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THE SEIZURE OF KOSOVO AND METOHIJA FROM SERBIA PERMANENTLY DISRUPTS GEOPOLITICAL STABILITY OF THE BALKANS

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When Serbs inhabited Balkan region they established provinces called „Sclavinia“ there and received Christianity from the Byzantine Christian Orthodox Church. Stephan Nemanja was a first ruler who succeeded to establish an independent Serbian state in the middle of 12th century. Then Kosovo and Metohija became the part of the Serbian state and soon following that it became Serbian central state and church domain. Ever since the establishment of the Serbian state in the Balkans the Serbs have struggled for their existence and survival. An analysis of historical documents regarding the expulsion of the Serbs from Kosovo and Metohija throughout last three centuries (1690-2006) leads to the conclusion that there have been 1,150,000 Serbs expelled by force from Old Serbia (it is the former name of today's Kosovo and Metohija), that about 200,000 of them were murdered and that 150,000 – 200,000 of them were „arbanized“ or converted into Islamic faith. In the Middle Ages there was not a separate name for this province in existence other than its general name Serbia. Throughout 16th and 17th centuries travel writers, and among them some Arbanasian travel writers, too, mentioned the territory of Kosovo and Metohia under the name of Serbia. Although the fact is that at the beginning of 21st century Shqiptars form a majority of population of Kosovo and Metohija, the population data rate strenght of some national community is not determined by the number of its population in one part of some state, but by its number of population in the whole state, and so on the basis of this criterium the Albanians are a national minority in Serbia. So far nowhere in the world has happened that a national minority gained right to form their own state. One national community can not determine for itself whether it is a nation or a national minority.

Key Words: Serbia, Kosovo and Metohija, geopolitics, security, violence

Jean Jacques-Rousseau, *Social Contract*:

“To renounce freedom is to renounce one's humanity, one's rights as a man and equally one's duties.”

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Kosovo-Metohian region is a historical seat, the state-forming core and central territory of medieval Serbian state and certainly these characteristics, along with the natural resources of this region, are considered to be the most significant geopolitical characteristics of every state. Territory of Kosovo and Metohija encompasses a surface of 10,887 square kilometers, which makes for 12,3 % of whole state surface of Serbia. After the violent secession of Kosovo and Metohija from Serbia there came the creation of a *very wide and deep spatial aperture* in the Serbian ethnical space, with a tendency of its continuous widening and in accord with that, of a continuous piranha-like „biting“ of the Serbian ethnic space and its narrowing with an objective that Kosovo and Metohia (Kosmet) completely gains an Islamic sign mark as well as a multiple geopolitical role: *Firstly*, to support creation of the project of „Great Albania“,¹ primarily at the expense of the Serbian ethnic space; *secondly*, to strengthen so-called northern Islamic wedge which would cut into the center of the Serbian ethnic space (Kraljevo – Nis – Kragujevac), and *thirdly*, by the connection of Kosovo and Metohija and Raska region as a Muslim spatial unit, factually there would be created a territorial aperture between Serbia and Montenegro. In this way probably in the long run this would vitiate the idea of establishment and strengthening of cultural and all other relations between Serbian ethnic spaces in the Balkans - between historically determined ethnic territories of the Serbs in Serbia, Montenegro and Republika Srpska.

Besides the abovementioned problem, the forceful seizure of Kosovo and Metohija from Serbia has also had other numerous geopolitical and geostrategic consequences which are directly confronted to Serbian national and state interests. First thing which could be noticed in the context of the issue of Kosovo and Metohija is that this part of Serbia is located in the very center of an envisioned „green Islamic transversal“ which goes from Tashkent over Asia Minor, Thrakia (the part of Bulgaria and Greece), Macedonia (in its Islamic visage), Kosovo and Metohija, Raska (Sandjak in Islamized terminology and geopolitics) and Bosnia and Herzegovina all the way to Cazin as the farthest Islamic point in Europe. This is a direction and vector of new Islamic inroad to Europe of which Turkey is its strategic intercessor, in its double role: *Firstly*, to intercede for American and British strategic interests in Islamic world and *secondly*, to be American counterbalance for German predominance in Central Europe and on the Balkans.

Certainly all this should be also analyzed within the context of a new American initiative for integration of Southeastern Europe in which Turkey should have a crucial role, that is, it is supposed to get deeply involved into European flows and processes as earlier as possible, despite the reluctance on behalf of the EU to it. At the same time on one side there are the efforts of Western powers, before else of America and Great Britain, to deprive Serbia of its power and make it irrelevant factor in the Balkans and on the other side these efforts are also aimed at preventing the return of Russian influence on the Balkan peninsula.

At the beginning of the 21st century the Balkans is a region with politically imperfectly defined borderlines and with redundancy of history and 'unfinished peace'. However, the production of the redundancy of history in the Balkans as the region, where the arcs of different civilizations get intersected and different religions and ethnicities get intermixed, is not a consequence of the Balkan peoples' acts only, but also of great powers which

¹ Ђорђе Борозан, *Велика Албанија – порекло, идеје пракса*, Војноисторијски институт, Београд, 1995, 237

most often not only have 'shuffled cards and arbitrated', but have also directly triggered and managed the conflicts. Such was the state of affairs not only in the 19th and 20th centuries, but unfortunately at the beginning of the 21st century as well. The Balkan peoples are no less valuable and talented from the European ones, but in recent periods geo-history acted like a sort of the storm in the Balkans, like a sort of the weather disaster which during certain war periods devastated everything which former generations of people had created in this geo-region in the past. Certainly at the beginning of the 21st century and in new historical circumstances, the Balkan peoples needed a Copernican turn – the turn from the warrior culture toward the worker culture, or in other words, toward a new culture of the work and the peace. This is a precondition for development, modernization and progress of the Balkans. And this precondition demands a change of the system of values, the world-related point of views, cultural orientations of the peoples and of course this has its own implications regarding the process of self-identification and transformation of identity of the Balkan peoples' cultural essence. It is the time for a metamorphosis of cultural forms from the warrior culture toward the working patriot culture in the spirit of a message of Djuro Danicic: "It is possible to die for one's homeland at each working place".² However it is obvious that such renaissance will not be accepted by the Albanians in the Balkans for a long time. Therefore, considering the fact that in the Balkan the Albanians are the initiators and protagonists of regional conflicts – it is impossible to interpret this aforementioned Danicic's thought as a renunciation of great significance of the warrior values and of patriotism of other peoples and citizens as well.

In the circumstances of growing cruelty of the Balkan bleakness, the working patriotism should be only an upgrade of basic values on which national and cultural identity of the Balkan peoples was built upon. According to geographic-deterministic comprehension of the notion that geography determines politics, or again according to the comprehension that in the broadest sense the geography is connected with the politics, in the Balkans there have been unavoidably present foreign powers which create the geopolitics of the Balkan. Directions of influence of these non-Balkan powers on inter-Balkan relations have shaped a Balkan geopolitical crossroad with northwest – southeast (NW–SE) and northwest-southwest (NW–SW) poles. Throughout history, from directions of the northwest Germany and Austria, from the northeast Russia and Hungary, from the southeast Turkey and from the southwest Vatican, the Republic of Venice and Italy have exerted their influence in the Balkans. From direction of the southern Mediterranean side the navy powers such as Great Britain and France, and later in the 20th century the United States of America, exerted their influence, too. Austria declared itself a 'natural' successor of Turkey in the Balkans and Russia made efforts to grasp control over the Straits (Bosporus and Dardanelles) and gain the access to 'warm' seas, while Great Britain fiercely resisted it. Therefore, the geopolitical crossroad was clearly shaped into an intricate Balkan geopolitical node. And so the process of 'Balkanization' of the Balkan had started.³

² Љубиша Митровић, *Чари непознатих обала*, Књижевна заједница, Вељко Видаковић, Ниш, 2007, 76-78

³ Derogatory term 'Balkanization' implies political-geographical fragmentation, mutual quarrels and intolerance of the Balkan peoples and states and the predominance of foreign forces and factors in the region.

A foreign component of the Balkan geopolitical node has been most often expressed in a division of interest spheres (both secret and public ones) by biased meddling into Balkan geopolitical relations and processes, causing strives among the Balkan peoples along with redrawing of political borderlines and creation of new states (e.g. the creation of Albania 1912-1913).⁴

The significance of Kosovo-metohian region from the aspect of geopolitics

The territory of the Autonomous Province of Kosovo and Metohija encompasses the surface of 10.887 square kilometers and it consists of two regional and four sub-regional morpho-tectonic units. They are: KOSOVO, with secondary valleys Lab and Upper Morava (the Gnjilan valley) and Kacanicka gorge, which is located between the mountain Sar and Skopska Crna Gora (*Karadag*); and METOHIJA, which consists of Upper Metohija or Metohija in the narrow sense of the word and the Prizren valley. The Upper Metohija and Prizren valley make a comprehensive tectonic depression of valleys and one regional-geographic unit. Secondary intra-regional and peripheral geo-systematic units are the following ones: *Ibar-Kopaonik mountain-valley* region in the northern margin part of the Province. This region is a southern and southeastern part of Starovlah-Raska highland. *Drenica* is a region between Kosovo and Metohija valleys. Podrim, with a limestone and flysch insular mountain Milanovac is connected with Drenica, along with Prekoruplje, a hills-valley area that is directly connected to the lowland part of Upper Metohija in the basin of the river Klina which is the left tributary river to the Beli Drim River.

Mountain rim of Metohija in direction to Upper Polimlje, Crnogorska hills, Kolasin and the valley of the upper Ibar River with gigantic Prokletije mountains dividing Metohija from the Zeta, Montenegrin and Skadar coast. The *Sarplanina area* is situated between the Prizren basin and Poloske (*Tetovo*) valley in the upper part of the watershed of the Vardar (*Aegean watershed*) and Radika (*Adriatic watershed*) rivers. With mountains Koritnik and Pastrok, Sar-mountain area forms an orohydrographic node of a Central pulse-system (called *Catena Mundi* in Latin sources) in antic presentations of the

Up to these days the Balkans has been primarily an object and not the subject in international political, military and economic relations. (Radoslav Gaćinović, "A Geopolitical Aspect of a Violent Secession of Kosovo and Metohija from Serbia", *Thematic conference proceedings of international significance, Archibald Reiss Days*, Volume II, Academy of criminalistic, and police studies, Beograd, 2015, 11)

⁴ In terms of the spheres of interest, the majority of the agreements and attempted agreements were made between Austria and Russia, although one of the first plans regarding division of the Balkans had been made at the court of French king Louis XIV in 1686 (the plan of Jean Copain). According to this plan, France was supposed to gain Istanbul, for which Napoleon I said that it was "the key of the world". There were also famous divisions of the spheres of interest in the Balkans in October 1944 in Moscow and in February 1945 on Yalta. According to an agreement made between Stalin and Churchill in October 9th 1944 in Moscow, the percentage part of great powers in the Balkans was the following one: Romania – Russia 90%, others (Great Britain, the USA, France and others) 10%; Greece – Great Britain and the USA 90%, Russia 10%; Bulgaria – Russia 75%, the others 25%; Yugoslavia and Hungary – 50:50% (Владимир Дедијер, *Интересне сфере*, Просвета, Београд, 1980, 389)

orographic system of the Balkan Peninsula.⁵ The western part of the Sar Mountain overlooks the outlet part of the valley of the White Drin from Prizren basin above the watershed of the White and Black Drim in northern Albania. From there arises the Drim valley of the Metohija in the direction southwest-northeast (SW-NE), connecting the Skadar-Lješka coast with the Prizren basin. The Drim valley is a major natural link of historical Zeta with Metohijan-Kosovo Old Serbia or Lower Serbia Lower in Latin sources (*Servia inferior*) and also a central transverse communication road - Zeta road (*Via de Zenta*) - between the Adriatic Sea and the interior part of the Balkan Peninsula, starting from Split, Neretva, Dubrovnik and Kotor roads in the north up to *Via Egnatia* in the south, the ancient main link between the Western and Eastern Roman Empire. Some authors underline the connection of Sar Mountain area with Prizren or Metohijan-Prizren basin due to its functional relation with Prizren, the town with great influence to its mountainous background and also a former royal capital place in the period of the peak of power of medieval Serbia. By its regional position and its main natural and anthropogeographical-ethnographic characteristics Sar Mountain region is a separate regional unit with an excellent complex geographic, biogeocenologic, anthropological and ethno-cultural structure.⁶

The relief of Kosovo and Metohija is of mountainous character, with two large valleys (Kosovo and Metohija), encompassing 36.5 % of the total surface, while their hilly and mountainous part covers 63.5 % of the surface of the Province. The Kosovo valley consists of a plain along the river Sitnica, with an average altitude of about 500 meters, while the Metohija valley is a gently undulate terrain with an average altitude of about 400 meters. The climate of Kosovo and Metohija is determined by its jagged relief, its proximity to the Adriatic and Aegean Seas, the direction of positioning of its mountains and valleys and also by the network of its numerous rivers. When viewed from the geopolitical and geostrategic aspects, Kosovo and Metohija is a Serbian security macro-fortress. Subsequently, the territory of Kosovo and Metohija encompasses about 12.3 % of the whole state surface of Serbia. Furthermore, when viewed by the position that Kosovo and Metohija has had in the state territory of Serbia it is obvious that it holds a great geopolitical, geostrategic and military significance, because in Serbia violent secession of this Province has not been recognized. By its geostrategic and geopolitical position the region Kosovo and Metohija is of priceless significance for Serbia. The region of Kosovo and Metohija covers the whole line of the state borderline of Serbia with Albania and about two thirds of its borderline with Macedonia. Comparing the strategic depth of Serbia with the spatial depth of Kosovo and Metohija both in the terms of its short and long axis, it is possible to conclude that *the region of Kosovo and Metohija encompasses about 100 kilometers of the strategic depths by both of these axes*. Taking into consideration that the strategic depths of Serbia is small, in particular in case of the short axis (East – West), then the estimation of great strategic significance of Kosovo and Metohija for Serbia becomes even more supported by such evidence. The region of Kosovo and Metohija holds great significance in Serbian ethnic space. In the words of experts it is a 'soft belly' of Serbia. By the use of this metaphor in a picturesque way there is expressed the great strategic significance of Kosovo and Metohija for Serbia and

⁵ Radoslav Gaćinović, "A Geopolitical Aspect of a Violent Secession of Kosovo and Metohija from Serbia", 2015, 12.

⁶ Милован Радовановић, *Косово и Метохија – антропогеографске, историјско-географске, демографске и геополитичке основе*, Службени гласник, Београд, 2008, 9-10.

even broader – for the whole ethnic space of the Serbian people.⁷ The ethnic structure of Serbian population in Kosovo and Metohija up to the period of the 1960's reflected the statehood status of the Serbian population on Kosovo and Metohija.⁸ In comparison with the Kosovo valley, Metohija has considerably more complex morphotectonic structure.⁹

The physical-geographical characteristics of Kosovo and Metohija used to have the characters of elements / parts of the 'macro-fortress' much more in the period of medieval Serbian state than nowadays at the beginning of the 21st century, but in the first place due to its specific relief there is clearly identified its geopolitical position and role in contemporary age as well. However, all aspirations of Serbia for the Balkan to become the zone of peace in the 20th century have not been accomplished yet primarily due to the interests of some great powers to keep the Balkan Peninsula as the most fragile European region in the state of constant tension, so that in given certain political circumstances the security problems of the Balkans might become activated. This was most directly proved in the case of the last decade of the 20th century by the lack of respect for international law and the *Charter of the Organization of the United Nations* on behalf of the most powerful military force in the history of humankind and also by the implementation of double standards regarding the peoples in the Balkans.¹⁰

By possible establishment of „great albania“ there will be created preconditions for new conflict in the balkans

In European science it is a well-known fact that homeland regions of Albanian people are the regions in the contemporary central Albania. The famous German Albanologist Georg Stadtmüller underlined that the homeland region of the Albanians encompasses

⁷ The testimonies of foreign authors are the best illustration of ethnic, political and religious circumstances in the region of Kosovo and Metohija. These are the works of Ami Boué, Joseph Müller, Johann Georg von Hahn, Ivan Stepanovich Jastrebov, Alexander Fyodorovich Gilferding, Victor Berar, Gaston Gravier and others. In 1838 Joseph Müller published the data on the religious and linguistic section in the structure of population in Metohija – Pec, Prizren and Djakovica. In Pec the Serbs were majority (92.09 %) in comparison with the Albanians. In Prizren the percentage of the Serbian population was 73.68 % and only in Djakovica there was vast Albanian majority (80.76 %). (*Велика Албанија – замисли и могуће последице*, Институт за геополитичке студије Београд 1998, 21- 22)

⁸ According to the census register of the population in Kosovo and Metohija in 1929, the Serbs were the majority of the population (61 %). It is obvious that the Albanians understood the demographic factor to be the strategic one and they acted in that way, so that according to the census register of the population in 1948 in Kosovo and Metohija, the percentage of their population was 68.5 %, at the census register in 1961 there was 67.1 % and in 1981 74.4 %. Due to the fact that the Albanians boycotted the census register in 1991, the estimation of the percentage of their population in this period was 81.6 %. (Јован Илић, *Косово и Метохија изазови и одговори*, Институт за геополитичке студије Београд 1997, 261)

⁹ Metohija was a the biggest valley in the Socialist Federative Republic of Yugoslavia, descending on the tectonic confluence of Dinara and Sar mountain ranges and surrounded by high mountains of Sar and Prokletije. The altitude of the bottom of the valley is 350-450 meters and the rim of the mountain rises over 2000 meters. Deep Metohija valley is lower, but larger than Kosovo valley. It is oval in shape and is characterized by a complex 'plastics' of wavy hilled bottom which abounds in the river flows and tectonic lines. Along its edges at the crease with the rim of high mountains the rivers deposited powerful rampart-like mountain massifs. Within the Metohija valley there are secondary Pec-Djakovica, Prizren and Mirus valleys. (Ј. Ђ. Марковић, *Регионална географија СФР Југославије*, Универзитет у Београду, Грађевинска књига, Београд, 1980, 440-441)

¹⁰ Radoslav Gaćinović, „A Geopolitical Aspect of a Violent Secession of Kosovo and Metohija from Serbia“, 2015, 14

the valley of the river Shkumba, both sides of the river Mat, Kroya and some other neighboring parts. However, in the last decade of the 20th century Albania became interesting to some Western powers from several aspects. For them it became 'the key' of the Adriatic Sea (the position on Otranto) and the fan-shaped arrangement of the Albanians outside (around) of the contemporary state of Albania provides the creation of considerably more spread 'friendly' Albania, in particular at the expense of the Serbian territories. In particular the existence and spreading of the 'Albanian ethnic wedge' in direction toward the Morava-Vardar valley as a main transport and military-strategic artery of the Balkans is unacceptable for the majority of the Balkan peoples. This wedge cuts off the 'ethnic' link of Christian Orthodox Serbs and Macedonians and also of the Serbs and Greeks. Consequently, the Albanians might preoccupy Macedonia from the west and north, or in other words from Struga to Kumanovo. The Albanians have the hugest population growth in Europe, which means that in future period their demographic capacity will gain in significance. Albania is predominantly a Muslim state and so by protecting the Albanians one might 'gain points' in other Muslim states. However, perhaps by placing the Albanians under their control the United States of America would like to prevent spreading of fundamentalist Islam to the western Balkans and its inroad into middle and Western Europe. Having placed Albania, Macedonia and Bulgaria into their influence zone, the USA have created some sort of a control (strategic) belt the Adriatic Sea – Black Sea. Thus, there has been accomplished additional protection of an important Mediterranean oil road as well as some sort of a barrier to the influence of Germans and Russians and even British, French and Italians on the whole entity of the Balkans. This fact becomes even more interesting if the USA (and other western states) have opted for the concept 'weak Serbia', which from geopolitical aspect implies strengthening and inroad of Orthodox Islam toward the Middle and Western Europe.

The latest scientific analysis has shown that the Albanians are not satisfied with the secession of Kosovo and Metohija from Serbia. In the first phase they will attempt to create 'Great Kosovo', because in recent history there were publicly expressed expansionist aspirations of the Albanians living in Kosovo and Metohija towards: a) Southeast of Serbia (Medvedja, Bujanovac, Presevo) within the framework of the project "Dardania"; b) Kosovo and Metohija within the framework of the project "Independent Kosovo"; c) Montenegro (Plav, Gusinje, Bar, Sutomore, Ulcinj within the framework of the project "Malesija"; d) Western Macedonia within the framework of the project "Iliria" and e) Northern Greece within the framework of the project "Epir". If such expansionist aspirations of the Albanians got accomplished, then the so-called Great Kosovo would form a federal or confederate union with Albania. In this case the territory under control of the Albanians would cover around 55,000 square kilometers with 6.5 to 7 million Albanians.¹¹ The creation of great Albania in the Balkans would trigger further national prepotency of the Albanians and most probably an open conflict with Serbia or Greece, which would unavoidably lead to the Third Balkan War. This is primarily a warning for the European states and also for the Organization of the United Nations. In other words, without Kosovo and Metohija Albania cannot accomplish its strategic role in geopolitical games in the Balkans which was designed for it by some centers of power after the wreckage of Yugoslavia. Albania lacks all necessary resources on which there are

¹¹ Радослав Гаџиновић, "Насилје на Косову и Метохији", *Политичка ревија* No. 1/2008, 79.

based important elements and determinants of the state powers (spatial and strategic depth, demographic potentials and economic and natural resources as the basis of economic power of the state). On the basis of these facts, it is not difficult to conclude why the pressure of a part of international community over Serbia (to accept the change of the state-legal status of Kosovo and Metohija) is so strong and that these pressures and extortions will continue regardless of the fact who will reign in Serbia and in what way. In other words, the issue of human rights and the rights of national minorities as well as the need for domestic democratization in Serbia have a totally supporting role, the role of 'a smoke-screen' for the pressures which are motivated *solely by the geopolitical and geostrategic reasons*.¹²

The violent geopolitical modeling following the post-Balkan intervention of the NATO pact in the southeastern European region might have very negative consequences for the most powerful states of the Western world, because the friendly relation with terrorist organizations might eventually have a boomerang effect. It has become completely obvious that the slogans on humanitarian missions and creation of a multiethnic and tolerant and supposedly democratic society in Kosovo and Metohija are not in accordance with the reality and that it became more difficult and uncertain to find the exits from the Balkan labyrinth than it had been possible to do that in the period before the intervention. In contrast to idealism and illusions, the state of affairs in this province shows that there is a new 'history repetition' there, that Albanian violence as well as the ethnic and religious conflicts do not quiet down and that extremisms and pretensions of various players in the Balkans and outside of it constantly grow and announce the revenge of an 'unlearned lessons in history'. An arbitrary geopolitical modeling and violent cutting of 'the Gordian knot' in the fragile Balkan crisis field and redrawing of the state borderlines is a serious blow not only to the basis of international law but also it triggers spreading of instability in the region and activity of new separatist movements in the world.¹³

It is certain that the Albanian leaders in Kosovo and Metohija for a long time have not counted on domestic economic and civilization progress, but on non-economic sources of profit by criminal and illegal methods of acquisition of wealth by trafficking drugs, people and weapons or by separate sources of help, even the help from Islamic sources. This gives rise to civilization regression in the Balkans and Europe which becomes more malignant and more distant from the postulates and principles of liberal and democratic civil society and regional stability.

The violent secession of Kosovo and Metohija from Serbia, which stands in contrast to constitutional, historical and international law, will significantly change integral capacity of security of the Balkans. By the act of disrespect of the Resolution of 1244 of the Security Council of the United Nations and the Kumanovo Agreement, the Charter of the United Nations and international law in general are also ignored. On the other hand, the implementation of international terror and terrorism toward one nation (the Serbs) in the Balkans has become legalized, because at the beginning of the 21st century the process of ethnic cleansing of this nation in Kosovo and Metohija has almost come to the end.¹⁴

¹² Radoslav Gaćinović, „A Geopolitical Aspect of a Violent Secession of Kosovo and Metohija from Serbia“, 2015, 15.

¹³ Милан Матић; Живојин Ђурић, *Косово и Метохија пред судом историје*, Зборник радова САНУ, Београд, 2007, 125-128.

¹⁴ The threat to the security in the region of the Balkans became more obvious at the beginning of the 21st century and the violence of the Albanians over the Serbs was intensified. Since the establishment of the Serbian state in the Balkans, the Serbs have struggled for their survival. An analysis of the historical documents regarding the expulsion of

The geopolitical position of the Balkan peoples and states has always been created by non-Balkan actors, first of all by great powers and the biggest centers of political, economic and military power. The influence of these non-Balkan factors, relations of the Balkan states and peoples toward these centers of power and mutual relations between the Balkan states and peoples themselves and domestic crisis fields in the Balkans have created the so-called Balkan geopolitical node. In the very center of this Balkan geopolitical node, or the crossroad where main directions of the influence of non-Balkan factors get intersected, there is Serbian ethnical space and their homeland – Serbia. There is almost no possibility that such adverse influences of these powerful non-Balkan factors can be completely avoided and so this fact will continue to very unfavorably influence the possibility of the accomplishment of national and state interests of the Serbian people on their whole ethnical space.¹⁵

Throughout recent political history and in particular during the war in the wreckage of the second Yugoslavia, the Serbian ethnical space was continuously narrowed. In this sense, the greatest losses were from 1991 to 1995, when Croatian state was left without 500,000 Serbs as official owners of over one third of the land in the state by their expulsion from their homes and by various other ways. This was followed by the violent secession of Kosovo and Metohija from Serbia, the territory of about 10,887 square kilometers. These losses were partially the consequence of the absence of any kind of support of the world power centers for the idea of reaching a fair solution of Serbian national issue. An indirect consequence of this fact was the expulsion of the Serbs from the regions which historically and traditionally were theirs and then the consequence was also the removal of the Serbs from the Adriatic Sea and the rivers Kupa, Una and Neretva, with serious dangers of further narrowing of this space in the region of Raska. The process of the violence toward the Serbs is still active, with an objective of narrowing of the Serbian ethnical space and forcing compactness of the Serbs into the watersheds of three Morava rivers (Great, Western and Southern ones), which would be a vanguard for vanishing of the Serbian people as political nation and for great turbulences in the Balkans, including a great war. This poses a great threat to the peace in the Balkans and it should be avoided at any cost.¹⁶

The seizure of Kosmet from Serbia changes geopolitical structure of the Balkans

Within the framework of the Serbian ethnical space, Kosovo and Metohija is a sacral-geographical, spiritual and historical center of all Serbian people. Their cultural-civilization identity makes all its parts connected into one unique ethnic spatial unit: the

the Serbs from Kosovo and Metohija throughout last three centuries (1690-2006) leads to the conclusion that there were 1,150,000 Serbs expelled by force from the Old Serbia (it is the former name of today's Kosovo and Metohija) and that about 200,000 of them were murdered and 150,000 – 200,000 of them converted into Islam. (Јован Н. Деретић, *Срби и Арбанаси*, Народна библиотека Србије, Београд, 2005, 52; 130).

¹⁵ Јован Илић, „Балкански геополитички чвор и српски етнички простор“, Зборник радова, *Геополитичка стварност Срба*, Институт за геополитичке студије, Београд, 1997, 429-430.

¹⁶ Radoslav Gaćinović, „A Geopolitical Aspect of a Violent Secession of Kosovo and Metohija from Serbia“, 2015, 17.

region of Raska as a historical center of the Serbian state and Pomoravlje (western and southern ones as well as Ponisavlje) as the backbone links of contemporary geostrategic and geopolitical position of Serbia as the homeland of all Serbs. Kosovo and Metohija also make the central line of connecting Serbian ethnical territories into one unique unit on its southern geostrategic wing: from the Kumanovo valley up to the east, over the region of Raska in the center and Montenegro in the west and on the Adriatic coast and its littoral part. And vice versa, by exclusion of Kosovo and Metohija from the Serbian ethnic space this connection disappears and in the depth and width of about 100 kilometers this 'soft belly' of Serbia becomes open and through it and over it there is the possibility of continuation of further dismemberment and disintegration of the Serbian ethnic space in all directions: to the west, northwest, north and east.

By the violent secession of Kosovo and Metohija from Serbia in the Serbian ethnical space there comes the creation of a *very wide and deep spatial aperture*, with a tendency of its continuous widening and in accord with that, of continuous piranha-like 'biting' of the Serbian ethnic space and its narrowing. In such geopolitical scenario Kosovo and Metohija completely get Islamic sign mark and gain a multiple geopolitical role: *firstly*, to support the creation of the project of 'Great Albania',¹⁷ primarily at the expense of the Serbian ethnic space; *secondly*, to strengthen the so-called northern Islamic wedge which would cut into the center of the Serbian ethnic space (Kraljevo – Nis – Kragujevac) and *thirdly*, by the connection of Kosovo and Metohija and the region of Raska as Muslim spatial unit factually there would be created a territorial aperture between Serbia and Montenegro. In this way probably in the long run this would vitiate the idea of the establishment and strengthening of cultural and all other relations between the Serbian ethnic spaces in the Balkans, that is, between historically determined ethnic territories of the Serbs.

Kosovo and Metohija is located in the very center of envisioned 'green Islamic transversal' which goes from Tashkent over Asia Minor, Thracian territory (the part of Bulgaria and Greece), Macedonia (in its Islamic boundaries), Kosovo and Metohija, Raska (Sandzak in Islamized terminology and geopolitics) and Bosnia and Herzegovina all the way to Cazin as the farthest Islamic point in Europe. This is the direction and vector of new Islamic inroad to Europe of which Turkey is its strategic intercessor.

By the violent secession of Kosovo and Metohija from Serbia, the geopolitical architecture concept of the Balkans gets into the process of transformation of the Balkans into a continuous conflict region of small Balkan states by activating the processes of separatism and nationalism from outside (by creation of misleading stereotypes regarding certain Balkan peoples and on the basis of it their demonization as well), simultaneously opting for one of the opposing sides and in this way provoking even bigger conflicts which are prepared in advance in centuries-long politics of great powers '*divide et impera*'.¹⁸

Thus, during the last twenty years of interference of foreign factors into Yugoslav crisis in the Balkans, several new dependant states which are mainly ethnically clean

¹⁷ Ђорђе Борозан, *Велика Албанија – порекло, идеје пракса*, Војноисторијски институт, Београд, 1995, 237

¹⁸ Љубиша Митровић, „Балкан у светску савремених процеса глобализације“, *Српска политичка мисао* No. 3-4/97, Институт за политичке студије, Београд, 86

states were created, despite a declarative support of the West for multiethnic society. In particular Croatia has become ethnically clean state by expulsion of the Serbian people from their ancestral homes in its territory and following that it was accepted into the European Union and the NATO pact. Only Serbia has remained as a multiethnic state after the wreckage of the Socialist Federative Republic of Yugoslavia. In addition, a 'new Kosovo' was created following the intervention of the most powerful military force in the history of mankind. On the territory of it there was rapidly conducted ethnic cleansing and genocide of Serbian and other non-Albanian peoples by the use of terrorist activities. Macedonia is also divided and subject to conflicts and criminalized Albania and after having gained independence Montenegro will soon become the target of the Albanian separatist movement.¹⁹

Permanent loss of Kosovo and Metohija would have catastrophic consequences for the existence and survival of the Serbian people in this region. In addition to the destruction of the Serbian spiritual vertical axle which had created the national identity of the people, the negative consequences of such loss would be reflected on economic,²⁰ military and strategic field as well. By the violent secession of Kosovo and Metohija (Kosmet) from Serbia its state sovereignty has been threatened and this sovereignty is a primary precondition for the survival and struggle for life of all Serbian people, because without the statehood constitution of one people (nation) there is no possibility for defense of their vital values and interests. The loss of this part of the state territory most often simultaneously has as a consequence the loss of the cultural-civilization parameters (in both spiritual and material sense), Serbian sacred monasteries and monuments, demographic potentials and vital natural resources and economic basis. However, even more significant are geopolitical consequences of the secession of Kosovo and Metohija from Serbian sovereignty and territorial integrity (regardless of the fact whether it is obtained at a glance of by 'step by step' methods). In the case of the secession the Albanians take over the whole quality of this region from the Serbs and instead of it being Serbian 'fortress' it becomes Arbanasian (Albanian) geopolitical 'fortress' in the Balkans not only in demographic sense, but also in cultural-civilization, military-strategic, economic and even in the statehood sense of the word. Due to the violent secession of Kosovo and Metohija, the Serbian lands are faced with the total destruction and the extent of their spatial implosion and fragmentation goes beyond the limit of ethnic and spatial compactness which is sufficient for their survival on this Balkan 'bleakness point'.²¹

¹⁹ Radoslav Gaćinović, „A Geopolitical Aspect of a Violent Secession of Kosovo and Metohija from Serbia“, 2015, 18.

²⁰ Mineral resources of Kosovo and Metohija were a well-known fact even 2,000 years ago. According to the latest data, there are over 13,5 billions of tons of coal reserves in Kosovo and Metohija. In Kosovo and Metohija there is a largest deposit of lignite in Europe. The value of the reserves is estimated to 88 billions of dollars, while the reserves of the lead-zinc ore in Kosovo and Metohija is estimated to 5,5 billions of dollars. The reserves of the bauxite are estimated to 1,668,000,000 tons, the reserves of the nickel and cobalt to over 20 millions of tons, the reserves of the magnesite to over 8 millions of tons. In Kosovo and Metohija there are great reserves of the ore of chromium, cobalt, bentonite... (Проф. др Звездан Ђурић и Проф. др Горан Милошевић, "Природни и материјални ресурси Косова и Метохије као безбедносни чинилац Србије," Збраник радова Србија - Отимање Косова и Метохије, Институт за политичке студије, Београд, 2012, 100-101)

²¹ Миломир Степић, *Косово и Метохија—политичке, геларафске и геополитичке перспективе*, Знамен, Београд, 1999, 15-21

At the beginning of the 21st century in Europe there is no state issue of greater importance than the case of two peoples having a claim over some territory. Nowadays this is the case with Kosovo and Metohija, which the Serbs consider to be the axle of their national self-awareness and inseparable part of their own state on the basis of history and constitutional-legal aspect, while the Albanians, having separated themselves by the use of force and with the help of NATO, try to verify such their “non-statelessness” in the organization of the United Nations, so that following that they could join Albania in a federal or co-federal way of organization.²²

Kosovo and Metohija is a very important region for airborne desants. It can accept airborne-desant forces of strategic level and significance which are capable of carrying out armed operations autonomously and in long term period, until they achieve a planned connection with the forces which operate on the land routes from southwest, south and east. Considering the facts that Kosovo and Metohija is not the part of defense system of the Republic of Serbia and that this airborne (desant) region is not defended by the armed forces of Serbia, endangering of the safety of Serbia might begin on the model of a so-called “reverse strategic front”, that is, by desanting the forces of strategic level in Kosmet and also in the region of Raska (the district of Sjenica – Novi Pazar).

Albanian separatist-terrorist movement in Kosovo and Metohija has received the support for their forceful separation from Serbia from many powerful states in the world, although there have never been elements of Albanian statehood in the region of Kosovo and Metohija. It was not Serbia who determined the borderlines with her neighbors. The international community did it on the basis of ethnic structure of population and Turkish “defters.”²³ These borderlines were determined on the London Conference in 1913, and by the revision these borderlines were finally confirmed on the Conference in Florence on July 26, 1926.

The Serbs have constitutional and historical right on Kosovo and Metohija and this right is always older than ethnic right. International law, too, is on the side of Serbia, because the Charter of the Organization of the United Nations forbids forceful seizure of the parts of sovereign states. Population data rate strenght of some national community is not determined by its number in one part of some state, but by its number of population in the whole state, and so on the basis of this criterium the Albanians are a national minority in Serbia. So far nowhere in the world has happened that a national minority gained right to form their own state. One national community can not determine for itself whether it is a nation or a national minority.²⁴

In addition to these facts of legal nature, it is necessary to underline that Kosovo and Metohia is the center of Serbian spirituality and culture. Throughout 19 and 20th centuries academic research determined that in this region there have been 162 objects

²² Радослав Гаџиновић, *Отимање Косова и Метохије*, Новинско издавачки центар *Војска*, Београд, 2004, 58

²³ “Defter” (or “tefter”) means a notebook or book in modern Turkish language, but in time of the Turkish Ottoman Empire it was one of official documents of the Ottoman administration and accountancy - a cadastral tax list with recorded data on the villages, households and ethnic groups on the territory of the Ottoman Empire.

²⁴ Radoslav Gaćinović, “A Geopolitical Aspect of a Violent Secession of Kosovo and Metohija from Serbia”, 2015, 18

which are declared to be cultural heritage of high importance, while 500 objects are protected as cultural monuments and more than 1,400 objects are registered as cultural heritage of the Serbian people.²⁵

In addition to this, it is very important to remind of a fact that for decades the Shqiptars used to receive money from the citizens of Serbia and other republics in former Socialist Federative Republic of Yugoslavia which they expended for the purpose of financing the economy revival of Kosovo and Metohija. By this money the Shqiptars used to buy houses and property of the Serbs who were forced to move out by pressure from Kosovo and Metohija. As a reminder, for a period of ten years each employee in the Republic of Serbia had to set aside 1% of her/his personal income for purpose of development of Kosovo and Metohija, which in accord to the exchange rate of that period amounted to one million dollars per day or about 3,650,000,000 dollars in a ten year.²⁶

For decades Serbia has invested great financial resources for development of scientific activity and education system in Kosovo and Metohija. At the beginning of 1990 Kosovo and Metohija had 22 scientific organizations and institutions with more than 1,200 employees and among them there were 213 Ph.D. and Master's degree holders, mainly the Shqiptars, while before the Second World War nobody of the Shqiptars had academic titles. Only in 1988 there were published 113 scientific papers in Kosmet and greatest number of them was in Albanian language. Radio Television Pristina used to broadcast 80% of their program in Albanian language and at the beginning of 1990 there were 120,000 TV receivers in Kosmet, and that year only to mention a publishing house Rilindja published 289 titles in Albanian language. At that period there were 16,500 teachers for education in Albanian language in Kosmet, and that is greater number than the number of pupils of this nationality in 1941, and also there were 4,000 high school teacher, also the greater number of the number of high school students of the Shqiptar nationality in 1948.²⁷ Despite all these indicators, the Albanians have created obstructions to their own state in which they have lived by mass demonstrations, armed violence and ultraright terrorism. Regardless of the fact that still nowadays there is no society which has achieved maximum of safety or absolute freedom, the manhood must strive to reach this ideal. However, at the beginning of the 21st century in Kosovo and Metohija there is no even minimum of safety, there is only the state of unsafety and non-statelessness which any given day might cause dangerous turbulances in the Balkans.

²⁵ In Kosovo and Metohija as a treasury-house of all Serbian states and a region which is richest with Christian antiquities, the highlight of church art architecture was achieved during the 13th, 14th and 15th centuries. Testimonies for this are the temples of indescribable beauty which are Serbian prayers made in stone: The Patriarchate of Pec, built from 1230 to 1330, Bogorodica Ljeviška Church (1219-1305), Gracanica Church (1313-1321), Visoki Decani (1327-1335), and the impressive remains of the city of Saint Archangels and medieval cities Banjska, Zvecan, Novo Brdo, Prilepac, Ubosac, Ajnovac and tens of churches as heritage endowments of Serbian aristocrats in 13th and 14th centuries. At the end of 2003 in Kosmet there were 1994 Serbian toponyms, of which there were 1,181 churches and ruined church sites, 113 monasteries, 48 hermitages, 8 Memorial Chapels, 534 Serbian cemeteries, 96 fortresses and 14 castles of Serbian nobility. (*Меморандум о Косову и Метохији Светог архијерејског сабора Српске православне цркве*, Издавач, Свете архијерејски синод Српске православне цркве, Београд, 2003, 21)

²⁶ Милан Вучинић, *Зашто Косово не може да буде република*, НИП Пословна политика, Београд, 1990, 138; 139.

²⁷ *Ibid*, 231

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THE STATE OF SECURITY OF TODAY'S WORLD AFTER 70 YEARS OF THE UNITED NATIONS

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At a time when the United Nations mark 70 years of its existence, when the leaders of the 193 member states of this world organization adopted, with a lot of faith, a transformative 2030 Agenda for Sustainable Development, the world is faced with many difficult challenges to security.

Effective indicators of contemporary international security, as well as the challenges, risks and threats that reflect it, show that the security of the modern world has been jeopardized, directly or indirectly, in the highest possible degree, since the end of the Second World War.

That is why there is increasing importance of the United Nations, which, with all its drawbacks over the past seventy years, have represented the best model of multilateral cooperation in the field of security and without whose existence the world would have much larger international problems. The efforts this organization makes with the aim to protect and establish peace in the world must be respected, and the contents of the UN General Assembly resolution 59/565 A of 2004, devoted to threats to the international security, should be seen in that light as well.

