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(SHD) AND SAFETY MANAGEMENT (SM)**<sup>1</sup>University of modern science CKM,  
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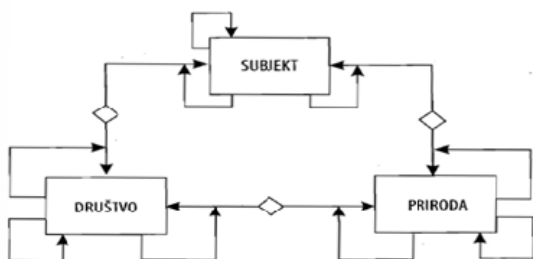
**Abstract:** *Complex systems consider network with a large number of actors, who between themselves interact and exchange information, substance and energy. Interaction and feedback between systems or within the system are forms of communication. The newly established state and changes in the system of sustainable development meets present needs without compromising the ability of satisfying the needs of future generations. The paper points out the importance of sustainable human development (SHD) in social nature metabolism processes and triangulated relationship between the individuals, society as a whole and the natural environment. The philosophy of sustainable human development approaches to the human individual as a philosophical basis. This makes human safety as a natural and social being, fundamental to the concept of SHD. Safety management is a process, organization and system that ensure the safety of the individual as a philosophical basis SHD-and, in complex triangulated relationships without dangers and threats. The paper presents the results of scientific research indicating the importance of the functions of safety management in the process of achieving safe surroundings.*

**Key words:** Sustainable Human Development, triangulated relationships, metabolic process, safety management.

**INTRODUCTION**

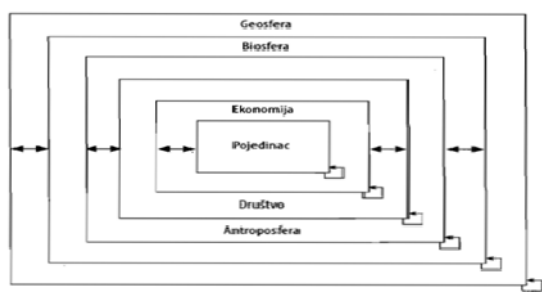
In modern societies, it is necessary to change the relationships, on the various levels from the individual, the community and the relationship towards nature, in order to with certain changes, start and reach a state of sustainable development. "How do we usually development associate with a better life, and how that is a certainly very important thing for all of us, to work in this area with greater knowledge gives us more safety, but also the right to speak competently our opinion, and to engage in a process in which decisions of a better life of us and other people are being made "[10] In the report "Our Common Future", from the United Nations World Commission on Environment and Development (the so-called. Brundtland Commission) that was published in 1987. was made a general definition of sustainable development, which was often used. This definition reads as follows: "Sustainable development is development that meets the needs of the present, but that does not prejudice the ability of future generations to meet their own needs." Of course, this is a rather broad and could say a kind of general definition. Therefore, the precise meaning of the concept of sustainable development is the subject of widespread debate. There are authors that the concept of "sustainable development" rather encapsulate in the concept of "sustainability" and the term "sustainable development" are reserved only for the specific development activities. Authors Trputeć-Stojanović about the development had noted even in 1978: "The development can be observed through the different

sections available to us reality. There is no development only in the economy or in the society. In the most general sense, it can be seen as a change of definitions of any system that is a heuristic defined "[10] Analyzing the above, what is comprehensive and most suitable for the study of sustainable development was presented by prof. dr. Zoran Trputeć in his scientific work, "The design of the human sustainable development and economic growth," which shows the perfect model of SHD. Sustainable Development is defined as follows: "SHD is conscious, free and participatory transformation process of relationships between people and their relationships towards physical environment (nature and from man produced), with the intention to obtain to all legitimate and effective approach to the production and use of material as well as social and environmental products and services that are in a whole the conditions and assumptions full boom of potential of each and every person. This process both in its form and in content and meaning must guarantee the preservation of life of present and future generations. These last lead to the creation of individual and collective skills. Their actions will create a better "good life", and much more - this will guarantee the preservation of the human species and maintaining other life with the general physical, biological and intellectual evolution of the earth. "[10] The success of its realization is estimated according to the success of maintaining, improving and flourishing of potential. Therefore, the legitimacy of authenticity needs to be primarily the use of resources that were necessary to create, enhance or maintain.



