Chapter 5
Risk Management in the Protection of Soft Targets at Ukraine

Viacheslav Berezutskyi, Nataliia Berezutska, and Viktoria Khalil

Abstract Approaches to the application of risk management in the protection of Soft targets are considered. The analysis were made of the current situation in the world and Ukraine with a terrorist threat at the above mentioned facilities, necessary measures to be offered to prevent or mitigate the possible negative consequences of the existing risks is performed. The characteristic has of objects of care out which are classified as "Soft targets" is shown, existing threats are shown. The main aspects of risk management of «Soft targets» are considered. It is proposed to consider the application of risk management in solving a complex problem of protecting civilian objects that do not have specialized and effective protection. The lack of such safety (protection) makes them vulnerable to terrorist attacks. The scope of this approach is to ensure that all strategic, managerial and operational tasks of the executive and other organizations, at all levels of government, are coordinated with the management's risk to protect "Soft targets" for all projects, functions and processes.

Keywords Soft target · Management · Protection

5.1 Introduction

A change in the state structure of the country is always reflected in neighboring states. The collapse of the Soviet Union gave impetus to the development of terrorism in Europe and other countries. The types of terrorism and its forms have changed. The latest type of terrorism is a hybrid war that the whole state of Russia unleashed against another sovereign state – Ukraine. In the countries of the former

V. Berezutskyi (✉)
"Kharkiv Polytechnic Institute", National Technical University, Kharkiv, Ukraine

N. Berezutska
Kharkiv National University of Radio Electronics, Kharkiv, Ukraine

V. Khalil
O. M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine

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USSR, acts of terror were sporadic and rarely happened; this was the case even after its collapse. Mostly there were political and criminal acts accompanying violence. Freedom of the individual in the understanding of some people has the form of expression in the form of acts of violence against other fellow citizens. In the countries of the post-Soviet period, the police system and counterintelligence were and remain very strong. They are aimed at constantly monitoring the citizens. Perhaps that is why in these countries there are no open acts of terror and there are no registered terrorist organizations. But everything is changing, and now in Ukraine a large number of weapons are in the hands of people who are spreading out of the war zones of the cities of Donetsk and Lugansk. War grenades in houses began to explode; sometimes they fired pistols and even machine guns. As a rule, this or former warriors of an anti-terrorist organization or intelligence of a neighboring state eliminate unwanted citizens. First of all, the civilian population suffers from all this. Therefore, one of the main tasks for specialists in the field of civil security in Ukraine is the recognition at an early stage of the risks and threats of possible hazards, the development of effective measures to prevent them and the management of risks to protect soft targets. Soft targets in Ukraine are very vulnerable and their protection requires urgent action. To address these issues, it is necessary to introduce international protocols and standards into the social environment of the country. At the present hour it is progressing very slowly. Articles such as this and NATO international conferences with the participation of experts on terrorism such as General Dr. Jennifer Hesterman and others will help us better understand the intricacies of these issues and find ways to solve them at the national level.

5.2 General Characteristic of "Soft Target" at Ukraine

Safety and human health are often interdependent. The reason for this is connected with the organization of the management structure as a rule. The strong ties are between these disciplines. One of the strongest links between them is that one risk event can have consequences in many areas. The objects of "Soft targets" in Ukraine do not belong to the category of objects of increased danger which means that the local executive authorities trust to resolve security issues directly to the managers of such facilities at their own discretion.

The evolution of terrorism affects the history of the development of mankind which begins with individual cases of attacks on politicians and ends with massive planned attacks of well-organized paramilitary groups in the modern world. With the history of the development of science and technology, a parallel trend was terrorism. At different times, terrorism set different goals and objectives but the result remained the same: the death of people and the destruction of the infrastructure of cities, intimidation and panic among the population, and other negative consequences. Under modern conditions, terrorism began to take on various forms and sometimes merge with radicalism, extremism, banditry and other kinds of modern struggle for power and money. The analysis of the real events taking place now in Ukraine will

be made after many years. However, even now it can be noted that our country occupied 11th place in the international ranking of world terrorism, and since 2017 is at 17th position, i.e. the indicators have improved, although it is among the 20 countries with a high level of terrorist threat [1].