Key Words: international security, the dangers of socio-economic nature, armed conflicts, nuclear, radiological, chemical and biological weapons, terrorism, organised crime

Introduction

The relatively predictable nature of international relations has been disrupted by ending of the Cold War, or the termination of the bloc division of the world, so that today's strategic planners must take into consideration a large number of related security issues starting primarily from the globalization as the dominant process in the international community.¹ The common denominator for all concepts of globalization

¹ On characteristics of the world during the bloc divisions, look for more details: Branislav Đorđević, *the Cold War*, the Academy for Diplomacy and Security, Belgrade 2012

refers to the expressed and intensive interaction of political, economic, social and military factors. To be able to adapt to and manage challenges, the governments of all countries were supplied with the requirements for global reviewing and action in a way that was not the case until now.

Security concerns of the modern world are determined by the global trends in the first half of the 21st century. The world community is and will remain extraordinarily violent with the overall economic development that leads to a widening gap between the rich and poor, among countries and within them. The development of the global economy and its complete interdependence creates new forms of vulnerability and the need for security checks. As a result of its own overstrain the potential of the United States is also being reduced, which by the nature of its own existence was the intent on the monocentric arrangement of the world. Asymmetric warfare, as a result of the inability of opposing western conventional means causes new forms of conflict with the expressed ethnic, religious and racial tensions. The general availability of information technology creates the possibility of launching new forms of a conflict, which, along with the changes in global media coverage may affect the way the military assets are being used.

"In addition, the modern world found itself facing new, previously unknown threats. Among them, the most important are: uncontrolled escalation of the armed conflicts; the global economic crisis; international terrorism; spread of nuclear and other weapons of mass destruction; monstrous increase in drug trafficking; illegal immigration, which occasionally gets the characteristics of slave trade; an incredible increase in trafficking in human organs, and from people kidnapped for that purpose; piracy and software piracy; criminalization of different walks of life and so on. To this, certainly not the final list, should be added the technogenic disasters and environmental problems taking on a planetary character and affecting the general climate change and the deterioration of the quality of human life."²

International relations in the post-Cold War era are characterized by a high degree of unpredictability and ambivalence. A wide range of new challenges for nations and peoples has been replaced by military threat security to security. The risk of large scale conventional and nuclear threats has been replaced by the low-intensity challenges, internal and regional conflicts.

Events, that is, processes that result in mass death, decrease of chances for life and which undermine the state, can be seen as a threat to international security. In this regard, the resolution of the General Assembly of the United Nations (UN), A 59/565 in 2004 identified six categories of threats facing the world: (1) economic and social threats, including poverty, infectious diseases and environmental degradation; (2) inter-state conflicts; (3) internal conflicts, including the civil war, genocide and other serious crimes; (4) nuclear, radiological, chemical and biological weapons; (5) terrorism and (6) transnational organized crime.³

² Miroslav Mladenovic, Jelena Ponomareva, *China-US-Russia - a global triangle of the 21st century*, Sociological Review, Belgrade, YU ISSN 0085-6320, UDK 316.2011, vol. 45, no. 4, p. 460.

³ A / 59/565 Follow-up to the outcome of the Millennium Summit - Note by the Secretary-General, Dec. 2 2004, That resolution represents, basically, the basis for this work.

The Dangers of socio-economic nature

Within the entire spectrum of the dangers of socio-economic nature faced by the modern world, the following ones occupy special place by their intensity: (a) poverty, (b) infectious diseases and (c) environmental degradation.

Poverty

In the last decades of the past century and the beginning of the current millennium, poverty of a large part of humanity has become alarming. Explicit data of the relevant institutions, such as the United Nations through the annual reports on the achievement of the Millennium Development Goals,⁴ the *World Health Organization* (WHO), the *Food and Agriculture Organization of the United Nations* (FAO), *United Nations Educational, Scientific and Cultural Organization* (UNESCO) and others, speak in support of this statement.

In the last decade of the twentieth century, in the developing countries, per capita income increased by an average of three percent per year, while the number of people living in extreme poverty reached a level of 836 million people.

In at least 54 countries, average per capita income declined during the same period. Over 60 countries are in a hopeless "debt bondage" situation.

Some other data show the drastic state of poverty in the world:⁵

- 868 million people are chronically undernourished (FAO 2012),
- 2 billion people lack access to essential medicines,
- 738 million lack safe drinking water (MDG Report 2012),
- 1.600 million does not have adequate housing (UN Special Rapporteur 2005),
- 1.600 million are without electricity (UN Habitat, "Urban Energy"),
- 2.500 million do not have adequate sanitary conditions (MDG Report 2012),
- 796 million adults are illiterate (www.uis.unesco.org), and
- 218 million children (from 5 to 17 years) work as soldiers, prostitutes or servants (mostly in agriculture, construction and textile industries).

Every year, nearly 11 million children die of hunger, and more than half a million women die during pregnancy or childbirth.

The continent that is hardest hit by poverty is Africa. In sub-Saharan Africa, the average life expectancy over the last 20 years was reduced from 50 to 46 years. While in developed countries less than one in 100 children dies before the age of five, in most countries in sub-Saharan Africa this ratio is one child out of 10, and in 14 countries, even one child of five.

With the adoption of the Millennium Development Goals, the international community has pledged to significantly reduce poverty by 2015.⁶ Estimates of the impact of the

⁴ The Millennium Development Goals Report, 2015, which provides a detailed analysis of the situation of poverty in the world, see the official website of the United Nations <http://www.un.org/millenniumgoals/news.shtml> (12.09.2015.)

⁵ The data presented in this part of the paper are taken from the study "The problems of global poverty", by Thomas Poga, the German philosopher and sociologist and professor at the Yale University (www.pescanik.net 26.09.2015.).

⁶ Millennium Development Goals consist of eight goals that all United Nations member states have agreed to try to achieve by 2015.

former Millennium Project indicate that 14 percent of the world population still has less than \$ 1.25 per day at their disposal to meet the basic needs.⁷

In the area of reducing child mortality rates and achieving an increase in primary education, the world continues to lag behind its commitments. Both poor and rich countries have pledged to take action on social and economic outcomes. Promises have not materialized either in terms of origin or in terms of actions, and long-term liabilities are short-lived.

It is up to us to believe that the goals of mankind defined in the document "*Transforming our world: the 2030 Agenda for Sustainable Development*" will be placed at the centre of national and international strategies to reduce poverty.⁸ The dramatic lack of financial support for the MDGs in 2000 stipulates that the responsibility for achieving the goals of the new agenda for sustainable development take those who have committed by their policy and good governance to take such goals to the level at which they can be achieved.

For the least developed countries, the assistance of the *United Nations Development Program* (UNDP) and the *Capital Fund of the United Nations Development Program* (UNCDF) will be crucial and should be structured in support of *the 2030 Agenda for Sustainable Development*.

Infectious diseases

In recent decades, the world has been faced with the emergence of new infectious diseases, the revival of the old ones and the spread of resistance to a growing number of antibiotic drugs. For example, the last polio epidemics in the world threatens to undermine its rapid eradication, which has been the one of the great goals of the 21st century; not to mention Ebola which is still raging in Africa!

Undeniably, the international response to AIDS has been and remains slow and is guided in a shamefully bad way. The first major international initiative against AIDS, known as the "Global Program on AIDS", started in 1987, six years after the first case of a HIV-infected person, and only after millions of people were infected worldwide. Only nine years later, and after 30 million infected, the Joint United Nations Programme on HIV and AIDS (UNAIDS) was developed, whose work is coordinated by the UNAIDS Secretariat.

By 2000, when the Security Council debated for the first time about "Aids" as a threat to international peace and security, the number of deaths per year from HIV/AIDS in Africa surpassed the number of deaths in all the civil wars in 1990.

⁷ Millennium Development Goals Report 2015, United Nations, New York, 2015, pg 4.

⁸ As a result of years of negotiations of all 193 UN member states, the General Assembly of this world organization adopted on 26 September 2015, the document entitled "*Transforming our world: the 2030 Agenda for Sustainable Development*" aimed at the elimination of the biggest problems of the world. The document formulated 17 general and 169 specific targets for their implementation and will require between 3.5 and five billion dollars each year by the year 2030.

New targets are set according to the eight Millennium Development Goals which were adopted by world leaders 15 years ago, out of which only one was realized – reducing by 50 percent the number of people living in extreme poverty. This is primarily achieved thanks to the economic growth in China.

Three months before the expiry of the previous Millennium Development Goals, one of them was close to achieving – reducing by half the number of people in the world who lack access to clean water.

By 2003, when the Global Fund to Fight AIDS, Tuberculosis and Malaria was founded, in Africa alone there were more than 11 million children whose parents died from HIV.

The fact that Africa is suffering the brunt of the HIV pandemic raises the disturbing question of international responsibility because of the slow response, which led to the fact that by the spread of the disease life expectancy in some African countries dropped to only 30 years.

Progress in the fight against other lethal infectious diseases remains almost negligible. Global control of tuberculosis, which had been almost forgotten among the western public, has shown significant progress, including the improvement of the political obligation of states to provide financing, formulate the strategy and ensure access to medication and medical research. Nevertheless, in 2013, there appeared nine million new cases of TB, where 1.5 million people died.⁹

The World Health Organization estimates that, if current trends continue, by 2020 nearly one billion people will become infected, 150 million people will become carriers of the disease, and as a consequence of the disease 36 million people will die.

Climate changes and the disruption of the ecological balance increase the incidence of diseases, primarily those of zoonotic nature.¹⁰ In addition to infectious diseases that can get epidemic and pandemic character, real asymmetric threat is also the misuse of biological agents in the form of a potential means of mass destruction. Therefore, the issue of diseases as a security threat is increasingly appearing on the agendas of the security strategy of almost all countries of the world.

Environmental degradation

Environmental degradation has multiplied the destructive potential of natural disasters and in some cases accelerates their occurrence. The dramatic reproduction of these major disasters that we have witnessed in the last 50 years is cause for concern for the whole world.

More than two billion people have been affected by natural disasters over the last decades, while in the same period the world economy has suffered losses that exceed the level of losses in the previous four decades combined. If climate changes cause even more flooding, fires, droughts and storms, all this can further accelerate economic losses.

Care about the environment is rarely regarded as a factor of safety or development. There is no coherence in the environmental protection efforts on a global level. Many attempts to take over the government structures and create interests in solving global problems of environmental degradation have not effectively been implemented because the climate changes have been ignored, as well as deforestations, droughts and the like. Regional and global multilateral agreements on the environment are undermined by inadequate implementation and enforcement by Member States.

Current trends indicate possible systemic deterioration of the people's nutrition in many countries, especially in sub-Saharan Africa. Population growth in the developed world and increased consumption per capita in the world of industrialized countries, have led to greater demand for the already scarce food resources.

⁹ Global Tuberculosis Report 2014, World Health Organization, New York, 2015, pg. xi.

¹⁰ Zoran Jevtic, Vanja Rokvic, Elizabeta Ristanovic, The Role of the Serbian Armed Forces in Humanitarian Health Action and Fight Against Biological Threats, The Review of International Affairs, January-March 2015, p. 75.

The lack of arable land, water shortages, excessive catching of fish, deforestation and changing ecosystems are daunting challenges for sustainable development. It is expected that the world population will increase from the current 7.2 billion to 9.6 billion people by 2050, with about such an increase in the countries that are the least prepared to handle it.¹¹ Providing food for the rapid growth of the population will be possible only if a significant increase of agricultural production is achieved.

Finally, when it comes to economic and social problems, it should be noted that international institutions and states are not organized nor equipped so as to solve all the arising problems in a coherent and integrated manner.

In 2002, world leaders agreed at Monterrey that aid donors and recipients of assistance should mutually be obligated to achieve development and progress.¹² The primary responsibility for economic and social development lies with the governments, which must create a conducive business environment for stronger private sector development and effective assistance through stable economic policy.

In addition to substantial improvement of policy and institutions in developing countries, donor countries have agreed to renew their efforts to reduce poverty, including the reduction of trade barriers, increasing development assistance and debt relief for highly indebted poor countries.

However, the problems remain. Some advanced industrialized nations are on track to meet their Kyoto targets for reasons outside the field of climate policy, such as, for example, a reduction in their industrial production. The United States, accounting for about one-quarter of the world's greenhouse gas emissions, still refuses to ratify the Protocol.¹³

At the same time, some the developing countries, which account for only 1/10 of these greenhouse gas emissions, also oppose this Protocol as binding, because the allocation of funds for the purchase of expensive filters or purification are considered to be a direct limiting factor to their economic growth.

Inter-State Conflicts

After the Second World War, the world was faced with interstate wars which took many victims. According to data of "*The Polynational War Memorial*," after the Second World War, there were 248 wars in the world that were waged or are still being waged, 179 of which are interstate.¹⁴ It is estimated that over 23 million people were killed in these wars, with the number of troops accounting for 10-15 percent, and 85-90 percent are civilians.¹⁵

¹¹ <http://balkans.aljazeera.net/vijesti/indija-pretice-kinu-po-broju-stanovnika> (10.19.2015).

¹² More details on the International Conference on Development held in Monterrey (Mexico), 18-22. March, 2002, see: Monterrey Consensus of the International Conference on Financing for Development, United Nations, New York, 2003.

¹³ The Kyoto Protocol to the United Nations Framework Convention on Climate Change is an international agreement on climate change, signed to reduce emissions of carbon dioxide and other gases that cause the greenhouse effect. The Protocol entered into force on 16 February, 2005, when it was ratified by Russia. Serbia has accepted the Kyoto Protocol on 24 September 2007. States that have ratified it amount to 61 percent of pollutants.

¹⁴ www.war-memorial.net/wars_all.asp (23.09.2015).

¹⁵ William H. Wiist, et al., "The Role of Public Health and the Prevention of War: Rationale and Competencies", *American Journal of Public Health*, Vol. 104, No. 6, June 2014, New York, pp. 34-47.

It is extremely worrying that the relationship between the dead soldiers and civilians in wars since 1945 is about 1:7, while in the Second World War the ratio was 1:1.35, i.e. of total of 48.2 million dead, 20.8 million were soldiers and 27.4 million civilians.¹⁶

Although the data presented give warning signs to humanity and compel the modern world for urgent action in stopping arms stockpiling, exactly the opposite happens. The renowned *Stockholm International Peace Research Institute* (SIPRI) has come to an indicator that the total allocation for defence at world level in 2014 amounted to 1.776 billion dollars, which is higher than spending on health care or education.¹⁷

It is more than obvious that "on the one hand, the military industrial complex of the countries of the "centre" is strongly involved in the main world economic developments, and on the other, it represents one of the most thorough pillars of global power politics. The main formula of modern military application component in the process of globalization is: the application of modern technology of war, with a strong instrumentalization of international organizations and institutions. History of wars is characterized by two important, apparently contradictory characteristics. The first refers to the fact that humanity, moving away from the biological prehistory, has increasingly been characterized by destructiveness and, second, that the more man became more sensible and aware, the war has become more comprehensive in terms of number of people involved, and by the amount of social subsystems it included."¹⁸

According to the "*SIPRI Yearbook*" for 2015, the share of defence costs in the global gross domestic product in 2014 was 2.3 percent, total defence spending globally per capita in 2014 amounted to 245 dollars, and countries with the highest defence costs are the United States (610 billion dollars), China (216 billion dollars), Russia (84.5 billion), Saudi Arabia (80.8 billion dollars) and France (62.3 billion dollars).¹⁹

According to the *Global Peace Index* (GPI), as an indicator of the relative state of peace in 162 countries, produced every year by the Institute for Economics and Peace with offices in Sydney, New York and Mexico City, only in 2014 there were more wars than in any other year since 2000. Countries with the highest levels of peace are: Iceland, Denmark, Austria, New Zealand and Switzerland, the countries with the lowest levels of peace are: Somalia, Iraq, South Sudan, Afghanistan and Syria.²⁰

When it comes to inter-state wars, it is interesting to draw a parallel between the period of "Cold War" and the modern world.

In the period of "Cold war", basic characteristics of inter-state wars were: (a) anti-colonial (national liberation) wars; (b) conventional military interventions by major world or regional powers; and (c) the armed conflicts between independent and sovereign states (mainly in Asia and Africa).

During this period, the most common causes of inter-state wars were: (a) the interests of the colonial powers; (b) neo-colonial interests of conquering energy and raw

¹⁶ <http://warchronicle.com/numbers/WWII/deaths.htm> (24.09.2015).

¹⁷ <http://www.sipri.org/yearbook/2015> (24.09.2015).

¹⁸ Miroslav Mladenovic, Zoran Jetic, Political changes and their impact on security and strategic defence concepts, *Vojno delo*, autumn/2012, Belgrade, p.138.

¹⁹ <http://www.sipri.org/yearbook/2015> (24.09.2015).

²⁰ "Global Peace Index Report 2015", www.visionofhumanity.org/#/page/our-gpi-findings (25.09.2015.).

material resources on someone else's territory; (c) the hegemonic policy of spreading and imposing ideologies and models of social development; (d) the interests of the military-industry complexes, and (e) the consequences of an unjust colonial heritage.

Internal conflicts – civil wars

Civil war can be seen as the armed conflict between the class, ethnic, political or other antagonistic social groups within a single country to achieve certain political and economic goals. It occurs as a result of accumulated and unresolved social, economic, political and other contradictions in society.

After World War II, 248 wars were waged or are being waged in the world, of which number 69 represent the internal conflict, or civil war.

According to the analysis of the reputable "National Geographic", there are currently 12 active conflicts conducted in the world, that take more than 1,000 victims a year, making them wars, according to the characterization of the United Nations. In addition, many minor skirmishes are also taking place in the world. Most of the currently "live" wars last between three and ten years, several of them started last year, and there are conflicts like the war, which has lasted for more than 60 years. The wars that are currently waged are of an average duration of 8.8 years, which is comparable to the average of wars over the past 120 years.

Most current wars are being waged now in Africa. On the black continent, wars are waged in Somalia, Nigeria, Sudan, Central African Republic, Libya and Egypt. In Asia, the ongoing wars are in Israel, Afghanistan, Pakistan, Syria, Yemen and Iraq. In America, there is currently war with the cartels in Mexico, while in Europe, the war in Ukraine has started.

In 2014, wars took about 40,000 victims, mostly in Syria, where more than 28,000 people were killed only in the last year, out of the total of 270,000 victims of this civil war so far.²¹

Some of the general features, characteristics and consequences of intergovernmental conflicts/wars waged after the Second World War are the following: (a) millions of victims, especially among the civilian population; (b) high level of brutality and cruelty; (c) genocide; (d) ethnic cleansing; (e) mass movements of refugees; (f) extremely difficult humanitarian taking care of the innocent victims, etc.

The largest number of victims in internal conflicts occurred in Rwanda in 1994. Officials of the UN Secretariat had failed to submit to the Security Council a timely warning of extremist plans to kill thousands of members of the Tutsi and moderate members of the Hutu tribe. When the genocide began, the number of "blue helmets", who were engaged in that country, was reduced to only 270 people, and the UN Security Council and the UN, due to pressure from the US, failed to respond. The result is almost 1,100,000 victims!

All these conflicts are resolved or will be resolved by negotiating security, which has the extremely complex nature, and "the reasons for this are numerous, and range from a state of absolute animosity and frustration manifested by the parties to the conflict, to the lack of rational thinking and the existence of extreme euphoria and high expectations."²²

²¹ In <http://www.nationalgeographic.rs/vesti/3405-rat.html> (28.09.2015).

²² Željko Ivaniš, Miroslav Mitrovic, Miroslav Mladenovic, "Conflict Resolution in the Western Balkan countries through negotiation," Proceedings of the Seventh International Congress on 'Ecology, Health, Work and Sport', Banjaluka, 21-23.05.2015, str. 292.

Nuclear, radiological, chemical and biological weapons

Nuclear, radiological, chemical and biological weapons pose a significant threat to international security, primarily due to potentially high number of victims they can cause, but also because of difficulties in their timely detection.

Nuclear weapons

Any use of nuclear weapons, accidentally or intentionally, leads to human casualties and economic disruption of catastrophic proportions. The threat of nuclear proliferation – the spread of nuclear weapons among States – is being increased in two ways.

According to the UN General Assembly Resolution A 59/565, the report of the High-level Panel on Threats, Challenges and Change, entitled "A more secure world: our shared responsibility", *the first and most immediate concern* is that some countries, under cover of their current *Treaty on the Non-Proliferation of Nuclear Weapons* membership, will covertly and illegally develop full-scale weapons programmes, or that – acting within the letter but perhaps not the spirit of the Treaty – they will acquire all the materials and expertise needed for weapons programmes, with the option of withdrawing from the Treaty at the point when they are ready to proceed with weaponization.

The second longer-term concern is about the erosion and possible collapse of the whole regime of the *Treaty on the Non-Proliferation of Nuclear Weapons*. Almost 60 States currently operate or are constructing nuclear power or research reactors, and at least 40 possess the industrial and scientific infrastructure which would enable them, if they chose, to build nuclear weapons at relatively short notice if the legal and normative constraints of the Treaty regime no longer apply.²³

The fact is that sixty years after the first atomic bombs exploded in Japan, the world has never been more indifferent, and that along with it, the total power of the world's nuclear arsenal has never been greater. When in August 1945 the first atomic bombs were dropped on Japan, the explosion in Hiroshima had the power of the explosion of 15,000 tons of ordinary TNT explosives (15 kilotons) and the explosion in Nagasaki amounted to 20 kilotons. According to optimistic estimates, the total world nuclear arsenal comprises of 3,000 megatons of TNT, the equivalent of 150,000 bombs dropped on Nagasaki. Less optimistic estimates indicate that the arsenals of the nuclear powers stockpiled nuclear weapons with a total output of about 15,000 megatons, which is on par with the 750,000 bombs in Nagasaki that killed 70,000 people in one second.²⁴

Treaty on the Non-Proliferation of Nuclear Weapons has become less and less effective.²⁵ In addition to the "old" nuclear powers, some other, often politically aggressive countries, have

²³ A / 59/565 Follow-up to the outcome of the Millennium Summit - Note by the Secretary-General, Dec. 2 2004 pg. 7.

²⁴ Slobodan Bubnjević, Post Nuclear era: Deadly Arsenals, "Vreme", 10 November 2005.

²⁵ Nuclear Non-proliferation Treaty (NPT) entered into force in 1970. The treaty defines the status of nuclear and non-nuclear states. Countries without nuclear weapons pledged not to develop these weapons, and countries in possession of nuclear weapons committed themselves not to sell them to other countries, nor to sell technology for its production. International Atomic Energy Agency (IAEA) based in Vienna implements control measures of the Treaty on the Non-Proliferation of Nuclear Weapons.

nuclear weapons nowadays. According to the International Peace Research Institute in Stockholm, at present, nine countries possess nuclear weapons, and these are: Russia (7,500 warheads - w/h), USA (7,260 w/h), France (300 w/h), China (260 w/h), Great Britain (215 w/h), Pakistan (100-120 w/h), India (90-110 w/h), Israel (80 w/h) and North Korea (6-8 w/h).²⁶

To date, 189 countries joined *the Treaty on the Non-Proliferation of Nuclear Weapons*. India, Pakistan and Israel have not acceded to the Treaty.²⁷

Regardless of whether more states acquire nuclear weapons, there are also grave risks posed by the existence of large stockpiles of nuclear and radiological materials. According to data of IAEA, 1,300 kilograms of highly enriched uranium exist in research reactors in 27 countries.²⁸

The total volume of HEU stockpiles is far greater, and many HEU storage sites are inadequately secured. States have publicly confirmed 20 cases of nuclear material diversion and more than 200 incidents, involving illicit trafficking in nuclear materials, which have been documented over the past decade.²⁹

Radiological weapons

Radiological weapons are to some extent a different kind of threat than nuclear weapons, because they are more weapons of mass disruption than of mass destruction.

A radiological weapon attack is easier to accomplish than a nuclear attack, due to the relatively easy way of designing and using these types of weapons of mass destruction. Using biological and chemical weapons requires greater knowledge than the knowledge of radiological weapons.

It is therefore not surprising that certain terrorist groups have expressed interest in radiological weapons.

Radiological weapons can use plutonium or highly enriched uranium but can rely simply on radioactive materials of which there are a number of sources used in medical and industrial facilities worldwide.

Radiological weapons are primarily the weapons of "mass confusion" rather than weapons of "mass destruction".³⁰

Currently, the destructive effect of a radiological or "dirty" bomb does not exceed the effect of a bomb with conventional explosive, and even the radiation effects of such a bomb are likely to be limited, but the psychological impact is much greater.

The subsequent harmful effects would follow – from the disruption and economic damage, through mass panic and the necessity of evacuating and decontaminating the affected areas. The ubiquity of radiological materials and the requirements for simple manufacture of detonators of such devices suggest a high likelihood of their use.

²⁶ <http://www.sipri.org/yearbook/2015> (24.09.2015).

²⁷ For South Sudan, the newest, 193 UN member state, there is no information on whether it joined the Treaty on the Non-Proliferation of Nuclear Weapons.

²⁸ Atoms for peace and development, Vol. 56-1, International Atomic Energy Agency, Vienna, 2015, pg. 5.

²⁹ A / 59/565 Follow-up to the outcome of the Millennium Summit - Note by the Secretary-General, Dec. 2 2004 pg.

³⁰ Michael A. Levi and Henry C. Kelly, "Weapons of Massive Disruption" *Scientific American*, November 2002, pp. 71-81.

According to the report of the International Atomic Energy Agency since 2009, states have confirmed 1,562 incidents, which were related to unauthorized possession, theft, loss and unauthorized use of radioactive materials.³¹

Finally, the most effective response in the event of radiological terrorism is to educate the population. An effective response to a radiological attack requires "... a system that is able to quickly assess the extent of the damage, identify appropriate treatment, develop a coherent plan of action and bring the emergency services very quickly on the scene."³²

Chemical and biological weapons

Chemical and biological materials also pose a growing threat to the modern world. Together with nuclear weapons they represent a huge potential, which could be used in a one-sided attack for causing mass casualties. Chemical agents are widely used and relatively easy to acquire and weaponize.

There are about 6,000 industrial chemical facilities worldwide, posing potential targets and opportunities for the acquisition of materials. States are reluctant and late with the destruction of chemical weapons scheduled by the *Chemical Weapons Convention*³³: of the 70,000 tons of chemical poisons known, the Organization for the Prohibition of Chemical Weapons (OPCW) has so far verified the destruction of only 9,600 tons.³⁴

Today, apart from the possibility that biological weapons are applied in interstate conflicts, there is a much greater risk that they could be used by various terrorist organizations, sects and individuals. The risk of use of biological weapons is increasing due to the existence of a large number institutionalized, non-institutionalized and microbiological laboratories whose work cannot always be offered full insight, simple production of certain biological agents and the wide availability of scientific information through professional publications and the Internet.

Biological weapon is usually applied covertly and insidiously, because it is invisible, colourless, odourless and tasteless, and cannot be detected by the senses, and it is even difficult to detect it by instruments. It has the ability to endanger people, animals and crops on a much larger ground expanse than other weapons, so it is called the "weapons of spatial effect."

³¹ www.ns.iaea.org/downloads/security/itdb-fact-sheet-2009.pdf. (26.09.2015).

³² Danijela Tufegdžić, *Radiological weapons as a means of terrorism*, "Journal of Security", no. 3, Center for Security Studies, Belgrade, 2010, p. 220.

³³ Chemical Weapons Convention (CWC) is a global agreement on the control of chemical weapons. The Convention entered into force in 1997 when formally began the work of the Organization for the Prohibition of Chemical Weapons (OPCW), which is the executive body of the Convention and is not bound by the UN, and its seat is in The Hague, Netherlands. In accordance with the provisions of the Convention, all countries that have declared to possess chemical weapons were committed to destroy it. The Convention also has provisions for the systematic evaluation of chemical and military installations, as well as for the investigation of allegations of use and production of chemical weapons based on intelligence from other Member States. By August 2010, 188 States have signed the Convention.

³⁴ A / 59/565 Follow-up to the outcome of the Millennium Summit - Note by the Secretary-General, Dec. 2 2004 pg.13.

According to some data, nuclear weapons are effective up to 300 km², chemical weapons up to 60 km² and biological ones can affect the territory of up to 100,000 km².³⁵

The greatest risks of possible use of chemical and biological weapons are: (1) huge and still undestroyed stockpiles of BW and CW (about 70,000 tons); (2) large and hard to control possibilities of relatively simple production of these weapons (in the world there are more than 6,000 chemical production facilities); (3) Highly portable and extremely difficult to detect; (4) The almost unlimited possibilities for use; (5) the effects of the mass destruction of the population, etc.

Terrorism

Terrorism threatens the values that lie at the core of the United Nations Charter: respect for human rights, the rule of law, rules of war that protect civilians, tolerance among peoples and nations, and the peaceful resolution of conflicts.

The act of terrorism is different from any other act of violence on the following elements: (a) political, religious, ethnic or social motivation; (b) the message that creates an atmosphere of fear, terror, mistrust, or defeatism, and (c) the public disclosure of such an act and the organization behind it.³⁶

Terrorism is fed in environments of despair, humiliation, poverty, political oppression, extremism and human rights abuse; it flourishes in contexts of regional conflict and foreign occupation and the inability of a State to maintain public order and peace.

The world war against terrorism which, under the leadership of the US, began after the terrorist attacks on the US on 11 September 2001, did not bring the expected results. The regimes in Iraq and Afghanistan, under military pressure from the US and its allies, quickly succumbed, but not the bearers of terrorism in these countries. It is safe to say that the military action in Afghanistan and Iraq caused the overflow of terrorists outside the borders of these countries, into Syria, Pakistan...

After a relatively brief lull in recent years, terrorism is gaining momentum. According to the annual report on global terrorism of the State Department,³⁷ the number of terrorist attacks around the world increased by 35 percent between 2013 and 2014 and total fatalities in them as much as 81 percent. The report states that in 2014 about 33,000 people were killed in nearly 13,500 terrorist attacks worldwide. By comparison, in 2013, 10,000 terrorist attacks resulted in about 18,000 deaths. The number of abductions rose from 3,137 in 2013 to 9,428 in 2014.

As for the large increase in total fatalities, the US State Department connects it with the fact that they were generally individually more lethal. Only in 2014, there were 20 attacks that killed more than 100 people, compared to only two such terrorist attacks in 2013. Just a year earlier, there were 18,000 deaths as a result of 10,000 terrorist attacks.

³⁵ www.server.medfak.ni.ac.rs/Lectures, Medicine/Epidemiology/ (28.09.2015).

³⁶ Andreja Savić and Ljubomir Stajić, *Fundamentals of Civil Security*, Faculty of Law and Business Studies, Novi Sad, 2007, p. 159.

³⁷ See: *State Department: Number of terrorist attacks by 35 percent higher in 2014* (<http://www.blic.rs/Vesti/Svet/569067>, 23.09.2015.), and *An increased number of terrorist attacks in the world* <http://rs.n1info.com/a70441/Svet/Svet> (23.09.2015.)

In 2014, there were 20 attacks that killed more than 100 people and just a year earlier there were two such attacks. Terrorist attacks took place in 95 countries in 2014, but they were concentrated in the Middle East, South Asia and West Africa. Iraq, Pakistan, Afghanistan, India, Syria and Nigeria account for about 80 percent of all fatalities due to terrorist attacks.

The increase in the number of abductions is mainly attributed to the mass kidnappings done by terrorists in Syria, and above all, the extremist Islamic State and Al Nusra Front, linked to Al Qaeda.

In Nigeria, Boko Haram is probably responsible for all cases of kidnapping, and in 2014 there were about 1,300 such cases, including the famous kidnapping case of almost 300 students from Chibok.

A year earlier, in Nigeria, there were fewer than 100 kidnappings linked to terrorist activities. The State Department report indicates that the Islamic State in 2014 occupied areas of Iraq and Syria that were "unprecedented". The organization added, continues to demonstrate the ability to recruit foreign fighters, and there are self-proclaimed subsidiaries in Libya, Egypt and Nigeria.

The Islamic State is considered responsible for the highest number of deaths in the terrorist attacks of 2014, followed by the Taliban, Somali militant group Al-Shabab and the Nigerian Boko Haram.

Finally, only in one day, on 26 June 2015, in three attacks in France, Tunisia and Kuwait, Islamists killed dozens of people, spreading fear of the strengthening of jihadism. After the attack on the US gas company near Lyon, a headless body of a man was found in the factory premises. Several people were injured. On the beach in Sousse, Tunisian attackers opened fire and left behind 28 victims. A suicide bombing that took place at a Shia mosque in Kuwait has killed "at least 25" of believers.

The attacks of terrorists on four continents in the last fifteen years showed that Al-Qaeda, the Islamic State, Al-Shabaab, Boko Haram and groups that joined represent a universal threat to the modern world.³⁸

Modern terrorism is not conducted only by one man or one political regime, nor it is, of course, a religion. Today's terrorism represents a premeditated violence that is politically motivated and is mainly aimed at civilian (non-military) targets by terrorist groups or individuals. Those who apply terrorism, regardless of their secular or religious goals, seek to undermine the rule of law and to impose change through violence and fear. Terrorism involves, roughly speaking, plenty of sensation, which is best evidenced by the executions carried out by the Islamic State.

Some of the problems the modern world has been facing in countering terrorism are: (a) many countries have not yet acceded to the international conventions; (b) insufficient financial funds for the functioning of the aforementioned subsidiary bodies of the Security Council and the assistance to States for the implementation of their Antiterrorism Assistance Program; (c) the lack of a single definition of terrorism; (d) existence of double standards and standards in the approach to terrorism, etc.

³⁸ Boko Haram is an Islamic extremist group based in the north-east Nigeria, and is also active in Chad, Niger and Cameroon. It is estimated that it numbers between 7,000 and 10,000 fighters. The group initially had links with Al-Qaeda, but in 2014 it expressed support for an Islamic State affiliated Harakat Al-Shabab Al-Mujahideen, also known as Al-Shabab, the jihadist terrorist group based in Somalia. Al-Shabaab forces are estimated at 7,000 to 9,000 people.

It should be noted that the world organization has not yet reached an agreement on the notion of terrorism, that is, of defining terrorism. Even five years were to pass after the terrorist attacks on the United States to adopt the *United Nations Global Counter-Terrorism Strategy*.³⁹

The *United Nations Global Counter-Terrorism Strategy* includes:⁴⁰

(a) Deterrence, by transforming causes and seeds of terrorism, by promoting social and political rights, the rule of law and democratic reform; abolition of occupation and respecting the key political objections; the fight against organized crime; reducing poverty and unemployment; and stopping the disintegration of the country;

(b) Determined action against extremism and intolerance, particularly through education and encouraging public debate;

(c) Development of better instruments for global cooperation countering terrorism in a legal framework, which includes respect for civil liberties and human rights, including here also the domain of restriction of rights; exchange of information; and financial control;

(d) Building the capacity of countries to prevent terrorists' recruitment and operations;

(e) Control of dangerous materials and the protection of public health.

In addition, several United Nations conventions for combating terrorism established important normative bases. However, too many countries have remained outside the conventions; many of them have not ratified them, but have continued to adopt internal coercive measures.

International Organized Crime

International, i.e., transnational organized crime is a threat to the state and society, which threatens the security of individuals and the basic obligations of the state to ensure public order and peace.⁴¹

Combating organized crime serves the double aim - to reduce this direct threat to the security of the state and the people, becoming a necessary step in the prevention and resolution of internal conflicts, combat the spread of weapons and prevent terrorism. The most common forms of manifestation of transnational organized crime are: drug trafficking, corruption, illicit trafficking in arms and human trafficking.

Drug trafficking is one of the main activities of organized criminal groups having serious security implications. It is estimated that drug trafficking is the main source of income for criminal organizations, which brings them every year, between 300 and 500 billion dollars.

In some regions, the huge profits, realized by this activity, reach a level equal to the gross-product of some countries, which threatens the authority of the state, economic development and the rule of law.

³⁹ After lengthy discussion, the UN General Assembly resolution A / RES / 60/288, adopted on 8 September of 2006, *the Global Strategy for Combating Terrorism*.

⁴⁰ <http://www.un.org/en/terrorism/strategy-counter-terrorism.shtml> (15.10.2015).

⁴¹ More details about international organized crime see in monographs: Stajić Ljubomir, *Basic Security* Publishing House "Draganić", Belgrade, 2006, p. 164-177. Ljubomir Stajić and Radoslav Gaćinović, *Introduction to Security Studies*, Draslar partner, Belgrade, 2007, p. 282-307.

The narcotics trade has resulted in an increase in intravenous heroin use, which in some areas contributed to the alarming spread of the HIV virus. There are increasing indications of a link between the financing of terrorist groups and income from the opium trade, which is most evident in Afghanistan.

According to the *United Nations Office on Drugs and Crime* (UNODC) report of 2014:⁴²

– Every year, organized crime around the world brings in 870 billion dollars on the basis of illegal activities such as drug trafficking, counterfeiting, arms sales and smuggling of migrants.

– Criminal groups make around 320 billion dollars a year selling drugs, 32 billion dollars on the sale of "white slavery" and about seven billion dollars smuggling of migrants.

– Illegal felling of trees in Southeast Asia alone annually brings in around three and a half billion dollars, and the illegal sale of ivory around \$ 75 million.

– Members of organized crime earn about 250 billion dollars each year due to counterfeiting in all areas.

In addition, the estimate of revenues from transnational organized crime ranges from \$ 500 billion a year, and even up to 2,100 billion dollars per year, which is 3.6 percent of world gross domestic product.⁴³ In the European Union, revenues from organized crime reach 110 billion a year.⁴⁴ Does this information need any comments?

Corruption is one of the newer, more widespread challenges and threats to international security (links of organized crime and members of the state apparatus), which is more encouraged by the lack of cooperation between countries and bad coordination of international organizations.

More than half of the UN member states have not yet signed or ratified the UN Convention of 2000 against Transnational Organized Crime and its three protocols,⁴⁵ as well as the UN Convention against Corruption⁴⁶ in 2003, nor did they provide the necessary resources for monitoring the implementation of these conventions and protocols.

In 2000, the laundered sum of money amounted to between 500 and 1,500 billion US dollars. Despite the scope of these sums and their role in the maintenance of organized crime, many States do not regulate money laundering. Systematic use of bank accounts secrecy and an increasing number of financial havens remain a serious obstacle in solving this problem.

Most heinous form of organized crime is human trafficking, and all countries in the world should take decisive actions to eliminate it. UN member states should sign and ratify the *Protocol to prevent, suppress and punish Trafficking Persons*, especially women and children, and parties to this Protocol should take all necessary measures for its effective implementation.⁴⁷

⁴² UNODC Annual Report 2014, UNODC, Vienna, 2015.

⁴³ *Global crime makes 2.100 billion dollars*, "Politika", 25.04.2012..

⁴⁴ <http://www.rtrs.tv/vijesti/vijest.php?id=145214> (14.09.2015).

⁴⁵ The United Nations Convention against Transnational Organized Crime and its protocols, was adopted in Palermo from 12 to 15 December 2000. The Federal Republic of Yugoslavia ratified the Convention on 22 June 2001.

⁴⁶ The United Nations Convention against Corruption, adopted in the UN General Assembly on 31 October, 2003. Resolution no. 58/4. The State Union of Serbia and Montenegro ratified the Convention in 2005.

⁴⁷ *Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children* is the first international instrument of a universal character which contains a definition of trafficking. States Parties are required to include in their criminal legislation or introduce the crime of human trafficking and its various forms (the attempt, complicity, organizing and directing other persons to commit an offense of human trafficking). The purpose of the

States and international organizations have reacted too slowly to the threat of organized crime and corruption. Statements about the seriousness of these threats were rarely observed and appropriate actions taken. The three main factors that hinder the international response to be more efficient are: insufficient cooperation among States, weak coordination among international agencies and non-performance of obligations by many countries. Certainly, we should not poor coordination between international agencies and non-performance of obligations by many countries. Certainly, we should not overlook complicity of organized crime with "... *national, political, economic and financial subjects*."⁴⁸

The fight against different forms of organized crime is being conducted with variable success. The fight against corruption is suffering due to lack of determination and ignorance of corruption types, its level, area and costs of corruption. In an effort to curb the supply of narcotics, in some countries were registered successes but these are often annulled by failures in others. The efforts of industrialized countries for decreasing of demand have proved to be ineffective and the total number of drug opium and heroin users has remained relatively stable during the last 20 years.

Finally, in some cases, shortcomings in terms of fulfilment of obligations, lead to limiting the ability of states. To remove these problems, international organizations, among which, above all, the UN *Office on Drugs and Crime* in Vienna, established a program of technical assistance and training, related to the establishing of public order enforcement and effective judicial institutions.

However, the necessary resources for the implementation of these activities are insufficient. The Organization of the United Nations should establish an effective mechanism to help countries to strengthen their capacity in the field of rule of law. Regional organizations and multinational financial institutions should, in this area, provide an active contribution.

