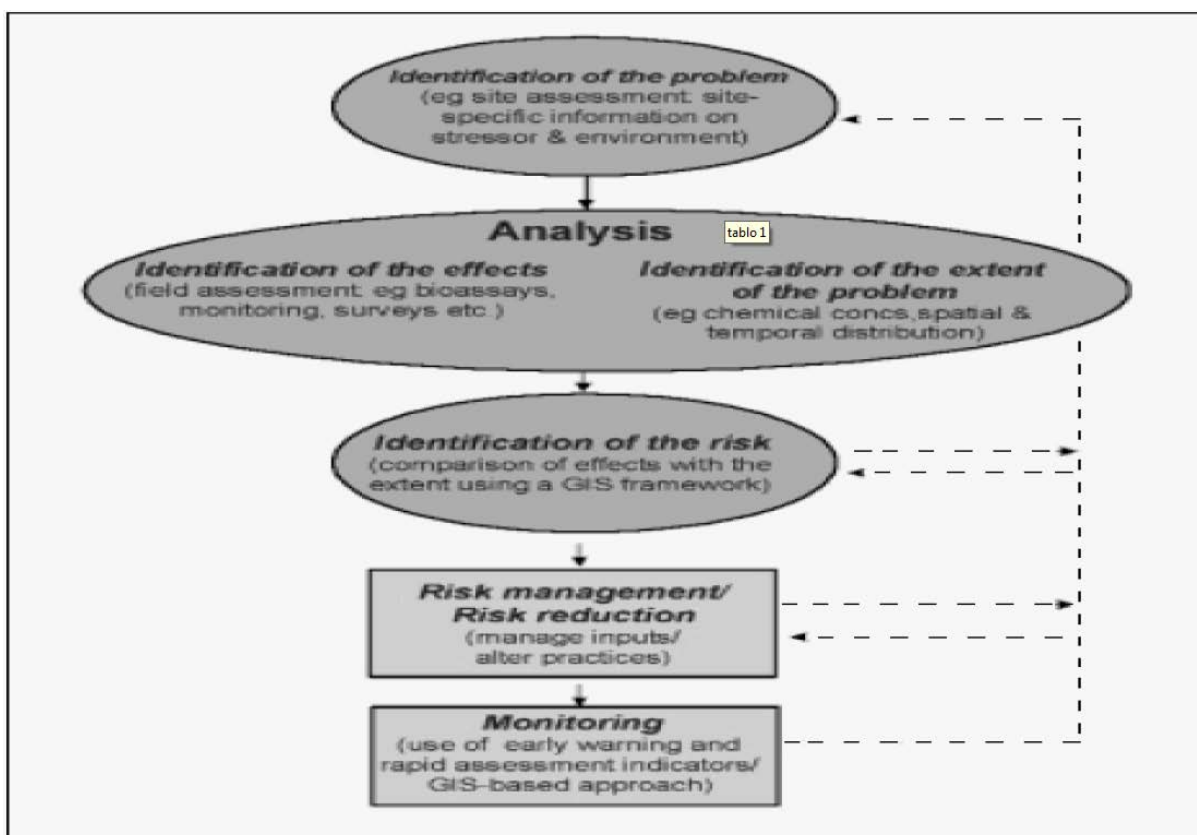
Providing Benefits to Rural Communities

Far more needs to be done to build support from local communities for protected areas. This will require a challenging combination of incentives and disincentives, economic benefits and law enforcement, education and awareness, employment in the protected area and employment opportunities outside, enhanced land tenure and control of new immigration (especially where the buffer zones around protected areas are targeted for special development assistance). The key is to find the balance among the competing demands, and this will usually require a site specific solution. A key factor is the stability of rural communities, implying that governments need to be particularly cautious when contemplating major efforts at relocating people from one part of the countryside to another. Those people who have developed long-term relationships with particular settings, and have developed knowledge on how to manage the resources contained within those ecosystems, are likely to have very different relationships with the land and its resources than are new immigrants who have no particular linkage to local resources and often receive considerable subsidies from outside; the new arrivals frequently are responsible for more destructive land-use practices than are the long-term residents, but of course new technologies and new markets can be expected to change behaviour of local villagers irrespective of their traditional conservation practices. It is possible that some local communities have a limit on their perceived needs, and once their basic needs are met, then they will reduce their impact on protected area resources. But this rosy assumption is far from a generality and most communities contain at least some individuals who happily will try to exploit more from a system than can be supported in a sustainable way, even if the social costs far outweigh the private benefits. This means that protected area management needs to be based on a clear understanding of rules and regulations, and effective means of enforcing them through various kinds of incentives (such as employment, clean water, various kinds of linked development, and so forth), and disincentives (such as public ostracism, fines, and jail terms). Protected areas are created by people, so they are expressions of culture and serve as models of the relationship between people and the rest of nature. Thus the culture of each country is reflected in its system of protected areas, so each will tend to have different characteristics. The single over-riding issue for those interested in using protected areas to alleviate poverty is how to find the right balance between the generalized desire to live harmoniously with nature and the need to exploit resources to sustain life and develop economically. The problems facing protected areas are thus intimately related to socio-economic factors affecting communities in and around protected areas, including poverty, land tenure, and equity; they also involve national level concerns, such as land use, tourism, development, balance of payments, energy, and resource management; and global concerns such as biodiversity, climate change, and generation of new, knowledge about life (McNeely 2004, Topal and Öngen 2008).