Considering the issues of terrorism and possible vulnerabilities in soft-targeted objects, it is necessary to take into account the extensive practical experience of General Dr. Jennifer Hesterman, who he and his colleagues presented to us in the books "Soft target and crisis management" and "Soft Target Hardening Protecting People from Attack ". These books look at the nature and origin of terrorism in the world and evaluate protection systems against it. This is an appreciable contribution to the fight against terrorism, but now it is necessary to connect a scientific apparatus with the practice to improve the methods considered [2, 3].

The objects of the social structure related to the soft target are very diverse. Among them are such soft targets that should must be have hard protect as at there are helpless sick citizens of different ages and positions of them in society do not to play any rule. Such facilities include hospitals, clinics, and nursing homes. In their article, the authors are De Cauwer H, Somville F, Sabbe M, and Mortelmans LJ [4]. Hospitals: soft target for terrorism? Analyzing a similar situation in Ukraine, one can note its relevance for us. But also, as in the previous case, it is necessary to consider scientific approaches, analyze situations and develop protocols and standards to protect such soft targets from terrorist threats.

The terrorist actions didn't were registered in the territory of Ukraine until 2014, nor was the existence of terrorist organizations. The recorded cases of explosions and attacks on objects were of a criminal or political nature, connected with the redistribution of power of individual gangster groups or political parties. For the first time begin use the term terrorist attack was in connection with the actions of Russian paramilitary groups and the armies of the DPR (city Donetsk) and LPR (city Lugansk), and also in the Crimea at Ukraine. It this period of time from 2014 to 2018 years more 10,000 people died according to the UN data in these regions of Ukraine as a result of terrorist groups' attacks [5].

Our country was not ready for such acts of violence. Now our government and the people of Ukraine assess terrorist threats differently. Thus there is a real threat of the proliferation of weapons and terrorist groups throughout Ukraine and now this problem of protecting «Soft targets» has become very relevant.

It is proposed to consider the following issues:

1. General characteristic of "Soft target" at Ukraine
2. Approaches to the management of «Soft target»
   - Risk Management of «Soft targets»
   - Identification of risks
   - Risk assessment by the «Soft targets»
3. General conclusions

The goal of our research is to prevent terrorist attacks or other violent impacts on «Soft target» facilities by developing and implementing risk management technologies.

The history of the appearance in Europe of the term "Soft target" is very young and has no more than 20 years but meanwhile terrorism appeared long ago as a phenomenon.

If we follow the hierarchical levels of safety proposed by prof. Hofreiter [20–22] it should be noted that "Soft target" as objects of protection (care) are at the level of group security below which in the hierarchy – individual security [2].

Based on publications Ing. Zdeněk Kalvach [3] the "Soft target" is vital objects where there can be a significant number of people without special protection.

Typical soft targets include:

- Schools, dormitories, canteens, libraries,
- Religious objects and places of worship,
- Shopping centers, trading floors and commercial facilities,
- Cinemas, theaters, concert halls, entertainment venues,
- Meetings, parades, demonstrations,
- Bars, clubs, dance clubs, restaurants and hotels,
- Parks and squares, tourist attractions and attractions, museums, galleries,
- Sports arenas and stadiums,
- Important transport facilities, railway and bus stations, airport terminals,
- Hospitals, medical centers and other medical institutions,
- Public meetings, pilgrimages, fairs
- Cultural, sports, religious.

It is not possible to count the exact number of such objects and events in Ukraine because now they all enterprises have different forms of ownership, of legitimacy and some (meetings, parades and others) are of a periodic nature.