Concluding remarks

The globalization as a process of uniting the world in which social and inter-state relations become increasingly intense, gave birth to new security threats and also drifted towards non-military and asymmetric threats, made them totalitarian, and subsequently made requirements for global security cooperation, where the United Nations has an irreplaceable role.

The UN General Assembly, with a positive role in resolving international problems, often loses its vitality and fails to effectively solve issues put before it. More concentrated work plans that focused on contemporary challenges and threats, as well as more efficient and more clearly defined role for committees of the General Assembly may contribute that the proposed resolutions be harmonized and implemented in a more qualitative and efficient way.

Everything done to reform the UN should create a framework for contemporary international relations and opposition to new security threats. Therefore, the insistence of the UN General Assembly on the continuous monitoring of security threats in the international community, from social to economic and transnational organized crime has its full meaning. The idea of universal

Protocol is to prevent and combat trafficking in human beings as well as protecting and assisting victims of trafficking, with particular insistence on the full respect of their human rights. The Protocol entered into force on 25 December 2003 and has 152 Contracting Parties (151 countries and the European Union). The Republic of Serbia has ratified the Protocol on 6 September 2001, which began to have effect on 25 December, 2003.

⁴⁸ Mićo Bošković, *Transnational Organized Crime*, Police Academy, Belgrade, 2003, p. 24.

peace and cooperative security based on cooperation is far from attainable reality and the UN have its own strategy based on the Huntington thesis that the paradigm of a harmonious world is too far from reality. It also needs to start from the known position that the UN were not created to introduce the world into heaven but that the world would avoid hell.

Finally, founded with the intention that co-operation between countries replaces the weapons, over the past seven decades the UN have achieved outstanding results in all areas of its operation, but at the same time, they faced a number of challenges, roadblocks in its work, non-compliance with decisions of the Security Council or the General Assembly, and actions of some countries without any compliance with the world organization. At the beginning of the 21st century, when the world is qualitatively different from the 1945, United Nations are faced with very serious challenges, risks and threats, including the special place of socio-economic problems and security breaches in the world.

The security of the modern world is certainly dramatic, but it is precisely this state that is a warning alarm to the whole world to be united around the idea of development, which is the only way to solve the accumulated problems of mankind. In this regard, the United Nations has the primary role.

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A NEW COLD WAR OR CONTINUATION OF THE OLD ONE

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After the end of World War II a new era started in international relations. With the defeat of Nazism, fascism and Japanese militarism a decisive role in the creation of this new era played the members of the winning coalition – the United States, Great Britain and the Soviet Union. However, the character of international political relations of the second half of the 20th century was essentially determined by the nature of the relationship between the two super-powers: the USA and the USSR.

The deterioration of relations between these two forces started after the Soviet government had taken certain steps in Poland, Iran, Greece and Turkey. These moves were interpreted by the Americans as an attempt to extend the hitherto mutually recognized sphere of influence of the Soviet Union. Russia today believes that the red line has been crossed in Syria, although some dissatisfaction was also shown by Russia on account of the events taking place in Iraq and Libya.

Due to conflicting conceptions of foreign policy of the USA and the USSR (the former USSR) and contemporary Russia and the measures taken in order to materialize these policies, strictly in accordance with their own interests, there has been a permanent tension on the international political scene. One gets the impression that the current events represent a sort of closing of the circle and return to the starting positions characteristic of the period before the Second World War.

Key Words: World War II, the Cold War, The New Cold War, International relations

Introduction

The first decade of XXI century was marked by disillusionments about the world peace and the establishment of a world system based on liberal capitalism. The results of an applied transitional model had fallen short of the expectations of the people of the former Eastern bloc, and the development of global opportunities had caused dissatisfaction among the majority of people on the planet Earth.

The fall of the Berlin Wall had caused dual expectations: on the one hand, with the humanists, there was hope that the world finally enters the era of peace and stability. On the other hand, the strategy of US policy aimed at demolition of the Berlin Wall and the disintegration of the Eastern bloc was seen as an opportunity to consolidate global

domination and imposition of its model of planning global processes. On the other hand, the strategists of the US policy considered the demolition of the Berlin Wall and the disintegration of the Eastern bloc as an opportunity to consolidate global domination and imposition of their model of handling and planning global processes. According to many features the period since the fall of the Berlin Wall until today cannot be compared with the process that took place at the end of the Second World War, which soon led to the allies becoming enemies. In this context, we can talk about the old and the new cold war that have many similarities with certain specificities. Understanding of the contemporary processes requires better knowledge of the part of the history immediately after World War II that is taken by many researchers as a counterpart to contemporary developments.

Theoretical framework

People from time immemorial join the communities because of the need to protect their interests. Simultaneously with the homogenization within a certain group are also established some relations with other social groups. It goes without saying that the countries with the highest level of institutional forms are of the highest level of the organization of population living in a certain territory. With the development of civilization there has been a complication of relations between different communities so that the need arose for their regulation which also presumes an understanding of the essence of such relations. On this occasion we did not aim to give a historical account of the development of the science of international relations, but we just want to point out the basic concepts of the field of international relations which are essential for the phenomenon we deal with.

The first forms of human organization were focused primarily on the protection of the territory, property and clan members, but there was also a desire to provide better conditions for the life of their own community by conquering new territory and looting enemy's goods. In this context, it is logical that the first theorists who dealt with international relations focused on the phenomenon of force and power to achieve a desired objective. Notwithstanding the long history of civilization, theory and practice of international relations is not far removed from the basic postulates found in theorists who laid the foundations of this science.

Might (power) throughout history, today, and, while looking on the situation now, in the future will probably play also an important part in human relationships. The force and might are especially significant for the analysis of the relationship between the different communities of people where the state represents the commonest modern form of organization. The term *might* usually implies a potential which indicates the possibility of a subject of international relations having influence upon the other one. The possibility that might brings is reflected through force, such as economic potential, political influence, military component, cultural influence whereby the potential becomes the ability of practical application. In practice, power is usually manifested by force, which reflects the level of expression of might. Presumably, as in most real situations we can talk about the positive manifestations of power when it is aimed at creating new values and improving existing relationships, but often the power is used for the sake of imposing one's will on others. In international relations is particularly analyzed the force that stems from the political power by which an attempt is made towards subordination of the interests of others by a holder of power. This situation causes strained and hostile relations between a holder of power and the other side to which is imposed a relationship of subjugation.

In modern conditions the realist theory of international relations is still dominant, and it can best explain current developments on the international scene. The paradox of this theory is that its roots reach far back into history, and that humankind failed to dignify its relations and establish more humane relations among the different actors of international relations. We can here talk about the postulates of the Indian philosopher Kautilya from the fourth century BC or Nicholas Machiavelli but nothing fundamentally different shall we show in relation to Hans Morgenthau whose analysis of the international scene boils down to the relationship between power and national interest. The essence of Morgenthau's concept shows the following quotes: "The international policy, like any policy, is the struggle for power. Whatever the ultimate goals of international politics, the force is still its immediate goal. Statesmen and nations may eventually aspire to freedom, security, prosperity or the force itself. They can define their goals in terms of religious, philosophical, economic or social ideal. They may hope to achieve this ideal through their own power, by a divine intervention or by the natural development of human resources. They may try to facilitate its realization through non-political means, such as technical cooperation with other nations or international organizations. But whenever they seek to achieve their objective by means of international politics, they do it by fighting for power" (Morgenthau 1967, 25). He added that the "struggle for power is universal in time and space" (Morgenthau 1967, 32).

Morgenthau's national interest rises above all the others and it largely covers the ethical side of his theory. Unfortunately, the concept of national interest in terms of globalization has largely been undermined because of the supremacy of the interests of big business over the interests of the nation. Globalization has fundamentally changed the contemporary international scene so that the classical theory of international relations and national interest in this context have largely been brought into question. Accordingly, the analysis of power and force remains current but the right question is posed as to whose power it is and in whose interest is the use of force, considering that it can be linked to lesser and lesser degree to the interests of citizens living in a certain area.

Communication of people within their environment receives various forms, people come together to help realize their interests; usually they come to agreements on the basis of compromise so that the participants would be motivated to adhere to the agreements reached. However, there are situations where the differences in their positions and views are rather large, or when one party wants to impose its own viewpoint as the only acceptable one. In circumstances where there is no room for compromise there occurs an aggravation of the situation and the state of hostility where pressures are imposed based on the threat of force. If the instruments of soft power based on arguments of common cultural values and/or historical assumptions do not provide adequate results, then hard power is being applied. In asymmetric partnership when a weaker partner does not accept the arguments that the proposed arrangement is also in his own interest then certain sanctions are being applied as a form of establishing discipline towards uncooperative parties.

In practice, it is often impossible to separate the described and observed forms of international relations. The acceptance of arguments is brought about by a discrete threat of force and sanctioning of the uncooperative parties. The pressures and actions aimed at acceptance of the imposed models of behavior or furtherance of one's interests can be observed in the practice of international relations. These situations have been recognized as a hostile action even by the so-called friendly countries. Diplomatic games, economic

warfare, ideological clashes have been observed by some theorists as specific forms of warfare without the use of armed force. There is talking of a Special or a cold war that is present in the practice of international relations and is also more present than the so-called hot or real war. We can even say that the Cold War is a constant in international relations and can be recognized even in the relations between some friendly countries. There are periods in history which due to the specific relations were given exclusivity in the use of a term. Thus we have the case that the term a cold war means the period after the end of World War II until the fall of the Berlin Wall. Although it is a specific relationship between two military blocs divided by ideological criteria, we can hardly justify this kind of challenge pointing to the fact that we nowadays live in something qualitatively different that does not deserve the title of the Cold War. The authors of this paper believe that the Cold War did not stop at all but has been conducted in conditions of asymmetrical relationships where the other party did not have the strength or power to repel challenges directed at it. The moment the change of power relations emerged and Russia increased its power to a level that it can respond to its rivals' actions, such a situation has again become an obvious potential of conflicts and the threat of their resolution by means of arms.

Situation after completion of the Second World War

Because of the circumstances in which it was conducted, the Second World War led to the conclusion of the alliance between the US, UK and USSR. Hitler's Third Reich, due to non-functioning of the then international system, managed to occupy a good part of the European continent. The above-mentioned countries had at some point estimated that the alliance in the fight against the common enemy, regardless of their ideological differences, was useful. But with the end of World War II there is a change of perception of the recent ally from the east that was perceived by the United Kingdom and the United States as a threat to their interests. In this context, it is important to observe changes in the positions of power, primarily from the United States and their friends and countries. Due to the circumstance that the Second World War was not waged on the territory of the USA in the period 1941-1945, the economic potential of the USA was significantly increased. Also due to the development of new technologies and production capacity of the USA this country had become the strongest economic and technological force of that world. Almost all the allied countries were in an inferior position in terms of finance, industry, agriculture, technology ... This fact led to the US to impose itself as the absolute leader of the countries that had come to be known as the Western military-political bloc.

The Soviet Union did not have so good economic position but due to its contribution in the struggle against fascism it had a considerable reputation in the international community. Reputation gained on the battlefield and that of a major military power in the given circumstances promoted the Soviet Union as one of the superpowers of the then world. Thus the former two most powerful countries (USA and USSR) determined the character of the post-war international system.

However, while the existence of a common enemy represented a factor of cooperation, with the capitulation of Germany started divergences in terms of interests and visions of new relationships between yesterday's allies. In what direction moved the relations

between the US and USSR could be seen immediately after the capitulation of Germany when the ships with weapons that were intended for the Soviet Union returned from the ocean to the home ports. The growing impact of the Soviet Union on the countries in its closer and wider environments (Poland, Iran, Greece and Turkey) as well as strengthening of the Red Army, or the development of nuclear technology by the Soviet Union were interpreted as a threat to the interests of the United Kingdom and the United States.

Illustrative is the analysis of the foreign political orientation of the Soviet Union commissioned by the US government that was done by the charge d'affaires of the US Embassy in Moscow, George Kennan (February, 1946). Kennan is firmly convinced of the intention of the Soviet Union to destroy the United States and therefore adequate countermeasures should be taken to curb communism. This analysis could be further related to Churchill's speech (W. Churchill) of March 5, 1946, in which he says that the expansionist ambitions of the Soviet Union can be controlled only by uniting the nations of the English-speaking world in the fight against the common threat. Churchill is therefore committed to making a strong ring around the areas that were under Soviet control. The backbone of the ring should be nuclear weapons of the United States that should give particular firmness to the "Iron curtain" between the spheres of influence of the two superpowers.

On the other hand, the Soviet Union continues with the development of socialist dogma that the West regards as a direct attack on their interests. The creation of the world socialist system whose center would be the Soviet Union meant the expansion of the territory of influence by "tearing away" one by one country of the capitalist world. Establishing a system in Poland, which was strongly associated with the Soviet Union as well as delay in withdrawing from Iran were interpreted by the US as an attack on their interests, not the actions aimed at protecting the interests of the Soviet Union. With concern were especially regarded the Soviet - Turkish negotiations on the joint administration of the straits (August 1946.). In the USA, it was considered that, based on the principle of "domino effect", subsequent to establishing Soviet control over Turkey would follow Greece and then Near, and the Middle East.

In the West, there was a special concern about the possibility of linking the West European communist parties with the Soviet Union and the spread of influence over them in Western Europe. At that time, the Italian Communist Party had 1/3 of the electorate while in France the local KP had the support of 1/4 of the electorate. The first practical steps towards limiting Soviet influence the US take after they get a note from the United Kingdom that it is no longer able to provide assistance to Greece and Turkey (Note from February 21, 1947). Fearing the fall of Greece and Turkey under the political influence of the Soviet Union, and this influence further spreading to the Near and Middle East, US President Harry Truman asks Congress for 400 million of the then US dollars so that the US could replace the British presence in Greece and help Turkey (March 12, 1947). President Truman's addressing the American Congress is the first public promotion of the so-called "Truman's Doctrine". Its essence can be seen at the end of his speech: "The seeds of totalitarian regimes are germinated in poverty and deprivation. They expand and strengthen on the poor country of poverty and squabbles. They reach their full form when people's hopes for a better life are gone. We must keep that hope alive. Free nations of the world look to us to help them in maintaining their freedoms" (Vukadinovic 1972, 48). From the above quote can be anticipated the platform upon which is based the implementation of US global interests for decades to come.

By accepting the reasoning that if the US does not take action in Greece there are surely to come to power communists, and that then the isolated Turkey will quickly succumb to Soviet pressures is officially adopted policy of containment of communism. *In the long term, patient but firm and precautionary containment of Soviet tendencies for expansion* represents the essence of the Truman's Doctrine. It is about combating the spread of communist ideology, regardless of whether it concerns territorial and economic interests of the United States. This puts the US in the role of the self-proclaimed protector of *the free world* from the global influence of communism.

The described essence of the Truman's Doctrine and its implementation in practice is directly opposed to the foreign policy of the Soviet Union. The main objective of the Soviet foreign policy was to strengthen economic, political and military influence of the Soviet Union in Eastern Europe in order to protect it from a direct attack from the West. In addition to creating a defensive shield towards the West there was also the aim to parry the foreign policy actions of the Western powers, inter alia, by the impact of the Communist Party of the Soviet Union in the world communist movement, especially in the former colonies. Bearing in mind the stated situation it was difficult to synchronize realization of interests without confrontation of the two main actors on the world political scene.

Truman's speech is taken as a formal declaration of the Cold War, while the so-called Marshall Plan is the economic support for the realization of the ideological goals. *The Berlin crisis* represents the first Cold War skirmish that had seriously shaken some kind of existing world peace. Western allies use it to speed up the integration processes. In March 1948, the Brussels pact between Great Britain, France and the Benelux countries was signed, and subsequently the same countries also establish the permanent Western Union Defence Organization (Gavranov and Stojković 1972, 55). Upon accession of the United States this organization grows into the North Atlantic Treaty Organization (NATO) on April 4, 1949.

In the Soviet sphere of interest the process was going on somewhat differently. After the Second World War according to the system of bilateral agreements, all socialist countries became interconnected by the signing of the "Friendship, Cooperation and Mutual Assistance" Agreement. With the constitution of *the Information Bureau of the Communist Parties* in 1947, the ideological relationship between the socialist countries was reinforced. During 1949 the *Council for the mutual economic assistance* was set up as the first multilateral organization of the six socialist countries. Finally in response to the formation of NATO in May 14, 1955, the Warsaw Treaty of Friendship, Cooperation and Mutual Assistance was signed.

Meanwhile began the nuclear arms race between the superpowers. The United States showed the destructive power of the atomic bomb back in 1945 in Hiroshima and Nagasaki. The Soviet Union had its first atomic test conducted in 1949. This race marked the whole Cold War history by the fear of a nuclear holocaust. The Korean crisis (1950-1953) had given a new dimension to the Cold War and it represents the culmination of tensions, and subsequently follows the detente. After the Korean crisis, both sides realize that the risk of the final showdown is too big and they apply the deterrence strategies. To this end, a the new US military strategy is being promoted, the "massive retaliation strategy" based on the interpretation of any aggression, overt or covert, wherever executed by communist forces as being the aggression of the Soviet Union. Therefore, in order to retaliate the US would attack the vital centers of the Soviet Union by all available means. On the other hand, the USSR adapted its behavior, but more on the tactical level while maintaining the basic strategic line.

International relations after the fall of the Berlin Wall

From this perspective, the period after the fall of the Berlin Wall is more difficult to analyze because of the short historical distance. We can even say that some relationships are not yet fully uncovered. We can say with confidence that the demolition of the Berlin Wall and the dissolution of the Eastern Bloc for many represented the surprising developments in the decades-long history of the Cold War between the two superpowers trying to outwit each other. Given that the conflict was officially inspired by ideological differences of the two systems its completion was interpreted as a victory for the only remaining superpower (Fukuyama). In this context, the agreement on the unification of Germany and the withdrawal of Soviet forces from Eastern Europe caused a lot of controversy. Although it is often heard in the public that NATO, led by the US, failed the agreement on cessation of hostilities and the so-called Cold War, the review of the documents which are available to the public points to the fact that nowhere in the document was signed a binding promise that NATO would not expand eastward. There were verbal promises that the then representatives of the Soviet Union failed to formalize through the binding documents. (Itzkowitz 2014)

The fact that there is no officially signed commitment does not diminish verbally, repeatedly given promises by Western officials that NATO would not expand eastward. The course of events in Eastern Europe and approaching of NATO to Russia's borders have sparked suspicions in Moscow. At the time of Yeltsin Russia was preoccupied with internal problems and did not have the strength to deal with international circumstances. However, with the arrival of Putin at the head of Russia and improvement of economic situation in Russia due to the rise in energy prices also change the approach to international politics. In the case of Iran and Syria, Russia shows that there is no retreat in front of expansionist NATO (read US). Finally, Ukraine is a red line below which Russia does not want and cannot go.

The course of events from 1989 to the present day shows that in international relations nothing has qualitatively changed. We can only conclude that from 1989 to the bombing of Yugoslavia in 1998, there are conditions of asymmetric warfare in which the only remaining world power exploits to the greatest extent its superior position. In this above-mentioned period, there is no adequate capacity on the other side that would lead to proportionate response and restraint of the US geopolitical projects. The economic recovery in Russia is also growing this country's ability to stand up to the realization of projects of NATO at the expense of its own interests. Spokespeople for Moscow have not been seriously taken when they spoke about the 2008 red line regarding its interests in Ukraine (Saradzhyan 2014).

Lack of understanding of the position and interests of Russia by Western strategy is inconceivable having previous experience in relation to the events that led to the worsening of relations between the former USSR and the USA. For the sake of objectivity the analysis of London's Chatham House should be mentioned, the Royal Institute of International Affairs, that in its analysis, entitled: *A New Cold War? Abusing History, Misunderstanding Russia* is indicated a lack of understanding of the position of Russia bearing in mind its historical experience and the need to protect its borders against potential aggressors. In this context, the author analyzes mentioned experience of the USSR and the Third Reich. (Monaghan 2015)

Strategy games aimed at causing instability between the EU and Russia, especially on the issue of Ukraine, but also the construction of alternative pipelines, show that a new cold war (if we can call it bearing in mind the previous notes) accelerates in its dynamics and complexity. The former Euro-Atlantic bloc is no longer a monolithic structure, and in its structure appear various cracks. European countries realize that their unreserved support for US projects brings more harm than good. Many are returning to the study of the old geopolitical study of planetary domination of the early twentieth century that explains the logic of today's global players' moves.

The need to control geostrategic points at all costs led to the so-called velvet revolutions, the Arab Spring and humanitarian interventions that left behind more problems compared to the situation before their implementation. The problem gains in intensity due to inadequate mechanisms of the UN that, instead of calming the situations on the ground, are used to serve as a cover for additional complications of such situations. An example of Iraq and ISIL are drastic confirmation of the thesis; however, no other interventions have solved the problems because of which they were started but they still further aggravated the situation on the ground.

The latest developments in Syria show that as a boomerang return to US those policies which it implemented from 1989 to date. Current events show that the standoff has been reached indirectly through various groups who are the contractors on the ground. The case of Syria shows the whole complexity of the real situation, and at work is a combination of cold and hot war. US and Russia, aware of the consequences of a direct conflict, use local groups to demonstrate the power at their disposal and simultaneously prove their capacity to act on a global scale.

Instead of taking advantage of the reputation that it had on a world scale for the creation of a new world order based on International Law, after the collapse of its rival the US turn to the implementation of geopolitical goals based on the theories of the early twentieth century. The desire to break up the Soviet Union and come as close as possible to its borders represent a more attractive target compared to that of creating a climate of world peace and stability. After the departure of Gorbachev, Russia was thrown on its knees during the Yeltsin's government. The transition model according to which Russia was supposed to transfer from communism to capitalism gave disastrous results on the standard of the citizens and the functioning of institutions. The dissatisfaction of citizens received their articulation through Putin's reform policies that reversed the negative trend and Russia broke loose from the clutches of international creditors and the global financial oligarchy.

In the meantime, the US has taken actions to ensure that all potential allies of Russia be brought in an inferior position by Jeffrey Sachs' transition model based on the Washington consensus of privatization at any cost. The biggest price in resolving geopolitical situation in accordance with the new (old) strategy was paid by the citizens of the former Yugoslavia. A state that has enjoyed the privilege of the West's pet state because of its strategic position in relation to the ideological opponents in the East fell apart in streams of blood with the total destruction of the economic infrastructure. Insisting on the neo-liberal model of solving the economic crisis that has smoldered constantly in the '80s of the last century and due to the inability of local elites, social discontent was switched to the national field. The party oligarchy, previously being a factor of homogenization, suddenly becomes a disintegrating factor. Representatives of

institutions immature in this new situation keep wandering from Moscow to Brussels and Washington without realizing tectonic changes on the international scene. Restraining of institutions in the exercise of their constitutional role and imposing the models inadequate to the situation lead to their complete dysfunctionality.

Instrumentalization of the UN system leads to the stage that it was unable to cope with the problems in Yugoslavia. Encouraged by developments in the case of Yugoslavia war hawks implement the similar scenario in Iraq and with milder option for Iran. Then follow Libya, Tunisia, Egypt, Syria. Everywhere in these cases, the scenario is similar, with minor variations. It creates an atmosphere of threatened human rights and that the only solution is an outside intervention that should facilitate the building of a democratic system. The results of these interventions are such that the situation in all listed countries is far worse than it was before the intervention. Local residents are impoverished, existing institutions are destroyed and new ones are nonexistent, so that the situation is totally chaotic with the strengthening of fundamentalist groups. Instead of getting the better situation the environment is being created in which extremists of various profiles come to the fore. This devastated the economic infrastructure, but oil installations and facilities as well as oil transportation operate extremely well.

Conclusion

The change in the structure of power in the international community without a proper institutional reform of the current system of international institutions leads to fractures that jeopardize the achieved level of stability. The system that was created at the end of the Second World War was designed in accordance with the then circumstances respecting the balance of allied forces' powers. Although relatively quickly emerged open hostilities and conflicts of interests such system managed to ensure, thanks to the balance of power and fear of reprisals from rival parties, the relative stability for almost half a century. However, with the loss of international position of one of the poles, the UN system was being instrumentalized by the second pole for the sake of realization of its geopolitical projects.

Developments after the fall of the Berlin Wall in many ways are largely reminiscent of the situation on the eve of the Second World War. What is important for understanding the situation on the eve of the Second World War is observing the notion of change in the power structure of the then states. Changes in the structure of power after the fall of the Berlin Wall led to the uncontrolled exercise of power by the United States without the ability and willingness of other international actors to oppose it, fearing reprisals.

Only after intervention in Iraq, allied countries do realize that the United States implements its strategy, which is contrary to their interests. Strengthened Russia in "the Syrian case," and to some extent before that, in the "Iranian case", demonstrates that there is no tolerance for the implementation of the project of global dominance. Geopolitical games and the desire to curb the power of Russia bring NATO closer to Russia's borders. Russia at first tolerated this state of affairs because of its internal problems and when it comes to developments on the Balkan Peninsula, but it is obvious now that it is firmly determined not to allow the entry of Ukraine into the military-political bloc under the US control.

In the meantime, China kept on strengthening, showing at the same time that it no longer tolerates an inferior role in the geopolitical arena. A common estimate is that the United States pose a threat to the interests of Russia and China, leading to their getting in closer relations and also both of them connecting with some other countries unwilling to tolerate the behavior of the United States. BRICS (Brazil, Russia, India, China, and South Africa) is a new force that seeks to curb the disorderly conduct of NATO (read US). Events on the territory of the EU largely represent the realization of the strategy which Brzezinski earlier explained in his book "Grand Chessboard". Brzezinski says that America agrees to having strong Europe as long as it is in its interest. After disagreements over Iraq, but also subsequent to some dissonant tones in relation to the events in Ukraine, USA shies away from its European allies. There is speculation that the great pressure of refugees on the borders of the EU is actually an attempt to create the conditions for destabilizing the EU.

We can say with certainty that the collapse of the Eastern bloc and the breaking up of the USSR is largely a product of the Cold War logic of the United States, which is governed by such foreign policy after the fall of the Berlin Wall. The conflict among the coalition led by the US and the rest of the world is a product of imposing neo-conservative model as a universal dogma. We are not talking here only about capitalism as an ideological framework. The capitalist system in these circumstances becomes a global model of operation. The problem is that the United States require for itself absolute rights to make decisions and evaluate all the others, while others are obliged to comply with US view of the world. Why has earth become a riskier place to live in after the fall of the Berlin Wall could be stated by presenting the countless reasons. However, most responsible for such a situation is known. That party who had the most power and determined the main courses of events during the nineties and at the beginning of this century is worthy of some recognition, but also bears the greatest responsibility for the current situation.

The former ideological conflict between capitalism and communism has been replaced by a conflict between the hegemonic model of organization of the world and the need to respect the interests of all alike. It seems that the US did not manage to handle best the situation in the role of the exclusive top super-power. The narcissism of its system is reflected on the insistence that all others must accept a model that is offered to them, although it is quite obvious that this is not functional in the new conditions.

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ORGANIZED CRIME IN WESTERN BALKANS – CASE SERBIA

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This paper discusses the common heritage of the Western Balkans in connection with organized crime, which, it can be claimed, did not significantly manifest under socialism. The disintegration of the former Yugoslavia led to war, destruction, and overall increase in crime, including organized crime. The factors that especially contributed to that, besides the war, are: the transition process, the increase in the level of corruption, inefficient functioning of the state apparatus, economic decline, and trade sanctions imposed by the United Nations which resulted in a sort of semi-legal cooperation between governmental authorities and organized criminal groups in the Western Balkans. Local wars in the former Yugoslavia enabled the expansion of illegal arms trafficking, theft and smuggling of motor vehicles, and smuggling of all kinds of excise goods, especially oil and cigarettes. The trafficking of narcotics became a very lucrative and widespread activity of criminal groups, with the geo-strategic position of the Western Balkans countries being one of the contributing factors.

The beginning of democratic changes in Serbia marked the commencement of the fight against organized crime. It was also the start of the creation of the legal regulatory system to counter organized crime, which involves interstate cooperation at both the regional and global level, as well as the adoption of international conventions and standards. Consequently, a special police unit for combating organized crime was established within the Serbian Ministry of Interior.

The Republic of Serbia, like most countries in the region, has adopted a series of legislative measures to combat organized crime, which come from experiences of other countries that have shown good results. Specific aspects of the investigative procedure and collecting evidence of organized crime cannot be achieved using conventional methods of investigation, such as home, other premises and persons' search warrants, temporary confiscation of items, questioning of the accused, witnesses' hearing, etc. In these efforts the basic dilemma is the level of proportionality between security and freedom, because the methods of an undercover investigation are special methods that are used to temporarily restrict the fundamental rights and freedoms of men, for the purposes of combating complex forms of crime.

Key Words: organized crime, criminal law, methods of undercover investigation, international cooperation

General remarks

There is no comprehensive agreement on the origin and evolution of organized criminal activity in criminal processing and criminological science, although it is evident that a “mafia” as a separate organization existed in the USA, Italy and other developed countries for decades. However, organized crime became the subject of attention of the international community only when it broke through all barriers and state borders during the 80s of the last century. Moreover, the term “organized crime” itself has since been used as a phrase denoting escalating concerns of national and supranational public institutions and citizens related to the expansion of domestic and international illegal markets, increase of the mobility of criminal actors across national borders, and their noticeable increase of ability to “toxify” lawful economic activity and undermine political institutions.¹ Additionally, organized crime brings into question the security of individual, collective, and even international security. Modern comprehension of security includes all aspects of man’s life and survival in the society (economic, social, political, educational, IT, defense and other aspects), as well as all forms of social education (regional, national, international). The security today is related to individual, society and state as a whole, as well as international community.

Despite such clear guidelines, there is still no standardized and widely accepted definition of organized crime, and therefore there are no definitions of the methods of operation and objectives, as well as forms of cooperation, strategy and ways of countering this phenomenon either. This is due to the fact that organized crime is not manifested in all the countries to the same degree and with the same intensity, but rather adapted to the existing social relations and favorable conditions for the certain forms of criminal activity.

The main problem is manifested in different understandings related to the view that all forms of organized criminal activity represent organized crime, regardless whether there is organized crime when there is no connection between a criminal organization and the representatives of state, political, economic, financial or other relevant structures. By analyzing the content of the definition of the term organized crime, the authors’ opinions can be systematized into two basic views.²

According to the first view, for the existence of organized crime it is not necessary that there is a connection between criminal organizations and the state and its organs. It is sufficient that there is a criminal organization, which performs various forms of criminal activity in order to gain illegal profit and possessions. Criminal organizations perform certain criminal activity, such as racketeering, smuggling, organizing of prostitution and gambling. There are also criminal organizations with a solid structural division of labour, responsibility and planning of the criminal activity, such as cases of a criminal activity related to property, which aspires to get incorporated into the legal economy, using violence, but lately also resorting to the more refined methods of influence.

¹ Paoli, L., Fijnaut, C.: *Organized Crime in Europe: Manifestations and Policies in the European Union*, Beyond, Freiburg, 2003, p.1.

² Bošković M., *Organizovani kriminalitet – prvi deo: kriminološki i kriminalistički aspekti*, Policijska akademija, Beograd, 1998, p. 4.

The second view is that besides the existence of a highly structured criminal organization, organized crime includes a specific connection of a criminal organization with the state and its various organs, as well as legitimate business, economic and financial subjects and influential political parties, thus providing the appropriate level of social prestige and significant impact. "Social prestige" and influence obtained in this way are manifested through, among other things, the obstruction of detecting irregularities in certain business relations, so it is not rare that it is difficult to distinguish some of the legal organizations from certain forms of organized crime.

Either way, this type of criminal activity involves a certain degree of organization, which is reflected in the planning of the conducting of criminal offenses, division of tasks, and management of the entire criminal activity by a particular boss. In which degree will each of these aspects be accomplished, depends primarily on the strength and the hierarchical structure of every criminal organization.

What differentiates criminal organizations from the individual, as well as all the other forms of collective conducting of criminal activity, is also a high level of professionalism and audacity of the perpetrators, dynamism and constant striving for expansion, and those are also important characteristics of organized crime.

Finally, this type of crime exhibits some particularities, above all, willingness to clash with representatives of the authorities, governmental bodies, political and other important organs which are ready to deal with their criminal activities, as well as readiness to eliminate those persons who may appear as prosecution witnesses (key witnesses) or who will not testify in their favor (defense witnesses).

While internal organization is a key particularity of this type of crime, the fact is that not all types of organizations are the same in terms of structure of relationships, the level and firmness of organization and hierarchy. According to the degree of inner firmness and the mode of action of organized crime, Interpol defines three types of criminal organizations:

- Traditional type,
- Professional type and
- Flexible type.

However, this division of organizations of organized crime is not strict, since they often overlap and have the characteristics of one or several. Certain particularities of organized crime are also related to its very basic conditions that allow it to endure and carry on with organized criminal activity for a longer period of time. Those characteristics are related to the use of violence and corruption for establishing criminal connections, but also other methods (blackmail, pressures, coercion, etc.), through which a criminal organization also manages to get certain concessions and achieve appropriate social status.

Finally, although organized crime appears in many forms, it is still worth mentioning the most prominent forms of this crime, such as: illegal production and trafficking of narcotics,³ trafficking of human beings (including trafficking of women, children and infants), trafficking of human organs, smuggling of (stolen) cars, smuggling and illicit

³ It is undisputed that the production and trafficking of narcotics represents the most prominent form of modern organized crime, although trafficking should also be added to this, and to a certain extent arms smuggling, money laundering, etc. Namely, illegal trafficking of narcotics is one of the most active forms of organized crime, because it brings enormous profits. It is estimated that, globally, the value of the revenue generated by drug trafficking (illegal) is just behind the profits made in oil trade (legal).

trade of cultural goods, smuggling of endangered species of flora and fauna, smuggling and illegal trade of excise and other valuable goods, illegal import of radioactive waste and other waste materials, organized prostitution, organized gambling, organized crime in the economic-financial area (money forgery and putting in circulation of counterfeit money, money laundering), racketeering and other forms of organized violent crime, cyber-crime and other offenses that are related to organized crime.

It should be particularly emphasized that in all of the countries in transition, organized crime, and especially organized economic crime, is on the constant rise, that it expands its field of activity to the different types of crime and across borders, that it exploits lawful economic activities in order to legitimize its criminal activities and that it applies advanced technology, especially for encoding and concealing communication.

Additionally, the change of property rights through privatization is another key contribution to economic crime, while asset misappropriation, that leads to the collapse of once successful state-owned enterprises which are then sold for small amounts of money, seems to be causing the greatest loss of public trust in the institutions of government. Together with losses of public revenue by avoiding taxes and duties, as well as frauds in the procurement field, machinations in privatization represent a major source of problems for countries in transition.

A large number of authors in the science of criminology, criminal justice and criminal procedural law dealt with conceptual definition of organized crime, and in the last few decades there is an intensive discussion about its content.

Thus, for example, organized crime is defined in the literature as a non-ideological activity, which includes a large number of people in a close social interaction, organized on a hierarchical basis, with a goal of acquiring profit and power, keeping illegal and legitimate activities, which, with relatively small risk, provide high income. Positions in a hierarchical structure are occupied either on the basis of funds or on the basis of rational criteria, in accordance with the capabilities that an individual possesses. Those positions are permanent and are not dependent on the person who occupies them at a certain point, and members of the association are constant. Through various means they strive to eliminate competition because the goal is monopoly over certain activities or territories. There is an inclination to use violence and bribery, in order to achieve a goal or establish discipline. Membership is limited, although those who are not members may be recruited in certain cases.⁴

It is also stated that organized crime encompasses prepared and, through division of work, planned, professionally executed serious crimes, which can be committed by at least three interrelated offenders united in a criminal association, that has a purpose to acquire and increase financial gain and social power, through lasting, secret and joint efforts of the members, without respecting international borders, with the use of violence, intimidation or corruption to ensure its illegal survival, i.e. criminal activity development.⁵

Besides, organized crime tends to behave in a market-oriented manner and to accept market conditions just like legal business entities, with the distinction that, in international context, this type of criminal activity achieves its influence due to the large financial resources it possesses, so that it develops and creates nearly parallel global market in

⁴ Abadinsky H., *Organised Crime*, Nelson Hall, Chicago, 1988, p. 152.

⁵ Sačić Ž., *Organizovani kriminalitet u Hrvatskoj*, Ministarstvo unutarnjih poslova Republike Hrvatske, Zagreb, 1997, p. 10.

which various goods and services are exchanged, so that in certain situations it can be talked about in terms of a criminal holding, a cartel or a company.⁶

In criminological theory the view that is present is that organized crime is a well organized criminal organization, with a strict hierarchy, discipline, responsibility, loyalty and division of tasks aimed at achieving maximal profit and legalization of illegally acquired property, due to the achieved degree of social prestige, either on grounds of penetration into the government structures or established connections with the authorities and state organs, legal business entities and influential political parties.⁷

Criminologists also deem that organized crime is an activity of the economic kind, carried out by criminal organizations, professional and organized groups, with strictly defined hierarchy, discipline and norms of conduct. Related to this type of crime are organized and semi-organized groups, which carry out criminal acts in conjunction with the representatives of local or higher levels of state government, i.e. its organs and institutions. Participants in organized crime are directly related (through a business relationship) with representatives of government financial institutions, commercial companies and political parties.⁸

Some theoreticians think that, from the aspect of criminology, the notion of organized crime involves types of delinquency and the typology of crime phenomena related to the activity of professional criminal organizations. That is the "commercial type" activity carried out by criminal associations with strictly established hierarchy, discipline and norms of conduct. This phenomenon is manifested in the form of activities of organized or semi-organized groups or other forms of associations, collective committing of the criminal act, in conjunction with the local or higher levels of state government, i.e. its organs and institutions. In addition, participants of organized crime may be indirectly related through a "business relationship" with representatives of financial institutions, commercial companies and political parties.⁹

Based on the stated and many other definitions of organized crime from the available scientific and expert literature, it can be concluded that among the authors who observe this phenomenon from the aspect of theory and practice of criminology, criminal justice and criminal procedural law, opinion prevails about several constituent elements of the concept of organized crime, among which the most important ones are:

- that it is a lasting organization;
- that it is an organization that rationally works for profit;
- that it is an organization that is characterized by the use of force or threats, and
- that it is an organization that needs corruption to acquire and preserve immunity from the application of law.¹⁰

Finally, views of eminent criminologists and criminalists show that, despite all the difficulties regarding the definition of organized crime, its manifestation requires certain

⁶ Pavišić B., *Pojave savremenih zločina – savremeni međunarodni kriminalitet*, Ministarstvo unutarnjih poslova Republike Hrvatske, Zagreb, 1991, p. 28.

^{7 7} Bošković M., *Organizovani kriminalitet – prvi deo: kriminološki i kriminalistički aspekti*, Policijska akademija, Beograd, 1998, p. 9.

⁸ Kresoja M., *Kriminalistika za osnovno policijsko obrazovanje*, Yugo-Pirs, Novi Sad, 2006., p. 511.

⁹ Bošković, M.: *Socijalna patologija*, Pravni fakultet u Novom Sadu, 2002, p. 129.

¹⁰ Albanese J. S., „The causes of organized crime“, *Journal of Contemporary Criminal Justice*, No. 4, Thousand Oaks, 2000, p. 412.

degree of correlation with the figures from the structures of state organs, that is to say, the creation of a certain influence in the political and economic structures. On the other hand, the stance of those theoreticians who believe that organized crime should be defined, or limited exclusively to illegal activities, which include the management and coordination of blackmail and prostitution, is completely unacceptable.¹¹

Characteristics of Organized Crime in the Western Balkans and in Serbia

Important element which qualifies unlawful activity of organized criminal groups as organized crime is the motive and the way in which that activity is being conducted, as well as the objective of criminal engagement. Organized crime manifests in the areas which, by their nature, ensure generation of extremely large incomes, due to which criminal organizations dedicate great attention to creating conditions for their manifestation, as well as the manner of implementation of criminal activities

In the former Yugoslavia, which lasted until the beginning of 1990s, organized crime essentially did not exist. Despite some liberalization, socialist Yugoslavia remained until the end a one-party, semi-police state. Closed socialist economy, controlled market, hard and well-controlled borders, minor trade and other relations with foreign countries did not allow for the emergence and development of organized crime. Private enterprise was nonexistent, owning real estate was restricted, and money flows were under strict control of state authorities. During this period there were certain rudimentary forms of organized crime, for example, drug trafficking, but both according to the scope and the degree of organization capacity, far behind the ones existing today. Other forms of organized crime (money laundering, human trafficking, illegal trafficking of weapons, smuggling of energy resources and human organs) either did not exist, or did so at negligible levels.

Foreign trade operations were under direct control of the intelligence services, which were controlled directly by the party leadership.¹² There was a so-called “economic crime” which was, despite some similarities, differed from organized crime according to its characteristics, in particular in that it could not have been internationalized, nor it aimed at the obtaining of social power and state power. Based on this, it can be concluded that organized crime does not succeed in totalitarian or semi-totalitarian states.¹³

¹¹ On this view, which definitely does not correspond with the majority views of organized crime in theory, for more details see Block A.; Chambliss W. J.: *Organized Crime*, Elsevier, New York; Oxford, 1981.