Risk Assessment Framework for a Formal Resolution of the Environmental Risks



A risk assessment framework has been encouraged and recommended under a formal resolution of the Environmental risks and this framework contains six steps, as shown in Figure 1 (van Dam et al. 2002, Topal and Öngen 2008).



As seen from the Figure 1; Identification of the problem for risk assessment application is necessary to determine the hazards first and trying to find the radical solutions for reducing or removed of them are the main strategy for Risk Management System. The extent and consequences of such invasions were assessed on the basis of existing information and recommendations made for control measures, including training, and information gaps identified from the figure (van Dam et al. 2002, Topal, et al. 2009).

Holder Tools and Protecting Biodiversity

Initially, biological resources were considered to be the “heritage of mankind”. By the same token, until the end of the last century, genetic resources were loosely labelled as “common heritage”. This refers to the treatment of genetic resources as belonging to the public domain and not owned or otherwise monopolized by a single group or interest. With regard to crop resources, this system implies open access and non-exclusion to seeds and plants. The legal protection of biodiversity and traditional knowledge and the equitable sharing of their benefits have gained wide concern in civil society. It has triggered stakeholders, government officials, politicians and scholars to screen various existing instruments and to develop new lines of thought (van Overwalle 2005). So that to analyse the major concepts is necessary, surrounding this debate. Some concepts are well clarified and are based on a reasonably wide consensus (“traditional knowledge”, “holder”, “user”), whereas others concepts remain unclear in nature and scope (biodiversity, “scientific knowledge”). The legal instruments which can serve to protect biodiversity and traditional knowledge can see from the



perspective of biodiversity and traditional knowledge holders. The term “protection” was defined in its strictest sense, thus referring to intellectual property (IP) protection and similar property regimes. To protect biological resources, mainly two IP regimes came in sight: patents and plant breeder’s rights. The potential of the patent system is rather limited. Biological material of plant or animal origin does not always qualify as an invention. Moreover, the conditions of novelty, inventive step and industrial applicability are often hard to meet in developing provider countries with limited technological capacities. Patent law is definitely out of reach in those provider countries which have opted for using the flexibilities of TRIPs (Trade-Related Aspects of Intellectual Property Rights) and have principally excluded biological material from their patent laws. The potential of the UPOV (The International Union for the Protection of New Varieties of Plants) type plant breeder’s rights system to protect biological resources is rather limited for provider countries as well. Plant breeder’s rights protection is only available for plant varieties, not for the plant world at large. Furthermore, protection is only available if the standard conditions of distinctness, uniformity, stability and (commercial) novelty are met and although this threshold is significantly lower than the patent one, conditions have to be fulfilled. Plant breeders’ rights law is completely beyond reach in the many provider countries which do not offer plant breeder’s rights protection in their territory. From responsible users the perspective, explored the legal tools which can be helpful in sharing the benefits resulting from biodiversity and traditional knowledge (van Overwalle 2005).