The city of Kharkov is one of the largest scientific and technical and developed centers of Ukraine. The population of the city is 1,450,082 people. The only city in Ukraine that has a full set of Council of Europe awards: Diploma, Honorary Flag, Table of Europe and the Prize of Europe [4]. In Soviet times it was the largest center of tank, tractor and turbine construction and the third largest industrial, scientific and transport center after Moscow and Leningrad. In the second half of the XX century – the main transport hub of South-Eastern Europe.

In the city of Kharkiv there are 142 research institutes, about 69 higher educational institutions (17 universities and 9 academies), including the Kharkiv University (the fifth in the Russian Empire, founded in 1805) and the Polytechnic Institute (the second polytechnic university of the Russian Empire, founded in 1885), in which 230 thousand students study; 16 museums, a city art gallery, 6 state theaters, 80 libraries.

The local government body is the Kharkov City Council. In 2012, it was one of the four cities of Ukraine that hosted the European Football Championship 2012. In Kharkiv there are more than 218 schools, 11 operating cinemas, about 30 theaters (including a zoo and a planetarium), 27 city hospitals and more than 30 polyclinics, more than 40 large shopping centers and others. The underground net (metro) is at

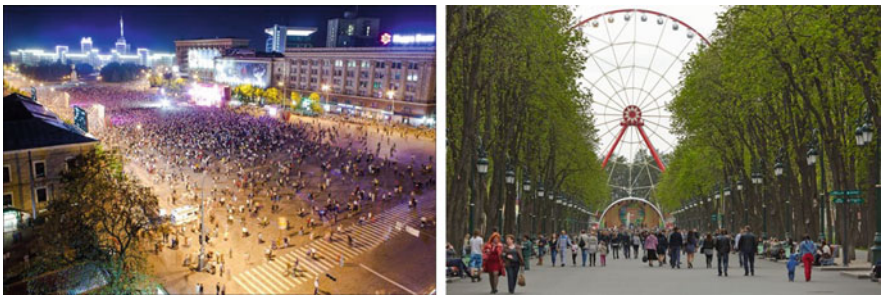

Fig. 5.1 Selected Soft target in the city of Kharkiv, Ukraine (square and park)

Kharkiv. In the squares of the city and in the parks there are always many residents of the city, which may be the object of a terrorist attack (see Fig. 5.1).

All of the above and similar institutions can be classified as "Soft targets". An analysis of past terrorist attacks in the world, revealed the following predominant forms of attacks that need to be considered in order to develop an effective security system to protect «Soft targets» from terrorist attack (Ing. Zdeněk Kalvach) [3] are:

1. Bomb:
   - Return bombs (except when the bomb is in the vehicle).
   - A bomb, delivered by mail,
   - Bomb in a parked vehicle,
   - A car loaded with a bomb and aimed at the target, driven by an attacking suicide;
2. Attack of suicide bombers;
3. Arson;
4. Assault with a weapon (pistol, machine gun, etc. – active shooter);
5. Hostages and barricade situation;
6. Attack with a cold weapon (knife);
7. The crowd attacks the soft target;
8. Vehicle aimed at the target.

The greatest danger for Ukraine's represented from the data given as p.p. 1, 3–6 and the destruction of infrastructure need added to mention above.

Issues of classification of terrorism and management risk are considered in the textbook "Fundamentals of Occupational Safety and Health of Man" (2018) [5] and the training manual "Safety of Living" (2005–2007) [6, 7] published by the NTU "KhPI", Kharkiv. The program material of universities in Ukraine does not cover in the proper volume such objects that characterized as «Soft targets» so they should be considered separately. The above-mentioned objects of protection "soft targets" have their own specifics, which requires more detailed study and consideration of approaches in managing their safety.

5.3 Approaches to the Management of «Soft Target»

Risk Management of «Soft Target» Risk Management of «Soft target» is invited to draw on the basis of standard ISO 31000:2009 [8]. The classic form of standard for risk management gives a list in order of preference as to how to deal with risk:

- Avoid risk, deciding not to start an activity that generates a risk;
- The adoption and preservation of risk by making an informed decision;
- The source of risk of removal;
- The likelihood of a hazard a change;
- The consequences are changing;
- Risk sharing with the other party or parties (including contracts and risk financing).

