TEAMWORK AND EFFICIENT COMMUNICATION AS THE ELEMENTS OF THE SYSTEM FOR EMERGENCY MANAGEMENT

UDC 614.8:005.8

Marijola Božović¹, Snežana Živković²

¹Polytechnic School of Vocational Studies, Zvečan, Serbia ²Faculty of Occupational Safety in Niš, University of Niš, Serbia

Abstract. In order to reduce the number and consequences of emergency situations, it is necessary to permanently increase the responsibility of the state and capacities for managing of all types of emergencies through coordinated actions of all responsible entities. Team and team work play a key role in emergency situations, whether they work on prevention, acting during or in eliminating the consequences of emergencies. In addition to mutual approach and interaction roles, complementarity of knowledge and skills as well as the commitment to a common purpose of action that provides an identity to teamwork, the teamwork must have a shared responsibility of each team member toward the team and vice versa. It can be concluded that team and teamwork contribute to the improvement of the quality of emergency management, better communication and coordination with all relevant actors responsible for emergency situations.

Key words: emergency situations, management, communication, team, teamwork

1. Introduction

Taking into consideration that management of emergency situations is performed in accordance with organizational regulations and standards (services, authorities, units) that directly participate in this process, their association, communication and work coordination in managing emergencies is crucial for successful implementation of preventive and operative measures and actions aimed to prevent risk events, reduce their frequency and severity and mitigate possible effects on humans and environment. These requirements can only be met by the organization that have developed teamwork and within it, team learning, without which there is no progress. Such organization must create the conditions to maintain the high tension of learning. In terms of scope and diversity of risks and

Received October 15, 2015 / Accepted February 5, 2016

Corresponding author: Snežana Živković

University of Niš, Faculty of Occupational Safety, 10a Čarnojevića St, 18000 Niš, Serbia

E-mail: snezana.zivkovic@znrfak.ni.ac.rs

threats to the environment, the need to confront these dangers goes beyond the capabilities of any state body; therefore, the activities of environmental protection include a variety of social factors. Of course, their involvement and engagement implies the preparedness, competence for management in the context of environmental protection and conversion of learning tension into the power of changes and innovation ability. Team work in emergency situations management creates necessary preconditions for professional skill realization of each team member, as well as the successful resolution of the goal whether it is preventive, acting during, or in eliminating the consequences of emergency situation.

The system of emergency situations management requires the creation of different teams. The most efficient is to create a team for coordination of work and activities at the system level, while the teams of employees that work in relevant work positions are appointed for execution of certain tasks. Thus, this is about the creation of the system teams for the achievement of the systems of goals. Team learning and teamwork should contribute to the improvement of the quality of temergency management, and better communication and coordination of all relevant actors.

Communication is the basis for emergency management. It is important to use procedure in order to define who, when and what information can be disclosed since uncontrolled release of information to the public could be the cause of panic, confusion, distrust, fear and so on. Incorrect information at the wrong time can have damaging long-term consequences, and proper information management can produce beneficial effects, even in negative situations.

The problem and the subject of this paper are focused on the research, identification and consideration of all factors and circumstances which determine team work in emergencies. In addition to theoretical, there are empirical tasks regarding the collection of information, and respondents' attitudes and opinions.. These contributed to making a conclusion about demands for teamwork and analysis of the current situation, in order to establish the needs, identify the problems and find ways and opportunities for teamwork improvement in emergencies.

2. EMERGENCY SITUATIONS IN CONTEMPORARY SOCIAL CONTEXT

Regardless of the level of technological, economic and social development, none of the countries can neglect many risks, the risk of accidents, breakdowns, natural disasters and other forms of devastating effects on humans, property and the environment.