¹² Grubač M.: Organizovani kriminal u Srbiji, Zbornik radova Pravnog fakulteta u Splitu, god. 46, 4/2009., p. 701-709.

¹³ The Italian experience can serve as a proof of this. Mafia, as an old social construct in Italy, initially was supported by both secular and ecclesiastical authorities as a power that maintains social order and discipline. The first time it was under the effective control of the state was at the time of fascism, in the '30s and '40s. Those are phenomena that exclude each other and they cannot exist simultaneously, as they are both totalitarian. Upon coming to power, Benito Mussolini immediately and without hesitation closed all Mafiosi, and they were only released by USA, when they landed in Sicily in the summer of 1943, on the grounds that they are anti-fascists.

Organized crime, in all its forms and with its enormous scope started occurring in Serbia only in the early nineties of the last century. The disintegration of the socialist Yugoslavia, the beginning of the civil wars, imposing of economic sanctions by the international community to Serbia and Montenegro (from 1991), efforts of the new (Milosevic's) authoritarian regime to evade sanctions and to preserve power, led to the flourishing of organized crime. In a sort of self-defense, the authorities from that time (Milosevic's), spawned crime and increased corruption, as a "lifeline" and as means to preserve their political positions. The state connived organized crime as a source of necessary funds for the functioning of the state apparatus and the exercise of state functions, for ensuring the basic existence of the population and for purchasing high priced arms and ammunition for local wars. Crime was accepted as a part of the "tactics of economic and national survival". This period could be called the golden age of organized crime in Serbia.

Overall social and legal uncertainty, mass unlawfulness along with crime strengthening, as well as more often criminal dealings are summed expression of transition crisis in the society and crisis of the legal system. The most general reason of this destructive process lies in the fact that the Western Balkan countries were in "transition" from a socialist to a capitalist, market and democratic system. Every transition to a new social system constitutes a problem both in political and legal and economic sense. The transition involves profound changes in the legal, political and economic system, as well as manifestation of crisis and change of morals, ideology and psychology of people. Very large number of people couldn't accept great proprietary differences incurred by the new market system. Further layering of classes was additionally enhanced by lack of capital which led to falling of prices in privatization of companies, as well as bankruptcy of unprofitable giants along with mass layoff. On the other hand, a very small number of people, which acquired starting capital primarily through smuggling of oil, cigarettes and other goods, succeeded in becoming enormously rich by buying companies in privatization during the armed conflicts in former Yugoslavia

For a short period of time, Serbia got at the beginning of the '90s numerous criminal associations and all types of organized crime. Local wars in the former Yugoslavia enabled the expansion of the illegal arms trade, which brought enormous profits, particularly after the introduction of the embargo of the international community against these activities. Thefts and smuggling of motor vehicles, followed by insurance frauds and falsifying of the documents, had become every day and mass phenomenon. Oil and cigarette smuggling had become a specialty. Drug trafficking became a very lucrative and widespread activity of criminal groups, and the monopoly was held by the most powerful gangs in Belgrade and Novi Sad. Heroin and cocaine were purchased in large quantities abroad, despite international sanctions, and cannabis was grown in the country. Subsequently, entire factories of synthetic drugs were discovered. Trafficking of women and children and child pornography spread massively and quickly. Also, there are serious indications that human organs trafficking became rooted as a new form of organized crime. Cyber-crime, illegal copying and bank frauds appeared. Some of the main trade routes for radioactive substances lead through Serbia. Money laundering as a side effect and the condition for the existence of organized crime still is in many cases not registered and oppressed, although the phenomenon is present in a significant scope. A criminal offense under this name was introduced into the Criminal Code of Serbia only in 2005 (Article 231). Mass privatization of state enterprises that occurred in

the transition process of the political and economical system, was done with “dirty money” for the most part. Finally, for a long time now, Serbia is among the countries with the most corrupt government and public services.

Developing of understanding about increased social danger of organized crime in the Republic of Serbia

The previous thesis, that organized crime in Serbia developed only in the early nineties, and with a high degree of tolerance of state government, indicates that for a long time there was neither general awareness in Serbia of the increased social danger of organized crime, nor organized state activities aimed at its suppression. Neither the state nor the general and professional public were interested in this phenomenon because it seemed like it does not even exist as a socially dangerous phenomenon. Criminal activity was treated as normal, even useful activity and the public got accustomed to it over time. Very little was known about organized crime at the time in Serbia, even in theory, and even academic circles did not focus on the problem. The first serious, in-depth and systematic study of organized crime (*Countering Organized Crime and Corruption within the Strengthen of the rule of law in Serbia and Montenegro*) was started in Serbia in 2007 at the Belgrade Institute of Comparative Law thanks to the initiative of the research institute of the UN (*United Nations Interregional Crime and Justice Research Institute – UNICRI*) and of several professors from the Faculty of Law in Florence. Social awareness of the increased vulnerability of the general interest is generally formed difficultly and slowly. It is normal for that process to be delayed for some time, because the phenomenon must first be manifested, in order to find and take the appropriate measures for its suppression.

Particular and increased social danger from organized crime is the result of several of its characteristics which differ it significantly from traditional crime. Those are: *high degree of internal organization of the members*, with military discipline and internal hierarchical relations; *great thirst for money*, which ruthlessly affects material existence of the victim and stability of the state budget; *striving for power*, which threatens the survival of the state institutions, and trans-nationality or planetary expansion, which does not recognize state borders and national sovereignty, which was one of the main reasons modern states began to give up the dogma of national sovereignty, recognize the necessity of mutual cooperation and to begin to create common protective institutions. Classic crime is an individual, as a rule, unplanned, impulsive and sudden phenomenon. It causes conflict between an individual, offender and the state, which has a long established right to punish (*ius puniendi*) the said individual. The winner in this conflict is certain. In the case of organized crime, which is performed as a corporate and highly profitable business activity, the conflict is between two organizations, the criminal one and the state one, with the criminal organization sometimes being of the same power, and at times even stronger than the state. And it is precisely in times of civil crisis, that organized crime becomes particularly aggressive and tends to take over and replace the state government, or at least to be its equal partner. Organized crime threatens the foundations of the modern state and negates the fundamental principles of its democratic and legal regulation. It destabilizes governments, undermines parliamentary democracy,

destroys public trust in government and legal institutions, and denies legality and social morality. Organized crime brings into question safety, not only individual, but also collective, national and international.

Organized crime is extremely difficult to define, and it is also difficult to recognize and in concrete cases, to prove, mainly because its illegal activity overlaps with another, completely legal activities. It is precisely for those reasons that this type of crime is connected with those legal activities, so that it would cover its criminal trail and preserve the profit earned through criminal activity. Almost entire material gain acquired by organized crime is invested in commercial enterprises, educational institutions and humanitarian actions.

Changing of legislation of the Republic of Serbia in the fight against organized crime

Since the second half of 2002, when work on legal normative regulations for fight against organized crime started, significant results have been achieved: a) new substantive criminal legislation has been passed, and it grants certain incrimination of organized crime b) a special chapter (XXIX/a) has been included in the Code of Criminal Procedure from 2001 (later, in 2002) and it is dedicated to processing instruments for the fight against organized crime; c) a special law has been passed on the organization of state authorities (public prosecutors, the police and courts) in charge of the fight against organized crime and their responsibilities. Before that, a special police administration for the fight against organized crime (UBPOK) was established within the Ministry of Interior. In a short period of time, a number of international conventions was ratified, starting with the UN Convention against International Organized Crime, to the European Convention on the Prevention of Money Laundering, as well as all relevant conventions on international legal assistance, extradition, transfer of criminal cases and more. Also, the necessary anti-corruption laws were passed including those on conflicts of interest, the availability of information of public interest and public procurement, while the government established "its own" Anti-Corruption Council, which proved in many cases to be independent from the government as well.

One of important indicators of organized crime in specific area is the ratio of total number of criminal acts regarded as organized crime, and the number of those criminal acts committed by three or more persons. However, the fact that certain criminal acts distinctive to organized crimes, which are conducted by three or more persons, is not definitive indicator of criminal phenomenon in the specific case, but among these incriminations are those that meet the statutory criteria necessary for the existence of organized crime.

According to the official data of the Serbian Ministry of Interior, in the period from 2008 to 2013, a total of 811,996 criminal offenses have been carried out. The highest number of crimes was committed in 2013 (112,583 in total), and the lowest during 2006 (91,629), which is around 18.62% criminal offenses less. It should be noted that these are police statistics which consist of data on crimes reported to the police or detected by these organs.

By comparing calendar years, a slight drop in the crime rate can be noticed in the period of 2010 – 2012, and in 2013 the number of criminal acts was the highest in the

presented period. In this period, the average number of offenses was 101,499. Along with the number of criminal offenses, the types of organized crime acts are also presented including: unauthorized production, possession and distribution of narcotics, facilitating the use of narcotics, extortion, blackmail, kidnapping and trafficking.

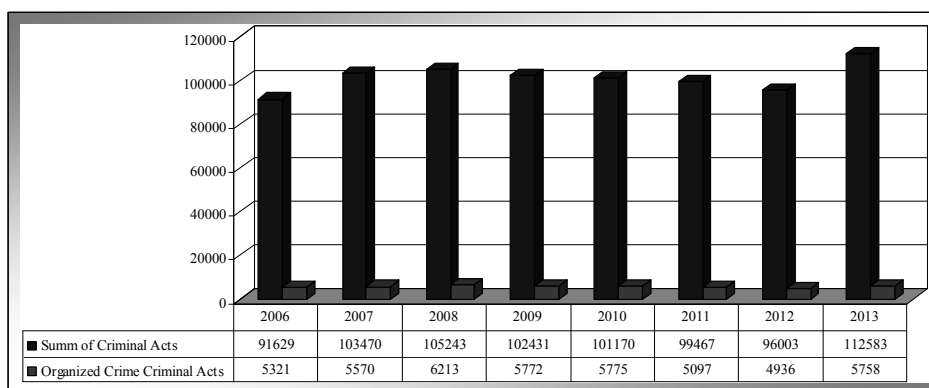


Chart 1 – Comparative review of criminal acts and acts of organized crime in the Republic of Serbia for the period 2008-2012¹⁴

It can be observed in the chart that acts of organized crime somewhat follow the crime rate. The largest number of organized crime offenses was recorded in 2008 (6,213), whereas in 2012, it was 21% lower, when the lowest number of organized crime acts was recorded. Organized crime acts account for 5-6% of the total number of all crimes on the territory of the Republic of Serbia.

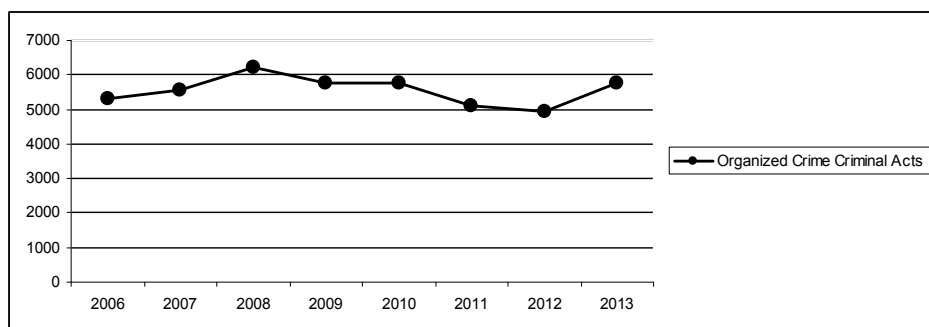


Chart 2 – Summary of organized crime acts in the Republic of Serbia for the period 2008-2012

¹⁴ The data is presented on the basis of the *Overview of the number of criminal offenses recorded in the period from 2006 to 2013* of the Ministry of Interior of the Republic of Serbia.

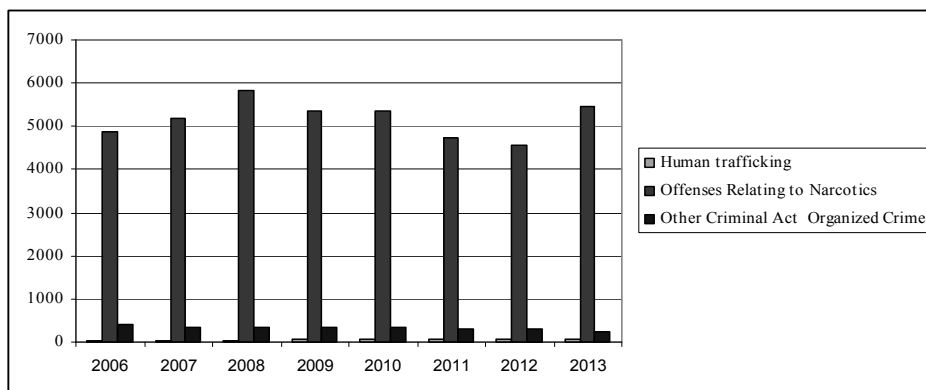


Chart 3 – Organized crime acts of the Republic of Serbia in the period 2006-2013

If we single out and look at the structure of solely organized crime acts, we can clearly notice that the leading acts are unauthorized production, possession and distribution of narcotics and facilitating the use of narcotics. On the other hand, the lowest number of offenses is related to extortion, blackmail and kidnapping. In the presented period 5,555 organized criminal acts are carried out on an average, with an average of 5,166 offenses related to drug crime. This only indicates that in the domain of organized crime in the Republic of Serbia, prevalent crimes are related to narcotics. In addition, it can be noticed also here that organized crime acts follow the trend of crime in general.

Faced with the threat and the need for a strategic approach to solving this problem, the Serbian Government adopted the National Strategy for the Fight against Organized Crime, and hence created the necessary political and legal conditions for the successful implementation of the strategy with a focus on three basic principles: the implementation and development of preventive action, repressive action and confiscation of assets derived from criminal acts of organized crime. In addition, the policy in the field of creating an effective system for combating organized crime has been established, which defines the strategic objectives, roles and responsibilities of governmental entities and determines the framework for the development of implementation plans.

It is estimated that several organized criminal groups are active in the Republic of Serbia, which are regionally associated with the same groups in neighboring countries and beyond, and most often with the groups from Montenegro, Bosnia and Herzegovina, Romania, Republic of Croatia, Republic of Macedonia, Republic of Bulgaria and Republic of Albania. A large number of criminal groups are active on the territory of the Autonomous Province of Kosovo and Metohija, with strongly developed hierarchical structures established on the family relations and primarily engaged in the smuggling of narcotics and psychedelic substances, trafficking in persons and organs, human trafficking, international smuggling of motor vehicles, smuggling of weapons and explosives, excise goods and other offenses involving violence.

Every analysis of organized crime in a country or a society should consider the characteristics of social context and changes within, and by paying special attention to

illegal markets. Furthermore, the analysis should also include the knowledge of criminal groups and their networks, especially their structure and the type of relationship between legal and illegal structures in the society. The reason lies in the fact that researches show that both legal and illegal markets function upon similar principles, which means that lawful and unlawful activities fall under similar rules of supply and demand. Organized crime does not manifest in an isolated manner, but rather in social environment that is constantly submitted to change. That is the reason why the organized crime signifies a dynamic process of unlawful activities that adjust to new situations susceptible to crime, sources and skills available to potential criminals.

The introduction of undercover (secret) criminal investigation

Along with acknowledging the need that fight against the most serious security challenges, and the forms of criminal activity at the same time, should include specific methods which are not common in “conventional” crime, a set of measures is established. Through criminal and procedural standardization of such, special evidentiary actions the latent danger of disrupting the balance between the demand for effective criminal proceedings and the need to protect fundamental human rights is overcome. Utilization of modern scientific and technological accomplishments in preventing and combating organized crime signifies an imperative in modern conditions. During this process, through implementation of certain operative measures and actions, along with necessary use of technical resources and methods, invasion of certain human rights and freedoms is possible. That is why this is considered in the public as lack of democracy in the society and state which misuses its authority when establishing control over private lives of its citizens. However, one fact is being overlooked: every crime is violation of certain human rights and freedoms, and modern crime, especially organized one, undermines the sole basis of the society along with all fundamental human rights and freedoms. Having that in mind, there is no dilemma whether state authorities, especially prosecuting authorities and primarily police authorities, should use modern technological achievements in fighting against crime.

A criminal investigation is a reconstructive process that uses deductive reasoning, a logical process in which the conclusion is derived from certain facts. Based on certain aspects of the facts that can be used as evidence, crime scene investigators infer that the suspect has committed an offense or that there is a reasonable suspicion of the suspect having committed a criminal offense.¹⁵

Accordingly, the modern science of criminal procedural law defines a secret criminal investigation as a special investigative, a possible exploratory activity of the police or criminal justice authority, which occurs *ultima ratio* in the case of serious crimes investigations, when it is not possible to obtain evidence in any other way or that would constitute a disproportionate difficulty.¹⁶ It is especially pointed out how, in comparison to the measures and the actions of traditional preliminary proceeding, as one of the stages

¹⁵ Korajlić N., *Kriminalistička metodika* (drugo izdanje), Centar za kulturu i obrazovanje, Tešanj, 2011, p. 31.

¹⁶ Halilović H., *Prikriveni istražitelji: pravno-kriminalistički pristup*, Fakultet kriminalističkih nauka, Sarajevo, 2005, p. 16,17.

of mixed criminal proceedings, this type of investigation exhibits certain particularities. Namely, some common rules of the investigative procedure proved to be, in modern settings of combating crime, especially organized crime, largely ineffective. This resulted in a significant deflection from the earlier norms and standards of criminal investigation procedures and operational-criminal treatment and caused adopting of a completely new model of investigation of organized criminal activities, as well as serious crime in general.

The basic features of this new form of investigation are such that investigations are exercised only in strictly defined situations. Significantly better results in preventing and detecting crime and its perpetrators are visible when compared to the traditional investigative approaches, but at the same time it also significantly jeopardizes or limits the rights and freedoms of citizens guaranteed by international, constitutional and other documents.¹⁷

Measures of undercover (secret) investigations are specific measures for the purposes of combating complex forms of crime, and they temporarily restrict the fundamental rights and freedoms of people.¹⁸ Namely, it is believed that the central problem of politics in democratic societies is the dilemma on how to maintain the level of proportionality between security and liberty, especially because in modern societies, it is very difficult to take the necessary measures to ensure security and stability and at the same time to protect the inalienable rights and fundamental freedoms of the individual.

According to some authors, a secret investigation involves those police activities that are carried out in secret or in a way that does not reveal their real purpose, or under other concealed circumstances from which the persons against whom the undertaking is conducted or persons to which the undertaking is referred to, are not aware of the official capacity of a person or the purpose of the measures taken.¹⁹

Therefore, as it may be noticed, this is a specific form of investigation and proving criminal acts, conducted when that is not possible to achieve using conventional methods of investigation, such as executing search warrants, temporary confiscation of items, examining of the defendant, questioning witnesses, etc. These kind of investigations, contrary to the previously performed traditional methods, show a much higher degree of efficiency but, on the other hand, represent a much greater threat to the basic human rights and freedoms, the respect of which in the modern world, is one of the basic principles of rule of law and democracy.

The measures of secret, undercover investigations are intended, by their nature, for the fight against the most serious forms of crime, such as systemic corruption, organized crime and terrorism. Lately, an expansion of their field can be noticed, and they are starting to be applied to the increasing number of criminal offenses prescribed by criminal codes. Perhaps it should be mentioned that literature in this field states that, in the '70s in the US and in the '90s in Europe, the target area of their application was organized crime. Afterwards, due to their efficiency, they began to apply to other areas of combating crime. It is certain, however, that the moment when these measures originated happened much earlier.²⁰

¹⁷ Ibid.

¹⁸ Sijerčić-Čolić H., *Krivično procesno pravo (knjiga prva)*, Pravni fakultet, Sarajevo, 2005, p.345.

¹⁹ Pavišić B.; Modly, D., *Kriminalistika*, Pravni fakultet u Rijeci, Rijeka, 1999, p. 143.

²⁰ Fijnaut C.; Marx G.T. (eds.), *Undercover - police surveillance in comparative perspective*, Kluwer Law International, The Hague, 1995, pp. 2-9 etc.

Undercover investigations, in principle, represent procedurally valid, evidentiary actions carried out by members of the law enforcement authorities, i.e. government organs for discovery (police, etc.) and prosecution (public prosecutor) that they proactively apply to members of organized criminal groups and to offenders of other forms of serious crime.

Contemporary criminal justice systems are characterized by the application of a wide range of measures and actions of undercover criminal investigation, which is directly related to the specialization of certain investigative techniques for certain criminal offenses. The tendency of their further dissemination and replication of certain undercover criminal investigation measures is notable as well from the previously mentioned reason.

Contemporary systems of criminal justice, with higher or lower degrees of variations or differences in the names, acknowledge the following measures of undercover (secret) criminal investigation:

(1) Surveillance and technical recording of telephone conversations, i.e. devices for technical distant communication;

(2) Entering premises for conducting surveillance and technical recording of premises;

(3) Secret surveillance and technical recording of persons and objects;

(4) The use of undercover agents and informants;

(5) Simulating purchase and sale of the objects of the offense;

(6) simulated bribery and simulated acceptance of the bribe;

(7) Providing simulated business services or concluding simulated legal deals; and

(8) Collation of computer data.

Efficiency of an investigation depends primarily on well-planned investigation as a complex and multidisciplinary process that is particularly evident when it comes to the use of special investigative actions. This involves defining a series of specifics distinctive for detection and proving serious crimes. At the very beginning, it is necessary to draft a plan of operation, which, among other, should include:

– identification of known facts and circumstances related to possible criminal act,

– which facts and circumstances should be determined during the investigation,

– identification of evidentiary resource which will be used to determine certain facts and circumstances related for criminal prosecution,

– to determine which actions should be undertaken and whether court consent should be obtained for the evidence acquired during the investigation,

– to determine subjects which will be carriers for planned evidentiary actions,

– to determine the sequence for executing particular actions and proving,

– to determine timeline for implementation of every action,

– to determine time period and the manner of communication between subjects involved in the investigation.

Above mentioned content is general by its nature and can be subjected to change (it can be expanded or reduced). Despite this possibility, it should be strived to implement stated activities in a single cycle for the purposes of detecting and identifying criminal act and its perpetrator. The most significant part of the operation plan lies in the fact that for the hardest crimes (as organized crime), this plan envisages the proposal of specific investigative actions for every suspect, along with adequate explanation for conducting the specific investigative action. Also, it is necessary to predict beginning and ending

point of each individual action, as well as an indicative date for completion of all actions. If plan envisages an undercover investigator, it is necessary to include which false identity and story shall be used (name, nickname, phone number, email, vehicle, and employment), taking into account that persons with criminal background cannot easily verify the "cover story". It is important to have arranged meet up locations and available phone signal, because all actions conducted by the private investigator should be secretly monitored for his personal safety. The plan should also anticipate the way in which investigative actions will be completed, along with arrests and raids. Finally, the plan should include the changes because the conditions are never ideal. All this should be done with an aim to ensure internal and external security of the investigator.

When it comes to detecting and proving the existence of organized crime, main difficulties emerge from its dominant and phenomenological characteristics. Absence of victim in a classical sense is one of the characteristics of a large number of criminal acts which fall under the scope of organized crime. Those are so-called victimless criminal acts, which are mostly related to illegal markets for narcotics, cars, weapons, but also prostitution, gambling, child pornography and human trafficking. They are characterized by concealed manifestation, that is lack of direct witnesses of committed crime – victim or injured party, lack of information on the location of committed crime and material evidence thereby, which along with silence code specific in the circle of organized crime causes that its vulnerability to traditional investigative methods is significantly reduced. Therefore, evidentiary techniques that stand out as efficient in the cases of organized crime are those that ensure concealed action and monitoring of organized criminal groups by the police above all other authorities. It is more than obvious that both the state and the society must define and exploit those types of criminal and procedural solutions, methods and resources for detecting and processing of criminal acts for the purposes of reaching the efficiency and effectiveness in the area of organized crime. Essential purpose of mentioned solutions is mostly to assign specific competences to the police that are wider than its usual competences. In doing so, it must be kept in mind that those competences may be misused and brought into a large conflict with the provisions protecting human rights and fundamental freedoms of citizens.

Concluding Remarks

The phenomenon of organized crime today is considered to be one of the most complex threats to overall security and stability. Numerous conditions and convenient circumstances for development of organized crime on national and international level make it difficult for domestic and international institutions to implement efficient approach to this problem, as well as their timely reaction. Starting with forms of organization, internal organization, set objectives, methods of operation and the quality of established connections, various forms of manifestation of organized crime at national and international level are possible, and which are incriminated in national and international legislation. The level of vitality of organized crime and the intensity of its manifestation depends on skillfulness of its members, and their success in utilizing favorable conditions present in social, political and economic relations of the country, but also on determination and efficiency of the state and its authorities to resist it in an efficient manner.

The entire Western Balkans region is heavily rooted in historical heritage, delays in the process of transition, wars and a poor economic situation. All of this helps to create a favorable climate for the strengthening of organized crime. In this context, Republic of Serbia has a particularly negative legacy, which, in addition to common traits, is characterized by many years of economic sanctions which it was exposed to. This fact further influenced creating a link between organized crime and individuals in state institutions.

According to the unwritten security concept, highest values significant to our survival were sovereignty, territorial integrity and interests of foreign policy. The biggest threats to the country were armed attacks that could be initiated by other countries, or alliance of countries, intelligence and economic subversions, or diplomatic failures in the international scene. Therefore, the state guarantees its security by developing armed forces, intelligence and security system and diplomatic authorities.

Factors that favour development of organized crime in Serbia are numerous, and by the type and intensity, they are similar to the factors of the same phenomena that affected countries in transition. Of particular influence were the following factors: poverty and high unemployment, ownership structure and ownership transformation, corruption, geographical transit position of the country, absence of enforcement or selective enforcement of regulations, lack of professionalism and abuse of modern technology.

The process of perceiving the real threat of organized crime in Serbia was relatively long and was impacted by the political situation in the country and instability in the region. The adoption of the Strategy for Combating Organized Crime at the beginning of 2009, created the basis for an organized and systematic approach of all state and social actors in the fight against organized crime.

From 2009 until today, there has been a change of executive power in Serbia, but the new government continued to act in accordance with the Strategy for Combating Organized Crime. At the same time, the political support to the state authorities in fighting organized crime has been given and many of the wealthiest businessmen, bankers and political officials have been accused of crimes that fall under organized crime.

What remains is to analyze the experiences and achievements of the implementation of the new Code of Criminal Procedure and the measures that the investigating authorities started applying in combating organized crime in Serbia, but it is certain that the entire Western Balkans region realized the necessity of the joint fight and cooperation in combating this negative social phenomenon.

It is anticipated that in varying intensity, further progress and development of organized crime in Serbia, will be affected by all of the above stated factors, but also the global economic crisis, the increased trend of narcotics and psychedelic substances, investing the money gained through committing crimes in legal channels, the expansion of high-tech crime, environmental crime, etc. If the aim is to analyze the reasons for the relative success in combating organized crime in the Western Balkans, the following factors must be taken into account: the nature of organized crime, which is in its essence adaptive to social changes, insufficient level of intergovernmental cooperation in combating organized crime, which leads to spillover of the activities of organized criminal groups from one country to another, the presence of most of the elements that led to the

strengthening of organized crime in the region such as economic and political instability, unemployment, corruption, etc.

By assessing the degree of success of the Western Balkan countries to overcome the conditions that generate organized crime, the degree of success in the fight against it can be assessed as well. Of course, it is about the substantial fight against organized crime, and until then, it must be based on repressive and preventive action of the state authorities and the constant adjustment of the legislation in terms of the more efficient detection of organized crime and its sanctioning. In this regard, it is particularly important to emphasize the need for institutionalizing international legal assistance as a necessary condition for an effective fight against organized crime, which, unlike states, has clear motives for cooperation and there is no political or other considerations and constraints.

Therefore, national strategies are not enough to fight against organized crime, due to the fact that transnational organized crime is a test for every legal system and its carriers, as well as international law and all states and their readiness for honest cooperation. The success is directly proportional to acquired level of cooperation both among competent state subjects in a country, and the level of cooperation among states themselves.

Global nature of organized crime demands defining of joint generally accepted strategy whose starting point would be active participation of all states and international institutions. Therewith, basic presumption for any cooperation is precise definition of subject of cooperation, in order to clearly define in what areas we are willing to cooperate. It is necessary to determine the sole concept of organized crime which would be generally accepted to begin with. The fact that organized crime is not manifested in every country in the same manner probably contributed to the existing lack of a single and widely accepted definition of organized crime, nor in political, nor in criminology, nor in criminal law literature. Instead of that, there are various definitions, some of which are similar to one another, some of which are very different, which further implies to non-compliant opinions on the content of the term "organized crime".

Finally, encouraging fact is that Western Balkan countries legally regulated the fight against organized crime during the last decade. This fight includes forces, procedural rules, resources, deadlines and methods, which is a clear indicator of countries' awareness of the threatening danger from a specific, complex and changeable negative phenomenon. Above all other things, this is a sign that the state acknowledged the very existence of organized crime which should be fought in systematic and determined fashion. Moreover, Western Balkan countries ratified the most important international conventions related to fight against organized crime in the previous period.

This way they became the part of already organized European and global system for fighting against organized crime. Besides, modification and adoption of abovementioned laws has not changed basic principles: no innocent person should be convicted; that no one shall be held guilty of a criminal offense until so proven by a final decision of a competent court; criminal sanctions shall be imposed on the offender of criminal act under the conditions provided by the Criminal Code and pursuant to lawfully conducted procedure, as well as a criminal sanction against the offender may be imposed only by the competent court in proceedings instituted and conducted by the Law.

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THE CRIME AGAINST HUMANITY BETWEEN THE STATUTE OF THE HAGUE TRIBUNAL (ICTY) AND SERBIAN CRIMINAL LAW

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International criminal law, as a system of legal regulations found in acts of the international community and criminal legislations of individual states, establishes criminal liability and punishments for crimes against international law. These acts represent breaches of the laws and customs of war (international humanitarian law) that violate or threaten peace among nations and the security of mankind. Penalties prescribed for these criminal offences stand for the most severe penalties in contemporary criminal legislation. In some cases, international judiciary (supranational) institutions such as The Hague Tribunal (ICTY) and the others of international military and ad hoc tribunals or courts have primary jurisdiction over perpetrators of these criminal offences.

Crime against humanity, defined in paragraph 371. of The New Criminal Code of the Republic of Serbia (2005), represents a newly introduced criminal offence¹ whose establishment is related to the Statute of The International Military Tribunal from 1945 and the Nurnberg Judgment. It is a serious crime against international law that threatens characteristic values of the entire mankind, or values that are considered as generally humane. The development of the concept of crime against humanity was predominantly influenced by the idea of the need to protect fundamental human rights and freedoms. Crime against humanity (*crimen iuris gentium*) is based upon violations of fundamental laws of humanity, i.e. each person's right to life and the right of ethnical group to exist as such.

In legislation, theory and practice, this term can be interpreted in the broader sense, as well. In this paper the author has analyzed theoretical and practical aspects of crime against humanity in international criminal law and new criminal law of Republic of Serbia (former FR Yugoslavia).

Key Words: *international law, humanity, crime, court, responsibility, penalty*

¹ Previous absence of this incrimination has been justified by the fact that it has been covered by the crime of genocide, but contemporary practice related to the civil war on the territory of former Yugoslavia indicated that some crimes against the civilian population cannot be treated as genocide since not being aimed to destroy, in whole or in part, a national, racial, religious or ethnical group, whereas the time of their perpetration does not allow them to be considered as war crimes against the civilian population.

The notion and basic characteristics of international crimes

In the legal system of the Republic of Serbia, crimes against international law are enumerated in the Chapter Thirty Four of The new Criminal Code² from 2005, entitled “Criminal Offences against Humanity and Other Rights Guaranteed by International Law”. These criminal offences actually represent acts that constitute violations of international treaties, agreements and conventions and threaten and entrench on peace among nations, the security of mankind and other values protected by the international law or are in breach of the rules of war related to the treatment of war prisoners, wounded, sick and civilians by the parties to the conflict.

The origination of these criminal offences is related to the establishment of international rules organizing relations between states in time of war and relations between the parties to the conflict in view of commencement and conduction of armed conflict. International law of war emerged as the consequence of cruel and inhumane comportment throughout the long history of wars and armed conflicts between nations and states, with the intention to humanize this most inhumane means of resolving international and inter-state disputes.³

Along with the expansion of the international law of war, started the process of gradual limitation of the rights belonging to the parties to the conflict, and of controlling not only the acts committed against non-combatants, but those related to the commencement and conduction of war as well. State’s right of absolute freedom to commence and conduct a war will gradually be reduced by prohibiting certain acts that include unnecessary devastation, killing and torture. Breaches of the laws and customs of war constitute crimes under the laws of war. Having accepted international obligations by signing and ratifying numerous international conventions, certain states included several criminal offences against humanity and other rights guaranteed by international law in their criminal legislation. Such criminal offences are committed by violating rules contained in international conventions. Their source lays in the prohibitions proclaimed in international legal documents (acts).⁴

Subject of protection under international criminal law consists of humanity and other universally recognized and generally accepted values protected by international law. The protection of humanity pertains to the protection of essential human rights such as: life, physical integrity, honor, reputation and personal dignity and other fundamental human rights and freedoms. Additional rights belonging to natural persons, individual states and the entire international community are also of general, universal significance and therefore protected and guaranteed by international law.

The majority of crimes against the international law can be committed only in a certain period of time determined by the law:⁵

- 1) During war,
- 2) Armed conflict or
- 3) Occupation.

² Official journal of the Republic of Serbia No.: 85/2005, 88/2005, 107/2005, 72/2009, 111/2009. More: D. Jovašević, *Krivični zakonik Republike Srbije sa uvodnim komentarem*, Beograd, 2007.

³ D. Jovašević, *Leksikon krivičnog prava*, Beograd, 2011. p. 345.

⁴ D. Jovašević, *Međunarodno krivično pravo*, Niš, 2011. pp. 78-86.

⁵ V. Đurđić, D. Jovašević, *Krivično pravo, Posebni deo*, Beograd, 2006. pp. 312-315.

The partition of international crimes

These criminal offences are most commonly committed in an organized manner with the aim to implement certain governing group's or party's politics. Being considered as an aspect of organized, planned criminality, these offences are most frequently committed by the order of superior military or political leaders. Due to that, it is required to determine individual criminal responsibility of organizer, order-giver and offender.

These criminal offences can be committed only by premeditation. Some of the criminal offences contained in this group are not subject to limitations on criminal prosecution and limitations on enforcement of penalty: genocide, crime against humanity, war crimes and other criminal offences that pursuant to ratified international treaties cannot be subject to limitations.

The theory of international criminal law recognizes several sorts of crimes against international law. They are most commonly divided into two categories⁶:

1) Crimes against international law in the narrow sense (genuine or pure crimes against international law) and

2) Crimes against international law in the broader sense, or transnational crimes (counterfeit or mixed).

This classification⁷ was adopted for the first time at the 14th Congress of The International Criminal Law Association that took part in Vienna in 1989. The criterion of the division is the jurisdiction of international criminal courts, which is established only in the case of crimes against international law in the narrow sense. Crimes against international law in the narrow sense belong to the first group of these criminal acts. These crimes against international law represent violations of laws and customs of war (meaning the rules of international law of war and international humanitarian law). They are incorporated in the Judgments of the Nurnberg and the Tokyo Tribunal, and are also known as criminal offences under general international law (or *crimina iuris gentium*). The following criminal offences can be placed in this category⁸:

- 1) Crime against peace,
- 2) War crimes,
- 3) Genocide and
- 4) Crime against humanity.

In legal theory, there are opinions suggesting that these criminal offences should be referred to as international crimes *stricto sensu* that are prohibited by cogent rules of international law such as The Hague or The Geneva Conventions. The following features of crimes against humanity in the broader sense (core crimes) are pointed out in legal theory:⁹

1) These international crimes have double-layered nature. Their commission draws the following consequences: a) individual criminal liability either of a perpetrator or of an accomplice, or of a superior (on the grounds of superior liability) on one hand and b) the responsibility of a state under international law, on the other,

⁶ B. Petrović, D. Jovašević, *Krivično (kazneno) pravo II, Posebni dio*, Sarajevo, 2005. pp. 39-41.

⁷ Y. Dinstein, M. Tabory, *War crimes in International Law*, Dordrecht, 1996, pp. 145-167.

⁸ O. Triffterer, *Acts of violence and international criminal law*, *Hrvatski ljetopis za kazneno pravo i praksu*, Zagreb, No. 2, 1997, pp. 811-824.

⁹ D. Radulović, *Međunarodno krivično pravo*, Podgorica, 1999, pp. 103-105.

2) International crimes violate essential (fundamental) human rights and they are, therefore prohibited as repression against the same crimes committed by the opposite party,

3) International crimes are not subject to limitations on criminal prosecution and limitations on enforcement of penalty and

4) General international law imposes as an *erga omnes* obligation on the states not to breach the basic rules that prohibit these acts.¹⁰

The crime against humanity according to The Statute of the Hague Tribunal

The system of international crimes

Statute of the International Tribunal for the Prosecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991. (ICTY)¹¹ was adopted upon Security Council Resolution S/RES/827 from 25 May 1993. The Statute (known as The Hague Statute) recognizes 4 types of crimes against international law. These are:¹²

- 1) Grave breaches of the Geneva Conventions of 1949,
- 2) Violations of the laws or customs of war,
- 3) Genocide and
- 4) Crimes against humanity.

Imprisonment is the only penalty that can be imposed by the Tribunal, and in determining the terms of imprisonment, the Trial Chambers shall have recourse to the general practice regarding prison sentences in the courts of the former Yugoslavia, taking at the same time into consideration the gravity of the offence (objective circumstances) and the individual characteristics of the convicted person (subjective circumstances)¹³.

In addition to imprisonment, the following sanctions may be also imposed:

- 1) Return of any property to the rightful owners (restitution) and
- 2) Confiscation of any proceeds acquired by criminal acts.

Crime against humanity – notion and basic characteristics

Crime against humanity, also known as the gravest criminal offence of today or the “crime above all crimes”, is described in paragraph 5. of The Hague Statute. The practice of the Hague Tribunal has not accepted the extensive interpretation of this crime, which would include the intention to destroy national, linguistic, religious, cultural or any other identity of a group without its physical extermination.¹⁴

¹⁰ D. Jovašević, V. Ikanović, *Međunarodno krivično pravo*, Banja Luka, 2015, pp. 72-78.

¹¹ D. Jovašević, *Komentar Krivičnog zakona SR Jugoslavije*, Beograd, 2002, pp. 14-16.

¹² I. Josipović, *Pravni i politički aspekta nastanka Međunarodnog kaznenog suda za bivšu Jugoslaviju*, Zbornik radova, Hrvatska i Ujedinjeni narodi, Zagreb, 1996, pp. 183-196.

¹³ Dž. Džuns, S. Pauls, *Međunarodna krivična praksa*, Beograd, 2005, pp. 131-147.

¹⁴ D. Jovašević, *Međunarodna krivična dela – odgovornost i kažnjivost*, Niš, 2010, pp. 231-232.

However, the Hague Statute is familiar with another grave criminal offence whose characteristics and attributes make it similar to the crime of genocide. It is crime against humanity. This criminal offence is found in paragraph 5. of the Hague Statute. The description of this crime against international law clearly states that it can be committed only within an armed conflict (either international or internal in character) and directed only against civilian population, if including:¹⁵

- 1) Murder,
- 2) Extermination,
- 3) Enslavement,
- 4) Deportation,
- 5) Imprisonment,
- 6) Torture,
- 7) Rape,
- 8) Persecutions on political, racial and religious grounds and
- 9) Committing other inhumane acts.

The abovementioned acts ought to be committed under the following circumstances in order to constitute crime against humanity:¹⁶

1) An attack has to be committed—an attack can take place even when armed force has not been used, as long as it includes maltreatment of the civilian population or preparations for such acts,

2) Criminal offences committed by the accused have to be a part of that attack,

3) The attack has to be directed against any category of the civilian population,

4) The attack has to be either extensive or systematic. An attack is considered as extensive when being of a wide-spread nature or when being directed against a large number of persons. An attack is described as systematic if the violent acts are committed in an organized manner or with slight probability of being committed accidentally and

5) The perpetrator has to be familiar with (aware of) the fact that his acts are committed within an extensive or systematic attack against civilian population.¹⁷

Criminal offences against international law,¹⁸ prescribed by The Statute of The International Criminal Tribunal for Rwanda, and their features and characteristics are the same as those included in the Hague Statute. The Statute of The International Criminal Tribunal for Rwanda was adopted by The UN Security Council Resolution 955 from 8 November 1994. This tribunal has jurisdiction over persons responsible for genocide and other grave violations of international humanitarian law committed in the territory of Rwanda as well as over Rwandan citizens who committed such crimes in the territory of neighboring States during 1994. Since, according to the interpretation of The UN Security Council, there was no armed conflict in this case, this Tribunal has jurisdiction neither for the criminal offence comprised of “grave breaches of the Geneva Conventions of 1949” nor for “violations of the laws or customs of war”.¹⁹

¹⁵ M. Simović, M. Blagojević, V. Simović, *Međunarodno krivično pravo*, Banja Luka, 2013, pp. 27-30.