Let's perform the short analysis do of the above mentioned approaches to risks for situations with «Soft target» in Ukraine.

Avoid Risk, Deciding Not to Start an Activity that Generates a Risk
Regarding Ukraine, such purposes include meetings, rallies, demonstrations and the like. Such events are held quite often. They are initiated by political parties, trade union organizations, individual businessmen and deputies from the authorities. Other organizations and businessmen opening their business very carefully carry out calculations on the magnitude of the risks.

The Adoption and Preservation of Risk by Making an Informed Decision
Attending children to schools, attending meetings, going to shopping centers and cinemas and other places indicated as soft goals is an aspect of life that is necessary for a person. Each person chooses one or another store, one or another cinema at his own discretion but as a rule, he rarely thinks about the risks to his life, but thinks about the benefits and amenities, about the achievement of his goal of these visits. It is getting used people living in the threat environment. This is unacceptable but they have to live.

The Source of Risk of Removal
The removal of the source of risk can be achieved by building a fence, from which a sufficient distance must be walked to the establishment. The access at territory of the institution for third-party or suspicious people at the entrance need to limit. Prohibit the entry of vehicles in certain areas and establish observation points. Therefore, schools and hospitals must have fences and controlled walk-through.

The risk is determined by the danger to the life and health of people, which appears in certain places that must be identified and controlled. The achievement by the carriers of the danger, the chosen targets, should be as difficult as possible and take a long period of time for them.

The Likelihood of a Hazard a Change
The ideal option is when the dangers are minimal and cannot harm people. But the situation is when there are a lot of uncontrollable weapons and ammunition in the

country, including grenades which are in the possession of a certain part of the population. This is the result of hostilities in the east of the country. The Security Service of Ukraine is engaged in the prevention of the proliferation of weapons in the regions, but cannot completely stop this process. Consequently, weapons and explosives may appear in schools and other places where people are located. Therefore need control at the entrance and inside the «Soft targets».

The Consequences Are Changing

Risk analysis shows that there are no trifles in solving the issues of ensuring the necessary level of security on the ground. Even garbage bins, it is necessary to investigate based on the fact that with an explosion inside it, elements of this urn become striking factors. Glass showcases, with the explosion scatter the pieces of glass that hit living objects. Incorrectly stored gas cylinders with gas can cause buildings to collapse in an explosion caused by arson. In order to take all this into account, it is necessary for security specialists to do an analysis of possible event scenarios taking into account the above.

Risk Sharing with the Other Party or Parties

There are several options for implementing this approach. The first is when "the strong resists the strong." That is, a danger is prevented by a well-trained specialist (specialists) who have protection elements adequate to the level of threat. The second option, "smart (cunning) is opposed to the strong." In this case, the specialist has something other than the usual elements of defense and defense. The modern and computer technology comes to him aid. The third option, "let someone get lucky, but some does not." It this cases all people are insured on case of danger and then, receive compensation for damage to health.

In the ideal risk management process, the process of setting priorities is implemented, according to which the risks with the greatest loss (or impact) and the highest probability of their occurrence are processed first, and risks with less probability of occurrence and smaller losses are processed in descending order. In practice, the process of assessing the overall risk can be difficult, and therefore balancing existing material and non-material resources, to mitigate risks with a high probability of occurrence. In this case, there is a threat that objects with high losses, but with a lower probability of occurrence, can often be incorrectly identified, and therefore not have adequate protection.

Risk management also faces difficulties in allocating resources. Resources spent on risk management can be spent on more profitable types of production activities. Again, optimal risk management minimizes costs (or labor or other resources), and minimizes the negative consequences of risks.