Emergency situations are defined as a sudden situation at a certain location that emerge as a result of accidents, dangerous natural phenomenon, disasters, which can cause human casualties, material losses and disturbance of working and living environment [1]. The term *emergency* implies a specific, unexpected and unusual event that creates a high degree of uncertainty, and a threat to people and property [2]. An emergency situation is any unexpected situation than can cause death or significant injuries of employees or wider population, to terminate the work, to substantially damage material and natural resources, or to threaten the financial situation or reputation of the company [3]. When we are talking about emergency we can say that the state of emergency is still not the crisis, although it requires emergency measures. An emergency situation is a broader concept than crisis, since every crisis is also a state of emergency,

while every state of emergency does not have to be a crisis [4]. This could mean that what for some social group of geographic community is just a state of emergency (large fire, traffic accident), for direct actors it can be a crisis or disaster. When the sociallyregular activities (preventive, operative and improving) cannot prevent and eliminate the consequences caused by dangers, they assume the character of emergency situations.

2.1 The socio-normative assumptions of emergency situations management

Legal norms of International Law and national regulations of some EU Member States present the highest standard in the field of standardization of those areas that are dealing with the protection of fundamental values such as life, integrity, environment and property. The adoption of the Law on Emergency Situations, which is compliant to the mentioned regulations, has reached the highest safety level of our citizens in given circumstances. The Law includes the guidelines and suggestions of United Nations International Strategy for Disaster Reduction (UNISDR), the UN Development Programme (UNDP), USAID PPES Program (Preparedness, Planning and Economic Security Program).

The result of drafting of the Law according to the model of successful, legalized, scientific and technical achievements, and consideration of own requirements and previous experiences, are the legal provisions that introduce significant novelties. Their goal is create an atmosphere where:

- The process of obtaining required approvals in the area of protection in emergency situations is simplified, which has accelerated the process of foreign investments in the economy.
- The risk of emergency events and emergency situations is reduced, organization and functioning of the protection and rescue systems are better regulated, which significantly reduces the material damages and the number of injured and people killed in the emergency events and emergency situations.
- The operation of the systems of protection and rescue in emergency situations is regulated
- The performance of state administration in implementing the legal jurisdiction of protection and rescue in emergency situations is efficient, which could lead to undisturbed development of economic activities owing to simplified procedure for obtaining the necessary approvals.
- It is defined what emergency situations are, when are declared and who declares them depending on territory which is at risk of emergencies.
- The establishment of headquarters for emergency situations at all levels is defined, with precisely described responsibilities, operations and tasks (given that civil protection headquarters have not functioned at the satisfactory level so far).
- The subjects of protection and rescue in emergency situations at all levels are defined.
- The rights and obligations of state and other authorities, companies and other legal entities, and citizens are precisely defined in the emergency situations.
- Immediate management of protection and rescue actions in emergencies is precisely defined.
- The procedures of drafting and enactment of plan documents, development of territorial risk assessment for all possible emergencies are established, and where, depending on this assessment, the appropriate plans of protection and rescue have been established, etc.

By adopting the Law on Emergency Situations, The Republic of Serbia has established the normative basis for new, modern integrated system of emergency management.

2.2 The need and importance of establishing the teams for emergency management

Increasing phenomena of emergency situations as well as the severity of their consequences requires prompt and argumentative preparation of countermeasures to eliminate them by creating managerial structures that will manage all teams (entities) which participate in the emergency situations. In order to learn how to meet emergencies fully prepared, the comprehensive organizational and institutional measures are needed. Therefore, of great importance are not just investments and the level of technical equipment but also the awareness and preparedness of for emergencies. If people are well prepared for an emergency situation in whichawareness plays a crucial role, the undesired consequences of the emergency can be reduced to minimum with the assistance of professional teams. It should be borne in mind that all activities on elimination of consequences of emergency situation (information, rescue, etc.) present a special type of activity in which not everyone can participate.