¹⁶ B. Ivanišević, G. Ilić, T. Višnjić, V. Janjić, *Vodič kroz Haški tribunal*, Beograd, 2007, pp. 65-67.

¹⁷ P. Novoselec, *Opći dio kaznenog prava*, Zagreb, 2004, pp. 499-500.

¹⁸ B. Petrović, D. Jovašević, *Međunarodno krivično pravo*, Sarajevo, 2010, pp. 117-121.

¹⁹ S. Horović, *Genocid, ratni zločini i zločin protiv čovečnosti*, Zbornik Pravnog fakulteta u Mostaru, Mostar, 2004, pp. 99-113.

To be exact, the Statute (known as The Statute of The Rwanda Tribunal) is familiar with three types of crimes against international law. These are:

- 1) Genocide (paragraph 2),
- 2) Crime against humanity (paragraph 3),
- 3) crime comprised of serious violations of paragraph 3 common to the Geneva Conventions from 1949, and of Additional Protocol II thereto from 1977 (paragraph 4).

The crime against humanity according in the criminal law of the Republic of Serbia

The system of international crimes

Chapter 34. of the Criminal Code of The Republic of Serbia contains the following "genuine" crimes against international law.²⁰

- 1) Genocide (paragraph 373),
- 2) Crime against humanity (paragraph 371),
- 3) War crime against civilian population (paragraph 372),
- 4) War crime against the wounded and sick (paragraph 373),
- 5) War crime against prisoners of war (paragraph 374) and
- 6) Organizing and Incitement to Genocide and War Crimes (paragraph 375).

The word "genocide"²¹ is a compound, created from a Greek word *genos*, meaning nation or tribe, and a Latin word *caedes*, which means killing or slaughter (massacre). When translated literally this word stands for the extermination of an entire nation or tribe. Genocide was proclaimed as "a crime against international law, which is in contradiction with the spirit and the aims of the OUN and condemned by the entire civilized world" by OUN General Assembly Resolution 96/1 from 11 December 1946²².

In spite of the fact that it initially emerged as a "subspecies of crime against humanity", genocide rapidly obtained autonomous status and contents as one of the most serious crimes of today. Nowadays, it is also called "the crime above all crimes". As a crime against international law, genocide is determined by three elements:²³

- 1) The objective component - *actus reaus*,
- 2) The subjective component - *mens rea* and
- 3) The subject of the act - the victim (the group).

The source of this incrimination is found in Convention on the Prevention and Punishment of the Crime of Genocide from 1948, which defines the contents and the elements of this crime against international law. In legislation, theory and practice this term has a more extensive interpretation. Namely, this expression includes not only killing but also extermination, committed in any other way, of a particular group that forms a consistent entity based upon national, ethnical, racial or religious foundation. The subject of protection includes humanity and international law.

²⁰ D. Jovašević, *Krivično pravo, Posebni deo*, Beograd, 2014, pp. 322-341.

²¹ D. Jovašević, *Međunarodno krivično pravo*, Niš, 2011, pp. 80-92.

²² Official Gazette of the SFR Yugoslavia No. 56/1950.

²³ Lj. Lazarević, B. Vučković, V. Vučković, *Komentar Krivičnog zakonika Crne Gore*, Cetinje, 2004, pp. 1021-1023.

Crime against humanity – notion and basic characteristics

Crime against humanity²⁴, defined in paragraph 371. of The New Criminal Code of the Republic of Serbia (2005),²⁵ represents a newly introduced criminal offence²⁶ whose establishment is related to the Statute of The International Military Tribunal from 1945 and the Nurnberg Judgment.²⁷ It is a serious crime against international law that threatens characteristic values of the entire mankind, or values that are considered as generally humane. The development of the concept of crime against humanity was predominantly influenced by the idea of the need to protect fundamental human rights and freedoms.

Crime against humanity²⁸ (*crimen iuris gentium*) is based upon violations of fundamental laws of humanity, i.e. each person's right to life and the right of each ethnical group to exist as such.

Accordingly, the acts in question are directed against the conditions that are essential for the survival of a human being, individual human groups and mankind as a whole. Therefore, legal theory points out the following elements of crimes against humanity.²⁹

1) The latter are considered as particularly abhorrent violations that seriously offend human dignity and cause humiliation of one or several persons

2) These crimes are not isolated or sporadic cases, but are committed as a part of certain state government's politics or as an extensive or systematic practice, which is tolerated, pardoned or accepted, either by the official government or by the unofficial (*de facto*) regime,

3) The acts in question are prohibited and punishable whether committed in war or in peace,

4) The victims of this crime can be the civilians, or, if committed during an armed conflict, persons who do not participate or who no longer participate in the conflict, as well as the combatants of the opposite party, in accordance with the international customary law.

²⁴ D. Jovašević, *Krivično pravo, Posebni deo*, Beograd, 2014, pp. 324-325.

²⁵ Official Gazette of the Republic of Serbia No. 85/2005, 88/2005, 115/2005, 72/2009 and 111/2009. More: D. Jovašević, *Krivični zakonik Republike Srbije sa uvodnim komentarom*, Beograd, 2007.

²⁶ Previous absence of this incrimination has been justified by the fact that it has been covered by the crime of genocide, but contemporary practice related to the civil war on the territory of former Yugoslavia indicated that some crimes against the civilian population cannot be treated as genocide since not being aimed to destroy, in whole or in part, a national, racial, religious or ethnical group, whereas the time of their perpetration does not allow them to be considered as war crimes against the civilian population.

²⁷ It is assumed that one of the first judgments dealing with crime against humanity is the judgment of The Special Court of Cassation of Holland from 1949, saying that the characteristics of the crimes of this category include gravity and ferociousness, large extensions, the fact that they represent a part of the system aimed to spread terror or a link in politics deliberately conducted against some groups of population

²⁸ Z. Pajić, *Zločin protiv čovečnosti – problem međunarodne odgovornosti*, Jugoslovenska revija za međunarodno pravo, Beograd, No. 2-3, 1986, pp. 304-316.

²⁹ B. Petrović, D. Jovašević, *Krivično (kazneno) pravo II, Posebni dio*, Sarajevo, 2005, pp. 42-44.

This criminal offence is committed if a person, in violation of the rules of international law, as part of a wider³⁰ and systematic³¹ attack against civilian population³² orders or commits: murder, inflicting on the group conditions of life calculated to bring about its complete or partial extermination,³³ enslavement, deportation, torture, rape, forcing to prostitution, forcing pregnancy or sterilization aimed at changing the ethnic balance of the population, persecution³⁴ on political, racial, national, ethical, sexual or other grounds, detention or abduction of persons without disclosing information on such acts in order to deny such person legal protection, oppression of a racial group or establishing domination or one group over another, or other similar inhumane acts that intentionally cause serious suffering or serious endangering of human health.

The subjects of protection are humanity and international law.

The subject of the attack is the civilian population, i.e. members of the entire non-combatting population regardless of their citizenship, who found themselves on the occupied territory or territory under the regime of the opposite party.

Although this criminal offence is committed by conducting certain acts against individuals, its aim is not to eliminate those individuals as particular persons but to contribute to the conduction of a wider or systematic attack directed against the entire civilian population. Accordingly, the intent is to destroy (exterminate) the entire or the majority of the civilian population, whereas the elimination of individuals represents only a means of accomplishing this intent. Namely, it refers to acts repeatedly committed against civilians on grounds of or with the intent to realize particular state's politics or the politics of a certain organization (e.g. a political party or similar organization). The aim of this incrimination is to ensure every person's right to life along with providing respect of fundamental human rights and freedoms.³⁵

The actions to exhibit of this crime

The criminal act is comprised of a series of diverse acts that can be divided into several categories:³⁶

1. Killing another person-murder,

³⁰ The term "wider attack" should be interpreted as the fact that the armed conflict is taking place on a broader territory.

³¹ The term "systematic attack" should be interpreted as a planned attack, on which an arrangement has previously been achieved and certain directions given. The plan can be incorporated in a broader military or political plan, but can also be related to particular operations.

³² The attack directed against the civilian population signifies the behavior that includes repeated perpetration of the acts enumerated in the law against any civilian population, on the grounds or with the aim of certain state's politics or the politics of an organization to commit such attack.

³³ Extermination includes deliberately imposing such conditions, especially deprivation of access to food and medicaments, which can cause the destruction of a part of the population.

³⁴ The persecution can be related to any group of people or community on political, racial, national, ethnical, cultural, religious, sexual, or other grounds, which is universally recognized as unacceptable in international law with regard to any criminal act. This situation includes deliberate and severe deprivation, or denial of fundamental human rights and freedoms due to the membership in a particular group of people or community, which is in contradiction with international law.

³⁵ M. Simović, M. Blagojević, V. Simović, *Međunarodno krivično pravo*, Banja Luka, 2013, pp. 130-135.

³⁶ B. Petrović, D. Jovašević, A. Ferhatović, *Krivično parvo 1*, Sarajevo, 2015, pp. 163-168.

2. Inflicting on the population or its part conditions of life calculated to bring about its complete or partial extermination,³⁷

3. Enslavement or compulsory deportation of the population

4. Torture,

5. Raping, forcing to prostitution, forcing pregnancy or sterilization aimed at changing the ethnic balance of the population

6. Persecution³⁸ grounded on political, racial, national, ethical, cultural, sexual or other grounds,

7. Detention or abduction of persons without disclosing information on such acts in order to deny such person legal protection,

8. Oppression of a racial group or establishing domination or one group over another,

9. Other similar inhumane acts that intentionally cause serious suffering or seriously endanger human health

The criminal act can be perpetrated in two ways:

1) By ordering and

2) By directly committing the act.

Giving order to commit the previously mentioned acts represents a particular and an autonomous act of crime against humanity.

In general, ordering represents a form of incitement. However, in this case it is not treated as complicity, but as a special way to commit this criminal offence. This criminal offence is usually committed in an organized and systematic manner in accordance with a previously designed plan, giving a special power to the order of a superior, which causes the autonomous nature of its criminal responsibility. To be exact, the superior will be responsible for having ordered crime against humanity to be committed even if the subordinate refused or in any other way avoided to obey such order.

It is essential for the criminal act that one or more acts are committed repeatedly:³⁹

1) By violating rules of international law and therefore unlawfully, which the perpetrator has to be aware of and

2) As part of a wider and systematic attack directed against any part of civilian population.

According to the grammatical interpretation of this paragraph, one might conclude that this criminal offence can be committed only during an armed conflict („within the attack“), which is incorrect. It is more appropriate to assume that crimes of this kind can be committed during as well as after the armed conflict, as long as the criminal acts are being perpetrated in the context of wider or systematic attack directed against the civilian population.⁴⁰

³⁷ Extermination includes deliberately imposing such conditions, especially deprivation of access to food and medicaments, which can cause the destruction of a part of the population.

³⁸ The persecution can be related to any group of people or community on political, racial, national, ethical, cultural, religious, sexual, or other grounds, which is universally recognized as unacceptable in international law with regard to any criminal act. This situation includes deliberate and severe deprivation, or denial of fundamental human rights and freedoms due to the membership in a particular group of people or community, which is in contradiction with international law.

³⁹ D. Radulović, *Međunarodno krivično pravo*, Podgorica, 1999, pp. 115-120.

⁴⁰ Z. Pajić, *Međunarodna odgovornost za zločin protiv čovečnosti u svetlu nimbberških načela i savremenih shvatanja*, *Godišnjak Pravnog fakulteta u Sarajevu*, Sarajevo, 1986, pp. 109-134.

The consequence of the act emerges as an injury or as the deprivation of fundamental human rights and freedoms of the civilian population. It can be completed by causing a smaller or a larger amount of individual consequences. The number of individual consequences does not influence the existence of the criminal offence, but has an impact on the determination of punishment.⁴¹

Any person can be the perpetrator of this criminal offence, and, when guilt is concerned, direct premeditation is required.

The punishment prescribed for this criminal act is minimum five years' prison or thirty to forty years' prison.

The New Criminal Code of the Republic of Serbia from 2005. explicitly points out that this criminal offence is not subject to limitations on criminal prosecution and limitations on enforcement of penalty.

Conclusion

International criminal law, as a system of legal regulations found in acts of the international community and criminal legislations of individual states, establishes criminal liability and punishments for crimes against international law. These acts represent breaches of the laws and customs of war (international humanitarian law) that violate or threaten peace among nations and the security of mankind. Penalties prescribed for these criminal offences stand for the most severe penalties in contemporary criminal legislation.

In some cases, international judiciary (supranational) institutions such as The Nurnberg and The Tokyo Tribunal, The Hague Tribunal, The Rome Court etc. have primary jurisdiction over perpetrators of these criminal offences. Due to its significance, nature and character, the crime above all crimes stands out among all the crimes against international law. It is the crime against humanity.

Crime against humanity (*crimen iuris gentium*) is based upon violations of fundamental laws of humanity, i.e. each person's right to life and the right of each ethnical group to exist as such. Accordingly, the acts in question are directed against the conditions that are essential for the survival of a human being, individual human groups and mankind as a whole.

Therefore, legal theory points out the following elements of crimes against humanity : 1) the latter are considered as particularly abhorrent violations that seriously offend human dignity and cause humiliation of one or several persons, 2) these crimes are not isolated or sporadic cases, but are committed as a part of certain state government's politics or as an extensive or systematic practice, which is tolerated, pardoned or accepted, either by the official government or by the unofficial (de facto) regime, 3) the acts in question are prohibited and punishable whether committed in war or in peace and 4) the victims of this crime can be the civilians, or, if committed during an armed conflict, persons who do not participate or who no longer participate in the conflict, as well as the combatants of the opposite party, in accordance with the international customary law.

This criminal offence (inclusion international criminal law and criminal law of the Republic of Serbia) is committed if a person, in violation of the rules of international law, as part of a wider and systematic attack against civilian population orders or commits: murder, inflicting on the group conditions of life calculated to bring about its complete or partial extermination, enslave-

⁴¹ B. Pavišić, V. Grozdanić, P. Veić, Komentar Kaznenog zakona, Zagreb, 2007, pp. 428-431.

ment, deportation, torture, rape, forcing to prostitution, forcing pregnancy or sterilization aimed at changing the ethnic balance of the population, persecution on political, racial, national, ethical, sexual or other grounds, detention or abduction of persons without disclosing information on such acts in order to deny such person legal protection, oppression of a racial group or establishing domination or one group over another, or other similar inhumane acts that intentionally cause serious suffering or serious endangering of human health.

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IMPROVING MODERN INTELLIGENCE ANALYTICAL CAPABILITY

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The modern era is characterized by globalization, fast technology development and innovation. Dynamic environment, demanding customers, competitive opponents and business partners, a dramatic increase of data quantity are some of biggest problems modern analysts are faced with. An advanced form of methodology and technology should provide a vigorous and fast examination of a large amount of different types of data. A technological solution is important for strengthening analytical capabilities, but human resources are still crucial.

Key Words: *Business analysis, Intelligence, Big Data, Forecasting, Uncertainty*

Introduction

The role of analytics in business and intelligence is more important than ever. Military strategies have always instructed us that good intelligence can provide different solutions, deter an enemy attack or prepare forces for an active defense and counter attack. There is a chapter in the best known ancient military strategy dedicated to intelligence and the role of spies. The main task of intelligence is mentioned in the statement: "The greatest victory is that which requires no battle" [1]. In business, understanding of environment and competitive capabilities is crucial for making strategies, plans and decisions.

The modern era is characterized by globalization, fast technology development and innovation. The nature of contemporary security and economy relations is affected by emergence of new, non-traditional and non-state actors who are taking advantage of benefits of modern era and tend to create a more unstable, hard-to-predict situation. Reducing uncertainty in those circumstances is a very difficult task, which is why both the intelligence and business community are trying to find a way to improve understanding of important actors, events and processes. That is of greater value than collecting and analyzing classified and open sources information, and it can take many forms and involve many types of analytical products. The aim is to learn more about what is known, what remains unknown, and which processes and events can jeopardize our strategy and plan [2].

The dynamic environment and increasingly unstable and competitive situation stimulate intelligence analytics to find new methods and tools for increasing confidence in their product by providing timely, precise and accurate products for decision makers.

Competitive Intelligence

Modern business environment requires constant evaluation of conditions in which the business is conducted, as well as market research and monitoring of capacities and intentions of competitors. For this purpose, and apart from constant improvement of one's own capabilities, it is necessary to make decisions, based on timely and good information, that contribute to more efficient business and better market positioning against competition.

The modern age, characterized by the globalization process and rapid development of technology, provides great opportunities and facilitates the monitoring of business environment. That situation offers the possibility of simpler access to information, raw materials, business partners and buyers from all around the world, whereas, on the other hand, the business management becomes susceptible to risks of consequences related to events and processes carried out in other business areas or parts of the world. Besides, mass use of PCs, various personal devices, smart phones, Internet etc. in the last few decades resulted in massive increase of number of users. They change their habits, more or less, and adapt to a new, virtual world. This way, huge number of generated data may provide managers with new knowledge relevant for decision making. At the same time, there is a necessity to discover new ways to adapt to conditions under which it is becoming more and more difficult to correctly analyze information, identify risks, important processes and trends and forecast changes and significant events of decisive importance for selecting business strategies and policies.

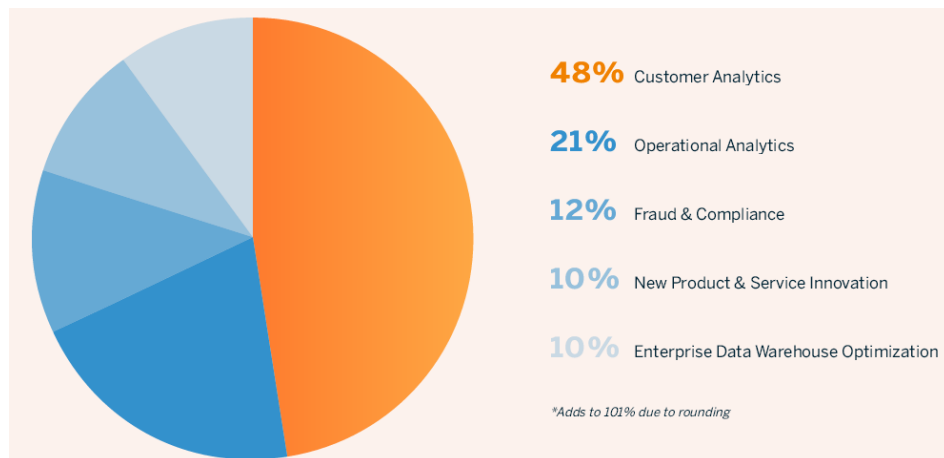


Figure 1 – Assessment of Information Type Ratio (Datameer, 2016)

There are various definitions of competitive intelligence, but they all basically refer to gaining information related to a certain type of business important to a company profile. This can be achieved by searching public available data or interviewing people with knowledge about needed information. The primary research is very useful for developing broad context and awareness about current situation on the market and for detecting

trends. However, for a wider insight it is necessary to carefully analyze existing data, make objective assessments and forecast market trends with respect to the competitors. In this manner the decision makers are able to foresee the upcoming market developments, adjust their business strategy and allocate resources for a more effective approach in the future. For all the reasons mentioned above, the need for collection and processing of information about customers and competitors will be in even higher demand [3].

In the era of rapid, hard-to-predict changes, this great challenge could be overcome if the problem is approached in a comprehensive manner, by using experience and results of scientific research in this area. There are some disciplines that should be able to offer an answer based on scientific principles regarding the issue of making low-risk business decisions. For that reason, development of business analytics is very important as it encompasses possibilities of informational technologies, managers' demands and challenges of doing business both in the present and in the future. A significant number of governments and private organizations are interested in developing analytical capabilities and forecasting technics and methods. There are organizations and agencies specialized in gathering and processing information, preparing evaluation and analysis, as well as predicting future developments. They use technics and methods which are based on experience and scientific principles, while analysts are provided special training during which they gain necessary knowledge and abilities in order to make more accurate and realistic predictions.

Intelligence Challenges

Even though the modern era introduced numerous opportunities, it also brought certain problems and difficulties that hinder the collection and processing of data. Availability of contemporary communication technologies makes it easier to collect data but harder to choose quality information relevant for brainstorming and decision making. Contemporary analytics is therefore posed with a problem of defining priorities properly, classification of available information for their reliability and quality of new knowledge. In addition, analysts should be prepared to handle a huge number of various and different pieces of available information, best described by terms *Big Data* and *Internet of Things*.

Big Data is a phenomenon which occurred as a result of a large increase of available data in digital form, that are incurred by a variety of personal and industrial electronic devices, social networks and others. However, there is more to it than just a quantitative increase. It is also a qualitative change of the way in which new knowledge is created, which leads to major changes in economy and business [4]. A vast number of available data, largely unnecessary and of suspicious value, impose the need to improve the existing methodology for their collecting, storing, processing and analysis. Current philosophy aimed at collecting data should be adapted in the sense that more attention in the earliest stages of the cycle is devoted to selection of necessary data, choosing the best methods for collecting information, as well as improving the analysis and presenting the results.

The Big Data phenomenon affects not only the commercial sector, but the functioning of the state institutions and agencies as well. The large increase in the number of users, devices and data is extremely important for the defense and national security sector. The development of technology, reduction of costs and increase of the number of services have

led to high availability of information to government agencies and the private sector, but have also increased the risk of security threats, especially non-traditional ones. Publicly available information relevant to security are also available to various extremist or terrorist organizations, groups and individuals. In addition, the existing infrastructure, databases, as well as data exchange and processing are all subject to, and may be exposed to unauthorized access and even modification, which may lead to major problems in the functioning of institutions, critical infrastructure and the like. "Technological advances also create the potential for increased systemic fragility as foreign governments and non-state actors attempt to leverage new and evolving technologies to press their interests" [5].

Security situation in the world is becoming more complex and challenging than before. For those tasked with preventing and responding to local, national, and global public threats to security, the amount of potentially useful data is enormous. This can be overcome by using modern software tools and techniques for data collection from multiple sources and advance analytics methods aimed to provide timely intelligence and objective insight [6].

Besides changing the conditions in which organizations operate, technology development has also led to increasing demands by users of reports, analysis and assessments. Regardless of whether they are owners or directors of companies, directors of various sectors or users of intelligence information in state institutions, the level of demand has increased. The users are more educated and have more means of data collection, therefore further efforts must be made in order to preserve the exclusivity of information. Customers and their requests are constantly changing, which is why analysts should establish and keep the integrity for every one of them [7]. Intelligence consumers seek a more in-depth analysis, whose focus is on methodology, assumption and forecast. Providing a high level of credibility of an analytical product in the eyes of the costumers is a long standing goal [8]. There is a higher degree of competitiveness between private companies and agencies that offer collecting and processing data services.

The changes in the private and government sectors are due to be implemented in financially constrained circumstances. While the need to preserve the competitiveness is crucial for the survival of companies, investing in data collection and protection of infrastructure and data is often not sufficient. All this imposes the need for constant review of the efficiency and effectiveness of the existing system, as well as exploring ways to improve the possibilities for data collection and processing in modern conditions.

There is both financial and security concern regarding that type of programs. The European Union will invest 120 billion euros over the next five years into creating a "digital single market". That initiative is aimed to design "free flow of data within the EU" with financing emerging technologies such as Internet of Things (IoT), 5G and quantum computing. Sharing data and cross-border cooperation in the EU is a good idea in theory, but security concerns as well as member states' law limitations and willingness make it far-fetched in practice [9].

Business Analysis in Complex Environments

Business analysis is deeply affected by the Big Data phenomenon. Modern business conditions contribute to the rapid development of some disciplines that should be able to offer an answer based on scientific principles regarding the issue of how to make a business decision with less risk.

There are three main types of business analytics that offer various solutions – descriptive analytics, predictive analytics and prescriptive analytics [10]. At the initial level, there is a phase of reporting about certain processes as well as analyzing the reasons why the results of production, sale, etc. are the way they are. This part of descriptive analytics contains data and reports about current indicators important for business management, such as utilization of capacities, availability of stocks etc. The next phase of the predictive analytics encompasses an assessment about what may happen, as well as probability of certain events significant for business management. The most complex is prescriptive analytics, which should develop various scenarios and simulations in order to properly evaluate the results and consequences of decisions made.

Commercial sector makes use of the new technologies' potential, especially in monitoring costumers' behavior and consuming routines. Based on modern sophisticated algorithm and advance software, a marketing expert can explore, analyze, explain and provide understanding of costumers' behavior and consumption pattern. As a result, they can predict costumers' wishes, suggest appropriate approach to the client and prepare customized offers.

Contemporary Intelligence Analysis

The ultimate goal of national intelligence is the same as it was in the past: to suppress the attack by gathering information about the enemy. Intelligence of today has to produce new insights and knowledge about real and potential threats by collecting and analyzing political, economic and military information. In the past it mainly consisted of collecting secret information, but nowadays intelligence covers broader topics and means for creating understanding about important subject of political and military interest. That paradigm shift is inspired, among other things, by effects of globalization, technological development and appearance of many non-traditional and non-state threats.

The complexity of modern analytic tasks, sources, disciplines, costumers and forms of reports can be seen from the next figure [11].

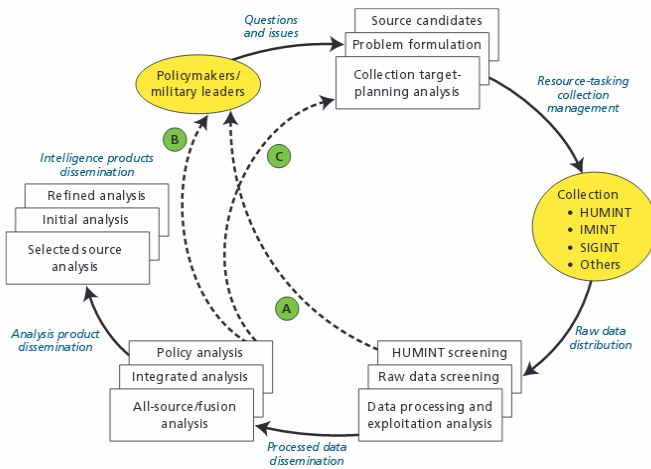


Figure 2 – An Illustrative Intelligence Cycle (Treverton, 2008)

One of the most important characteristics of current and future intelligence is utilization of flow and accessibility of enormous amount of digital data. Software acquisition and implementation of commercial solutions about collection, storage and data manipulation present a starting point for modern intelligence. Since more data and information are generated by users and social networks, more investments are aimed at mobile personal platforms, which increases opportunity for collection and analysis. Enormous flows of data create other challenges. The old fashion defense intelligence was based on seeking secret information about the enemy which was very hard to find. Nowadays, it is expected that intelligence agencies manage enormous quantities of data using data and computer science, statistics and other related disciplines. Big Data enforced the development of advanced analytical tools with intuitive interfaces and visualization solutions which can be applied in defense intelligence. Massive use of portable devices and sensors in various fields (industrial, cars, navigation, home appliance...) and emerging communication capacities and numerous link channels forced scientific research and development in intelligence community (IC). However, the real opportunity for defense is monitoring research processes and achievements in the commercial sector, as well as using and customizing developed modules and solutions instead of dictating requirements. [4]

Innovative Action for More Agile Business and Intelligence Analytics

Modern analytics faces numerous challenges. Customer requirements are becoming more complex, and the circumstances of data collecting and processing demand improvement of existing and search for new methods and techniques of analytical processing. Making analysis and assessments is very difficult, bearing in mind that the companies and agencies are faced with changes which are very rapid and getting harder to predict.

In order for the agencies, organizational units and analysts to be better prepared for the challenges of current and future environment, it is necessary to take measures to ensure a more efficient functioning and realization of the goals set under ever demanding conditions.

Organizational Measures

Government intelligence agencies took a lot of actions in order to increase efficiency of the intelligence process. There are no unique organizational schemes, scopes and responsibilities of departments of an intelligence agency. The resources and assigned tasks determine the agency structure which is to provide the most effective management and balanced use of resources in times of limited finances and requirements growing in complexity.

The larger organizations are often faced with problems of centralization and duplication of lines of communication, resource engagement and reaching common understanding. An organizational structure has to provide a possibility for better synchronization, cooperation and much tighter integration.

That problem is characteristic for huge organizations, such as the US Intelligence Community, which consists of 17 agencies with more than 100.000 employees (about 20.000 analysts) [12]. Managing that enterprise is a big challenge. After the terrorist attack on 9/11, a specially formed commission concluded that elements of IC need to be coordinated better. The conclusion led to establishment of the Office of the Director of National Intelligence (with about 1.500 employees). The Office is run by the Director of National Intelligence with the main purpose to coordinate national intelligence elements and control more than 65\$ billion overall budget for intelligence activities. However, a mere reorganization without a comprehensive strategy and a clear plan will not bring expected results.

Intelligence community in the United States is constantly introducing innovations which aim to increase efficiency and functioning in Big Data era. The future of intelligence analysis is much more than shifting of organizational boxes [12]. The impact of technological development and growing threats forced Central Intelligence Agency (CIA) to create a new directorate for the first time in 50 years – Directorate of Digital Innovation [13]. Similarly, the National Security Agency (NSA) has initiated a Trusted Systems Research Group, and has partnered with North Carolina State University to fund a new Laboratory for Analytic Science. Some projects involve organizations outside intelligence community and are conducted by public and private research activities, such as: Defense Advanced Research Projects Agency (DARPA); Intelligence Advanced Research and Projects Activity (IARPA); Advanced Research Projects Agency-Energy (ARPA-E); and the national laboratories [8].

Prioritization of Resources

The main task of leadership is to provide sustainable human and material resources and accordingly prioritized tasks and activities. This is extremely complicated in dynamic environment and budget constraints. In combination with inadequate organizational solutions, it may lead to a loss of resources and reduced capabilities. For example, the changes in the organizational structure of the Defense Intelligence Agency at the end of the 20th century had mixed results. It is very important to find an appropriate approach and carefully consider potential cut in resources in context of missions and security environment [14]. About that time (the end of the Cold War), the Director of National Intelligence stated that intelligence agencies achieved about 23 percent reduction, many stations were closed and a number of collectors and analysts was reduced [15]. Consequently, those decisions had a big impact on functioning of intelligence community today.

It may be deducted from the statement of former Commander of the US European Command and NATO Commander General Philip Breedlove how important it is to timely identify course that could significantly change our understanding and knowledge of processes important for security. Namely, General Breedlove analyzed the reasons for the surprise effect on the United States by the performance of Russia in Ukraine in 2014. General considers that at that time the US intelligence community was engaged in several regions for a longer period, and that their resources were engaged far from Russia for several decades (the Middle East, Afghanistan, the first and the second war in Iraq, the fight against terrorism after the attacks of Al Qaeda on the US on 11 September 2001 ...). Those were the decisions made, and priorities were set accordingly. Russia was monitored mainly on the strategic level

(nuclear weapons), and the operational and tactical level of military capabilities' development was monitored with reduced capacity. It is only now that significant analytical capacities are directed towards the Russian Federation, while decisions about engaging other intelligence capacities are still pending. [16]

Procedural and Methodological Measures

A traditional intelligence process involves collecting data from different types of sensors or sources. In that system analysts have to find, collect and compile pieces of information. Information, which is more or less manually accumulated, then has to be analyzed. According to a research, at least 50–80 percent of analyst work is related to searching and preparing information before using them for analysis [17]. A large amount of data makes the system ineffective and an analyst becomes overwhelmed with diminished possibility to make sense of it.

The problem should be minimized by developing IT architecture and software which provides an analyst with more time to focus on hard, key problems. This would enable understanding patterns of interested processes and actions, discovering links among objects and identifying abnormal functions and activities. Better system integration will increase analytical efficiency and improve the quality of analytical products. Enhanced cooperation between collectors and analysts, as well as constant innovation will improve efficiency of collecting and analytical accuracy [18].

The traditional analytical process is focused on targeted collection and single-source analysis, but some information may not be properly examined at early stages without being associated and integrated with more data. An advanced form of methodology and modern technology should provide a vigorous and fast examination of a large quantity of different types of data. Moreover, it will be possible to automatically identify trends, data overlap and intersection. An analyst will find it easier to identify when levels rise above normal values and discover indicators of a potential threat [19].

Technological Measures

Defense budgets are under constant fiscal pressures, which forces leadership to create a climate for a more effective use of resources and setting the goals according to priority. Cooperation with commercial sector provides the opportunity that some of these tool and technique are used in defense intelligence. The leaders of technological research and development are no longer exclusively founded by the government and a clear line in that field doesn't exist anymore [18]. Elements and systems that civilian high-tech companies offer are in some critical military capabilities more advanced than that of traditional defense industry [20].

A very interesting example of cooperation between the government and private sector is the Intelligence Advanced Research Projects Activity – IARPA, agency created to enhance research and development in the US intelligence community. One of IARPAs main tasks is the cooperation with private sector and academic community through funding joint projects. One of IARPAs topic of interest is how to maximize understanding of massive and dynamic scope of data in a timely manner [21]. Similarly, the Defense

Advanced Research Projects Agency – DAPRA, with an almost \$3 bn budget, run many innovative projects. One of the newest, successfully developed and tested projects is integration of low-cost software run on Android platforms for close air support. By using that system on a tablet computer, a helicopter missile was launched on a target seven times faster than in a current procedure and it offered an analyst and tactical commander more time to prioritize targets and make decisions. This way airstrikes can be generated in less time and with greater precision using less ammunition [22].

Human Resource Measures

A technological solution is important for strengthening analytical capabilities, but human resources are still crucial. Investing in a better and modern technological solution will produce a result only if both collectors and analysts are capable of using them. In order to build necessary skills it is important to constantly invest in people. Improving analyst performance will ensure an adequate response of intelligence in a dynamic environment.

Comprehensive improvement of a training program should be based on the current set of skills and expected level of performance. It has to be adjusted with responsibility level and constantly updated. The US Defense Intelligence Agency (DIA) prepared different types of courses for their employees. An extensive formal training is provided for beginners in their first six months of employment. A special course is developed for middle level analysts, while senior rank executives attend short, three day refresher course [18].

When employing new personnel, it is necessary that the chosen applicants meet the current and future requirements with adequate preparation. In an increasingly complex world, the DIA realized that they should occasionally employ people with non-traditional skills in order to be able to overcome the situations in which traditional tools and methodologies cannot be fully applied [18]. Desirable critical analytical skill can be defined based on previous experiences. The important ones are motivation and commitment in resolving problems; ability to separate important from unimportant issues, as well as facts from assumptions. The most important characteristic is the ability to break the problem into smaller parts, analyze the validity of available data and their impact on the problem solution.

An important characteristic of a good analyst is the ability to present a problem in a way it was recognized in the past, as well as to determine principles that reoccur and could be used for resolving a concrete problem. Apart from that, it is an imperative to be able to separate personal experience and opinion from the available facts. In a dynamic environment an analyst has to explore different types of information, and to seek beyond the arguments that support his view. Those who are willing to revise their point of view due to changes and new information will provide better results. Superior analysts are mostly pragmatic, open-minded, they carefully seek, select and check information. They are curious and able to analyze data from different fields gained from different sources.

Carefully prepared training can improve those skills. It is important to note that teamwork boosts analytical performance [23]. A good team organization and quality interaction among motivated members grants good results. Analysts have to be able to express their opinion

without fear, they have to listen and accept different, and opposite opinions if they contribute to better analyses of the situation and precision in assessments. But if there is a lack of communication and slow dynamics, imposing opinions and unhealthy competition, the results of prediction and assessment could be wrong [24]. Bearing in mind all mentioned above, it can be concluded that the structure of a team is very important and that a good preparation, interaction and teamwork lead to a better analytical product.

In order to yield a better assessment, apart from individual abilities and characteristics of analysts, it is important to constantly upgrade analytical procedures. For a more efficient work, development and improvement of the assessment quality it is necessary to monitor its results in the future, i.e. to what degree the assumptions materialize. Even if time shows that the results are not good enough, it is important to study initial data and identify reasons for making a wrong assessment. Without additional analyses and conclusions, the process cannot be upgraded and reaching high level of analysis is almost impossible.

There are other authors who support this concept. For example, prominent Richard Hauer wrote about methods and technics that can help in overcoming problems in intelligence analytics. He considers that it is very hard to find a good way to define adequate evaluation criteria for probability of the development, which leads to a problem when performing a complex analysis. Bearing that in mind, he points out the need to improve analytic technics and create new "analytic culture", different from the current, with improved coordination among analysts, continued testing and questioning of the initial hypothesis, improved selection and training [12].

Conclusion

In very complex conditions, characterized by fast and very hard to predict environment, business and defense intelligence should be agile and adaptable to new circumstances. The role of leadership is crucial in that process, in a way that they should understand the needs for constant changes and improvements of performance.

Business and defense analysts are faced with similar challenges. Dynamic environment, demanding customers, competitive opponents and other business partners, a dramatic increase of data quantity are some of biggest problems modern analysts are faced with. They cannot deal with those challenges without adaptable methodology, sophisticated algorithms and tools and high skilled personnel. The topics cover broad and complex political, cultural and religious context, and the analyses, assessments and forecasts have to be supported and compared with experts outside the subject matter. When faced with numerous traditional and non-traditional, state and non-state risks and threats, making priorities is even more important than in the past. Limited resources and constant budget pressure result in closer cooperation between commercial and government managers.

The role of leadership is critical: a success or failure in the future is deeply related to and determined by the quality of today's decisions. Vital decisions about national security are and will be guided by, among others, intelligence and different forms of analytical products. Business and intelligence analyses have even more importance in the information age than in the past.

In the time of global news channels and abundance of information available on personal devices, analysts do not have a comfortable role of briefing on current events. It is expected that they offer objective assessments, precise, in-depth analyses and more accurate forecasts. That is possible by increasing the analytical capacity, which is achieved by engaging actively in the planning process, guiding a more focused collection, developing innovative and suitable methods and tools, as well as by conducting long term researches in close cooperation with scientific and academic institutions and commercial industry.

Technology innovation and modern analytical techniques cannot provide the desired outcome of analytical process on their own. In the end, there will always be skill and trained analysts with experience, commitment and passion. Improving their capabilities for fast and constant adaption to changeable environment is the ultimate goal. Continual search for the right balance among human competencies and advantages of new technologies is the answer and a way how modern business and intelligence analytics can be prepared even better for current and future challenges.

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PROPOSAL OF METHODOLOGY FOR IMPROVEMENT OF COSTING IN THE SERBIAN DEFENSE ORGANIZATION

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Costings are absolutely essential to the efficient operation of any defense organization and an immediate effort should be undertaken in Serbian MoD to determine if the current models produce usable costing data, and if not, that effort should be discontinued immediately.¹ This paper outlines a simpler and effective means to developing costing models. Based on this paper the requirements of the Serbian defense organization to adopt effective costing capability models could be as follows: decision by senior defense leadership to develop and implement basic costing models based on Western best practices using Excel as the basic vehicle on which the models are to be developed; decision by senior defense leadership that such data are inherently unclassified and are to be used throughout the entire defense organization to encourage the efficient use of resources. It is all but impossible to create within an organization a “costing culture” without current cost data made available to all planners and decisions-makers. As such, the results of the costings should be placed on the MoD’s website and made accessible not only to the defense organization, but also the general public as well; decision to review current defense planning procedures to require that all plans are fully costed before they are considered by defense leadership; decision to utilize the results of the full implementation of the operational planning procedures methodology thereby shifting from costings based on platforms, systems, and static units to producing the costings of extent and prospective “capabilities”.²

Key Words: defense organization, cost, costing, cost model, deployment, new capability

Introduction

The conduct or performing of any action or activity under the realm of defense organization business necessarily means the consumption of some kind of resources, but mainly economic resources. Furthermore, within a resource management

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¹ CCMR Report on the adoption of modern defense planning tools and techniques in the Serbian defense organization, 19 November 2012

² Ibid.

process, in our view, costing reflects the most essence process and provides potentially a powerful lever or tool of management over the entire defense organization, and not only defense organization rather any public or private sector as well.

Relevance of costing in defense organization

Within a defense organization, costing creates the necessary nexus and helps to understand fully relationships between interrelated and mutually conditioned processes from inputs, for given or relevant defense related plan, to outputs. Moreover, this means that costing should be embedded very deeply into the aforementioned plans and processes with the ultimate goal to support and provide as best as possible performance outcomes. In a defense organizational context this means to develop and sustain the vital defense organization and military capabilities with optimal defense resources allocations and consumption.