Methods of risk management of protection of soft targets, for the most part consist of the following step-by-step actions:

1. Identify and characterize threats;
2. Assess the vulnerability of critical soft targets to specific threats;
3. Determine the risk (that is, the expected probability and consequences of specific types of attacks on specific objects)

4. Identify ways to reduce these risks;
5. Determine the priority of risk reduction measures based on the strategy.

Risk management should:

- create resources to perform risk reduction, and they must be adequate to the magnitude of the risk;
- be an integral part of organizational processes;
- be part of the management decision-making process;
- take into account uncertainties and assumptions;
- be systematic and structured;
- be based on the best available information;
- be adapted;
- consider human factors;
- be transparent and inclusive;
- be dynamic, iterative, and respond to change;
- be capable of continuous improvement;
- Constantly or periodically reevaluate.

In accordance with ISO 31000 [8] the risk management process consists of the following steps:

1. Define the risk in the chosen area of interest («Soft targets»);
2. Planning the process of object protection;
3. Performing operations:

- Connection to risk management of society;
- Identification of stakeholders – personalities and goals;
- Identification of the key indicators for assessing risks and constraints;

4. Defining the order of activities and performance indicators;
5. Development of risk analysis methods related to the process of protection of «soft targets»;
6. Mitigate or reduce risks using available technological, human and organizational resources.

Identification of Risks After defining the protection object – «Soft target», the next step in the process of risk management is the identification of potential risks (sources of hazards). Risks – in our case, these are events that cause a threat to the life and health of people in objects identified as «Soft target» when implemented. Therefore, the identification of risk can begin with identifying the source of our problems or the problem itself.

Initial analysis – sources of risk may be internal or external to the system (a soft target), which is the goal of risk management. Considering the significant number of such objects in cities and towns, the term softening can be used instead of management, because by its own definition the risk is associated with decision-making factors that cannot be controlled.

Examples of sources of risk and our problems are: stakeholders of a terrorist attack which may include recruited employees of companies.

Analysis of problems – risks associated with identified threats. For example: the threat of penetration of terrorists (intruders) into energy supply systems of facilities, abuse of confidential information, the threat of a planned accident, and others. Threats can come from various terrorist organizations, and even governments.

When the source of the threat is known, events that it can cause, events that can lead to a vital problem can be investigated. For example: confidential information that can be stolen even in a closed network; the launched quadrocopter hitting the plane during take-off that can make all the people on board victims.

The chosen method of risk identification may depend on the culture of the population, the experience of specialists and the appropriate level of necessary protection of the soft target [16–18].

Identification methods are formed using templates or developing templates to identify sources, problems, or events.

Identification of risks based on the goal – protection of «Soft targets». Any event which can supply the achievement of a goal, partially or completely, is defined as a risk.

Risk identification based on the scenario. When scripts are analyzed, different scenarios are created. Scenarios can be alternative ways to achieve the goal or analyze the interaction of forces involved in protecting a soft target. Any event that triggers an alternative to an unwanted scenario is identified as a risk.

Consider examples of spraying an unknown gas in Ukrainian schools in 2018. In Kharkov, at school №3, as a result of the spraying of unknown gas, 31 children sought medical help, 15 of them were sent to the hospital. “Six emergency medical aid teams were sent to the place, according to the father of one of the hospitalized schoolgirls Oleg Golovkov, according to the symptoms, the sprayed substance is not like pepper gas.” According to the press service of the Kharkov Regional State Administration, the state of hospitalized children is estimated as moderate [9].

A similar case took place in Nikolaev (Ukraine) in the same year. In Nikolaev, due to the spraying of an unknown substance, 36 children were hospitalized in the school № 6; two of them are in intensive care [10].

Prime Minister Vladimir Groisman urged the National Police and the Security Service of Ukraine to check whether there is a connection between cases of spraying tear gas in schools in different regions. “We need to look more closely at the reasons why this is so, or it simply does not happen in a coordinated way, or it is already beginning to be coordinated between the schools,” the prime minister said at a government meeting on May 23. He also noted that it is necessary to determine “who sells these cans, and how they fall into the hands of these children.” [11].