The purpose of communication is flow of information and understanding people who communicate [5]. Communication in cases of emergency is an interactive process, and can be defined as an exchange of information and opinions before, during and after the outbreak of crisis. Common reason for ineffective communication is the lack of clear communication goals. Clear goals are a prerequisite for creation of key messages. The goal, as well as messages of support to it, are a part of communication in cases of emergency and must be established before giving any declarations [6].

Functioning particularity of the emergency management system systems for management of emergency situations is that emergency situations emerge unexpectedly, rapidly, suddenly. The existing plans and programmes often do not correspond to a new situation; there are new tasks, large amounts of information are present, which must be properly processed and analyzed. Very often, the lack of required information is the main obstacle to the organization of early prevention. In many cases this is conditioned by insufficient commitment in the fields of detecting and utilization of necessary information. The moment when collected data with the high degree of probability confirm that aggravation of the situation is irreversible and that is necessary to take countermeasures, we shall call the moment of the beginning of emergency situation expansion. This moment is the most dangerous and is critical for persons who must first respond to emergency situation; to arrive at the spot, and by their actions eliminate the consequences of emergencies.

It is desirable in advance to establish headquarters and operational teams and to organize their liaison. It is also necessary to previously organize trainings for emergency response on a daily basis. Attention should also be paid to the identification and analysis of the previously organize trainings for emergency response on a daily basis; newly formed situation and to forecast their course; to use teamwork in the preparation of important decisions. It is also important to point out that communication and coordination become more difficult, there are limitations of available resources and unfavorable conditions on field, which additionally complicates the management of emergency situations [7].

All aforementioned lead us to conclusion that it is necessary to establish a unified system that will operate flawlessly in emergency situations, where all tasks that so far have been the responsibility of several institutions shall be consolidated. Until the enactment and

implementation of the Serbian Law on Emergency Situations, the preventive strategies have been reduced; the capacities for elimination of consequences have been limited to responding to a given situation with no strategy for coordination between police, military, fire, medical and other public services. The entire area of planning and management was subjected to improvisations, especially in coordinating the authorized community entities. The main disadvantage was reflected in crisis management, i.e., in the management of crisis and emergency situations.

Emergency management is a very complex process. The seriousness and complexity of the consequences of emergency situations require very serious approach to the management and organization of prevention, response and elimination of consequences. It is necessary to establish a clear concept and a unique integrated system of emergency management. The role of information and communication technologies in predicting the emergency situations and analysis of occurrence of emergencies is of great importance. Emergency management comprises at least three different processes: responding to an emergency situation, preparing for activities and recovery. Each of them must be planned in advance as a part of a single process, that is, preparedness for emergency situation. In addition to preventive measures, the preparedness through planning, training and practicing is also necessary, as well as the other measures prior to and during emergency situations, which alone or in coordination with other entities (teams) raise the capacity and the level of ability and readiness of the entities (teams) to respond to potential danger. In practice, we must have a prepared team specialized for emergencies, as well as the team for discussions and decision making regarding the issue of continuing the activity, that is, managing the operation continuity [8]. Incidents and emergency situations that have emerged should be regarded as an opportunity for improvement of procedures of readiness for future emergency situations and prevention of possibility of their escalation. Also, it is necessary to ensure that persons responsible for development and implementation of preparedness procedures possess required competencies and experience. The goal of preparedness is to have more adequate approach to emergency situation. In order this to work, it is necessary to implement an adequate system of emergency management.

In organizational terms, if more teams (entities, organizations) are dealing with various aspects of this process, that is, if one deals with prevention, others respond in the case of emergency, third with recovery, then a good system for synchronization of different parts is needed, that is, for objectives of management of emergency situations. If there is a single body capable to synchronize all three processes, the acting in emergency situation will be more efficient.

In institutional sense, the readiness in emergency situations includes planning for emergencies and crisis in general. Emergency and crisis planning can be conducted by a special service (sector) for emergency situations in charge of overall risk and vulnerability monitoring, with the aim to prevent and respond to emergencies.