Further, taking into account the importance of costing and cost models as well, there is a pretty mess or better to say confusion, both in theory/literature and application/practice. This vexing situation can create a bad influence and confusion in the heads of top managers, so that there is a necessity of fully understanding the nature of a sound costing methodology and the capability to select and implement an appropriate model and supporting methodology as well.

The basic building blocks of costing are the operational measurements of consumed resources (resources include people, space, equipment, and consumables, these being the drivers of cost and levers of change). Such measurements enable managers to draw conclusions and make judgments about why (a) the organization's results turned out as they did (performance evaluation), (b) what this means for the future (planning), and (c) the probable results of available course of action (analysis and alternatives) all of which comprise essential information for effective decision making.³ Also, the application of judgment in providing good decision support for the top management of defense organization requires a clearly understanding of why and how cost information is to be used. For instance, if the goal is an improvement of operational capabilities of the Serbian Armed Forces that requires changes and developments of new strategic-doktrinal framework. In other words, appropriate nomenclature is needed to support the effective management actions, both regarding the optimization of resources consumed and optimal performance (outcomes). The inclusion of measurement of resources as an explicit stage in the costing process and cost model development has a deliberate purpose of costing interpretation and related outcomes for defense decision makers. Costing for decision support is valuable for performance improvement, i.e., value creation, "what if" analysis, and the effective and efficient application of an enterprise's resources and processes.⁴ The need for decision support usually requires a deeper diagnostic insight into the causes of events (why they happened), a clear and direct connection to operations (to evaluate change options), and support to planning for desired future outcomes.⁵

³ International Federation of Accountants, *International Good Practice Guidance*, Evaluating and Improving Costing in Organizations, July 2009, pp.5

⁴ Ibid.

⁵ Ibid., pp. 6

The relevance of costing and the cost models in defense organizations reflects through the techniques that reveal the key information for the critical development of options in the process of defense planning and, later on, their assessment and evaluation. Using costing effectively for decision making requires understanding clear, timely cause-and-effect relationships between an output and the inputs required to produce it.⁶

According to the International Good Practice Guidance for Evaluating and Improving Costing in Organizations there are six fundamental costing principles that will help organizations to evaluate and improve their approach to providing relevant and reliable managerial information, and thus according to my opinion, also could be applied within defense organizations to improve costing and defense organization management oriented to outcomes. This will enable, according to the context of aforementioned guidance, defense planners to provide a descriptive and historical view of costs and a predictive forward-looking view that together provide the basis for analysis, evaluation, planning, and decision support.

Missing professional personal profile

It is apparent that Serbian defense organization desperately needs professional defense accountants who will be capable of dealing with a broad base of capabilities in undertaking a variety of roles and missions of Serbian Armed Forces. These specific profiled professional cadres should provide and use costing information for defense resources management and support decisions made by operational Commanders as well. Moreover, professional defense accountants should have important roles to play in (a) ensuring that cost data are “fit for purpose”, (b) clarifying decision requirements, and (c) deciding how best to present information and analysis. This includes considering the relevance of revenue and cost information to the range of factors and issues pertinent to a particular decision.⁷

In performing such roles, professional defense accountants, necessarily have to possess the professional perspectives and the individual contributions of skills of other disciplines, such as specific military knowledge and experience, operational level knowledge and managers' experience, economists, combat systems expertise, defense system analysts, all of whom provide valuable insights. The professional defense accountants who design, use, or collect cost information must work closely with many other parts of a defense organization to analyze and interpret this information for decision making. In most cases, they will need to delve below the level of detail recorded in the defense action plans and required for appropriate development of planning options. Management accounting skills should be focused on the correct modeling of financial and non-financial data to optimize a defense organization, its use of resources (and their costs), and its outputs. Also, professional defense accountants need to understand where and why data used for defense plan development sometimes could be inadequate to support manage-

⁶ Ibid., pp. 8

⁷ For more details look at International Federation of Accountants, *International Good Practice Guidance, Evaluating and Improving Costing in Organizations*, July 2009

rial decisions, so that they can help defense organization to invest in developing an appropriate decision support model that is not impaired by the deficiencies of a system designed primarily for preparing financial statements. For example, where financial reporting standards typically focus on full cost, most decisions are marginal or incremental, and require robust information on fixed and variable costs throughout the organization. Furthermore, general ledger data is purely financial, yet the cause-and-effect relationships of operational inputs and outputs – and their cost impacts – are fundamental in identifying the actions needed to improve operational efficiency and effectiveness. Equally, professional defense accountants will inevitably involve in designing, developing, improving, and using costing models and techniques, so that as the supplier of costing information must have a continuing and close dialogue and relationship with those who prepare, analyze, and interpret cost information into inputs for defense plans, that reflect the changing needs of decision makers. Although the roles of supply of costing information and design/implementation of costing models can be separated, neither can be done well without appropriate knowledge of the other. Defense planners require advice on (a) identifying needed decisions, (b) what assumptions should apply to the inclusion/exclusion of specific costs, and (c) how costs change relative to changes in output or the quality of delivered outcomes. Moreover, professional defense accountants should undertake broader roles at a planning, plan implementation, and performance evaluation level. These roles involve delivering costing information that supports the preparation of plans and budgets, the accomplishment of strategic objectives for evaluating performance.⁸

Key Principles of Evaluating and Improving Costing That Can Be Applied in Defense Organizations⁹

The key principles underlying widely accepted good practice are:

1. **The importance of costing to good financial management:** the ability to identify, measure, interpret, and present the full costs as they relate to an organization's economic flow of goods and services, both historically and in a forward-looking context, is necessary for an informed understanding of the organizational drivers of profit and value.

2. **Fitness for purpose:** Cost information should be prepared in a manner appropriate to the specific context and purpose of its use, of which there are three principal applications:

- External reporting – historical and descriptive;
- Performance evaluation and analysis – interpretative and diagnostic;
- Planning and decision support – analytical and predictive.

⁸ Context tailored from International Federation of Accountants, *International Good Practice Guidance, Evaluating and Improving Costing in Organizations*, July 2009

⁹ Customized for purpose of the paper, and for practical guidance on implementing the principles see International Federation of Accountants, *International Good Practice Guidance, Evaluating and Improving Costing in Organizations*, July 2009

3. Business model/reality driven: Cost models should be designed and maintained to reflect the cause-and-effect inter-relationships and the behavioral dynamics of the way the organization functions. The information needs of decision makers at all levels of an organization should be taken into account, by incorporating an organization's business and operational models, strategy, structure, and competitive environment.

4. Materiality/cost effectiveness: The design, implementation, and continuous improvement of costing methods, data collection, and systems should reflect a balance between the required level of accuracy and the cost of measurement (i.e., cost-benefit tradeoff), based on the competitive situation of the organization.

5. Comparability over time and methodological consistency: Cost information should be collected and analyzed systematically and in such a way as to ensure comparability over time, whether in a routine information system, or for a specific application and/or purpose.

6. Transparency and auditability: Definitions and sources of cost data, the operational and other non-financial data underpinning them, and the methods of calculating costs, should be transparent to all users and recorded and capable of review, risk analysis, and assurance.

Note, each principle independently applies; principles should not be seen as steps in a process.

Taking into account the aforementioned costing methodology and principles, the same could be supplemented by the twelve costing continuum levels presented and detailed described in Information Paper of International Federation of Accountants *Evaluating the Costing Journey: A Costing Levels Continuum Maturity Model*.

The costing maturity model aims to help professional accountants apply their judgment in determining where an organization's capability is for supporting internal managerial analysis and decisions. The model can also help an organization decide to which level it should aspire to a given organizational requirements and the decision needs of employees. As such, it is a self-assessment tool that can be used by professional accountants to discuss with colleagues their organization's current practice and to consider appropriate actions for improving performance evaluation and analysis – interpretative and diagnostic, and planning and decision support – analytical and predictive. Although, the maturity journey is represented in 12 separate levels, some organizations may find themselves in-between levels, or already at various places on the journey. The significance of this cost maturity model is to highlight that cost models and supporting systems should reflect the underlying reality of the way the organization works, as far as affordability and materiality allow, and within the context of the required business decisions. The cost maturity model can also help professional accountants to play a central role in educating users, including advising, for example, on the selection of costing methods, and cost measurement, and classification.¹⁰

¹⁰ Information Paper of International Federation of Accountants *Evaluating the Costing Journey: A Costing Levels Continuum Maturity Model*, July 2009

Cost Models

An effective costing capability is an essential defense planning tool, so that without accurate costing of discrete force units to date, Serbian defense top management are incapable of making financially-informed decisions regarding force structure options and missions as well.

Cost Model – Deployment

The purpose of this cost model is to provide the necessary cost information for decision making with respect to deployment. In the context of this model the term deployment implies any military operation abroad or in exercise context.

For the cost model development it is necessary take into account following assumptions:

- Mission is Defined;
- Activities have been identified;
- Requirements have been identified – Concept of Operations and Table of Organization;

- Available resources and gaps have been identified.

Further, next input in the cost model are costing parameters such as:

- Table of Organization (Force Structure - Personnel & Equipment)
- Target Start Date
- Duration
- Mode(s) of Deployment/Re-deployment
- Frequency of Rotations
- Equipment Activity Rates

In the phases of planning, deployment, employment, sustainment and redeployment of the designated capability, the cost model needs to envisage cost assignment for the structured list of activities and objects as follows:

– **Pre-deployment**

- Planning
 - Development of Concept of Ops, ROE, Table of Organization
 - Liaison with Coalition Forces
 - Recce
 - Intelligence preparation
- Specific pre-mission training
- Assembling the Task Force,
 - Medical screening and vaccinations
 - Clothing (Environmental) - Boots, etc
- Mission-specific procurement

– **Deployment**

- Pay the Troops
- Coordinate Move (Move Team)

- Conduct Move - En route sustainment and maintenance
- Ground Move - Personnel
 - Operate and Maintain Vehicles
 - Sustain Troops
- Ground Move - Equipment
 - Operate and Maintain Vehicles
 - Sustain Drivers
 - Equipment Preparation for Transport
 - Ground Transport - To/from Railhead
- Airlift - Personnel
 - Operate and Maintain Aircraft
 - Sustain Troops
 - Sustain Aircrew
 - Ground Transport - To/from Airport
- Airlift - Equipment
 - Operate and Maintain Aircraft
 - Sustain Aircrew
 - Equipment Preparation for Transport
 - Ground Transport - To/from Airport
- Sealift - Equipment
 - Operate and Maintain Ship
 - Container Rental
 - Equipment Preparation for Transport
 - Ground Transport - To/From Seaport
- **Sustainment**
- Pay the Troops
 - Backfill Vacant Positions
 - Protect the Troops
- Conduct Operations
 - Provide Force Protection
 - Conduct Emergency Operations
 - Conduct Police Operations
 - Conduct Air Operations
 - Provide CIMIC "Like" Support to Local Population
 - Provide Communications
 - Conduct Intelligence
- Provide Operational Logistics Support
 - Supply
 - Transport
 - Finance
 - Food Services
 - Administration
- Provide National Support
 - Conduct Inspections
 - Re-supply

- Provide Medical Support (including Dental)
- Provide Morale and Welfare Programs
 - Family Support
 - Entertainment, Fitness
 - Amenities (Movies, Newspapers, Magazines, etc)
 - Home Communication
- Maintain Equipment
 - Protect the Equipment
 - Maintain Ground Transport Equipment
 - Maintain Armaments Equipment
 - Maintain Ships
 - Maintain Aircraft
- **Re-deployment**
 - Pay the Troops
 - Repatriation Rest and Recreation Leave
 - Dispose of assets and environment clean-up
 - Coordinate Move (Move Team)
 - Conduct Move - En route sustainment and maintenance
 - Ground Move - Personnel
 - Operate and Maintain Vehicles
 - Sustain Troops
 - Ground Move - Equipment
 - Operate and Maintain Vehicles
 - Sustain Drivers
 - Equipment Preparation for Transport
 - Ground Transport - To/from Railhead
 - Airlift - Personnel
 - Operate and Maintain Aircraft
 - Sustain Troops
 - Sustain Aircrew
 - Ground Transport - To/from Airport
 - Airlift - Equipment
 - Operate and Maintain Aircraft
 - Sustain Aircrew
 - Equipment Preparation for Transport
 - Ground Transport - To/from Airport
 - Sealift - Equipment
 - Operate and Maintain Ship
 - Container Rental
 - Equipment Preparation for Transport
 - Ground Transport - To/From Seaport

Cost model consisting the following cost categories respectively broken down into the sub-categories:

- **Personnel costs**
 - Salary
 - Special Allowances

– **Operation and maintenance costs**

- Personnel Support
 - Out Theatre Travel Allowances
 - Field Operations Allowance
 - Insurance
 - Medical
 - Living Allowance
 - Food
 - Clothing
 - Laundry
 - In-Theatre Travel
 - Other costs
 - Petrol Oil and Lubricants (POL)
 - Spares
- Equipment/Facilities Operating
 - Internal Servicing
 - Contract maintenance
 - Ammunition
 - Commercial Transport
 - Air/Sea Port Fees/Services
 - Army Control and Command Network (ACCN)
 - Office Supplies
 - Communications
 - Water
 - Local Labor
 - Other costs

– **Capital costs**

- Personal Equipment
- Mine Detection and Disposal
- Communications
- Other

These cost categories and sub-categories have to be assigned to relevant aforementioned activities and objects.

Calculation procedure of costs within the cost model envisages following steps:

1. Develop and perform the appropriate calculations using tools appropriate to the scope, significance, and materiality of the costing, customized spreadsheets, costing software, or other methods as appropriate. Document the calculations. For example: spreadsheets used to gather, classify and organize data can be integrated with complimentary spreadsheets to calculate the desired results.

2. Confirm that all of the headings and data (cost objects, cost base, drivers and activity rates) were accurately entered. Add notes where needed. Confirm that the formulae are correct.

3. Calculate and test results i.e. ensure results are mathematically accurate and all formulae work as expected.

After finished calculation procedure of costs follows the procedure of results validation depicted in the following steps:

1. If practicable, reaffirm the validity of data sources, assumptions, methodology used and calculations by reconciling to financial reports, for the time period covered by the costing exercise. Document these efforts or explain why this is not practical.

2. Make efforts to reconcile the resulting cost information (in the cost objects) back to the cost base. For example: establish balancing formulas in results spreadsheets that link to original cost base spreadsheets. Document these efforts.

3. Reaffirm that the financial information used is from the appropriate and reliable sources and that no relevant sources have been overlooked. This requires consultation with information creators, maintainers, and users. Document these efforts.

4. Have an objective third party (colleague or other person with sufficient expertise) verify the mathematical accuracy of the calculations. Document these efforts.

5. Test the reasonableness of the total cost/unit cost of the cost object by conducting sensitivity analysis (what if scenarios) to determine the impact of changes in the cost parameters. Document these efforts.

6. Confirm the validity of any non-financial information such as cost drivers and assumptions with knowledgeable users of the systems or information being costed. Document these efforts.

7. Did you need to calculate a unit cost? If yes, have you collected the appropriate output/outcomes volumes from the appropriate sources? Document these efforts.

8. Consult with stakeholders (internal/external) and senior management and confirmed that the results of the costing exercise respond to the purpose statement that was defined at the outset? Document these efforts.

9. Include in the documentation the requirement or recommendation that a post stage/deployment validation of cost estimates against actual costs be conducted and that the results of these validations be used to inform the estimates and refine the cost model.

After conducted validation phase document all actions and activities related to cost model development, submit documented cost model with appropriate memorandum/description to the responsible authority for approval. Further, after all deployments, conduct Post Operation Validation of Cost Estimates – Compare actual costs to cost estimates preferably at each stage of the deployment, but in any case, following the completion of each deployment to educate future cost estimates and refine the cost estimating process/model. This would involve the comparison of actual costs to cost estimates. Such validation could/should be incorporated into each stage of the Life Cycle Process.

Cost Model – New Capability

The purpose of this cost model is to provide the necessary information for decision making with respect to the introduction of a new capability. In the context of this model, the term capability implies the ability to deliver a specific service or perform specific activities to achieve established goals. This includes doctrine, structure, personnel, equipment, education, and training.

For cost model development it is necessary to take into account the following assumptions:

- capability is defined;
- activities have been identified;
- planning scenarios have been identified (How will the capability be used?);
- requirements have been identified – concept of operations and table of organization;

- available resources and gaps have been identified;
- Very rough order of magnitude cost estimates of capability justifies the costing effort.

Further, the next inputs in the cost model are costing parameters such as:

- target implementation date and time horizon
- potential options
- potential costing analogies
- potential cost estimating relationships
- cost of capital/discount rate
- financial threshold
- questions/considerations
 - what are the outputs of the capability?
 - what are the main definable components of the capability?
 - can and/or should these components be costed separately?

In the phases of definition, implementation, operation and renewal of a new capability the cost model needs to envisage cost assignment for the structured list of activities and objects as follows:

– **Definition (NATO Concept and Development) – including the identification of baseline supply and demand information (e.g., inventory information), service delivery options and business case analysis;**

- project management
- study and analysis including research
- testing

– **Implementation (NATO – Production) acquisition, or design and construction;**

- project management
- study and analysis
- procurement
- reorganization
- training
- supporting infrastructure
- offset considerations
- support systems (C4ISR), Weapons, Maintenance)
- testing

– **Operations (NATO - Utilization and Support) - asset in use and related service delivery, including performance reporting**

- pay the troops
- operation
- maintenance
- overhaul

– Renewal or disposal (NATO – Retirement) – end of an asset’s useful economic life, or requirement for services is to be renewed or no longer needed

- study and analysis
- disposal
- extend useful life
- initiate acquisition of new equipment

Cost model consisting the following cost categories respectively broken down into the sub-categories:

– capital costs

- salary
- facilities
- office
- consulting
- equipment/hardware
- equipment/software
- initial spares
- transport

– personnel costs

- salaries
- allowances

– operation and maintenance costs

- petrol oil and lubricants (POL)
- spares
- contract maintenance
- travel allowances
- facilities
- disposal costs

These cost categories and sub-categories have to be assigned to relevant aforementioned activities and objects.

Calculation procedure of costs within the cost model envisages following steps:

1. Develop and perform the appropriate calculations using tools appropriate to the scope, significance, and materiality of the costing. Customized spreadsheets; costing software; or other methods as appropriate. Document the calculations.

2. Confirm that that all of the headings and data (cost objects, cost base, drivers and activity rates) were accurately entered. Add notes where needed. Confirm that the formulae are correct.

3. Calculate and test results, i.e. ensure results are mathematically accurate and all formulae work as expected.

After the finished calculation procedure of costs, there follows the procedure of results validation which has the same steps as aforementioned validation procedures in the cost model for deployment with the following phases of submitting for approval and, later on, post project validation of cost estimates where is needed to compare actual costs to cost estimates preferably at each stage of the project to educate future cost estimates and refine the cost estimating process/model.

Conclusion

The introduction of an improved costing methodology supported by cost models into the Serbian Defense Organization will optimize and offer the solution for overcoming the current deficiency in the existing system that attempts to budget policy directly without sufficient attention paid to operational planning analysis and subsequent programming. Furthermore, the current framework of Serbian defense programs is seen as financial tools, vice activities-oriented general management/de-confliction/coordination tools.¹¹ The depicted costing methodology in this paper offers guidelines how to develop further and expand cost models to provide and ensure better linkage to the existing spending categories. Moreover, cost models in support of the existing Serbian defense planning process should include standard operating costs for major systems and equipment (through the publication of a cost catalog) and on that way have an effect on efficiency and effectiveness of resources consumption.

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¹¹ For more details see CCMR Report on National Assistance Program to the Republic of Serbia: Cost Models and Cost Factors, 26-30 September 2011

INFLUENCE OF INCOME LEVEL ON CITIZEN PREPAREDNESS FOR RESPONSE TO NATURAL DISASTERS

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The aim of quantitative research is to examine the influence of income level on the citizen preparedness for response to a natural disaster caused by flood in the Republic of Serbia. Bearing in mind all local communities in Serbia where occurred or there is a high risk of flood occurrence, nineteen of 150 municipalities and 23 cities and the city of Belgrade were randomly chosen. In selected communities the research was performed in those areas that were most affected in relation to the water level or potential risk. The survey applied test strategy in households with the use of a multi-stage random sample. The research results indicated that the citizens who had income above RSD 90,000 at the household level, in a higher percentage took preventive measures, they know what floods are and know the safety procedures. On the other hand, citizens who have income below RSD 25,000 are not yet prepared, or intend to take certain measures in the next 6 months. The originality of the research stems from the fact of unexamined influence of income level on citizen preparedness. The research results can be used when creating strategies to improve the preparedness of citizens for response. The originality of the research is reflected in the fact that Serbia has not examined the influence of income level on preparedness of citizens to respond. The results can be used when creating a strategy to improve the level of citizen preparedness for response with regard to the level of citizen incomes.

Key Words: natural disasters, floods, citizens, income, preparedness for response, Serbia

Introduction

Income realized by one household is an important factor when making decisions on the adoption of certain measures of preparedness for response to natural disasters. The results of national research in the United States (FEMA, 2009), indicate that unemployed citizens (47%) to a greater extent rely on the help of emergency-rescue services in relation to employees (31%); employed people to a greater extent (69%) believe that

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taking measures of preparedness, planning and acquisition of supplies will help them in natural disasters; also, they to a greater extent feel that improvement of preparedness will help them to deal with the consequences of natural disasters; Citizens with lower incomes to a greater extent rely on the competent authorities, they need help with evacuation or going to the shelter compared to households with higher incomes; unemployed citizens (45%) to a greater extent rely on the help of other citizens compared to employees (34%); citizens with lower incomes to a greater extent believe they could be affected by a natural disaster in the next 12 months; people with higher incomes to a greater extent believe that taking measures of preparedness, planning and acquisition of supplies will help them in natural disasters; furthermore, they are more confident in their abilities to cope with consequences of natural disaster; citizens with lower incomes to a greater extent, do nothing to raise the level of preparedness to a higher level; households with lower incomes to a greater extent were prepared in the past 6 months compared to households that earn more.

Various researches in the US suggest: people with higher incomes to a lesser extent, indicate that such measures are costly as a reason for not taking measures of preparedness and scored a higher level of preparedness to respond to disasters (CEG, 2006); furthermore, people with lower incomes (54%) are less prepared to respond and attend training, compared to citizens with higher incomes (61%). At the level of significance of 5% Baker (Baker, 2011) found that there is a significant statistical relationship between household income and the level of preparedness for response to a hurricane ($\chi^2 = 41.74$, $df = 4$, $p = 0.001 < 0.05$). In a survey conducted in the United States, full-time employees showed a higher level of preparedness for response, especially emphasizing that their education and training conducted at work mean a lot for them (CEG, 2006).

In the literature, there is no generally accepted definition of preparedness for response to natural disasters (Cvetković, 2015abv; Ostojić, 2014; Vratuša-Žunjić, 2001). After all, it can easily get the impression that the determination of the content and scope of the term is somewhat marginalized (Cvetković, Gačić, & Jakovljević, 2015). Preparedness as a concept in the theory of disasters includes activities undertaken before natural disasters in order to improve the response and recovery from the resulting consequences (Cvetković, 2015; Gillespie *et al.* 1993: 36). Tierney et al (Tierney, Lindell, & Perry, 2002: 27) suggest that preparedness includes activities undertaken to strengthen the capabilities and opportunities of social groups to respond to situations caused by disasters. Thereby, they emphasize the inconsistency of preparedness with a clear focus on its two objectives: 1. to help people to avoid the threat; 2. to develop capacities and mechanisms with the aim of an effective response to disasters.

Methodology and data

Study design

Operationalization of the theoretical notion of preparedness to respond has given three dimensions that have been studied by identification of larger number of variables for each one (Figure 1). Perception of preparedness includes variables on preparedness

at different levels; barriers for raising the level of preparedness; variables on the expectation on help from different categories of people and organizations; assessment of effectiveness of first responders to respond. Knowledge was examined through variables related to the level of knowledge; flood risk map; knowing where they are and how to use them, willingness to train, willingness for methods of education, way to obtain the information about floods. And the third dimensions, supplies relate to having oral/written plans, having supplies of food and water, a transistor radio, flashlight, hoe, shovel, hoe and spade, first aid kit, insurance.

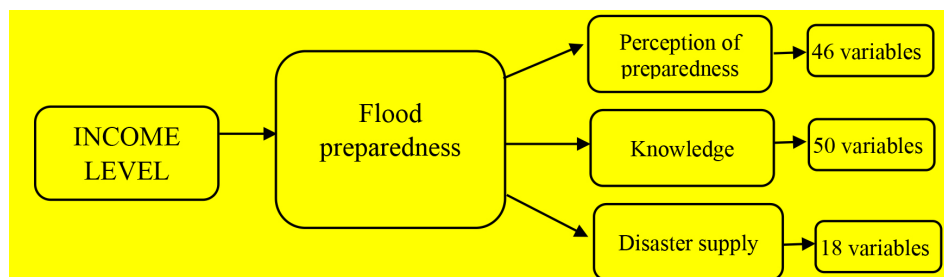


Figure 1 – Study design

Sample

The population consists of all adult residents of local communities in which there is a risk to occur flash flood or flood caused by dam failure. The sample size has been adjusted with the geographical (local communities from all regions of Serbia will be represented) and demographic size of the communities themselves. It was randomly selected sample of 19 of 150 municipalities and 23 towns and the city of Belgrade (Table 1 and Figure 2).

The research was undertaken in those areas that were most affected related to the amount of water or potential risk. In the survey, questioning strategy was applied to households with the use of a multi-stage random sample. In the first step, which refers to the primary causal units, parts of community in the research were selected. This process was accompanied by creation of map and determination of percentage share of each such segment in the total sample. In the second stage, streets or sections of streets were determined on the level of primary causal units. Each research core was determined as the path with specified start and end points of movement. In the next step, households in which the survey would be conducted were defined. The number of households is harmonized with population count of community. The final step referred to selection of respondents within households previously defined. The selection of respondents was conducted following the procedure of next birthday for adult members of household. The process of interviewing for each local authority was held three days in a week (including weekends) at different times of days. The study surveyed with 2,500 persons.

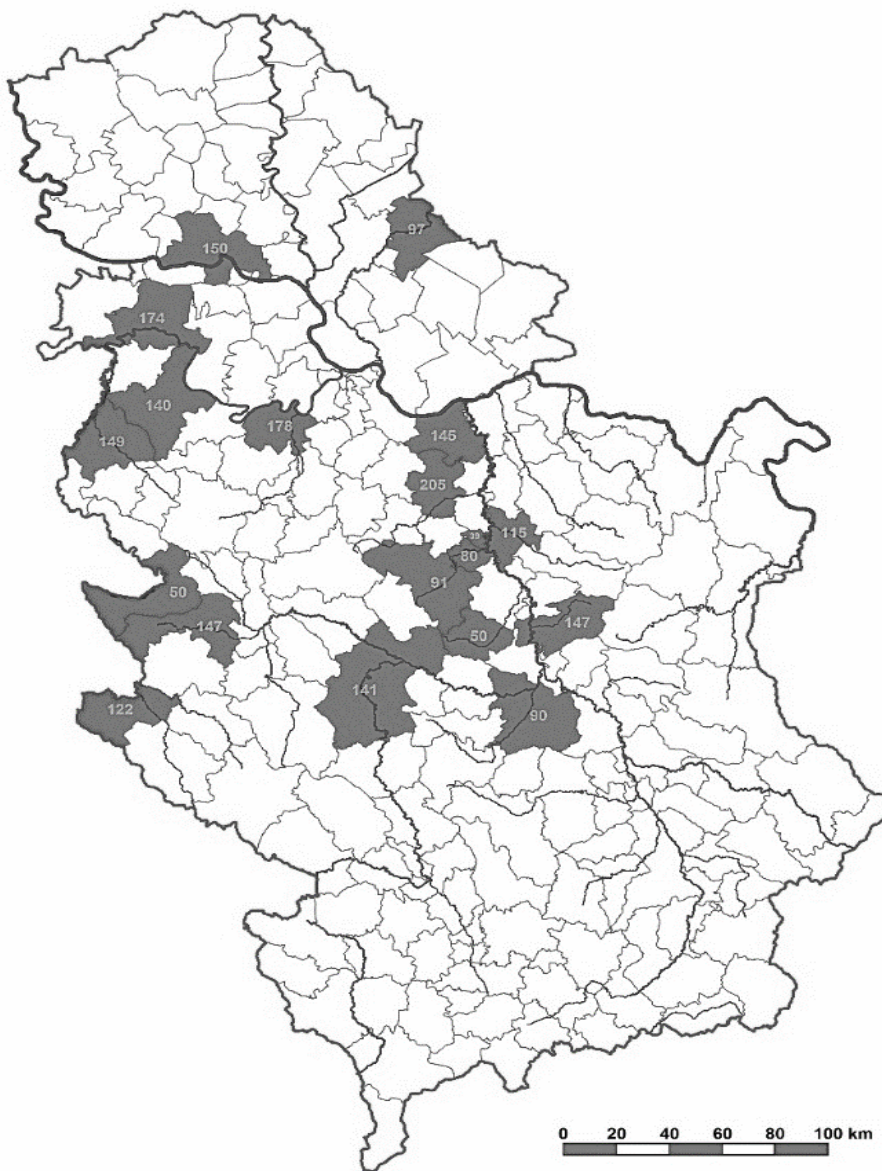


Figure 2 – Overview of the total number of respondents surveyed in local communities presented on the map of Serbia

Table 1 – The number of the respondents in local communities in the study

Local community	Total square area	localities	Population	Number of households	Number of respondents	Percentages (%)
Obrenovac	410	29	72682	7752	178	7.71
Šabac	797	52	114548	19585	140	6.06
Kruševac	854	101	131368	19342	90	3.90
Kregujevac	835	5	179417	49969	91	3.94
Sremska Mitrovica	762	26	78776	14213	174	7.53
Priboj	553	33	26386	6199	122	5.28
Batočina	136	11	11525	1678	80	3.46
Svilajnac	336	22	22940	3141	115	4.98
Lapovo	55	2	7650	2300	39	1.69
Paraćin	542	35	53327	8565	147	6.36
Smederevska Palanka	421	18	49185	8700	205	8.87
Sečanj – Jaša Tomić	82	1	2373	1111	97	4.20
Loznica	612	54	78136	6666	149	6.45
Bajina Bašta	673	36	7432	3014	50	2.16
Smederevo	484	28	107048	20948	145	6.28
Novi Sad	699	16	346163	72513	150	6.49
Kraljevo	1530	92	123724	19360	141	6.10
Rekovac	336	32	10525	710	50	2.16
Užice	667	41	76886	17836	147	6.36
Total - 19	10784	634	1500091	283602	2500	100

Similar as in the entire population, the sample has more women (50.2%) than men (49.8%). In 2014, the average age of respondents was 39.95 (men 40.9 and women 38.61). Observing the educational structure of citizens who are included in the sample, it also can be noted that majority of population (41.3%) has secondary/four years school. The smallest percentage of population has completed master (2.9%) and doctoral studies (0.4%). Marital status can be viewed from the aspect of legal marital status and factual marital status which also includes persons living in extramarital community. In the sample, married people account to 54.6%, widow/widower 3%, unmarried (single) 18.8%, engaged 2.7% and in relationship 16.9%. Table 2 gives a detailed overview of sample structure of surveyed citizens.

Table 2 – Sample structure of interviewed citizens

Variables	Categories	Frequency	Percentages (%)
Gender	Male	1244	49.8
	Female	1256	50.2
Age	18-28	711	28.4
	28-38	554	22.2
	38-48	521	20.8
	48-58	492	19.7
	58-68	169	6.8
	Over 68	53	2.2
	Education	Primary	180
Secondary/3 years		520	20.8
Secondary/4 years		1032	41.3
Higher		245	9.8
High		439	17.6
Master		73	2.9
Doctorate		11	0.4
Marital status	Single	470	18.8
	In relationship	423	16.9
	Engaged	67	2.7
	Married	1366	54.6
	Divorced	99	4.0
	Widow / widower	75	3.0
Distance between household and river (km)	Up to 2 km	1479	59.2
	From 2 to 5	744	29.8
	From 5 to 10	231	9.2
	Over 10	46	1.8
Number of household members	Up to 2	63	2.5
	From 2 to 4	1223	48.9
	From 4 to 6	639	25.6
	Over 6	575	23.0
Employment status	Yes	1519	60.8
	No	883	35.3
Size of apartment / house (m ²)	Up to 35	128	3.9
	35-60	237	7.2
	60-80	279	8.5
	80-100	126	3.9
	Over 100	45	1.4
Income level - montly	Up to 25.000 RSD	727	29.1
	Up to 50.000 RSD	935	37.4
	U to 75.000 RSD	475	19.0
	Over 90.0000 RSD	191	7.6

Instrument

For validity and reliability studies of the data gathering instrument five steps were taken. In the first step, we determined some scales used for measuring the preparedness of citizens to respond to disasters in general or to specific natural disaster. The third step included the aforementioned operationalization of preparedness for response and deciding on the three basic dimensions (perception of preparedness to respond, knowledge and supplies). In the fourth step, we defined variables for each dimension (perceptions of preparedness to respond – 46 variables; knowledge – 50 and supplies – 18), then for each variable it was taken, adapted or specially designed question in instrument. The fifth and final step it was carried out preliminary (pilot) study in Batočina with the aim of checking constructed instrument (its internal compliance of the scale, i.e. degree of relatedness of items of which it is composed, and whether instructions, questions and values on scale are clear).

Data analysis

Statistical analysis of collected data was performed by IBM's software package SPSS. Chi-square test of independence (χ^2) was used for testing of the connection between gender and categorical variables on perception, knowledge and having supplies and plans for a natural disaster caused by flood. On that occasion additional assumptions were completed about minimum expected frequency in each cell, which amounted to five or more. Assessment of impact level was performed by phi coefficient representing the correlation coefficient ranging from 0 to 1, where a higher number indicates a stronger relationship between the two variables. Koen criteria were used: from 0.10 for small, 0.30 for medium and 0.50 for large effect. For tables larger than 2 by 2, to assess the impact level it was used Cramer's V coefficient which takes into account the number of degrees of freedom (Cohen, 1988). Accordingly, for R-1 or K-1 is equal to 1, we used the following criteria of impact size: small = 0.01, medium = 0.30 and large = 0.50. To test the connection between gender and continuous dependent variables on the perception, knowledge and having supplies and plans for natural disasters caused by floods, it was selected independent samples t-test. Before proceeding to the implementation of the test, we examined general and specific assumptions for its implementation.

Results and Discussion

The results of Chi-square test of independence (χ^2) showed a statistically significant relationship between income level and the following variables: preventive measures ($p = 0.000 < 0.05$, $v = 0.080$ – small influence); financial resources ($p = 0.000 < 0.05$, $v = 0.143$ – small influence); engaged in the field ($p = 0.004 < 0.05$, $v = 0,083$ - small influence); river level rise ($p = 0.000 < 0.05$, $v = 0.115$ – small influence); preparedness level ($p = 0.000 < 0.05$, $v = 0.115$ - small influence). On the other hand, there was no

statistically significant relationship with variables: engaged in shelters ($p = 0.459 > 0.05$), visiting flooded areas ($p = 0.463 > 0.05$), heavy rains ($p = 0.111 > 0.05$) and media reports ($p = 0.429 < 0.05$) (Table 3). Based on results:

– In the highest percentage: citizens with household incomes over RSD 90,000 (24.9%) have undertaken preventive measures, would give money to help victims affected by floods (47.3%), water level rise makes them to think about preparedness (42.9%), have recently started preparations (11.1%) and they have prepared for at least 6 months (5.3%); people with household incomes up to RSD 50,000 (20.7%) would engage in providing assistance to victims in the field; people with household incomes up to RSD 25,000 are still not prepared, are intend to take measures in the next 6 months (17.9%) are still not prepared, but will start preparing in next month (13.3%);

– On the other hand, in the lowest percentage: citizens with household incomes up to RSD 25,000 (11.9%) have undertaken preventive measures, would give money to help victims affected by floods (23.8%), would engage in providing assistance to victims in the field (13.5%), water level rise makes them to think about preparedness (30.9%), they have prepared at least past 6 months (2.1%), and do nothing to prepare for response to floods (52.7%).

Table 3 – Results of the chi-square test of independence (χ^2) between income level and the variables on perception of preparedness to respond

	value	df	Asymp. Sig. (2 - sided)	Cramers V
Preventive measures	27,114	6	,000*	,080
Funds	44,831	3	,000*	,143
Engaged on the field	15,461	4	,004*	,083
Engaged at reception centre	3,627	4	,459	,040
Tour of flooded places	2,567	3	,463	,035
Heavy rains	6,015	3	,111	,053
Raising river level	28,948	3	,000*	,115
Media reports	2,768	3	,429	,036
Preparedness level	67,170	15	,000*	,102

* Statistically significant correlation ($p \leq 0.05$).

Using one-way analysis of variance (*one-way ANOVA*) it was studied the influence of income level of citizens on dependent continuous variables on the perception of preparedness to respond. Subjects were divided by income level into 4 groups (up to RSD 25,000, up to RSD 50,000, up to RSD 75,000 and over RSD 90,000). Using the homogeneity of variance test it was examined equality of variances in the results for each of the 4 groups. Bearing in mind the results Levene Statistic, the assumption of homogeneity of variance is not violated in the following variables: household preparedness; personal skills; ISS; religious communities; self-organized individuals; citizens from flooded areas; and efficiency of the police. For variable in which the assumption is violated, it was shown in table “Robust Tests of Equality of Means” and the results of two tests, Welsh and Brown – Forsythe tests resistant to a violation of the presumption of equality of variances. For research purposes, Welsh’s results are used.

Based on results, there is a statistically significant difference between the mean values of those groups in the following continuous dependent variables: household preparedness ($F = 4.11$, $p = .006$, eta squared = 0.0052 – small influence); importance of taking preventive measures ($F = 27.70$, $p = .000$, eta squared = 0.0348 – small influence); ISS ($F = 4.43$, $p = .004$, eta squared = 0.0058 - small influence); I have no time for that ($F = 9.28$, $p = .000$, eta squared = 0.0121 – small influence); it is very expensive ($F = 3.07$, $p = 0.006$, eta squared = 0.0040 – small influence); I have no support ($F = 4.34$, $p = .005$, eta squared = 0.0057 – small influence); NHO ($F = 5.73$, $p = .001$, eta squared = 0.0075 – small influence); police ($F = 4.91$, $p = .002$, eta squared = 0.0064 – small influence); first responders ($F = 6.46$, $p = .000$, eta squared = 0.0084 – small influence); army ($F = 9.14$, $p = 0.000$, eta squared = 0.0118 - small influence); help would not mean much ($F = 6.49$, $p = 0.000$, eta squared = 0.0088 – small influence); preparedness of local communities ($F = 4.34$, $p = .005$, eta squared = 0.0055 – small influence); national preparedness ($F = 4.00$, $p = 0.008$, eta squared = 0.0049 – small influence); personal abilities ($F = 7.06$, $p = 0.000$, eta squared = 0.0091 – small influence); I can not prevent it ($F = 2.92$, $p = 0.033$, eta squared = 0.00393 – small influence); household members ($F = 8.47$, $p = 0.000$, eta squared = 0.00987 – small influence); neighbors ($F = 9.64$, $p = 0.000$, eta squared = 0.0114 – small influence); MHO ($F = 5.42$, $p = .001$, eta squared = 0.0074 - small influence); religious communities ($F = 8.62$, $p = 0.000$, eta squared = 0.0114 - small influence); emergency service ($F = 3.59$, $p = .013$, eta squared = 0.0046 – small influence); awareness ($F = 11.963$, $p = .000$, eta squared = 0.0161 – small influence); others helped ($F = 3.93$, $p = 0.008$, eta squared = 0.00513 – small influence); duty of state authorities ($F = 4.69$, $p = 0.003$, eta squared = 0.0065 – small influence); citizens of flooded areas ($F = 3.52$, $p = .015$, eta squared = 0.0049 – small influence); it is too expensive ($F = 13.81$, $p = 0.000$, eta squared = 0.0179 – small influence); police efficiency ($F = 8.27$, $p = 0.000$, eta squared = 0.0100 – small influence); efficiency of first responders ($F = 9.81$, $p = 0.000$, eta squared = 0.0125 – small influence); efficiency of emergency service ($F = 11.45$, $p = 0.000$, eta squared = 0.0160 – small influence); army efficiency ($F = 7.58$, $p = 0.000$, eta squared = 0.0097 – small influence) (Table 4).