Under the theme of «Working together for biodiversity: Regional and international initiatives contributing to achieving and measuring progress towards the 2010 target», more than a hundred authors contributed extended, and to be displayed at the tenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA-10) to be held in Bangkok, Thailand, from 7 to 11 February 2005. Their collective briefs were collected and published under a special report as a Technical Series, by the CBD Secretariat. According to options of Executive Secretary of CBD; “all abstracts are presented in the form in which they were submitted, with only minor edits where necessary” (Zedan 2005). In decision VI/26, the Conference of the Parties (COP) adopted the Strategic Plan for the “Convention on Biological Diversity”. In its mission statement, Parties committed themselves to a more effective and coherent implementation of the three objectives of the Convention, «to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth». In decision VII/30, the COP provided guidance on the review and evaluation of progress made in the implementation of the Strategic Plan and, in particular, its mission statement and adopted a framework that should (Zedan 2005):

- facilitate the assessment of progress towards the 2010 target and communication of this assessment;
- promote coherence among the programmes of work of the Convention;
- provide a flexible framework within which national and regional targets may be set, and indicators identified.

Reaching these targets will require implementing a range of supporting activities, including for example the establishment of an enabling policy environment, provision of financial and technical resources, capacity building, monitoring and evaluation, and ensuring that protected areas are established and effectively managed in an equitable and participatory manner. And also ecologically representative national and regional systems of protected areas that



collectively, inter alia through a global network contribute to achieving the three objectives of the Convention and the 2010 target to significantly reduce the current rate of biodiversity loss.

Conclusions

On Earth, the human population is set to top 9 billion within two generations. Meanwhile, we are altering, in profound and uncontrolled ways, key biological, physical and chemical processes of ecosystems on which this growing population will depend. Scientists are faced with the challenge of finding ways to apply the agreed goals and targets to the national situation and to introduce them into policies, plans and projects relevant to biodiversity management. Earth should appoint a planetary ecologist of its own. Given that today's policy-makers have consistently demonstrated an inability to take more than a short-term view of life on Earth, perhaps it is time to take the idea seriously. This work aims to provide information on approaches taken in a variety of situations and environments and to elucidate the scientific rationale of the methods applied. It presents – often preliminary – results and thereby generates discussion and, hopefully, new initiatives and research on ways in which science can support the monitoring of progress and activities to achieve the 2010 target. All these targets will require implementing a range of supporting activities, including for example the establishment of an enabling policy environment, provision of financial and technical resources, capacity building, monitoring and evaluation, and ensuring that protected areas are established and effectively managed in an equitable and participatory manner. Also ecologically representative national and regional systems of a global network contribute to achieving from all point of objectives of the Convention and the 2010 target to significantly reduce the current rate of biodiversity loss. So it is necessary research, understanding and values/culture/ ethic/norms supporting the long-term responsibility of our civilization in order to stop the irresponsible behaviour of the present rulers in economies and societies, the humans. Our civilization's products such as the one-sided profit system, which causes a failure of understanding of the long-term responsibility, and hence causes irresponsibility, are detrimental to our-selves, at least in a longer term (Seitzinger 2010).

The present status of the biosphere, nature, space and the environment, as well as the scientific and research knowledge available to mankind, but not applied on a requisitely holistic basis of behaviour, and our social system, are driving our civilization in a dead alley: the short-term and narrow-minded views are favoured too much. Individual, regional, national and international interests do not permit mankind to take a new – requisitely holistic – approach to survival by their social, financial, political, and bureaucratic pressures, war/redistribution rather than creation-oriented philosophy, and lack of respect between people (Ecimovic et.al. 2010).

The people of the Earth have to recognize the need for action towards the establishment of an honest and requisitely holistic world constitution, world parliament, and world government as a possibility for our survival, with responsibility to co-ordinate social issues, and to harmonize the needs of the entire mankind, and the nature, space, and environment capabilities, needs, and possibilities. Therefore, a new approach is needed for a redirection of scientific work towards the needed knowledge and values capable of saving the nature, science, and the environment including the climate change system – for mankind to survive. Scientific work, as a basic source of knowledge, needs special co-ordination at the world-wide level and should be an integral part of the world governance, but a requisitely holistic rather than a biased one. We need independent scientists, who work because of their scientific



thinking/acting and practicing ability, and not because of need for daily/monthly/annual salary given to them by bureaucracy (democratic profit-based/dependent societal system), or narrow-minded and short-term focused marketing/profit oriented economy. It is obvious that corporate social responsibility and individual social responsibility of each and one are not a part of present mankind ethics, but declarations for promotion purposes only, mostly. When and if the corporate social responsibility and the individual social responsibility of humans will be a part of each and one representative of our species, the sustainable future of mankind will have better chances to prevail (Ecimovic et.al. 2010).