2.3 The concept and characteristics of teamwork

Teamwork is not an invention of modern time; it is as old as the human society, but in past few decades it received an increased attention from the business world. There are a lot of reasons for this: increased globalization of the market and the speed of the development of science and technology are so rapid that it becomes very difficult for an individual to follow more than one area. The term "teamwork" has long had an important place in global business communication, work organization and human resource management, and in the past decade it appears more frequently in Serbian literature.

Apart from common approach and mutual supplementation of roles, complementarity of knowledge and skills as well as a commitment to mutual acting purpose that provides identity to teamwork, teamwork must possess mutual responsibility of each team member to the team and vice versa. Teamwork is a key component of productivity, efficiency, job satisfaction and results.

Introduction of teams and teamwork brings a lot of changes in organization; it changes its appearance and properties. Experience and practice of teamwork contribute to reduction of hierarchic relations, affirmation of role, knowledge and expertise of individuals and their work, creating the positive organizational atmosphere and higher degree of humanization of relations among employees. In order for teamwork to be successful it is necessary that team members ensure the dominance of team objectives versus individual objectives, and that selection of the candidates for team members be well performed, taking into consideration adequate abilities and skills. Success also depends on coordinated individual efforts of team members to make the overall results be greater than the simple sum of individual results of team members. The foundation of teamwork conception is an approach that team and its results are inseparably linked.

The establishment of teams should provide technical requirements of functioning of the organization and its operational tasks and meet social and collective needs of team members. We can freely say that the teamwork is a process where the individual team members work together to accomplish set and delegated objectives. The basic elements of the team and teamwork are: purpose and objectives; skills and abilities of the members; approach and common "working language"; responsibility [9]. Considering these elements in the process of establishment and design of teams, it is possible to create a profile and structure of the team that will achieve the desired results. Additionally, the attention should be paid that team members are involved in its establishing and set minimal requirements and standards for operation and functioning of teams.

The objectives of the team must be set in advance, and tasks of individuals in team must be known, clearly stated and linked [9]. It is important to point out that the complementary skills of individuals are nurtured and combined within the team. The development of team leads to the development of complementary skills required for efficient completion of team tasks. Team skills refer to:

- the area of work process and work performances;
- skills and techniques of decision making and problem solving;
- interpersonal skills of individuals [10].

In terms of communication, information should circulate among team members and be available to all team members. Work objectives of the team must always be functionally linked with overall goals of the organization or its part where the team was established [10]. If such connection does not exist or is loose, the team members will be disorientated or confused and will have substandard and insufficient results. Team unity is the common purpose of existence and organizational framework in which the team has been established. Evaluation of teamwork results should be followed by rewarding the team as a whole.

Within the scope of work process and distribution of labour within the team, the following issues must be defined in advance:

- allocation of assignments;
- skills and techniques that will be applied in teamwork;

- coordination of work and decision making in a team;
- how the team members will be rewarded;
- control of work and achieved results [11].

Efficient teams achieve significantly better results than the individuals, they easily comply with situation, take more risks and research; they are more creative and produce much more ideas than individuals; they assist their members in developingt their knowledge, skills; build confidence and strengthen motivation.

3. METHODOLOGICAL FRAMEWORK OF THE RESEARCH

Starting from the need, importance and topicality of teamwork for environmental protection in emergency situations, the subject and problem of the research is aimed at identification of all conditions, factors and circumstances that determine the need for teamwork and team learning and create guidelines to improve the performance of teamwork in this area. The goal of the research problem is direct towards consideration of team learning and teamwork as an important precondition for the efficiency of the emergency situations management system.

In addition to theoretical, the research also includes the realization of empirical goals and tasks. Empirical research is conducted for the purpose of collecting information, attitudes and opinions of the respondents that will contribute to reach a conclusion on the need for team learning and teamwork in emergency management, or in other words, to analyze the existing situation (educational practice), identify needs and problems, find ways and possibilities for realization of adopted knowledge that will assist to a welltrained team to successfully respond to any emergency situation, thus protecting human lives and the environment.