**Figure 1.** Presentation of recursive interactions  
Source: Trpatec Zoran et al. [12]

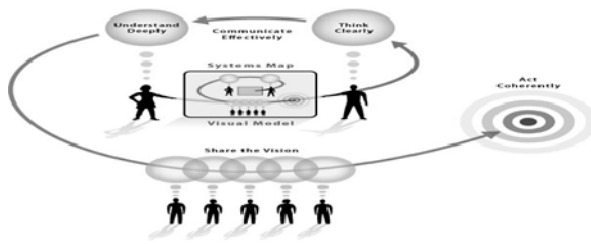
That held up, upgraded and to the newly created potentials are authentic when directly or indirectly contribute to the interaction. In the of the SHD-the individual is a constitutive component of social reproduction, which is fully interwoven into the nature of biotic and abiotic processes that are called social-natural metabolism. "Because of the serious problems that these processes today produce and to the nature and to the society, there is a need to change these relations and to the processes. This is the task of the SHD-." [12] To meet and to the achieve task of the SHD- it is necessary to" change perceptions and to the ways of how both individuals and to the whole societies think, philosophical principles, ethics, aesthetics, customs and to the values everywhere in the world "[12] It can be shown by the triangular reciprocal relations or interactions. Figure 1 presents the recursive interaction of three dialogical pairs. In the SHD-the individual is not an isolated individual, so this approach should not be understood as anthropocentric and individualistic concept. "Every person is a dynamic variable" product "three," of the dialogical steam ": the subject-society, the nature - subject-and society-nature. All this can be seen from the view in Figure triangular interaction. "[12]" Every component is dialogical, the individual is at the same time sociable and nature, these societies have individual and natural features, the nature is "socialized" and humanized. [12] A large number of interactions, feedback loop sand recursive states on the single components are visible in Figure 2.



**Figure 2.** Nested systems from individual to geosphere  
Source: Trpatec Zoran et al. [12]

As can be seen, the reality is expressed in a holistic systematic way, where the whole is seen as a whole of interdependent systems. "In this way it is shown the vision on the whole to show approximately co-evaluative nature of each of the nested systems. Co-evolution describes the emerging responses to interactions and feedback loops of two or more related, mutual systems. Co-evaluation when there is at least one loop updated internal activities of one of the system (when at least one loop formed by the interaction of the two systems modification of the internal activities of one of them-change his attractor or his behavior). It then initiated a lasting and reciprocal process of change of the whole complex, nested system. "[12]

"Complex systems (systems) are a new field of scientific study of how parts of the system lead to the collective behavior of the system and how the system interacts with its environment. Social (social) systems were formed (partly) by the people, the brain was formed by neurons, a molecule was formed from atoms, weather was being influenced by air currents, these were all examples of complex systems. The field of complex systems (systems) penetrates through all the traditional disciplines of science as well as engineering, management and medicine. It focuses on some questions about components, wholes and relationships. These questions are relevant to all traditional fields. "[ 13 ] Problems associated with sustainable development is not always easy to solve, because it follows often from the same comprehension them, due to the fact that the causes of the problems and their consequences are not so simple and not so obviously linked. So the domain of complex systems provides an array of sophisticated tools and concepts that help us to think about the concept of sustainable development, the sustainability of the system as well as the developing world. Methodological reflection and research on the holistic systematic manner allows new insights, findings into greater depth, describing, modeling and / or simulation of different systems. Now England Complex Systems Institute, studies the complex systems through three interrelated approaches of the modern study of complex systems, (1) how the interaction leads to the behavioral pattern, (2) understanding of the ways of describing complex systems, and (3) the process of forming a complex system through the formation of patterns and evolution. So, one of the NECSI's current projects was further the understanding, dissemination and promotion of CSS, CSS recording key concepts in visual models. (Visualization of Complex Systems Science (CSS). Generalized diagrams models are abstract perspectives of basic phenomes, that indicate connection between the terms. Now England Complex Systems Institute has developed "The art of systems thinking", or "art (skill) of systems thinking, which are presented below.



**Figure 3.** Systems mapping for complex challenges - I chart

Source: [necsi.edu/guide](http://necsi.edu/guide) [13]

Using tools of mapping the system of thinking and system, is used to facilitate better thinking, communication and coherent action. Synergetic results have a major impact on the knowledge, skill and coordination. The process of visual modeling is used as a means of sophisticated systems thinking, wide strategic insight, designing more creative solutions, a common vision, enthusiasm and effective communication.