Earth should appoint a planetary ecologist of its own. Given that today's policy-makers have consistently demonstrated an inability to take more than a short-term view of life on Earth, perhaps it is time to take the idea seriously. It seems to understand the scale and nature of the problem much better than their predecessors. This is welcome, but is still not enough. Indeed, it is doubtful whether a UN system shackled by national self-interest can ever set out a vision for a sustainable planet, or a sensible plan to realize it.

Policy-makers must take on board that Earth's ecology acts as a complex and nonlinear system, and is in a constant state of change. And they must recognize that to fully understand this system, they need to take a long-term view. Is this so different from acknowledging the complexity and timescales of the world economy? Politicians do accept that the global economic meltdown was caused by relatively small changes in parts of the financial system. The response of global markets to US toxic debt and sub-prime mortgages was nonlinear and far-reaching. The effects tumbled through other social systems and rippled through the global carbon cycle by way of reduced emissions. The crash exposed the way in which a jumbled mass of connections can cause a colossal and abrupt decline that the full might of human ingenuity struggles to stem. We should note, given the frequent warnings from scientists about our fragile natural systems, that many economists saw the financial crash coming.

Although the current climate talks in Cancún, Mexico, are being held under the UN's Framework Convention on Climate Change, its related Millennium Development Goals, Convention on Biological Diversity and Millennium Ecosystem Assessment are all managed separately. And the UN's iconic Human Development Index takes no account of sustainable development. Some reasons for this are apparent. The UN's 192 member states are primarily governed by narrow perspectives, self-interest and short time horizons. Nations prefer to deal with environmental issues separately because such an approach gives them more leverage in negotiations. Given what we now know about the long-term planetary impact of human activities, this piecemeal and short-term management of individual environmental issues leaves us exposed should one part of the system fail and send shockwaves through the rest (Seitzinger 2010).

In August, Ban Ki-moon called for fresh ideas as he announced the creation of an independent high-level panel to direct the world towards sustainability. The panel, due to report ahead of the UN's 2012 Conference on Sustainable Development in Rio de Janeiro, is made up largely of senior politicians and business people. UN's 2012 Rio conference, scientists from around the world will gather to set out such a long-term vision of planetary stewardship. The London-based Planet Under Pressure conference aims to attract 2,500. They will offer a timely update on what we know about the Earth system, including the impact of its economic, political and social sub-systems along with policy-makers, natural and social scientists industry and others. The results will be offered to the Rio meeting and the wider world as sorely needed long-term



thinking and leadership from the scientific community. For, as Herbert wrote, "The highest function of ecology is the understanding of consequences". Already some of scientists have been thinking of this for a long time and have just been unable to make their views known due to the hitherto lack of press awareness and unconscious but strong societal prohibitions. According to this is both brilliant and obvious thinking, but how can we get from here to there. The goal is a revolutionary change in the way that the world is governed. How can a planetary ecologist are given the power to rule on issues that multi-national corporations will be reluctant to accept. I think the only way to prevail in this is to change the basic laws that structure corporations. Which means that States must make the changes and States must be willing to work as if One State. Which is not where the UN is at the moment? This is an "as if" world government we are heading toward. That will garner tremendous opposition from conservatives in many governments. It may take getting to truly terrible consequences before people will begin to accept the danger of continuing on as we are. The discussion should become how we can get from here to there for avoid the disasters, but in multi-national levels still must be convinced of the cost, first for anything to succeed (Seitzinger 2010).

I am also agree with Beckett and Cutright (2010) discussions, as given for Seitzinger report (2010); "if we do not act now, when will we act?" Politicians and policy makers are, by their very nature, constrained to thinking in short timescales. Scientists must think in timescales that transcend a single human life. However, the fog of both future and past times represents uncertainties in our understanding and predictions of natural systems, and the consequences of human decisions, or lack thereof. We must keep in mind that every time and we think we have a closed system that we can analyse and understand, also we discover that the system is open as dramatically results. So, what can us, as scientists do? We need to define goals that have meaning for the long term improvement of the human condition, and then provide methods for measuring change against these goals. Scientists are perceived as "trying to prevent" climate change. Climate change is a fact of life and an inherent part of Earth's history for the last four and a half billion years. What we have failed to clarify is that man-made climate change is probably bad, and we should measure man's impact on climate, not simply the fluctuations in normal climatic variations. What are the goals of science? In the long term, however, both are critically important to the well-being of human kind and the Earth's systems that sustain them. If we wish to make an impact, let us develop goals against which we can measure long term benefits, or success. Then we will be able to teach the world, and the policymakers, that the short term policies they develop have long term impact, and from this, we can help influence the long term well-being of the planet, and humankind. Waiting for Godoy, is not a true solution in this strategy.