The general hypothesis of the research is set: the complexity and particularity of the system for emergency management determines the teamwork of different entities that are responsible for responding to emergency situations.

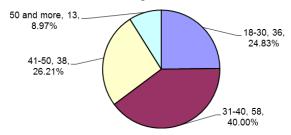
Starting from the general hypothesis, the specific hypotheses are formulated:

- There is a specific relation of respondents who live in specific conditions and the attitude towards dangers and emergency situations that threaten them.
- There is close correlation and interdependence between teamwork and response of the teams in the case of emergency situations.
- The development of the teamwork model is conditioned by specific competences of certain entities responsible for emergency management.
- Teamwork and team learning require a specific verification from the team leaders responsible for emergency situations.
- Peculiarities of environmental protection in emergency situations imply competency and continuous learning, and both team leaders and team members are responsible for responding in emergency situations.

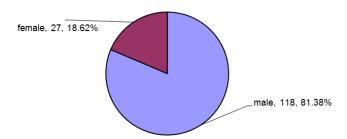
The population of the research consists of members of the service responsible for responding in emergency situations aged 18 years and older in the area of northern Kosovo, municipalities: North Mitrovica, Leposavić, Zubin Potok and Zvečan. The examination was conducted on a sample consisting of 145 respondents.

4. Research Results

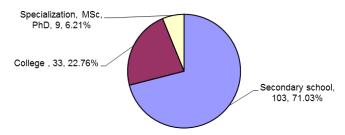
The following graphs and tables show the structure of a sample created according to socio-demographic characteristics of the respondents.



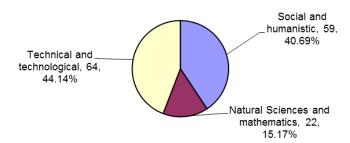
Graph 1 Age structure



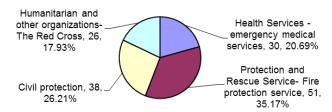
Graph 2 Gender structure



Graph 3 The structure of the respondents in relation to the level of education

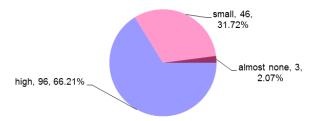


Graph 4 The structure of the respondents in relation to the nature of the education



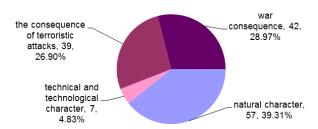
Graph 5 The structure of the respondents in relation to organization / service in where they are employed

When asked what the odds of mass accidents, disasters and emergency situations occurrence in the areas where you live are, statistically, the majority of respondents answered that the danger is high, compared to the two remaining answers, respectively. It is important to note that only 3 (2.07%) respondents almost exclude such possibility.



Graph 6 The structure of the respondents in relation to the risk assessment and the likelihood of emergencies

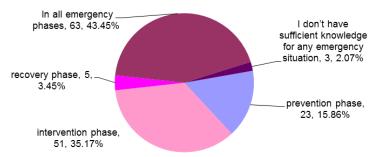
When asked which of following emergency situations has the highest probability to take place in the area where you live, the greatest number of respondents (57, i.e., 39.31%) answered emergency situations of natural origin, which is statistically more frequent response to consequences of terrorist attacks or emergencies that have technical and technological character. Interestingly, none of the respondent has mentioned the possibility of occurrence of environmental emergency situations. There were no other answers offered.



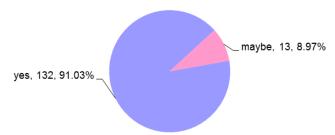
Graph 7 The structure of the respondents in relation to the assessment of the possible types / kinds of emergencies

When asked, whether *knowledge that you posses can have the greatest application*, the most respondents answered that their knowledge is applicable in all phases of emergency situations, followed by intervention phase.