About the complex issues that impede progress and development should think clearly. Mapping elements of the problem makes it possible to create a wider, clearer and deeper understanding of the problem. By giving us a tangible model to work, visual models can empower us to design more creative and effective solutions.

Visual models, think together, catalyzes efficient conversations and provides a common map series of questions. The process of visual modeling - thinking together, can help teams to achieve synergy of collective knowledge, and inspire them to move forward with a common sense of understanding, ownership and purpose.

A well-structured visual themes can help in communicating their own ideas in a clear and compelling way. Good graphics can focus the audience's attention and to instill the idea of such visual concepts or images that depict the essence of the ideas originated, that is long remembered.

Inspiring coherent action - used to motivate people to organize themselves and work together towards a common goal, requires a common vision. This shared vision, a common understanding of the issues, goals, and means of achieving them - is the source from which flows a viable and coherent action. With the help of visual models that bring knowledge and people, creates understanding, insight, agreement and action.

## METHODOLOGY

In this research, in the research process will be used and applied the following scientific research methods: observation, analysis, synthesis, classification, specialization, induction, deduction, normative method, historical method, case studies, content analysis, testing methods, survey, comparison and introspection, as well

as scientific and theoretical knowledge, relevant literature and contemporary business practices.

The main hypothesis:

Hypothesis 1:

The functions of safety management are important for the sustainability and safety of the individual as the philosophical basis of SHD, the society as a whole and the related natural environment.

The other hypotheses:

The hypothesis H1-1.: Traditional management functions planning, organization, management and control are the basic functions of safety management.

The hypothesis H1-2.: staffing, communication and coordination of special functions of safety management are important for the sustainability and safety of the system.

## Sample

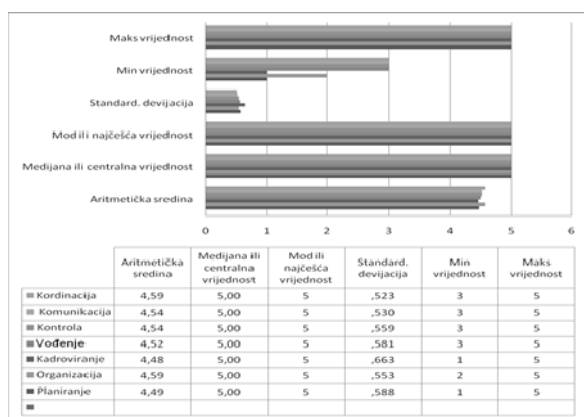
The examiners are authorized officials and competent managers in the enforcement agencies of the tax legislation of the state administration, entity and cantonal tax authorities, certain ministries and police law enforcement agencies, as well as responsible and authorized persons in the prosecutorial institutions of BiH, entities and cantons. Basic collection of the 254 surveyed respondents from all law enforcement agencies, was further divided into five subsets according to specific jurisdiction and organizations in the where they are employed to implement the law. Regarding this, in order to provide more complex analysis of the received responses and mutual comparison of opinions and positions, five subsets of respondents were formed. For further study subjects were divided in the subsets: ITA / ITA BiH, FBiH Tax Administration, Tax Administration of the RS, Ministries of Security and law enforcement agencies, Prosecutor's offices in Bosnia and Herzegovina.

## RESULTS AND DISCUSSION

Conducted scientific research in the segment of human sustainable development (SHD) and safety management (SM), is the scientific, professional and technical activity, falling within its own thought, methodological and methodical need for completing and obtaining current knowledge about the essence of the research problem. In addition to extensive scientific literature, regulations, by-laws in the field of sustainable development and safety, the scientific research covered 254 of respondents, working in law enforcement agencies, prosecutors' offices, police agencies and the Ministry of Security. Relevant research results are described for each function of safety management in particular, and indicated results represent a valid basis for establishing and directing the theory and practice in the field of research. Theoretically, each of the functions of safety management is a specific and separate, dynamically in the interaction with each feature a unique, separately

and together, in recursive relationships in a dynamic process in various stages of operation of safety management at different levels, in the order to achieve efficient and effective action to resolve safety concerns. In addition to the theoretical empirical research, practical scientific research and examination showed that each of the theoretical scientific functions of the safety management is essential, important and very important in the practical operation of law enforcement agencies, especially tax legislation.