Similar dispersal was in other schools, educational institutions, shopping centers and underground in Ukraine, Poland and Germany. Is this random event or actions were planned?

- Risk identification based on taxonomy. Taxonomy in the definition of taxonomic risk is a breakdown of possible sources of risk. A questionnaire, tables and

conclusions need to drawn that help to identify risks that based on taxonomy and knowledge.
- General risk check. For soft targets, information with known risks and events should be available. Each such risk can be tested for application in a specific situation.

Currently, many options are used to determine the magnitude of risk and a not quite correct understanding of the concept of risk has developed. It turned out because of the free determination of the probability of an event. Many researchers, because of the need to give practitioners a more convenient tool in their hands to determine risk, suggested using quantification methods, assigning difficult-to-determine points (for example, from 0–5, 1–10 and etc.) based on a priori information [19]. This led to the fact that the definition of risk, in the probabilistic expression that it should have, was reduced to finding some values that supposedly reflect a risk indicator. We believe that the use of points can take place, but then it is not a strict definition of the magnitude of the risk, but an indicator of the likely danger and it reflects the approximate level of this danger. These indicators should be called risk indicators, in contrast to the true values of risks, which are determined on the basis of calculations of the mathematical probability of an event.

There are many different risk identification formulas, but perhaps the most common formula for quantifying risk is the occurrence rate (or probability) (*P)* multiplied by the magnitude of the event (*C*) [15].

$$\mathrm{R} = \mathrm{PC} \tag{5.1}$$

Composite risk index. The above formula can also be rewritten as an aggregate risk index as follows: the risk index Rs is the product of the impact of the risk event (f) and the probability of its occurrence (P):

$$\mathrm{R_s} = \mathrm{fp} \tag{5.2}$$

The impact of a risk event (f) is usually evaluated on a scale of 1 to 5, where 1 and 5 represent the minimal and greatest possible risk impact (usually in terms of financial losses). However, the scale from 1 to 5 can be arbitrary and should not be linear.

The probability of occurrence (P) is also usually estimated on a scale of 1 to 5, where 1 is a very low probability of occurrence of a risk event, while 5 is a very high probability of occurrence. This axis can be expressed either in mathematical term (the event occurs once a year, once in 10 years, once in 100 years, etc.) Or it can be expressed in "simple English" (the event happened here very often, the event is known here, the event is known to occur in schools, etc.). Again, the scale from 1 to 5 can be arbitrary or non-linear depending on the decisions of experts on the subject.

Thus, the composite index can take (usually) values from 1 to 25, and this range is conventionally divided into three sub-ranges. The overall risk assessment is low, medium or high, depending on the sub-range containing the computed value of the

Composite Index. For example, three sub-ranges may be defined as 1 to 8, 9 to 16, and 17 to 25.

The Method of Risk-Indicator Famous method of Fine-Kinney does not consider the physic-chemical and other properties of the materials and mainly relies on the personal perception of dangerous and harmful factors of the area were people are. Who interrogated of people it is not always correctly identified those threats. The method of determining the Risk-Indicator that developed by the National Technical University "Kharkov Polytechnic Institute" tried to reduce the risk assessment to a more objective [12–14]. We proposed indicators of danger (symbol – *RI* – Risk – Indicators) that is defined by the following expression:

$$RI = \text{People} \times \text{Factors} \times \text{Probability}, \tag{5.3}$$

where, People – number of people that can be exposed to this factor;

Factors – number of hazardous factors (the factors which influence the result and leads to serious injury or death);

Probability – the Probability ranges from 0 (Absolutely impossible) to 10 (Expectations that happens). It's like at method Fine-Kinney. A possible presentation of risk indicators by the NTU "KPI" method is shown in Fig. 5.1.

Risk Assessment by the «Soft Targets» Once the risks have been identified, they should then be evaluated for their potential severity of impact (usually negative impacts, such as damage or loss) and the likelihood of such an occurrence. These values can either be simple to measure, in the case of the value of a lost building, or difficult to determine in the event of an unlikely event. Therefore, it is extremely important to make the best decisions in the assessment process in order to properly prioritize the implementation of the risk management plan.