When asked, whether they believe that regular training and practice can lead to better ability to respond to emergency situations, even 132 (91.03%), which is statistically significant majority of respondents, answered that by regular training and practice it is possible to achieve better ability for response in emergency situations.

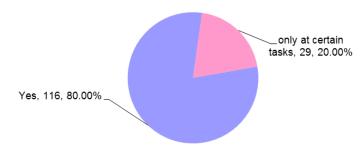


Graph 8 The structure of the respondents in relation to the assessment of the application of knowledge in emergency situations



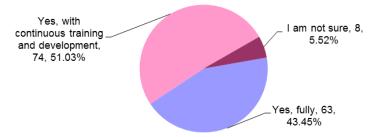
Graph 9 The structure of the respondents in relation to assessment of the need for continuous learning and training

When asked, whether the teamwork takes precedence over the individual contribution in the group, none of the respondents gave a negative answer. Statistically, significant majority of respondents (116, i.e., 80.00%) believes that the teamwork certainly has precedence over the individual contribution in the group.



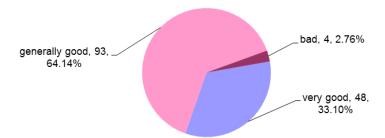
Graph 10 The structure of the respondents in relation to the assessment of the benefits of teamwork

When asked, if their your team is competent enough to respond to a given emergency situation, only 43.45% of respondents answered that they are absolutely sure that their team is competent to act in emergency situations, while just over half of them (51.03%) gave positive answer but owing to continuous training and development. However, 5.52% respondent are not confident in the successful operation of their team in emergency situation, therefore, their number is statistically less significant comparing to respondents in other two questions. Thus, the group of respondents on this question is inhomogeneous.



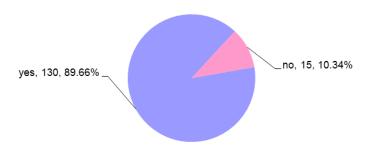
Graph 11 The structure of the respondents in relation to the assessment of the competency of the team to respond to an emergency situation

When asked, how the coordination and cooperation of your service operates with other services, only 48 (33.10%) of respondents answered that they believe that the coordination of their service with other services is very good. The majority of respondents believe that such coordination is generally good and they are statistically majority comparing to those who believe that coordination is very good or bad. Thus, the group of respondents on this question is not homogenous.



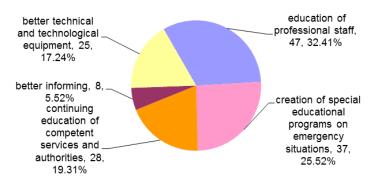
Graph 12 The structure of the respondents in relation to the assessment of the cooperation and coordination of teams

When asked whether their service develops the possibilities for improvement of teamwork, the statistically significant majority of respondents (89.66%) answered that that service they belong to develops possibilities for the improvement of teamwork.



Graph 13 The structure of the respondents in relation to the assessment of the organizational environment for the improvement of teamwork

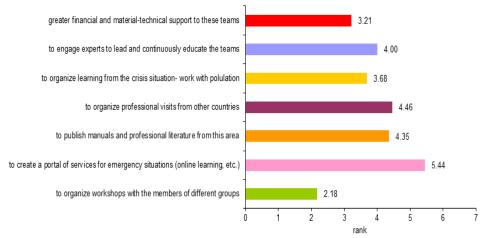
Question, in your opinion, in which way the better preparedness and competence for team acting in emergency situation can be achieved, expressed the inhomogeneity of the group of respondents. The statistically largest number of respondents believes that the better preparedness and competence for team response in emergency situations can be achieved by education of professional staff; however, 47 (32.41%) respondents agreed to this. As the second important precondition, the creation of special educational programs on emergency situations was cited; even 37 (25.52%) respondents agreed to this. Education of professional staff is statistically more frequently cited in relation to continuing education and improvement of competent services and authorities and better technical and technological equipment, as well as better informing.