In the research method in this study were conducted tests for auxiliary and the main hypothesis. For this testing was used parametric one-sided t-test on the right side on a single sample. This test was used in order to determine if the sample average value significantly different from a single value. In this study, we tested whether the average value of the answer to the question observed is significantly higher of the 3. For any questions tested as part of the set of auxiliary hypotheses, the null (H0) and alternative (H1) hypotheses.



**Chart 1.** Results of the research of importance of functions of safety management with statistical method  
Source: Own source [1]

The study presents the results of a survey for each function separately as a graph, while for the special functions of the safety management the results of work by Mann-Whitney test and Kruskal-Wallis test are presented.

Results of research of competent respondents regarding the importance of planning functions significantly confirm the importance of the planning function of safety management. Of them 98.00% have a positive attitude and agreement on this issue, which fully confirms the importance of the planning function.

Analysis of the frequency positions of the sample and the percentage of relevant of respondents, compared to the evaluation of alternative answers Likert-type scale of measurement, as a part of importance of organizing function shows that 91 or 35.8% of respondents defined function considered significant. Answers of 157

respondents or 61.8% considered function of organizing as very important. A very small percentage of respondents have a negative attitude towards this issue, only 2.4% of them, which is considered negligible in comparison to 100% of the respondents.

According to the survey, significantly expressed 95.70% of relevant respondents have a positive attitude and agreement on this issue, so it is confirmed as part of scientific tests that the function of leadership is necessary and important in the efficient and effective functioning of safety management.

Test results confirm that 96.9% respondents defined control function to be considered as important or very important component of safety management, which is important and necessary for the modern functioning.

It is important to note that significant 98.4% respondents defined function considered important or very important. In contrast, there is no negative attitude of relevant respondents, only 1.6% have a neutral attitude, which is a negligible percentage, on the importance of the of communication.

There fore, it is concluded that the scientific research confirmed that the communication function component of safety management, is necessary and important for the modern functioning.

The average answer to the question planning was greater than 3, and the respondents on average agreed with the statement from the issue. At first sight identical 98.4% of responses with a positive attitude, with the function of communication, however, it differs in content in the number of responses. The function of coordination 61.00% respondents considered very important. (As opposed to 55.50% of respondents, that previously described function of communication considered very important). It is noted that, as part of scientific tests confirmed that the coordination function, component of safety management, is important and necessary for the modern functioning.

Summary analysis of attitudes and statements relevant respondents, it was found that a total of 57.06% of respondents assessed all of these functions very important. Also, 40.01% of respondents all of these functions is important. So, with a high positive attitude, or 97.07% of respondents mentioned functions considered very important and important. Furthermore, based on the results the research only 2.59% of the total number of respondents, according to the above functions is neutral, or even consider them important or unimportant. The analysis of the results of the scientific tests, noticeable percentage of only 0.34% of respondents (Cumulative Percent), that have a negative attitude, which is judged negligible.

The philosophy of human sustainable development approach to the human individual as a philosophical basis, and its safety as a natural and social being, fundamental to the concept of sustainable development of human SHD's. Safety management was a process, organization and system that ensures safety of the individual as a philosophical basis SHD-, in a complex

array triangulated relationships without dangers and threats. So a society that is created on the principles of SHD- continuously conflicts of interest, misunderstandings, disagreements, resolved synergistically, through compromise, not antagonistic. It should be stressed once more that society is not simply the summation of individuals. Except that it has its own history, structure, organization and dynamics which involves individuals, groups and institutions with a synergistic effect, the society has a number of characteristics of different characteristics of the individuals who compose it. Safety management as a discipline belongs to fundamental and applied sciences. As a fundamental scientific discipline safety management strives continuously expanding its existing system of knowledge and acquiring new knowledge, and as applied scientific discipline at the same time trying to find creative practical solutions to practical problems. Safety management as a concept, aims at realizing the projected safety, achieving and maintaining a sustainable states of safety. Safety management in this perspective as a process, contemporary architecture of the organization and / or the system. Safety management is classified in social sciences, and in recursive relation with scientific disciplines, engaged in the study of human survival. Safety management was one of the components of human sustainable development (SHD). Safety management is by its contents scientific and professional, conceptual and methodological, system-organizational and operational practical framework for designing and preservation of tolerable sustainable safety situation. The architecture of safety management is a combination of interdisciplinary scientific and practical knowledge of management and safety, as well as other scientific knowledge, practical experience of other social sciences, among which include economics, legal science, political science, organizational science, criminal science, social science, psychology, computer science and knowledge in other areas. Safety management is structurally formed its outline the methodology and methods of work, but as a scientific discipline in theory and in practice it is still full and supplemented with a number of other sciences and disciplines.