The probability of risk occurrence is difficult to assess as mentioned above since past data is not available some time. In the end, probability does not mean certainty.

Similarly, the impact of risk is not easy to assess, since it is often difficult to estimate the potential loss in the event of a risk.

An attack on an object of the "Soft target" is the type of event that belongs to the category of random events and its event is determined based on the probability of this event. For example, suppose that there are 150 secondary schools in the city and these 100 schools are not equipped with video surveillance systems and police calling (VSPC). The terrorist chooses 3 schools to commit a terrorist act. What is the probability that all 3 schools are equipped with VSPC systems?

Let event A1 be all 3 schools with VSPC. Then from the classical definition of probability is

$$P(A1) = m/n, \tag{5.4}$$

where n is the total number of equally possible test outcomes; m is the number of outcomes conducive to the occurrence of the event A.

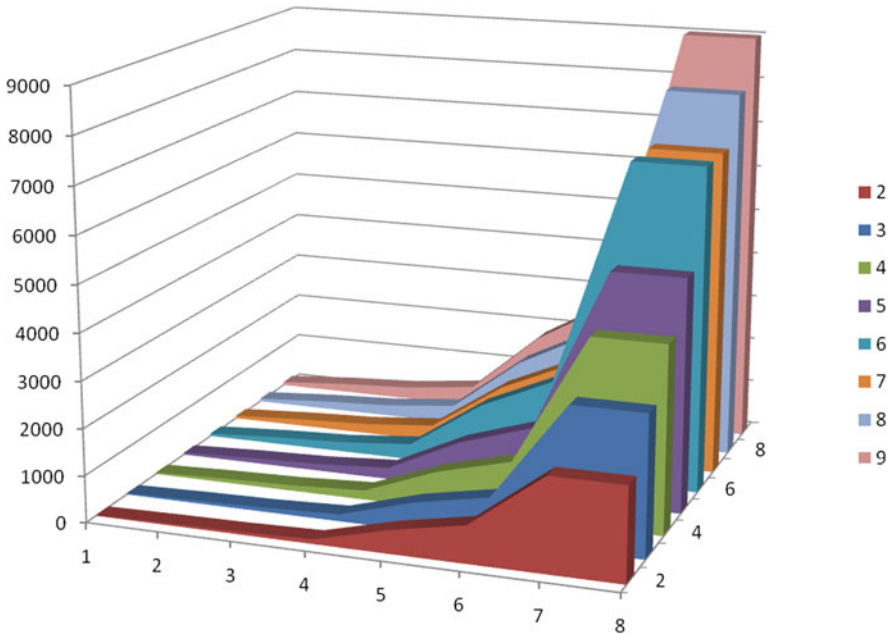

Fig. 5.2 Risk distribution of Risk-Indicators

In our case get

n = C3150 – the number of options to get a terrorist in 3 schools;
n = C3150 = 150! / 147! ·3! = 551,300.
m = C3100·C0150 – the number of options to get a terrorist in 3 schools with VSPC.
m = C3100·C0150 = (100! /97! ·3!)·1 = 161,700.
P (A1) = 161,700/551300 = 0.293,307.

Consequently, the probability of such event is very low but the probability of a terrorist act that would be having impunity is great.

If we change the conditions and accordingly determine the probability for 10, 50, 80 and 130 schools that would be not equipped with police control systems, and added A2 be 2 schools with VSPC then the probability values will be have the situations as shown in Fig. 5.2.

If now, in formula 5.1 to substitute the probability value found using mathematical calculations, the value of the risk will be completely different. But it will be the correct value of risk (Fig. 5.3).

After risk assessment and assessment, all risk management methods fall into one or more of the following four main categories:

- Avoidance (exclusion, withdrawal or lack of participation);
- Decrease (optimization – decrease);
- Exchange (transfer – outsourcing or insurance);
- Retention (adoption and budget).