Graph 14 The structure of the respondents in relation to the assessment of the possibilities for improving teamwork and actions in emergency situations

When asked, what is necessary to your team and teamwork, the respondents ranked the ways for improvement of team learning in different services that act in emergency situations, on a scale 1 to 7, where 1 presents the best way and 7 the least good. In this way it was determined that according to whole group of the respondents the best way, that is the smallest value of the rank, was given to organizing the workshops with members of different services. This is followed by greater financial and material-technical support to the work of these teams; organization of learning from the crisis situation- work with population; engagement of experts for leading and continuing education of teams; publication of manuals and literature from this area and organization

of professional visits from other countries. The last place belongs to the portal of services for emergency situations (online learning, etc.). The average values of the ranks are presented on Graph 15:



Graph 15 The average values of the ranking of possibilities for improvement of team learning

5. DISCUSSION

The percentage data indicate the need for team work, that is, their connection to observed dimensions of emergency situations:

- 66.21% of respondents believe that there is a high likelihood of emergency situations in the area where they live and work;
- 39.31% of respondents chose the situations of natural origin, which is statistically more frequent answer than the consequences of terrorist attacks or emergencies of technical and technological character. It is interesting that none of the respondents did mention the possibility of occurrence of environmental emergency situations.

Even 91.03%, which is statistically significant majority of respondents, consider that regular training and exercises can achieve a better ability to respond to emergency situations.

When asked, whether the teamwork takes precedence over the individual contribution in the group, none of the respondents gave a negative answer to this question. Statistically important majority of the respondents, 80.00%, believes that teamwork certainly has precedence over individual contribution in the group.

When asked, how the coordination and cooperation of their service operates with other services, only 48 (33.10%) of respondents answered that they believe that the coordination of their service with other services is very good. The majority of respondents believe that such coordination is generally good and they are statistically majority comparing to those who believe that coordination is very good or bad. Thus, the group of respondents on this question is not homogenous.

Statistically significant majority of respondents (89.66%) answered that that service they belong to develops possibilities for the improvement of teamwork.

The statistically largest number of respondents believes that the better preparedness and competence for team response in emergency situations can be achieved by education of professional staff; 32.41% respondents agreed to this. As the second important precondition, the creation of special educational programs on emergency situations was cited; 25.52% respondents agreed to this. Education of professional staff is statistically more frequently cited in relation to continuing education and improvement of competent services and authorities and better technical and technological equipment, as well as better informing.

When asked about what is necessary to your team and teamwork, the respondents ranked the ways for improvement of team learning in different services that act in emergency situations, on a scale from 1 to 7, where 1 is the best way and 7 the least good. In this way it was determined that according to whole group of the respondents the best way, that is the smallest value of the rank, was given to organizing the workshops with members of different services. This is followed by greater financial and material-technical support to the work of these teams; organization of learning from the crisis situation—work with population; engagement of experts for leading and continuing education of teams; publication of manuals and literature from this area and organization of professional visits from other countries. The last place belongs to the portal of services for emergency situations (online learning, etc.)

6. CONCLUSION

The successful resolution of issues and problems related to emergency management and protection of the environment requires a strong institutional basis, which can be achieved through capacity building, good governance, facilitated flow of information and efficient coordination mechanisms, in addition to what is necessary to ensure competence, education and training of all participants in emergency management. Given that emergencies arise unexpectedly and suddenly, they set tasks that are often difficult to implement. Lack of required information is the main obstacle to the organization of a system of early prevention. In many cases it is conditioned by insufficient engagement in the detection and use of the required information. For an adequate response to the occurrence of an emergency situation, of great p importance is the establishment of headquarters and operational teams, that is, organization and coordination of their work. Teamwork also requires team learning, that is, a kind of preparation for action in emergency situations.