Subsequent comparisons using Turkey HSD show that the observed mean value:

- assessment of preparedness of households for response to floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income above RSD 90,000 ($M = 3.25$, $SD = 0.881$) and citizens with incomes up to RSD 25,000 ($M = 2.98$, $SD = 1.035$). Citizens with incomes over RSD 90,000 scored a higher level of preparedness of households to respond to floods compared to citizens with income below RSD 25,000;
- assessment of national preparedness for response to floods statistically significantly ($p < 0.05$), and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.77$, $SD = 1.225$) and citizens with incomes below RSD 50,000 ($M = 2.95$, $SD = 1.056$). Citizens with incomes below RSD 50,000 scored a higher level of national preparedness for response to floods compared to citizens with income below RSD 25,000;
- assessment of preparedness of local community for response to floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 50,000 ($M = 3.06$, $SD = 1.09$) and citizens with incomes below RSD 25,000 ($M = 2.90$, $SD = 1.244$). Citizens with incomes below RSD 50,000 scored a higher level of preparedness of local community for response to floods compared to citizens with income below RSD 25,000;

– assessment of confidence in personal abilities to respond to floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income over RSD 90,000 ($M = 3.25$, $SD = 0.972$) and citizens with incomes below RSD 25,000 ($M = 2.88$, $SD = 1.105$). Citizens with incomes over RSD 90,000 scored a higher level of assessment of confidence in their own abilities to respond to floods compared to citizens with income below RSD 25,000;

– assessment of importance of taking preventive measures to reduce the material consequences of floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income over RSD 90,000 ($M = 3.67$, $SD = 0.985$) and citizens with incomes below RSD 25,000 ($M = 3.10$, $SD = 1.202$). Citizens with incomes over RSD 90,000 scored a higher level of assessment of importance of taking preventive measures to reduce the material consequences of floods compared to citizens with incomes below RSD 25,000;

– specifying the reason “I think first responders will help me, so I do not need such measures” for not taking preventive measures statistically significantly ($p < 0.05$), and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.79$, $SD = 1.346$) and citizens with incomes below RSD 75,000 ($M = 2.53$, $SD = 1.309$). Citizens with incomes below RSD 25,000 agree to a greater extent with specified reason compared to citizens with income below RSD 75,000;

– specifying the reason “I have no time for that” for not taking preventive measures statistically significantly ($p < 0.05$), and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.82$, $SD = 1.338$) and citizens with income below RSD 75,000 ($M = 2.43$, $SD = 1.318$). Citizens with incomes below RSD 25,000 agree to a greater extent with specified reason compared to citizens with income below RSD 75,000;

– specifying the reason “It is very expensive” for not taking preventive measures statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.83$, $SD = 1.340$) and citizens with income below RSD 75,000 ($M = 2.60$, $SD = 1.287$). Citizens with incomes below RSD 25,000 agree to a greater extent with specified reason compared to citizens with income below RSD 75,000;

– specifying the reason “I have no support from the local community” for not taking preventive measures statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.89$, $SD = 1.344$) and citizens with income below RSD 50,000 ($M = 2.66$, $SD = 1.252$). Citizens with incomes below RSD 25,000 agree to a greater extent with specified reason compared to citizens with income below RSD 50,000;

– specifying the reason “I can not prevent it” for not taking preventive measures statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.01$, $SD = 1.375$) and citizens with income below RSD 50,000 ($M = 2.82$, $SD = 1.312$). Citizens with incomes below RSD 25,000 agree to a greater extent with specified reason compared to citizens with income below RSD 75,000;

– expectations of help from household members in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 4.16$, $SD = 1.273$) and citizens with incomes over RSD 90,000 ($M = 4.52$, $SD = 1.080$). Citizens with incomes below RSD 25,000 expect to a greater extent help from household members compared to citizens with incomes over RSD 90,000;

– expectations of help from neighbors in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.48$, $SD = 1.341$) and citizens with incomes over RSD 90,000 ($M = 3.91$, $SD = 1.062$). Citizens with incomes below RSD 25,000 expect to a greater extent help from neighbors compared to citizens with incomes over RSD 90,000;

– expectations of help from non-governmental humanitarian organizations in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.64$, $SD = 1.231$) and citizens with incomes below RSD 75,000 ($M = 2.44$, $SD = 1.181$). Citizens with incomes below RSD 25,000 expect to a greater extent help from non-governmental humanitarian organizations compared to citizens with incomes over RSD 90,000;

– expectations of help from international humanitarian organizations in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.54$, $SD = 1.220$) and citizens with incomes over RSD 90,000 ($M = 2.26$, $SD = 1.122$). Citizens with incomes below RSD 25,000 expect to a greater extent help from international humanitarian organizations compared to citizens with incomes over RSD 90,000;

– expectations of help from religious communities in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.54$, $SD = 1.294$) and citizens with household incomes below RSD 50,000 ($M = 2.23$, $SD = 1.152$). Citizens with incomes below RSD 25,000 expect to a greater extent help from religious communities compared to citizens with incomes over RSD 90,000;

– expectations of help from the police in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.23$, $SD = 1.328$) and citizens with incomes below RSD 50,000 ($M = 3.51$, $SD = 1.247$). Citizens with incomes below RSD 25,000 expect to a greater extent help from the police compared to citizens with incomes below RSD 70,000;

– expectations of help from first responders in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.51$, $SD = 1.255$) and citizens with incomes below RSD 75,000 ($M = 3.83$, $SD = 1.203$). Citizens with incomes below RSD 25,000 expect to a greater extent help from first responders compared to citizens with incomes over RSD 90,000;

– expectations of help from emergency medical services in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.53$, $SD = 1.282$) and citizens with incomes below RSD 75,000 ($M = 3.55$, $SD = 1.186$). Citizens with incomes below RSD 25,000 expect to a lesser extent help from emergency medical services compared to citizens with incomes below RSD 75,000;

– expectations of help from the army in the first 72 hours after flood occurrence statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.41$, $SD = 1.365$) and citizens with incomes below RSD 75,000 ($M = 3.80$, $SD = 1.309$). Citizens with incomes below RSD 25,000 expect to a lesser extent help from the army compared to citizens with incomes below RSD 75,000;

– assessment of awareness of potential flood risk statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.66$, $SD = 1.300$) and citizens with incomes over RSD 90,000 ($M = 3.28$, $SD = 1.274$). Citizens with incomes below RSD 25,000 to a lesser extent assess their awareness compared to citizens with incomes over RSD 90,000;

– specifying the reason “My help would not mean much” for potentially non-engagement in assisting victims affected by floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.68$, $SD = 1.316$) and citizens with incomes over RSD 90,000 ($M = 2.27$, $SD = 1.037$). Citizens with incomes below RSD 25,000 specify to a greater extent this reason compared to citizens with incomes over RSD 90,000;

– specifying the reason “Others have already helped enough” for potentially non-engagement in assisting victims affected by floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 50,000 ($M = 2.82$, $SD = 1.191$) and citizens with incomes over RSD 90,000 ($M = 2.53$, $SD = 1.177$). Citizens with incomes below RSD 50,000 specify to a greater extent this reason compared to citizens with incomes over RSD 90,000;

– specifying the reason “It is a duty of state authorities” for potentially non-engagement in assisting victims affected by floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.05$, $SD = 1.326$) and citizens with incomes over RSD 90,000 ($M = 2.69$, $SD = 1.209$). Citizens with incomes below RSD 25,000 specify to a greater extent this reason compared to citizens with incomes over RSD 90,000;

– specifying the reason “I expected people from flooded areas would be primarily engaged” for potentially non-engagement in assisting victims affected by floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.85$, $SD = 1.294$) and citizens with incomes over RSD 90,000 ($M = 2.85$, $SD = 1.294$). Citizens with incomes below RSD 25,000 specify to a greater extent this reason compared to citizens with incomes over RSD 90,000;

– specifying the reason “It is too expensive” for potentially non-engagement in assisting victims affected by floods statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 2.55$, $SD = 1.303$) and citizens with incomes over RSD 90,000 ($M = 2.02$, $SD = 1.049$). Citizens with incomes below RSD 25,000 specify to a greater extent this reason compared to citizens with incomes over RSD 90,000;

– assessment of efficiency of the police response during a natural disaster caused by flood statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.14$, $SD = 1.350$) and citizens with incomes below RSD 75,000 ($M = 3.49$, $SD = 1.115$). Citizens with incomes below RSD 25,000 to a greater extent assess efficiency compared to citizens with incomes over RSD 90,000;

– assessment of efficiency of response of first responders during a natural disaster caused by flood statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.32$, $SD = 1.330$) and citizens with incomes below RSD 75,000 ($M = 3.71$, $SD = 1.181$). Citizens with incomes below RSD 25,000 to a greater extent assess efficiency compared to citizens with incomes over RSD 90,000;

– assessment of efficiency of response of emergency service during a natural disaster caused by flood statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.30$, $SD = 1.312$) and citizens with incomes below RSD 75,000 ($M = 3.61$, $SD = 1.133$). Citizens with incomes below RSD 25,000 to a lesser extent assess efficiency compared to citizens with incomes over RSD 90,000;

– assessment of efficiency of the army response during a natural disaster caused by flood statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.57$, $SD = 1.408$) and citizens with incomes below RSD 75,000 ($M = 3.91$, $SD = 1.181$). Citizens with incomes below RSD 25,000 to a lesser extent assess efficiency compared to citizens with incomes over RSD 90,000;

– assessment of efficiency of response of staff for emergencies during a natural disaster caused by flood statistically significantly ($p < 0.05$) and mutually differs among the citizens with household income below RSD 25,000 ($M = 3.13$, $SD = 1.458$) and citizens with incomes below RSD 75,000 ($M = 3.57$, $SD = 1.272$). Citizens with incomes below RSD 25,000 to a lesser extent assess efficiency compared to citizens with incomes over RSD 90,000.

Table 4 – Results of one-way ANOVA of various groups of income levels and continuous dependent variables on the perception of preparedness for response

Test of homogeneity of variance				
	Levene Statistic	df1	df2	Sig.
Individual preparedness	3,567	3	2309	,014
Household preparedness	1,869	3	2317	,133*
Local community preparedness	13,804	3	2302	,000
National preparedness	5,317	3	2308	,001
Own capabilities	5,427	3	2300	,001
Importance of protective measures	2,267	3	2303	,079*
First responders	1,025	3	2278	,381*
I am not at risk	2,953	3	2293	,031
I don't have time for this	1,484	3	2271	,217*
This is very expensive	1,856	3	2261	,135*
It will not affect the safety	3,422	3	2266	,017
I am not capable	3,750	3	2260	,011
I don't have support	1,119	3	2272	,340*
I can't prevented	3,673	3	2257	,012
Family members	13,642	3	2283	,000
Neighbours	12,547	3	2286	,000
Non-governmental humanitarian organizations	2,183	3	2271	,088*
International humanitarian organizations	4,752	3	2270	,003
Religious community	5,890	3	2268	,001
Police	,462	3	2281	,709*
Fire department	1,180	3	2284	,316*
Emergency aid	3,360	3	2283	,018
Army	1,274	3	2285	,282*
Self-organized individuals	,989	3	2286	,397*
Informed	5,934	3	2318	,000

Influence of Income Level on Citizen Preparedness for Response to Natural Disasters

Test of homogeneity of variance				
	Levene Statistic	df1	df2	Sig.
Help would not make a deference	2,286	3	2178	,077*
Others helped	6,782	3	2173	,000
task of state bodies	5,184	3	2155	,001
Citizens from flooded areas	2,951	3	2165	,032
Lack of time	6,671	3	2165	,000
It costs too much	5,658	3	2271	,001
Efficiency of police	3,389	3	2270	,017
Efficiency of fire department	7,189	3	2269	,000
Efficiency of ambulance service	14,136	3	2256	,000
	6,888	3	2266	,000

* assumption of the equality of variance is not violated – Sig. > 0.05

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Individual preparedness	Between Groups	7,041	3	2,347	2,172	,089
	Within Groups	2495,076	2309	1,081		
	Total	2502,117	2312			
Household preparedness	Between Groups	11,556	3	3,852	4,114	,006
	Within Groups	2169,272	2317	,936		
	Total	2180,828	2320			
Local community preparedness	Between Groups	15,829	3	5,276	4,313	,005
	Within Groups	2816,487	2302	1,223		
	Total	2832,316	2305			
National preparedness	Between Groups	15,424	3	5,141	3,857	,009
	Within Groups	3076,589	2308	1,333		
	Total	3092,014	2311			
Own capabilities	Between Groups	22,185	3	7,395	7,056	,000
	Within Groups	2410,544	2300	1,048		
	Total	2432,729	2303			
Importance of protective measures	Between Groups	102,164	3	34,055	27,706	,000
	Within Groups	2830,747	2303	1,229		
	Total	2932,911	2306			
First responders	Between Groups	22,838	3	7,613	4,430	,004
	Within Groups	3914,694	2278	1,718		
	Total	3937,532	2281			
I am not at risk	Between Groups	9,324	3	3,108	1,492	,215
	Within Groups	4778,147	2293	2,084		
	Total	4787,471	2296			
I don't have time for this	Between Groups	49,198	3	16,399	9,281	,000
	Within Groups	4012,966	2271	1,767		
	Total	4062,164	2274			

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
This is very expensive	Between Groups	15,752	3	5,251	3,073	,027
	Within Groups	3863,276	2261	1,709		
	Total	3879,029	2264			
It will not affect the safety	Between Groups	1,299	3	,433	,252	,860
	Within Groups	3894,572	2266	1,719		
	Total	3895,872	2269			
I am not capable	Between Groups	3,660	3	1,220	,705	,549
	Within Groups	3911,545	2260	1,731		
	Total	3915,205	2263			
I don't have support	Between Groups	22,150	3	7,383	4,343	,005
	Within Groups	3863,001	2272	1,700		
	Total	3885,151	2275			
I can't prevented	Between Groups	16,314	3	5,438	2,970	,031
	Within Groups	4132,921	2257	1,831		
	Total	4149,235	2260			
Family members	Between Groups	34,153	3	11,384	7,590	,000
	Within Groups	3424,435	2283	1,500		
	Total	3458,589	2286			
Neighbours	Between Groups	41,004	3	13,668	8,810	,000
	Within Groups	3546,429	2286	1,551		
	Total	3587,433	2289			
Non-governmental humanitarian organizations	Between Groups	23,405	3	7,802	5,732	,001
	Within Groups	3090,988	2271	1,361		
	Total	3114,393	2274			
International humanitarian organizations	Between Groups	22,186	3	7,395	5,654	,001
	Within Groups	2968,900	2270	1,308		
	Total	2991,085	2273			
Religious community	Between Groups	38,648	3	12,883	8,753	,000
	Within Groups	3337,824	2268	1,472		
	Total	3376,472	2271			
Police	Between Groups	25,084	3	8,361	4,915	,002
	Within Groups	3880,474	2281	1,701		
	Total	3905,558	2284			
Fire department	Between Groups	28,895	3	9,632	6,469	,000
	Within Groups	3400,552	2284	1,489		
	Total	3429,447	2287			
Emergency aid	Between Groups	15,831	3	5,277	3,521	,014
	Within Groups	3421,882	2283	1,499		
	Total	3437,713	2286			
Army	Between Groups	48,537	3	16,179	9,140	,000
	Within Groups	4044,966	2285	1,770		
	Total	4093,503	2288			
Self-organized individuals	Between Groups	12,029	3	4,010	2,207	,085
	Within Groups	4153,973	2286	1,817		
	Total	4166,002	2289			

Influence of Income Level on Citizen Preparedness for Response to Natural Disasters

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Informed	Between Groups	58,676	3	19,559	12,719	,000
	Within Groups	3564,401	2318	1,538		
	Total	3623,077	2321			
Help would not make a deference	Between Groups	30,032	3	10,011	6,493	,000
	Within Groups	3359,446	2179	1,542		
	Total	3389,479	2182			
Others helped	Between Groups	16,509	3	5,503	3,750	,011
	Within Groups	3195,769	2178	1,467		
	Total	3212,279	2181			
Task of state bodies	Between Groups	21,561	3	7,187	4,748	,003
	Within Groups	3289,081	2173	1,514		
	Total	3310,642	2176			
Citizens from flooded areas	Between Groups	15,779	3	5,260	3,583	,013
	Within Groups	3163,505	2155	1,468		
	Total	3179,284	2158			
Lack of time	Between Groups	12,768	3	4,256	2,566	,053
	Within Groups	3590,452	2165	1,658		
	Total	3603,221	2168			
It costs too much	Between Groups	55,764	3	18,588	13,192	,000
	Within Groups	3050,499	2165	1,409		
	Total	3106,264	2168			
Efficiency of police	Between Groups	37,088	3	12,363	7,691	,000
	Within Groups	3650,357	2271	1,607		
	Total	3687,444	2274			
Efficiency of fire department	Between Groups	47,167	3	15,722	9,653	,000
	Within Groups	3697,157	2270	1,629		
	Total	3744,324	2273			
Efficiency of ambulance service	Between Groups	53,257	3	17,752	12,301	,000
	Within Groups	3274,557	2269	1,443		
	Total	3327,813	2272			
Efficiency of army	Between Groups	38,471	3	12,824	7,418	,000
	Within Groups	3900,106	2256	1,729		
	Total	3938,577	2259			
Headquarters for emergency situations	Between Groups	78,177	3	26,059	14,361	,000
	Within Groups	4111,790	2266	1,815		
	Total	4189,967	2269			

* There is a statistically significant difference between the mean values of dependent variables in 4 groups – Sig. ≤ 0.05

Robust Testss of Equality of Means					
		Statistic ^a	df1	df2	Sig.
Individual preparedness	Welch	2,396	3	745,222	,067
	Brown - Forsythe	2,258	3	1455,683	,080
Local community preparedness	Welch	4,341	3	733,418	,005*
	Brown - Forsythe	4,344	3	1298,864	,005*
National preparedness	Welch	4,001	3	736,481	,008*
	Brown - Forsythe	3,906	3	1404,798	,009*
Own capabilities	Welch	7,066	3	740,016	,000*
	Brown - Forsythe	7,261	3	1427,077	,000*
I am not at risk	Welch	1,621	3	742,270	,183
	Brown - Forsythe	1,560	3	1475,494	,197
It will not affect the safety	Welch	,233	3	720,243	,873
	Brown - Forsythe	,245	3	1224,859	,865
I am not capable	Welch	,678	3	709,457	,566
	Brown - Forsythe	,680	3	1204,300	,564
I can't prevented	Welch	2,924	3	707,637	,033*
	Brown - Forsythe	3,004	3	1380,496	,029*
Family members	Welch	8,471	3	756,945	,000*
	Brown - Forsythe	8,160	3	1574,018	,000*
Neighbours	Welch	9,643	3	755,078	,000*
	Brown - Forsythe	9,380	3	1617,149	,000*
International humanitarian organizations	Welch	5,420	3	726,665	,001*
	Brown - Forsythe	5,681	3	1349,122	,001*
Religious community	Welch	8,627	3	729,521	,000*
	Brown - Forsythe	8,865	3	1418,947	,000*
Emergency aid	Welch	3,598	3	750,540	,013*
	Brown - Forsythe	3,717	3	1531,103	,011*
Informed	Welch	11,963	3	728,585	,000*
	Brown - Forsythe	12,513	3	1271,699	,000*
Others helped	Welch	3,936	3	696,994	,008*
	Brown - Forsythe	3,815	3	1304,873	,010*
Task of state bodies	Welch	4,690	3	695,879	,003*
	Brown - Forsythe	4,828	3	1282,037	,002*
Citizens from flooded areas	Welch	3,523	3	686,986	,015*
	Brown - Forsythe	3,521	3	1206,193	,015*
Lack of time	Welch	2,589	3	691,366	,052
	Brown - Forsythe	2,553	3	1185,497	,054
It costs too much	Welch	13,812	3	713,514	,000*
	Brown - Forsythe	14,185	3	1483,185	,000*
Efficiency of police	Welch	8,272	3	732,284	,000*
	Brown - Forsythe	8,129	3	1398,771	,000*
Efficiency of fire department	Welch	9,861	3	722,676	,000*
	Brown - Forsythe	9,825	3	1296,389	,000*
Efficiency of ambulance service	Welch	11,454	3	712,352	,000*
	Brown - Forsythe	12,095	3	1224,370	,000*
Efficiency of army	Welch	7,583	3	722,656	,000*
	Brown - Forsythe	7,598	3	1301,998	,000*

a. Asymptotically F distributed.

* There is a statistically significant difference between the mean values of dependent variables in 4 groups – Sig. ≤ 0.05

Relationship between income level and knowledge about floods

The results of Chi-square test of independence (χ^2) showed a statistically significant relationship between income level and the following variables on knowledge: familiarity with safety procedures ($p = 0.006 < 0.05$, $v = 0.065$ – small influence); evacuation ($p = 0.000 < 0.05$, $v = 0.106$ – small influence); education at school ($p = 0.000 < 0.05$, $v = 0.084$ – small influence); education at work ($p = 0.000 < 0.05$, $v = 0.103$ – small influence); elders, disabled ($p = 0.023 < 0.05$, $v = 0.058$ – small influence); consent to evacuation ($p = 0.000 < 0.05$, $v = 0.098$ - small influence); help – elders, disabled ($p = 0.009 < 0.05$, $v = 0.098$ – small influence); neighbors – individually ($p = 0.000 < 0.05$, $v = 0.109$ – small influence); flood risk map ($p = 0.000 < 0.05$, $v = 0.102$ – small influence); official warning ($p = 0.000 < 0.05$, $v = 0.101$ – small influence); potential infections ($p = 0.050 < 0.05$, $v = 0.059$ - small influence); water valve ($p = 0.003 < 0.05$, $v = 0.073$ - small influence); electricity switch ($p = 0.013 < 0.05$, $v = 0.061$ – small influence); information from neighbors ($p = 0.003 < 0.05$, $v = 0.080$ - small influence); information from a friend ($p = 0.000 < 0.05$, $v = 0.111$ – small influence); information from relatives ($p = 0.009 < 0.05$, $v = 0.073$ - small influence); information at school ($p = 0.022 < 0.05$, $v = 0.066$ – small influence); information in collage ($p = 0.000 < 0.05$, $v = 0.162$ – small influence); information on the radio ($p = 0.015 < 0.05$, $v = 0.069$ – small influence); information from the press ($p = 0.003 < 0.05$, $v = 0.080$ – small influence); information over the Internet ($p = 0.000 < 0.05$, $v = 0.138$ – small influence); trained ($p = 0.007 < 0.05$, $v = 0.079$ – small influence); desire for training ($p = 0.000 < 0.05$, $v = 0.119$ – small influence); education. on television ($p = 0.000 < 0.05$, $v = 0.138$ - small influence); education on the radio ($p = 0.007 < 0.05$, $v = 0.079$ – small influence); education through the Internet ($p = 0.000 < 0.05$, $v = 0.122$ - small influence); education through lectures ($p = 0.000 < 0.05$, $v = 0.145$ – small influence). On the other hand, there was no statistically significant relationship with variables: education within the family ($p = 0.073 > 0.05$), gas valve ($p = 0.274 > 0.05$), handling water valve ($p = 0.602 > 0.05$), handling gas valve ($p = 0.274 > 0.05$), handling electricity switch ($p = 0.132 > 0.05$), information from household members ($p = 0.192 > 0.05$), information through an informal system ($p = 0.321 > 0.05$), information at work ($p = 0.079 > 0.05$), information in a religious community ($p = 0.471 > 0.05$), information on television ($p = 0.134 > 0.05$), education through video – games ($p = 0.267 > 0.05$), informal system ($p = 0.878 > 0.05$) (Table 5).

The results indicate that in the highest percentage:

- Citizens with household incomes over RSD 90,000 know what floods are (88.4%) and know safety procedures (30.9%), say that somebody at school told them about floods (29.2%), they know what help is needed by elders, disabled and infants during floods (94.3%), would evacuated themselves to a friend's place during floods (47.6%); say that their neighbors can self-rescue in the event of floods (54.9%), they know what to do after an official warning about the approach of the flood wave (34.8%) state that they are familiar with viruses and infections that accompany period after the floods (54.9%), they know where the water valve is (84.6%), electricity switch (85.7%); they received information on floods over the Internet (37.4%); they have been given training in the field of natural disasters (8.5%); they would like to be educated about natural

disasters caused by floods over the radio (15.6%), the Internet (38.5%), non-formal education (40.5%);

- Citizens with household incomes below RSD 75,000 (41.8%) stated that someone at work talked about the floods, they know where live elders, disabled and infants (43.7%) would be evacuated during floods (94, 3%), they received information about floods from relatives (14.2%), at school (18.2%), in college (14.7%), on the radio (17.9%) and in the press (36.9%);

- Citizens with household incomes below RSD 50,000 would be evacuated to the upper floors of the house during the floods (40.6%); would be evacuated to the rented apartments during the floods (4.5%); point out that they are familiar with flood risk map in the local community (11.1%); point out that they got information on floods from neighbors (18.1%), friends (14.2%);

- Citizens with household incomes below RSD 25,000 would be evacuated to neighbors' places during floods (13%), would be evacuated to shelters during the floods (17.4%); point out that they would like to undergo some training in the field of natural disasters (31.3%) and state that they would like to be educated about natural disasters caused by floods on television (67.2%);

On the other hand, in the smallest percentage:

- Citizens with household incomes over RSD 90,000 would be evacuated to neighbors' places during floods (31%) would be evacuated to rented apartments (0.5%); suggest they would evacuated themselves during floods (84.5%); point out that they know where the water valve is (76.5%); point out they received information on floods from neighbors (8.7%); point out that they would like to be educated about natural disasters caused by floods on television (51.4%); point out that they would like to be educated about natural disasters caused by floods over the radio (9.5%), the Internet (20.3%), non-formal education (23.6%);

- Citizens with household incomes below RSD 75,000 know what floods are (78.7%) and know safety procedures (22.4%); would be evacuated to the upper floors of the house during the floods (36.1%); would be evacuated to shelters during floods (10.3%); point out that their neighbors can self-rescue in the event of floods (30.5%); claim that they know what to do after an official warning about the approach of the flood wave (18.3%); point out that they know where electricity switch is (77.6%);

- Citizens with household incomes below RSD 50,000 point out that somebody at school talked them about floods (25.1%); point out that they are familiar with viruses and infections that accompany period after floods (42.9%); point out that they have been given training in the field of natural disasters (4.1%);

- Citizens with household incomes below RSD 25,000 would be evacuated to a friend's place during floods (29.9%) stated that someone at work talked them about the floods (28.8%), they know where live elders, disabled and infants (41.9%), they know what help is needed by elders, disabled and infants during floods (51.8%) they are familiar with flood risk map in the local community (17.2%) state they got information on floods from neighbors (6.2%), relatives (12.1%), in collage (1.9%), on the radio (12.3%), in newspapers (26.8%) over the Internet (19.6%).

Table 5 – Results of Chi-square test of independence (χ^2) of income level and knowledge as an element of preparedness for response

	value	df	Asymp. Sig. (2 - sided)	Cramer's v
Knowledge of the flood	13,808	6	,032*	,055
Knowledge of safety procedures	18,257	6	,006*	,065
Evacuation	71,241	12	,000*	,106
Education at school	31,290	8	,000*	,084
Education in family	14,358	8	,073	,057
Education at work	45,532	8	,000*	,103
Seniors, handicapped and infants	14,663	6	,023*	,058
Consent to evacuate	21,718	4	,000*	,098
Help – seniors, handicapped	16,989	6	,009*	,061
Neighbours - independently	53,243	6	,000*	,109
Flood risk map	46,785	6	,000*	,102
Official warnings	44,273	8	,000*	,101
Potential infections	15,518	8	,050*	,059
Water vent	23,675	8	,003*	,073
Gas vent	9,875	8	,274	,053
Switch for energy	16,183	6	,013*	,061
Handling the water vent	6,401	8	,602	,038
Handling the gas vent	9,869	8	,274	,052
Handling the switch for energy	9,839	6	,132	,048
Information from family members	4,735	3	,192	,046
Information from neighbours	14,005	3	,003*	,080
Information from friends	27,310	3	,000*	,111
Information from relatives	11,564	3	,009*	,073
Information at school	9,625	3	,022*	,066
Information at collage	57,644	3	,000*	,162
Information through the informal system	3,499	3	,321	,040
Information at work	6,791	3	,079	,056
Information in religious community	2,524	3	,471	,034
Information on TV	5,581	3	,134	,050
Information on radio	10,475	3	,015*	,069
Information from the press	14,285	3	,003*	,080
Information over the Internet	41,802	3	,000*	,138
Trained	13,973	4	,007*	,079
Willingness to train	61,217	8	,000*	,119
Education through television	26,046	4	,000*	,138
Education through the radio	13,973	4	,007*	,079
Education through the video games	3,952	3	,267	,043
Education through the Internet	32,511	3	,000*	,122
Education trough lectures	45,948	3	,000*	,145
Informal system	,678	3	,878	,018

* Statistically significant correlation - $p \leq 0.05$

Using one-way analysis of variances (one-way ANOVA) it was studied the influence of the incomes of citizens on dependent continuous variables on knowledge for response. Subjects were divided into 4 groups by income level (up to RSD 25,000, up to RSD 50,000, up to 75,000 and over RSD 90,000). Using the homogeneity of variance test it was examined equality of variances in the results for each of the 4 groups. Bearing in mind the results of Levene Statistic, the assumption of homogeneity of variance is not violated in the variable: nearby shelters. For variable in which the assumption is violated, it is presented in table "Robust Tests of Equality of Means" and the results of two tests, Welsh and Brown-Forsythe tests resistant to the violation of the assumption of the equality of variances. For the study purposes, the findings of Welsh test are used.

Based on results, there is a statistically significant difference between the mean values of those groups in the following continuous dependent variables of knowledge: knowledge level ($F = 4.17$, $p = .006$, eta squared = 0.0054 – small influence); possibility of flooding – 1 year ($F = 3.11$, $p = .026$, eta squared = 0.00367 – small influence); possibility of flooding – 5 years ($F = 3.944$, $p = .008$, eta squared = 0.0045 – small influence); warning systems ($F = 13.54$, $p = 0.000$, eta squared = 0.0165 – small influence); police ($F = 18.59$, $p = .000$, eta squared = 0.0218 - a small effect); first responders ($F = 18.241$, $p = .000$, eta squared = 0.0219 - small influence); Stuff for emergency situations ($F = 21.09$, $p = .000$, eta squared = 0.0263 - small influence); evacuation routes ($F = 6.907$, $p = 0.000$, eta squared = 0.0091 – small influence) (Table 6).

Subsequent comparisons using Tukey HSD show that the observed mean value:

- Assessment of food risk of local community in the next 5 years, statistically significantly ($p < 0.05$) and mutually differs among the citizens with household incomes below RSD 25,000 ($M = 2.61$, $SD = 1.435$) and citizens with incomes over RSD 90,000 ($M = 2.30$, $SD = 1.275$). Citizens with incomes up to RSD 25,000 to a greater extent, assess flood risk compared to citizens with incomes over RSD 90,000;

- Assessment of food risk of local community in the next 5 years, statistically significantly ($p < 0.05$), and mutually differs among the citizens with household incomes below RSD 75,000 ($M = 2.90$, $SD = 1.317$) and citizens with incomes over RSD 90,000 ($M = 2.54$, $SD = 1.274$). Citizens with incomes up to RSD 75,000 to a greater extent, assess flood risk compared to citizens with incomes over RSD 90,000;

- familiarity with warning system in the local community for natural disasters statistically significantly ($p < 0.05$), and mutually differs among the citizens with household incomes up to RSD 25,000 ($M = 2.09$, $SD = 1.154$) and citizens with incomes up to RSD 75,000 ($M = 2.53$, $SD = 1.127$). Citizens with incomes up to RSD 25,000 to a lesser extent, assess flood risk compared to citizens with income up to RSD 75,000;

- familiarity with police jurisdiction statistically significantly ($p < 0.05$), and mutually differs among the citizens with household incomes below RSD 25,000 ($M = 2.46$, $SD = 1.276$) and citizens with incomes below RSD 75,000 ($M = 2.95$, $SD = 1.132$). Citizens with incomes up to RSD 25,000 to a lesser extent are familiar with police jurisdiction compared to citizens with incomes up to RSD 75,000;

- familiarity with competencies of first responders statistically significantly ($p < 0.05$), and mutually differs among the citizens with household incomes up to RSD 25,000 ($M = 2.57$, $SD = 1.290$) and citizens with incomes up to RSD 75,000 ($M = 3.10$, $SD = 1.176$). Citizens with incomes up to RSD 25,000 to a lesser extent are familiar with jurisdiction of first responders compared to citizens with incomes over RSD 90,000;

- familiarity with competencies of staff for emergency situations statistically significantly ($p < 0.05$), and mutually differs among the citizens with household incomes up to RSD 25,000 ($M = 2.40$, $SD = 1.227$) and citizens with incomes up to RSD 75,000 ($M = 2.97$, $SD = 1.236$). Citizens with incomes up to RSD 25,000 to a lesser extent are familiar jurisdiction of staff for emergency situations compared to the citizens with incomes up to RSD 75,000;

- familiarity with evacuation routes statistically significantly ($p < 0.05$) and mutually differs among the citizens with household incomes below RSD 25,000 ($M = 2.27$, $SD = 1.269$) and citizens with incomes below RSD 75,000 ($M = 2, 59$, $SD = 1.415$). Citizens with incomes up to RSD 25,000 to a lesser extent know the routes for evacuation compared to citizens with incomes up to RSD 75,000;

- familiarity with risk assessment and plan of protection and rescue from the consequences of floods statistically significantly ($p < 0.05$), and mutually differs among the citizens with household incomes below RSD 25,000 ($M = 2.27$, $SD = 1.201$) and citizens with incomes up to RSD 75,000 ($M = 3.02$, $SD = 1.179$). Citizens with incomes up to RSD 25,000 to a lesser extent are familiar with risk assessment and plans for protection and rescue compared to citizens with incomes up to RSD 75,000.

Table 6 – Results of one-way ANOVA of different groups of income levels and continuous dependent variables of knowledge for response

Test homogenosti varijanse				
	Levene Statistic	df1	df2	Sig.
Knowledge level	8,936	3	2219	,000
Possibility of flooding - 1 year	6,754	3	2306	,000
Possibility of flooding - 5 years	6,992	3	2261	,000
Warning systems	4,160	3	2271	,006
Police	13,102	3	2278	,000
Fire deparment	7,895	3	2274	,000
Headquarters for emergency situations	4,864	3	2275	,002
Evacuation routes	4,160	3	2270	,006
Nearby shelters	1,940	3	2274	,121*
Assessment of vulnerability and plans	5,420	3	2266	,001

* the assumption of the equality of variance is not broken - Sig. > 0.05

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Knowledge level	Between Groups	12,360	3	4,120	4,033	,007
	Within Groups	2266,972	2219	1,022		
	Total	2279,332	2222			
Possibility of flooding - 1 year	Between Groups	15,567	3	5,189	2,832	,037
	Within Groups	4224,989	2306	1,832		
	Total	4240,556	2309			
Possibility of flooding - 5 years	Between Groups	19,517	3	6,506	3,415	,017
	Within Groups	4307,837	2261	1,905		
	Total	4327,354	2264			

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Warning systems	Between Groups	52,633	3	17,544	12,704	,000
	Within Groups	3136,179	2271	1,381		
	Total	3188,811	2274			
Police	Between Groups	77,238	3	25,746	16,928	,000
	Within Groups	3464,602	2278	1,521		
	Total	3541,840	2281			
Fire department	Between Groups	81,428	3	27,143	16,991	,000
	Within Groups	3632,732	2274	1,598		
	Total	3714,160	2277			
Headquarters for emergency situations	Between Groups	96,213	3	32,071	20,510	,000
	Within Groups	3557,304	2275	1,564		
	Total	3653,517	2278			
Evacuation routes	Between Groups	33,657	3	11,219	7,026	,000
	Within Groups	3624,721	2270	1,597		
	Total	3658,378	2273			
Nearby shelters	Between Groups	7,844	3	2,615	1,727	,159
	Within Groups	3442,094	2274	1,514		
	Total	3449,939	2277			
Assessment of vulnerability and plans	Between Groups	11,565	3	3,855	2,748	,041
	Within Groups	3179,026	2266	1,403		
	Total	3190,591	2269			

* there is a statistically significant difference between the mean values of the dependent variables in 4 groups – Sig. \leq 0.05

Robust Testss of Equality of Means					
		Statistic ^a	df1	df2	Sig.
Knowledge level	Welch	4,179	3	693,107	,006*
	Brown - Forsythe	4,117	3	1266,505	,006*
Possibility of flooding - 1 year	Welch	3,114	3	730,759	,026*
	Brown - Forsythe	2,950	3	1419,323	,032*
	Welch	3,944	3	712,441	,008*
	Brown - Forsythe	3,566	3	1422,737	,014*
Possibility of flooding - 5 years	Welch	13,540	3	702,388	,000*
	Brown - Forsythe	12,118	3	1067,220	,000*
Warning systems	Welch	18,596	3	718,398	,000*
	Brown - Forsythe	17,268	3	1281,083	,000*
	Welch	18,241	3	716,313	,000*
	Brown - Forsythe	17,209	3	1260,135	,000*
Police	Welch	21,097	3	717,336	,000*
	Brown - Forsythe	20,847	3	1316,667	,000*
	Welch	6,907	3	699,922	,000*
	Brown - Forsythe	6,631	3	1062,914	,000*
Fire department	Welch	2,693	3	691,444	,045*
	Brown - Forsythe	2,534	3	1026,059	,056

a. Asymptotically F distributed.

* there is a statistically significant difference between the mean values of the dependent variables in 4 groups – Sig. \leq 0.05

Relationship between income levels and possession of supplies and plans

The results of Chi-square test of independence (χ^2) showed a statistically significant relationship between income level and the following variables on supplies and plans: supplies at home ($p = 0.020 < 0.05$, $v = 0,063$ – small influence); food supply ($p = 0.031 < 0.05$, $v = 0.099$ - small influence); water supply ($p = 0.027 < 0.05$, $v = 0.104$ - small influence); radio-transistor ($p = 0.000 < 0.05$, $v = 0,145$ - small influence); flashlight ($p = 0.020 < 0.05$, $v = 0.091$ - small influence); shovel ($p = 0.021 < 0.05$, $v = 0.091$ - small influence); hack ($p = 0.021 < 0.05$, $v = 0.091$ – small influence); hoe and spade ($p = 0.006 < 0.05$, $v = 0.143$ - small influence); apparatus for firefighting ($p = 0.002 < 0.05$, $v = 0.116$ - small influence); restocking ($p = 0.005 < 0.05$, $v = 0,087$ – small influence); supplies in the car ($p = 0.000 < 0.05$, $v = 0.074$ - small influence); first aid kit in the home ($p = 0.000 < 0.05$, $v = 0,087$ – small influence); first aid kit in the vehicle ($p = 0.000 < 0.05$, $v = 0.128$ - small influence); first aid kit - easily accessible ($p = 0.000 < 0.05$, $v = 0.084$ - small influence); discussion on the plan ($p = < 0.05$, $v = 0$, - small influence); copies of documents ($p = 0.01 < 0.05$, $v = 0,063$ – small influence). On the other hand, there was no statistically significant relationship with variables: plan for response ($p = 0.207 > 0.05$); and insurance ($p = 0.088 > 0.05$) (Table 7).

Based on results, in the highest percentage:

- Citizens with household incomes over RSD 90,000, have supplies (36%), food supplies for four days (68.5%), water supply for four days (52%), radio-transistor (33.3%), flashlight (50.5%), shovel (54.8%), hack (39.8%), hoe (54.4%), apparatus for firefighting (11.3%), supplies in the car (7.3%), first aid kit at home (70.6%), in the vehicle (41%), first aid kit in an easily accessible place (73.1%), discussion on plan for response with household members (25.9 %), once a month (44%), once a year (26.6%) replenish supplies, keep copies of important personal, financial and insurance documents in a safe place (33.8%), have a water supply for two days (24 %);

- Citizens with household incomes up to RSD 75,000 have food supplies for two days (21.7%), water supplies for one day (11.9%), have water supplies for two days (37.3%);

- Citizens with household incomes up to RSD 50,000 have never replenished supplies (50.6%);

- Citizens household incomes up to RSD 25,000 have food supplies for one day (19.8%), water supplies for one day (25.4%).

On the other hand, in the smallest percentage:

- Citizens with household incomes up to RSD 75,000 have supplies (22.9%), food supplies for one day (12,3,8%), one a month (26.7%) and have never (50.6%) replenished kept supplies;

- Citizens with household incomes up to RSD 25,000 have food supplies for two days (13.2%) to water supplies for four days (40.7%), have a radio-transistor (15.9%) and flashlight (36.1%), hack (23.5%), apparatus for firefighting (27.3%), first aid kit at home (47.5%), first aid kit in the vehicle (38%), first aid kit in an easily accessible place (21%), discussion on plan for response to with household members (13.6%), keep copies of important personal, financial and insurance documents in a safe place (33.8%);

- Citizens with household incomes up to RSD 50,000 have supplies for four days (57%); have a shovel (38.4%), hoe (29.8%) and supplies in the car (4.8%).