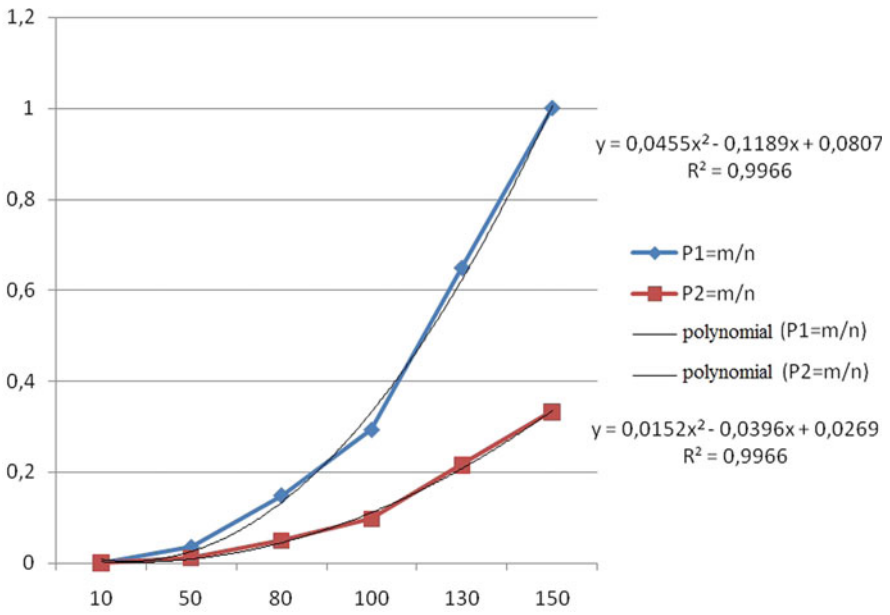

Fig. 5.3 Situations change and determine the probability for 10, 50, 80 and 130 schools

Ideal use of these strategies may not be possible for Soft target. Some of these may include trade-offs that are unacceptable for the organization or the person making the risk management decisions. US Defense University, calls these ACAT categories for Avoid, Control, Accept or Transfer.

Some quantitative definitions of risk are well grounded in statistical theory and naturally lead to statistical estimates, but some are more subjective. For example, in many cases, the decisive factor is the decision-making of people.

Even when statistical estimates are available, in many cases the risk is associated with rare failures, and the data can be sparse. Often the probability of a negative event is estimated using the frequency of past similar events or event tree methods, but the probability of rare failures can be difficult to estimate if the event tree cannot be formulated.

Statistical methods may also require the use of a cost function, which, in turn, may require the calculation of the cost of losing a person's life. This is a difficult problem. In statistics, the concept of risk is often modeled as the expected value of an undesirable result. This combines the probabilities of various possible events and some assessment of the corresponding harm in one value. In the theory of statistical decisions, the risk function is defined as the expected value of this loss function as a function of the decision rule used to make decisions under uncertainty.

5.4 General Conclusions

1. Analysis of the state of the protection system of the category – «Soft targets» in Ukraine showed that their level of safety is low, and therefore, the risk of terrorist threat is high. The first steps that need to be done have been taken and now we need to start training the population and leaders of various structures that belong to «Soft targets» to the protection of people. Introduce in educational institutions the study of the prevention and mitigation of the negative consequences of existing risks for "Soft targets" in the academic disciplines that relate to civil protection.
2. At the moment, it is necessary to carry out a risk assessment of "Soft targets", develop systems and technologies of protection, develop a coordination system, and ensure people's safety in the care facilities, on three levels – object, regional and state. Particular attention must be outside the protection of people at the facilities. It is urgent to carry out preventive measures at all "Soft targets" objects, taking into account that they are real goals in the conditions of military operations in the East of Ukraine, at any moment can be affected.
3. When determining risk, it is necessary to clearly divide into two types of identifiable risks – risk indicators (indicating approximate risk levels) and natural risks (mathematically justified).

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