It is very important that communication creates an impression on existence of control over critical events. Establishing control is essential for rehabilitation of consequences and the avoidance of panic where proper and timely communication has a crucial role. Also, it also important to have in mind the fact that there is a way and possibility that some of the crisis events and situations can be predicted and thus prevent the possible adverse consequences and events.

The results of empirical study suggest the existence of links between observed segments of emergency situations and studied aspects and teamwork in the management of emergency situations. Namely, complexity and specificity of the system for emergency management determines the teamwork of different entities that are responsible for response to emergency situations, thus confirming the general hypothesis of the research.

Teamwork provides unsurpassed advantage to achieve team results with joint efforts, which largely exceed the sum of several individual results. Thereat, each person in the team achieves much more than in common terms of individual work, i.e., working independently. Teams versus individuals and groups of individuals have possibility of synergy of skills and experiences, knowledge and discipline imposed by the modern ways of business activities. This can be achieved owing to joined team potentials.

REFERENCES

- 1. Михаилов, А.А., Пашенко, Н.М., Сулудин, И. (1991). Класификация чрезвичайных ситуациях, ГО СССР, Москва, 3-10.
- Živković, S. (2009). Upravljanje vanrednim situacijama procedura za vanredne situacije, IV konferencija Dani primenjene psihologije, Niš, 132-142.
- 3. Савић, С., Анђелковић, Б., Станковић, М. (2006). Специфичности система управљања ризиком и ванредним ситуацијама, Зборник радова са симпозијума о оперативним истраживањима СҮМОПИС 06, Факултет Организационих наука, Београд.
- 4. Кековић, 3., Кешетовић, Ж. (2006). Кризни менаџмент I, Београд.
- Живковић, С. (2011). Организација заштите од пожара, Универзитет у Нишу, Факултет заштите на раду у Нишу.
- Živković, S., Živković, N. (2012). Importance of good communication and the role of media in successful emergency management, 17. International Scientific Conference Crises situations solution in specific environment, University of Žilina, Faculty of Special Engineering, Žilina, Slovakia, 745-751.
- Vesić, D. (200). Menadžment i krizni program-aspekt odnosa sa javnošću, Bezbednost, Beograd.
- 8. Кековић, 3. (2001). Еколошка безбедност у систему безбедности, Зборник радова, ФЦО, Београд.
- 9. Петковић, М. и сарадници (2003). Организационо понашање, Мегатренд, Београд.
- 10. Јаношевић, С. (2006). Менаџмент и стратегија, Виша пословна школа Чачак, Чачак.
- 11. Машић, Б. (2001). Стратегијски менацмент, Универзитет "Браћа Карић", Београд.

TIMSKI RAD I EFIKASNA KOMUNIKACIJA KAO ELEMENTI SISTEMA ZA UPRAVLJANJE VANREDNIM SITUACIJAMA

U cilju smanjenja broja i posledica vanrednih događaja, neophodno je trajno povećati odgovornost države i kapaciteta za upravljanje svim vrstama vanrednih situacija kroz koordinisane akcije svih odgovornih subjekata. Tim i timski način rada imaju ključnu ulogu u vanrednim situacijama bilo da rade na prevenciji, delujući u toku ili u otklanjanju posledica vanrednih situacija. Osim zajedničkog pristupa i uzajamnog delovanja uloga, komplementarnosti znanja i veština kao i posvećenost zajedničkoj svrsi delovanja što timskom radu daje identitet, timski rad mora posedovati zajedničku odgovornost kako osećaja odgovornosti svakog člana tima prema timu tako i tima prema svakom članu. Može se zaključiti da tim i timski rad doprinose poboljšanju kvaliteta upravljanja vanrednim situacijama, boljoj komunikaciji i koordinaciji sa svim relevantnim akterima odgovornim za vanredne situacije

Ključne reči: vanredna situacija, upravljanje, komunikacija, tim, timski rad