However, our interaction with the rest of nature is through production and consumption. But human production is nature's destruction. The difference with today's slash and burning of the tropical forest is in some populations' scale and their purpose. The difference is explained by the socioeconomic structure of the native society and the present capitalist system. The capitalist system is driven by capital, in pure form money. While the natives' production was driven by the use value of natural objects, the capitalist economy is a system of generalized commodity production that lives off exchange value. Capital is self- expansion of value. All of these are social relations among people. Profits must not drive by the capitalist system, because of wealth is from nature and healthy public policy is the best way it is. We need clearly, addressed the ecological crisis, and radical changes and solutions for the present society. We need such changes should make human socioeconomic structure in harmony and run economic organization, and also the profit-driven system with a system that focuses on



human needs. This new system should be in harmony with the rest of nature. Local, national and international links that would place public education and public policy commentary must be start in mass media at it centre. We need to help organize public demand for immediate action to protect nature and our fellow humans around the world as well as frames the policy response to the crises facing humanity. However, our interaction with the rest of nature is through production and consumption. Human production must not be a kind of starter of nature's destruction.

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18. Lessons from Brundtland's Commission Report and Further Tasks: Knowledge as main Resource for Sustainable Development

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The main recent tendency is the acceleration of transformations. It had been recognized that sustainable development (SD) is necessary. In the most general terms, SD becomes an issue when there exists, a discrepancy between the available natural resources and their exploitation based on only economic considerations. Non-sustainable development follows to a lot of risks and conflicts.

Analysis of investigations and publications on the SD leads to the conclusion that the main conflict in non-sustainable systems consists in the distribution on space and time restricted volume of resources. Remark that the investigations on sustainable development have been related mainly with the problems on natural resources and energy. But only now it has been recognized, that very important (or just most important) became other aspect of society life – namely KNOWLEDGE.

Usually the science and education as institutes of society had been considered as the tool for spreading sustainable development idea. In most cases the sustainable development was considered in context of ecological, natural, mining, biodiversity saves. But now in the age of globalisation, post-industrial society and informational technologies the intellectual abilities and knowledge become the main resource of survival and sustainable development. So in this paper it is proposed to stress in the searching of sustainable development main stream science, intellectual abilities and education as the main resources for the future. And namely such resources require attention in sustainable development problem solution and strategic planning. So the list of origin new problems and challenges are:

- The origin and development of knowledge; the knowledge reception and use; transfer of knowledge between generations; spreading of knowledge; reproduction of knowledge bearer (that is researchers, teachers, students) etc.

All this follows to the conclusion that the focus of sustainable development investigations should be shifted to the investigations on science and education as the infrastructure and knowledge source under the globalisation, new challenges and conflicts (explicit and implicit). Bright example of the needs of scientific aspects in sustainable development is the energetic problems. It is known that different types of fuels play key roles at different times. The chain of leading fuels looks like next: wood – cowl – oil – nuclear power. But now it is evident that introducing the next step to the chain – (presumable nuclear fusion) require a great scientific efforts which are impossible without developed science. Besides much more attention should be devoted to considering and anticipation of new conflicts and risks (especially caused by science and education), as theoretical and as practical aspects should be considered.

Here we outline only some main topics for future investigations: interaction between society, science and education and the European aspects of such problems. Some concrete issues may be considered: globalization and global problems of SD, science and education; European aspects of science in SD problem; possible role of former USSR countries in scientific processes; NGO (non-governmental organisations for example EUROSCIENCE) in global processes etc. Also Ukrainian experience in science and education may be interesting: possibilities and presumable losses in topics: science; education; Bologna process; Academy of science; Ukrainian NGO.

Recently not only qualitative considerations but also planning and quantitative recommendations are necessary. This requires using the modelling and planning of science and education development in EU and other European countries especially some new possibilities.

As general background and as practical consequences aspects are discussed in this report. Relations with science, society and innovations will be described. Some practical recipes on such issues will be proposed. First is connected to creating European Research Area and European Education Area. Second important practical consequence is the needs of saving high level of education (just fundamental) in former USSR countries (including Ukraine) and saving different types of education institutions (education diversity). Some regional (Eastern European) local problems also will be discussed. Discussed problems may constitute the background for formulating propositions for topics of research (including the programs on sustainable development education and training) for scientific and policy-maker community.

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