Table 7 – Results of Chi-square test of independence (χ^2) of income levels and having supplies and response plans

Kategorijske promenljive	value	df	Asymp. Sig. (2 - sided)	Cramers v
Supplies at home	18,160	8	,020*	,063
Food supplies	13,859	6	,031*	,099
Water supplies	14,239	6	,027*	,104
Radio-transistor	24,064	3	,000*	,145
Flashlight	9,848	3	,020*	,091
Shovel	9,746	3	,021*	,091
Hack	12,508	3	,006*	,103
Hoe and spade	24,098	3	,000*	,143
Apparatus for fire-fighting	14,828	3	,002*	,116
Restocking	18,468	6	,005*	,087
Supplies in car	35,083	9	,000*	,074
First aid kit at home	32,712	6	,000*	,087
First aid kit in vehicle	57,862	6	,000*	,128
First aid kit – easily accessible	27,022	6	,000*	,084
Response plan	15,665	12	,207	,048
Discussion of the plan	22,176	6	,001*	,072
Copies of documents	16,727	6	,010*	,063
Insurance	11,027	6	,088	,050

* Statistically significant correlation - $p \leq 0.05$

Conclusion with recommendations

Citizens with household incomes over RSD 90,000, in a higher percentage/greater extent: take preventive measures, would give money to help victims affected by floods, water level rise makes them to think on preparedness, have recently started to prepare and preparations have last at least 6 months, they know what flood is and know safety procedures, they point out that someone at school talked them about floods, they know what help is needed by elders, disabled and infants during floods, they would evacuate to a friend's place during floods, stand out that their neighbors can self-rescue in the event of a flood, they know what to do after an official warning about the approach of floods, say that they are familiar with viruses and infections that accompany period after the flood, they know where water valve is, switch for electricity; point out that they received information on floods over the Internet, they passed a certain training in the field of natural disasters, they would like to be educated about natural disasters caused by floods over the radio, the Internet, an informal education system; have supplies, food supplies for four days, water supplies for four days, radio-transistor, flashlight, shovel, hack, hoe, apparatus for fire firefighting, supplies in the car, first aid kit at home, in the car, first aid kit in an easily accessible place, they discussed the plan for response with household members, once a month, once a year, replenish kept supplies, keep copies of important personal, financial and insurance documents in a safe place, have supplies of water for two days;

- Citizens with household incomes up to RSD 75,000 emphasize that someone at work talked them about floods, they know where live elders, disabled, infants, would be

evacuated during floods, received flood information from relatives, at school, at university, on the radio, and in the press, have food supplies for two days, water supplies for one day, have water supplies for two days, have food supplies for one day, once a month and never replenish supplies;

- Citizens with household incomes up to RSD 50,000 would engage in providing assistance to victims in the field, would be evacuated to the upper floors of the house, evacuated to the upper floors of the house during floods; evacuated to the rented apartments during floods, they say that they are familiar with flood risk map in the local community, point out that they received information on floods from neighbors, friends;

- Citizens with household incomes up to RSD 25,000 are still not prepared, but intend to take measures in the next 6 months, are still not prepared, but will start preparing next month, would be evacuated to neighbors' places during floods, would be evacuated to neighbors' places and to shelters during floods; they would like to go through some training in the field of natural disasters, and they would like to be educated about natural disasters caused by floods on television,

When it comes to incomes at the household level, the results suggest that in the lowest percentage:

- Citizens with household incomes over RSD 90,000 would be evacuated to neighbors' places and to rented apartments, they know where water valve is, point out that they got information on floods from neighbors, they would like to be educated about natural disasters caused by floods on television, through radio, Internet, informal education,

- Citizens with household incomes up to RSD 75,000 know what flood means and are familiar with security response procedures, would be evacuated to the upper floors of the house during the flood; would be evacuated to shelters, they point out that their neighbors can self-rescue in the event of a flood, they know what to do after an official warning about the approach of the flood, they know where the switch for electricity is located (77.6%);

- Citizens with household incomes up to RSD 50,000 point out that somebody at school talked them about floods, are familiar with viruses and infections that accompany period after the floods (42.9%); point out that they have been given training in the field of natural disasters (4.1%);

- Citizens with household incomes up to RSD 25,000 would be evacuated to a friend's place during the flood, they point out that someone at work talked them about the floods, they know where live elders, disabled and infants, they know what help is needed by elders, disabled and infants during the floods, are familiar with flood risk map in the local community, point out that they got information on floods from neighbors, relatives, at faculty, over the radio, in the press, over the Internet.

- Citizens with household incomes up to RSD 25,000 took preventive measures, would give money to help victims affected by floods, would be engaged in providing assistance to victims in the field, water level rise makes them to think on preparedness, carried out preparations for at least 6 months, supplies for two days, water supplies for four days, radio-transistor, flashlight, hammer, apparatus for firefighting, first aid kit in the home, first aid kit in the vehicle, keep a first aid kit in an easily accessible place, discussion on plans for response with household members, keep copies of important personal, financial and insurance documents in a safe place.

Furthermore, citizens with incomes up to RSD 50,000 scored a higher level of preparedness of the state, of the local community for response to floods compared to citizens with incomes up to RSD 25,000; people with incomes over RSD 90,000 scored a higher level of assessments of confidence in their own abilities and the importance of taking preventive measures for response to floods compared to citizens with incomes up to RSD 25,000; people with incomes up to RSD 25,000 to a greater extent agree with statement "I think first responders will help me, so I do not need such measures", "I have no time for that", "It is very expensive", "I can not prevent it", as a reason compared to citizens with incomes up to RSD 75,000; people with incomes up to RSD 25,000 to a greater extent expect help from family, non-governmental humanitarian organizations, international humanitarian organizations, religious communities, first responders compared to the citizens with incomes over RSD 90,000; people with incomes up to RSD 25,000 to a greater extent, expect help from the neighbors compared to citizens with incomes over RSD 90,000; people with incomes up to RSD 25,000 to a greater extent, expect assistance from police, emergency medical service, military, compared to citizens with incomes up to RSD 75,000; people with incomes up to RSD 25,000 to a lesser extent, assess the efficiency of the army, emergency medical service and staffs of emergency situations compared to the citizens with incomes over RSD 90,000; people with incomes up to RSD 25,000 to a lesser extent, assess efficiency compared to the citizens with incomes over RSD 90,000.

Recommendations for improving preparedness of citizens

It should influence on citizens who have incomes up to RSD 25,000: to take measures of preparedness to respond, to deposit funds to help people threatened by floods, to get engaged in assisting flood victims in the field, to take measures of preparedness encouraged by displaying images or recordings of raising water, to raise the level of confidence in their own abilities by additional education or specific training. They should be informed about the competencies of the police, first responders and staff for emergency situations during natural disasters caused by floods. They need to be informed about the evacuation routes and nearby shelters. They should be encouraged to acquire food supplies for two days, flashlight, hack, apparatus for fire fighting, first aid kit and to discuss on how to react. Citizens with incomes up to RSD 90,000 should be influenced to evacuate in emergency situations to neighbors' places and rented apartments if needed. They should be educated about where water valve is located. Education has to be made through the radio, the internet, and non-formal education system. Citizens with household incomes up to RSD 75,000 should be influenced primarily through education about what flooding is and how to react in such situations. They should be encouraged to be educated about what they should do after official warnings about the approach of the flood and where switch for electricity is located. Citizens with incomes up to RSD 50,000 need to be learned about viruses and infections that accompany the period after floods and encouraged to undergo specific training in handling such situations. Citizens with incomes up to RSD 75,000 should be encouraged to acquire food supplies at least for one day, and to replenish them once a month.

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OPERATIONS RESEARCH IN THE FUNCTION OF OPTIMAL DECISION-MAKING, WITH THE CASE ANALYSIS ON BEGINNING OF THE FIRST WORLD WAR IN 1914 BY AUSTRO-HUNGARIAN ATTACK ON SERBIA*

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The paper is interdisciplinary in character and makes the synthesis of Operations Research Methods: Mathematical-Statistical Methods and Military-Strategic Analysis. The data are principally obtained from international and national archives, whereby there is a reasonable suspicion that all international archives are not yet open. The aim of the paper is to get to the truth concerning the causes and the role of Serbia in the onset of the First World War, by using reliable and comprehensive relevant sources of data through combined scientific methods of Operation Research and statistics, and Historic methods.

Key words: *Serbia, Austro-Hungary, First World War, Sarajevo*

Introduction

Decision making is the beginning of war. At the strategic level can be mathematically described by the following five elements [14]:

$$O = f(A, S, P, X, k),$$

where: $A = \{a_j\}$ – set of alternatives of the decision-maker; $S = \{s_j\}$ – set of alternatives of the opponent; P – mapping the decision into outcome; X – outcome, payment of the decision and k utility function.

Basic factors of the war are explained: people, material-technical factor, finance and information, space and time and it is given their mutual relationship, clearly showing the multiple superiority of Austro-Hungary over Serbia. Per each factor are given basic values and characteristics that clearly show the multiple superiority of Austro-Hungary over Serbia and is confirmed the hypothesis that Serbia could not make a rational decision to begin a war against Austro-Hungary. Military-Strategic Analysis was carried out through the following contents: 1) Crown Prince Franz Ferdinand (18th December 1863 - 28th June 1914) was the Chief Inspector of the Armed Forces of the Austro-Hungary, i.e. the military officer; 2) With a plan he attended the maneuvers of the 15th and 16th Army Corps, which were carried out on the territory of Bosnia, according to the

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developed plans of attack on Serbia; 3) On the territory of Bosnia and Herzegovina were located respective Austro-Hungarian forces (two corps, three infantry divisions, eleven brigades); 4) It is shown the relationship of the official authorities of Serbia and participants in the Sarajevo assassination [1]

In conclusion, it was pointed out the following: 1) Pre-research shows that all the archives are still not open from the military point of view; 2) It is proposed scientific and team research, with mandatory involvement of Serbian and Austrian representatives, in order to perceive this event comprehensively, objectively and independently of the actual politics and thus prevent unfounded blaming of Serbs; 3) Concretely, it was shown the possibility of applying Operations Research (combined Mathematical-Statistical Methods and Military- Strategic Analysis) in proving the truth about events in the past, as well as the prevention of unfounded and counterfeited representation of events, where scientists of this generation have a special responsibility [12,13].

Decision making process – the first step of problem solving

Every system which aspires to achieve a goal must operate in planned and organized manner. This is provided by effective decision-making, present in all processes which results in decisions [14].

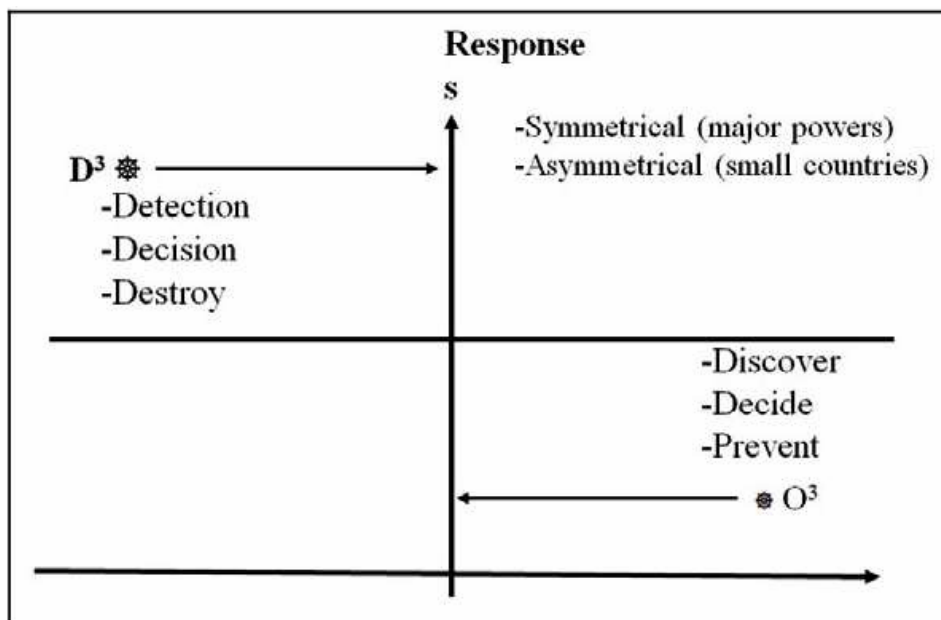


Fig. 1 – Serbia's warfare strategy in the First World War

Factors of armed struggle

Following factors affect on course and outcome of armed struggle (Fig. 2): human resources, physical resources, space, time and information. Factors armed struggle are interdependent, interconnected, conditioned and determined at the level of the conflicting parties. In particular spatial and temporal conditions of the quality and quantity of human and material resources and information have crucial influence to the course and outcome of armed struggle.

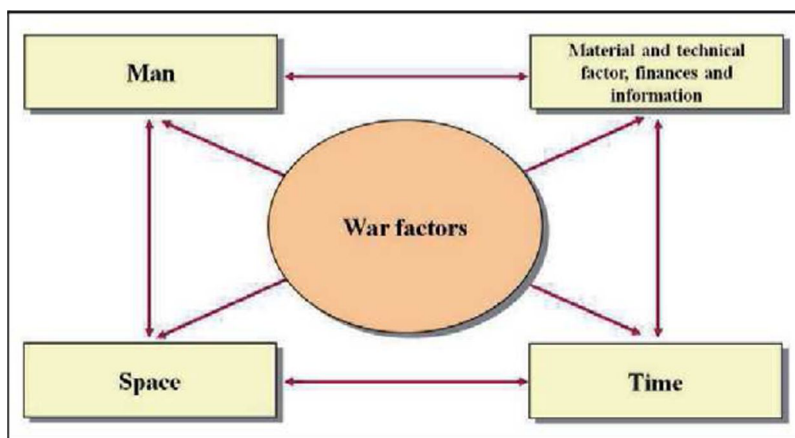


Fig. 2 – War factors

Human resources comprise the demographic potential conflicting parties capable and trained for military engagement. They have crucial influence the course and outcome of armed conflict. Human life is inviolable value in combat [7],

Material resources include natural, economic, financial, energy and information potential of conflicting parties engaged for military needs. Providing material resources for military needs have a strategic importance for the realization missions and tasks of Serbian Armed Forces. The space includes land, aquatorium and airspace where operations are performed, and its size and quality significantly influence the course and outcome of armed conflict. Skillfully use of space, with the timely preparation and planning, enables successfully carry out combat operations. Tendencies in the execution the armed struggle indicate that the operations performed by military forces from selected baseline, but without clearly defined characteristics of spatial coordination and division in front, background and depth. Time manifests itself as: historical period, duration, period of day and year and meteorological phenomena. Armed struggle is characterized by accelerating processes and activities, and because of that time became one of the decisive factors of armed struggle. Information as factor of armed struggle, expressing the availability of knowledge and information necessary for the efficient leadership at all levels, thus reducing the uncertainty in military activities. The quality and timeliness of information are requirements that each level of command trying to provide [2].

Quantitative analysis of factors of war

GNP in 1913 was 35.9 times higher in Austria-Hungary than Serbia.

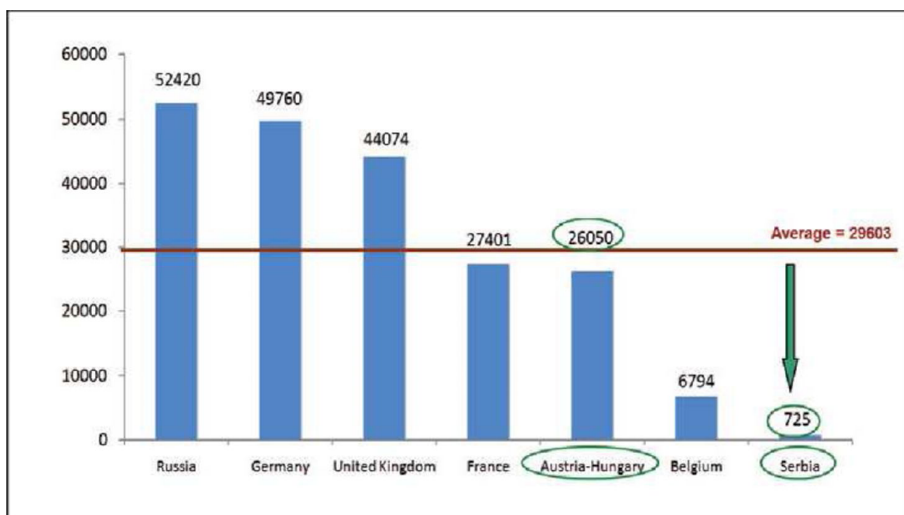


Fig. 3 – GNP (PPP) in 1913 (in millions of 1960 US dollars)

GNP per capita in 1913 was 2.8 times higher in Austria-Hungary than Serbia.

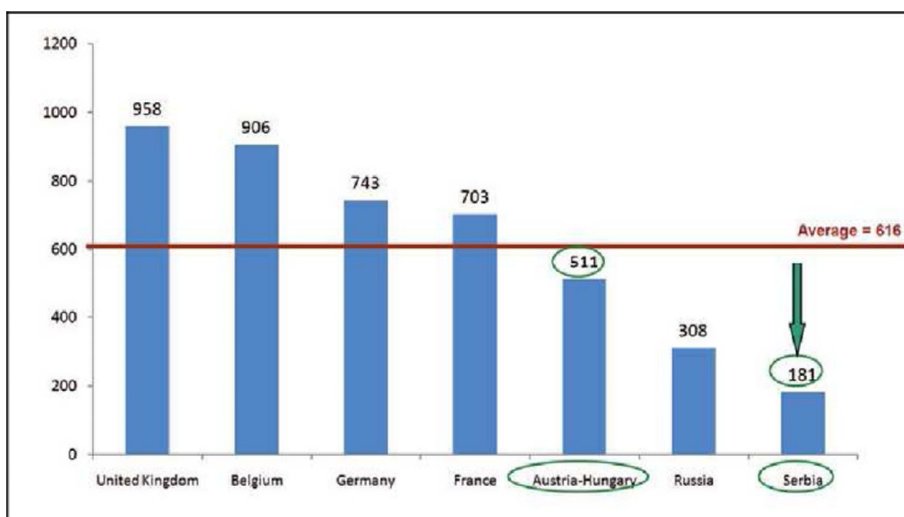


Fig. 4 – GNP (PPP) per capita in 1913 (in 1960 US dollars)

Population and area at the beginning of the First World War: Serbia – Austria – Hungary:

- Austria-Hungary had 12.75 times more population.
- Austria-Hungary had 7.6 times bigger area.

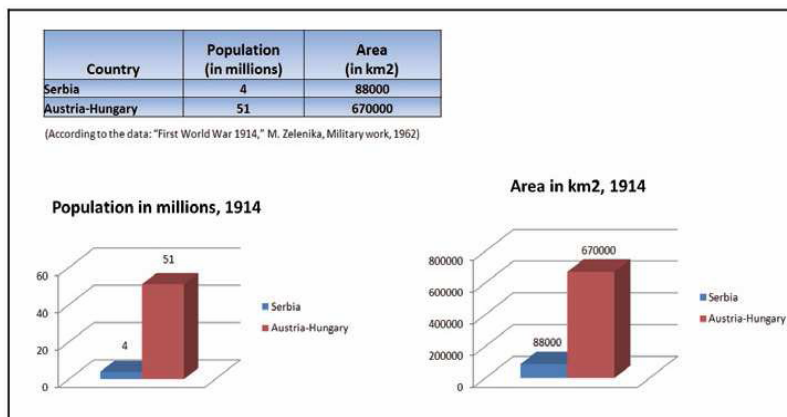


Fig. 5 – Population and area at the beginning of the First World War

Armed forces at the beginning of the First World War: Serbia – Austria – Hungary

- The ratio between the peace-time armed forces of Austria-Hungary and Serbia was 9:1.
- The ratio between the mobilization armed forces of Austria-Hungary and Serbia was 7.4:1.
- The ratio between the operational army of Austria-Hungary and Serbia was 7.2:1.

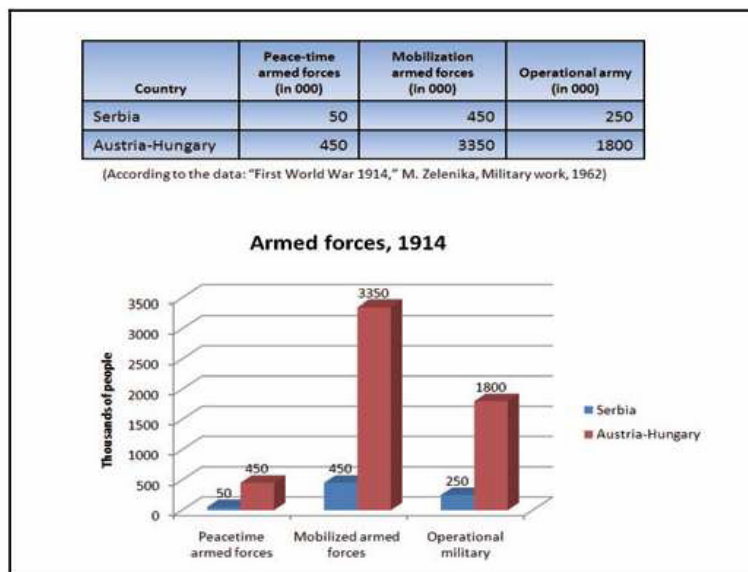


Fig. 6 – Armed forces at the beginning of the First World War

Relative share of the mobilized population of Serbia was almost twice as big as the relative share of the mobilized population of Austria-Hungary.

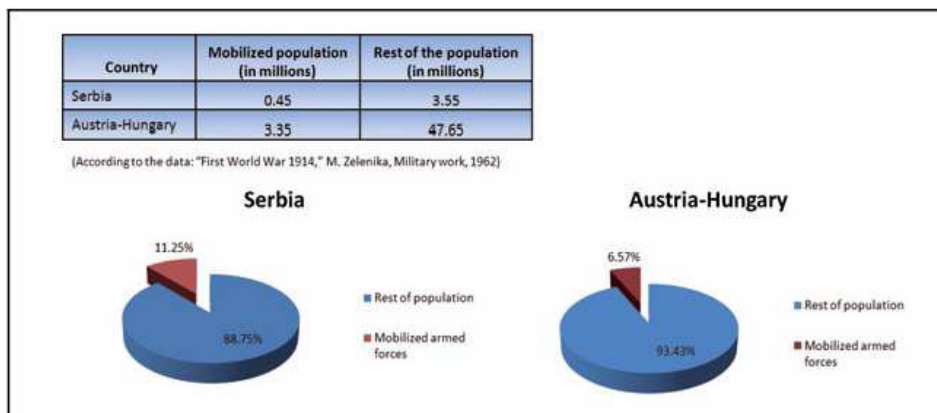


Fig. 7 – Population and area at the beginning of the First World War

A brief historical analysis of the beginning of war

“The battle between the Slavs and the Germanics cannot be avoided. It is bound to happen. When? It is to be seen... The Slavs were not born to rule, but to be servants and they must be made aware of this”. Sarajevo assassination on 28th June, 1914 was carried out against the Austria-Hungarian heir to the throne Franz Ferdinand in Sarajevo – Bosnia and Herzegovina (B&H) [1].

As a matter of example, when discussing this topic, the American President Woodrow Wilson asked: “What are Austria-Hungary and Franz Ferdinand doing in Bosnia?” Wilson maintained that “these were Serbian lands and they (Austria-Hungarians) had nothing to do there”. The assassination was carried out by a group of 8 members of all three nations from the then B&H (Serbs, Croats and Muslims) who were members of the Mlada Bosna organization.

Mlada Bosna was a youth liberation association which grew into a movement and whose members came from all three nations that lived in B&H, without organizational structure, and with no financial support from the background. In the then Europe there were similar organizations in Italy, Germany, Romania.



Fig. 8 – Direction of the operations – main forces are directed towards Serbia

Before the Sarajevo assassination, in the period from 1902 to 1914, the police was on an alert a dozen times, because they received information regarding the preparation of an assassination of Franz Ferdinand.

According to reliable sources, there were three attempts (1902 – Italy, 1906 – Slovenia, where a wagon in the heir to the throne's train was blown up on 14th August during the military maneuvers near Moravska Ostrava). During this period, assassinations of tyrants were frequent in Europe. Many people in the monarchy considered the heir to the throne a tyrant, as did the members of Mlada Bosna [3, 4].

During the visit of Archduke Franz Ferdinand to the city of Sarajevo, an eight-member group of the Mlada Bosna organization spread along the route of the heir to the throne. The first attempt at assassination by Nedeljko Čabrinović failed. The second attempt by under-age Gavrilo Princip succeeded [5, 10].

Gavrilo Princip was born in Veliki Obljaj, Bosnia and Herzegovina, in 1894 and passed away at the prison in Terezin, Czechoslovakia, in 1918. The shown photograph was taken over from the investigative judge Pfeffer after 1938 [3].



Fig. 9 – Gavrilo Princip

The photo was first shown at the Scientific Meeting of historians held in Gacko in 2013.

“Gavrilo Princip, who fired the shot, did so on account of being imbued with the ideals of nationalism as a sign of protest against the oppression of the Southern Slavs”.¹ The most complete and most objective appraisal of the Sarajevo assassination given by the investigative judge engaged for this process.

“Although the Great War found me still conducting the investigation, I was convinced then, as I am now, that the Sarajevo assassination did not cause the war, but rather that it was only the torch that enflamed a complex pyre of intertwined interests”.

“The security measures on the day of the assassination were quite insufficient and the procedure after the first attempted assassination imprudent to the very end. By deciding that the heir to the throne Ferdinand should visit Sarajevo right on the biggest national holiday of the Serbs, Vidovdan, the authorities in the Monarchy provided Princip and Čabrinović with the final impetus to carry out the act”.

Mlada Bosna was youth, multi-national, liberation association similar to others in Europe which fought against the oppression of the Southern Slavs. Gavrilo Princip, a juvenile, opted for assassination in his fight against the oppression of the Southern Slavs, since at the time it was the only method of fighting the aggressors in Europe [1, 6, 10]. “Hetendorf (Chief of General Staff of Austria – Hungary) first proposed a preventive war against Serbia in 1906, then repeated this in 1908–1909, then again in 1912–1913, in October 1913 and in May 1914. Between 1st January, 1913 and 1st January 1914, he proposed war against Serbia 25 times. He had full support of Germany”.²

“Although Mr. Wizner already on 13th July, 1914 reported back to Vienna that the results of the investigation did not prove any guilt on the part of the Serbian government, the Vienna and Pest diplomats blamed the Serbian government nonetheless, as if it was its task to safeguard the Austria-Hungarian heir to the throne”.³

Some indicators of the consequences of war

However, human losses of Serbia in the First World War were far greater than any of the warring parties and amounted to as much as 28% of the total the population of Serbia in 1914.⁴

¹ “Investigation in the Sarajevo assassination,” L. Pfeffer, New Europe, Zagreb, 1938.

² Military historian New Strachan, 2001.

³ “Investigation in the Sarajevo assassination.” L. Pfeffer, New Europe, Zagreb, 1938.

⁴ According to the data: „Epilogue the First World War in numbers”, Alexander Nedok, Milisav Sekulić, a special edition of the journal “Military Medical Review,” no. 65 („Serbian army medical corps from 1917 to 1918”).

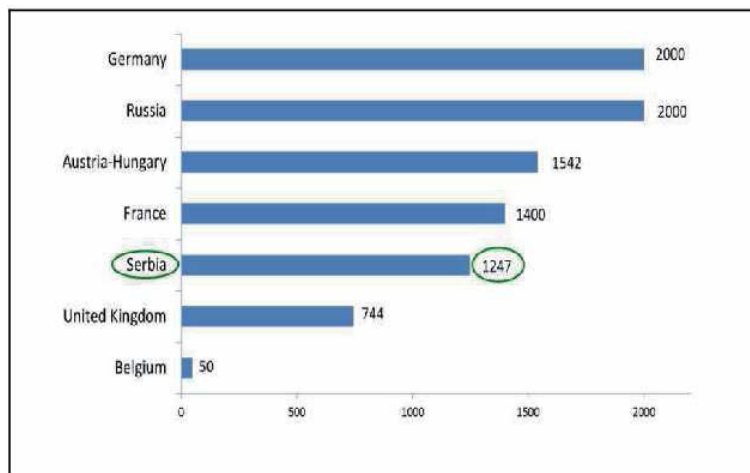


Fig. 10 – Victims of the First World War (in thousands)

According to the data: “Epilogue the First World War in numbers”, Alexander Nedok, Milisav Sekulić, a special edition of the journal "Military Medical Review," no. 65 („Serbian army medical corps from 1917 to 1918”) relative share of the victims in the population was as follows:

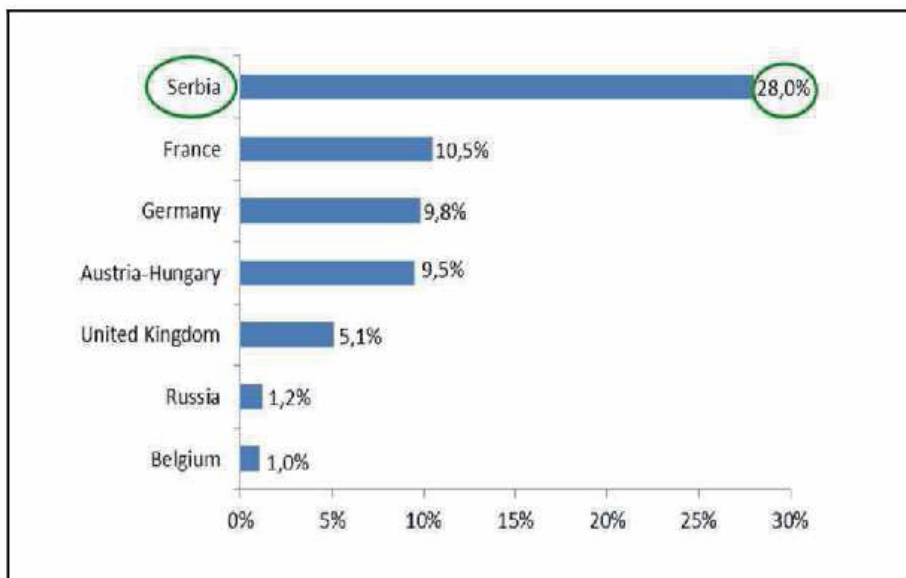


Fig.11 – Relative share of the victims in the population

According to the data: „Epilogue the First World War in numbers“, Alexander Nedok, Milisav Sekulić, a special edition of the journal "Military Medical Review," no. 65 („Serbian army medical corps from 1917 to 1918“) “First World War 1914,” M. Zelenika, Military work, 1962.

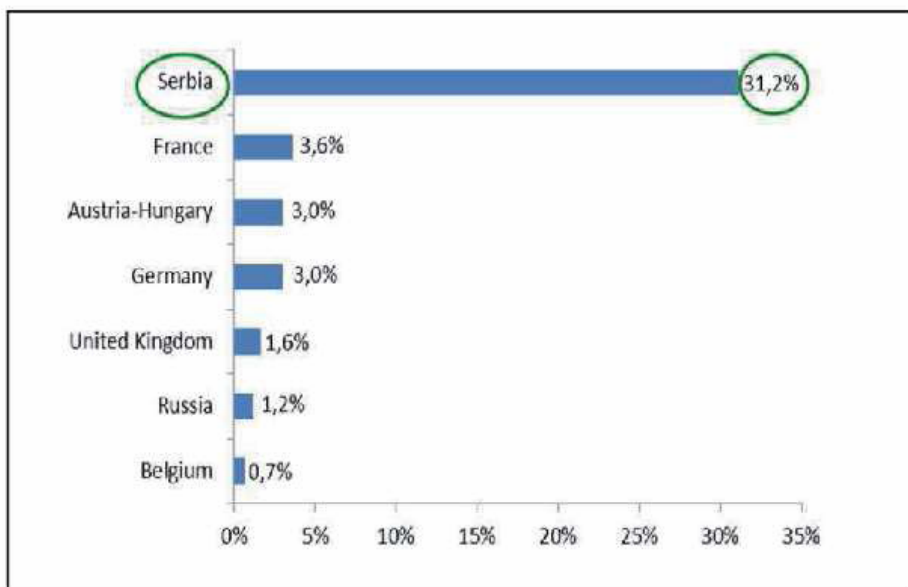


Fig. 12 – Relative share of the victims in the population

Victims of the First World War – relative share of civilian losses of Serbia is 67.74%.

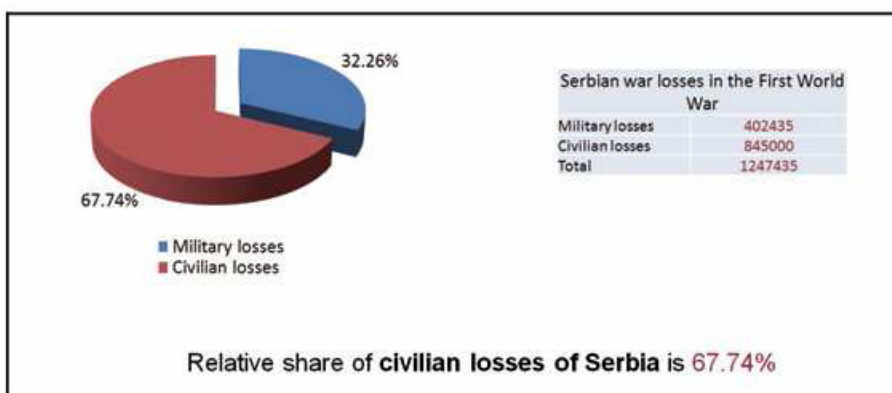


Fig. 13 – Victims of the First World War (in thousands)

According to the data: "Demographic losses caused by Serbian wars of the 20th century", Dušan Vručinić, the Museum of Genocide Victims, Belgrade, 2007, Civilian losses, Serbia, World War I:

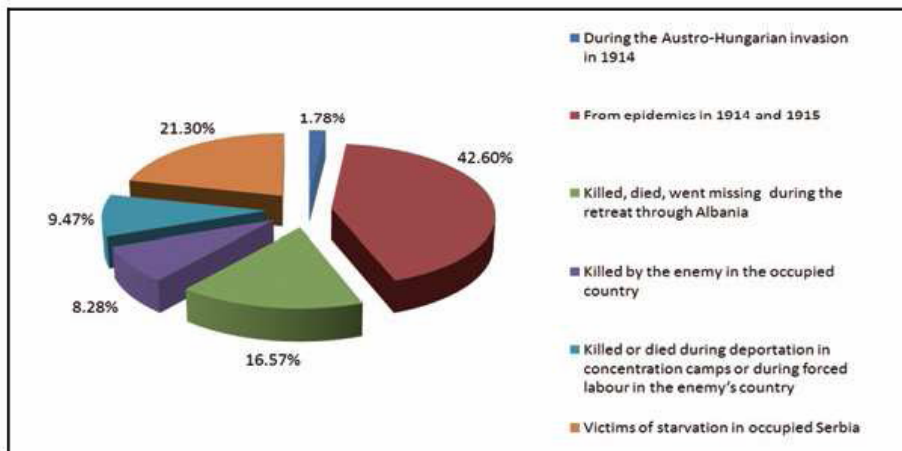


Fig.14 – Civilian losses, Serbia, World War I

According to the data: "Demographic losses caused by Serbian wars of the 20th century", Dušan Vručinić, the Museum of Genocide Victims, Belgrade, 2007 "First World War 1914," M. Zelenika, Military work, 1962, of 450,000 mobilized armed forces there was 402,435 military losses.

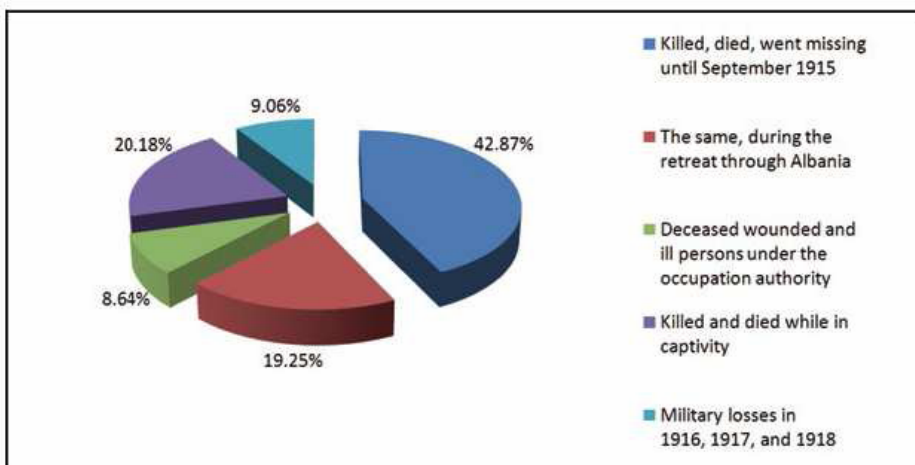


Fig. 15 – Military losses, Serbia, World War I

According to the data: „Epilogue the First World War in numbers“, Alexander Nedok, Milisav Sekulić, a special edition of the journal "Military Medical Review," no. 65 („Serbian army medical corps from 1917 to 1918“), killed and died officers and soldiers during World War I:

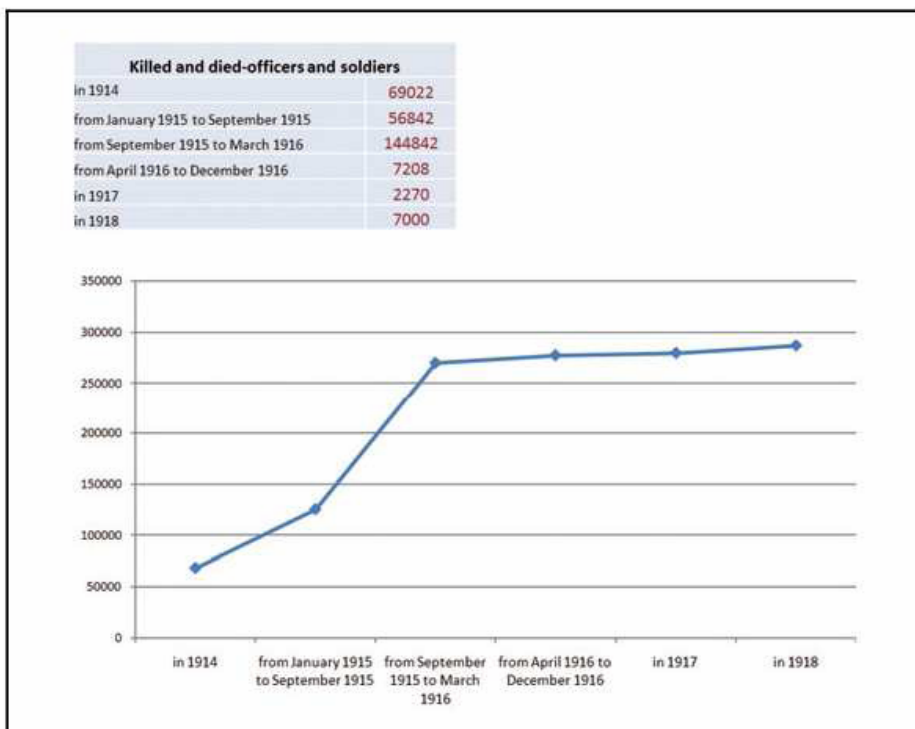


Fig. 16 – Killed and died officers and soldiers, World War I

The basic cause is the discrepancy in the ranking of the major powers and the division of the world.

19th century ranking:

1. United Kingdom
2. France
3. USA
4. Germany

20th century ranking:

1. USA
2. Germany
3. United Kingdom
4. France

Germany wants a new division in Asia, Africa and then in Europe as well. With the likeminded, Austria-Hungary, it signs the Agreement on the destruction of Serbia on 23rd October, 1913 (8 months before the Sarajevo assassination) [8, 11]. Today, the Operation Research and statistics methods are predominantly used for foretelling the future. In the paper, they were used for proving the truth about the past.

CONCLUSIONS: The paper shows that the only right way to the truth regarding the role of Serbia in the onset of the First World War is by using:

- Concrete evidence based on the relevant documents which are a source of data;
- Data from all possible sources - analyses must be conducted in unchanged conditions in relation to the events that have taken place;
- Multi-dimensional and comprehensive analysis models (demographic, technical, economic, spatial, time aspect, etc.).
- The precondition for the beginning of the First World War was the political decision of Germany.
- The Sarajevo assassination was carried out by under-age Gavrilo Princip, member of youth, multi-national, liberation association *Mlada Bosna*.
- The tyrant assassination method was a frequent phenomenon in Europe during that period.
- Serbia, worn out by the Balkan wars (1912–1913) needed a necessary recovery and not a new war.
- The official authorities of the Austria-Hungarian investigation did not find any evidence in July 1914 that the official Serbian Government was responsible for the Sarajevo assassination.

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