## **CONCLUSION**

The current global historical failures in terms of sustainability and development have resulted in poverty, poor health, crime, environmental degradation and dangerous climate change. Many of these issues are interrelated and needs further coordinated action to promote human sustainable development (SHD) as one of the biggest challenges faced by national and local government, private and voluntary sectors and citizens or individuals, society as a whole and the related natural environment. In this study, it has been confirmed the importance of the importance of human sustainable development (SHD) in socio-natural metabolic processes and triangulated relationship

between the individual, society as a whole and the natural environment. In the accordance with the results of tests and the research of the safety management system in human sustainable development (SHD), application of scientific methods, was established its fundamental and practical contribution to the sustainability and safety of the system. This conclusion is based on determined results of scientific research using a method of critical methodological research. In the accordance with the given descriptions and explanations in this paper, as well as on the confirmed results of the survey, carried out clear conclusion that the functions of the safety management functions are important for the sustainability and safety of the individual as the philosophical basis of SHD, the society as a whole and the related natural environment, in contributing to the effectiveness and efficiency of detecting and proving various forms of classical and organized crime. Based on test results of survey methods relevant respondents, it was confirmed that the classic functions of management planning, organization, management and control basic functions of safety management, and that the appointments, communication and coordination are special functions of safety management relevant for the sustainability and safety of the system. In this regard it can be concluded that there has been the target research and that it has adequately resolved the main problem, which has been defined by the hypothetical answer through the main and auxiliary hypothesis in this study. Therefore, in accordance with descriptions of the studied concepts in work and their explanations, as well as on the on the basis of the results of scientific tests, a clear application of the relevant scientific methods, it is concluded that the main and auxiliary hypotheses were confirmed. The conclusions obtained by research and testing are essential for fundamental and practical understanding of states in the field of safety management system in human sustainable development (SHD), in the area of public safety, of growing different shapes of classic and organized crime. In the accordance with the descriptive research and the results obtained, we come to a clear conclusion that the philosophy of human sustainable development (SHD) approach to the human individual as a philosophical basis, and its safety as a natural and social being, is fundamental for the concept of SHD. Safety management is a process, organization and system, application safety management function, providing safety to the individual as a philosophical basis SHD-, in a complex array triangulated relationships in existential sphere without dangers and threats. The conclusions obtained by research and testing in this study are important and relevant to the fundamental and practical understanding of states in the field of human sustainable development (SHD) and safety management (SM), according to which it follows that is essential to continue research presented from an interdisciplinary field and based on that conduct continuous education.

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## BIOGRAPHY

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## HUMANI ODRŽIVI RAZVOJ I SIGURNOSNI MENADŽMENT

*Edin Čolaković, Ana Šijaković*

**Rezime:** U radu se razmatra značaj humanog održivog razvoja (HOR) u društveno-pirodnim metaboličkim procesima i trijangularnim odnosima pojedinca, društva kao celine i prirodnog okruženja. Filozofija humanog održivog razvoja pristupa čoveku pojedincu kao filozofskoj osnovi, pa je njegova sigurnost kao prirodnog i društvenog bića, od fundamentalnog značaja za koncept HOR-a. Sigurnosni menadžment je proces, organizacija i sistem koji obezbeđuje sigurnost pojedincu kao filozofskoj osnovi HOR-a, u kompleksnim trijangularnim odnosima bez opasnosti i pretnji. Posebno su opservirani rezultati istraživanja koji ukazuju na važnost funkcija sigurnosnog menadžmenta u procesu postizanja stanja sigurnosti i humanog održivog razvoja.

**Ključne reči:** humani održivi razvoj, trijangularni odnos, metabolički proces, sigurnosni menadžment.