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Criminological Monitoring of Criminality in Belarus: Empirical Study of Genesis and Determination

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It's easier to prevent crimes than to punish.—C. Montesquieu

Introduction

Criminality is a negative phenomenon that has existed for a historically long time and continues to be a serious social problem, since it causes material, physical and moral harm to individuals, society and the state, and hinders their sustainable advancement.

The responsible, effective, fair, humane and transparent crime prevention activity is a priority area of modern criminal and criminological policy of the state, an important condition for promoting economic and social progress, human security. The complex nature of the activity in the field of crime prevention, as well as the realities of its current state, predetermine the need to elaborate an inclusive, innovative and systemic interdisciplinary socio-legal approach to the development of theory and practice of criminological research of criminality. These are global standards for crime prevention, enshrined in the Vienna Declaration on Crime and Justice: Responding to the Challenges of the 21st Century, adopted by the Resolution of the United Nations General Assembly of December 4, 2000 N 55/59 ([The United Nations 2000](#)).

As noted at the 13th UN Congress on Crime Prevention and Criminal Justice (2015), which is held every 5 years (the 14th largest crime prevention forum in the world has been postponed to 2021 due to the pandemic), for the period 2003–2015 years in the world, with some differences between states of different levels of economic advancement, a certain stabilization or a slight decrease in crime was observed. This mainly concerned forms of criminality associated with the use of violence (premeditated murder, robbery and rape), property crimes, as well as crimes related to drug possession. Regional trends in the evolution of crime, in general, correspond to the world standards ([The United Nations 2015](#)).

According to the data of criminal statistics, there has been a decreasing trend in the crime rate in Belarus in the last fifteen years. At the same time, the state of the modern criminal situation and the criminogenic context, the emergence of new threats to public and state security necessitate further improvement of activities to prevent and combat criminality and other antisocial phenomena interconnected with it.

Homicide statistics are the most accurate and comparable across different states. According to this indicator of criminal statistics, one can get an idea of the state of law and order in the country at the world level. By the way, not all scientists are of this

opinion. Criminologist A. Lysova in her article by the European Journal of Criminology criticized the official statistics of murders in Russia, pointing out that it is a political instrument and it is distorted (in comparison with the data presented to the UN by Russia in 2013, the number of murders, according to A. Lysova, exceeds the declared level by 1,6 times) ([Lysova 2020: 399-419](#)). Despite some differences in approaches to the legal qualification of criminal acts, it should be noted that the criminal statistics of the Republic of Belarus are reliable, as well as the data submitted to the UN Office on Drugs and Crime. According to the latest available UN data for 2018, the homicide rate (excluding attempts) per 100 thousand of the population, for example, in the United Kingdom and Northern Ireland was in 2017 – 1,2 (2018 – 1,2), in Poland – 0,8 (2018 – 0,7), Germany – 1 (2018 – 0,9), France – 1,3 (2018 – 1,2), Austria – 0,8 (2018 – 1), Finland – 1,3 (2018 – 1,6), while in Belarus, it is several times higher than these indicators of developed European countries and it amounts to 2,5, in 2018 – 2,4, in 2019 – 2,3) ([The United Nations 2020](#)).

In the modern world the systematic collection of information for the purpose of scientific analysis and prognosis of the phenomena and processes under study is the basis of effective state and other social management. The foundation of the information framework for the functioning of criminal justice in post-Soviet states is the system of state statistical registration of crimes, which predominantly records quantitative indicators of the state, structure and dynamics of crime, the personality of criminals and victims. The use of the system of statistical accounting and episodic criminological studies, public opinion polls cannot fully meet the needs of law enforcement and other state bodies for comprehensive, scientifically grounded and reliable information on the state, dynamics and causal complex of criminality, as well as on measures to prevent it. With this approach, the level and structure of latent crime, real criminalization and victimization of the population remains outside the systemic study, the reasons, conditions and factors that determine the commission of crimes are not fully identified, the degree of their deterministic influence on crime is not assessed. At present, a system of quantitative and qualitative indicators (criteria) of the effectiveness of the activities of law enforcement agencies in crime prevention has not been developed, and scientifically grounded prognosis of criminality is not carried out on an ongoing basis. In the absence of this criminological information, it is not possible to plan and carry out work on preventing and combating criminality effectively.

This predetermines the need to intensify efforts to provide information support to prevent and combat criminality in order to reduce its level, change the structure

positively and minimize socially dangerous consequences. Obtaining comprehensive, substantiated and reliable information about the state and dynamics of criminality and other misdemeanor requires the elaboration of a scientifically based methodology, methods and tools for monitoring criminological research of criminality, based on the integration of knowledge accumulated both in legal and sociological, socio-psychological and other socio-humanitarian sciences.

Despite the considerable interest of scientists and practitioners to the prevention and counteraction of criminality, the scientific development of theoretical and methodical problems of identifying the real state of criminality and its determinants, increase the effectiveness of preventive activities, is insufficient in the existing literature.

Criminology of Belarus, as well as the successor of the Soviet Union – Russia, is experiencing a difficult stage of development, marked by economic and external institutional pressures ([Gurinskaya: 123–143](#)). Most of criminological studies are concentrated on the characterization of certain types of crime, while, as a rule, the issues of methodology and research methods are not considered.

Modern criminology faces important tasks related to the need to find adequate answers to the growing criminal threats, which qualitatively change the traditional theoretical and conceptual approaches and research methods. It is timely and important to diversify the concepts and methods of studying criminality, to understand the patterns of its origin and evolution trends, first, taking into account the measurement and assessment of the entire multi-level and multicomponent determination complex.

Subject

To solve these tasks, in the system of measures aimed at preventing and combating criminality, it is important to organize and conduct criminological monitoring of criminality – a socio-legal technology (methodology and method), which is a normatively regulated and organized on an ongoing basis system of criminological measurements, analysis, assessments and prognosis of the criminal situation, the criminogenic context and the effectiveness of crime prevention in order to develop and implement scientific and practical measures to improve crime prevention, public safety and law enforcement ([Bulygin 2016: 39–43](#)).

A serious argument in the matter of further study of the agenda of criminological monitoring of criminality is the need to create the scientific and methodical framework

of its organization and conduct, in view of the fact that today in criminology there are a number of unresolved tasks, scientific discussions that relate to the conceptual apparatus of criminological monitoring of criminality, its relationship with the system of statistical accounting of offenses. The solution of this scientific problem and the distinctive contribution to criminological knowledge as a whole will secure the development of the concept of criminological monitoring of criminality.

To understand the essence of criminological monitoring of criminality, a clear line should be drawn between this innovative criminological institution and the current system of criminal statistics. Criminological monitoring of criminality is qualitatively different from the criminal statistics conducted by law enforcement agencies, also from specific criminological scientific research of criminality.

It is known that in order to understand any phenomena, including criminality, it is necessary first to find out their quality and quantity, which are, as it were, two sides of the same phenomenon, inextricably linked with each other. Quality is understood as the essence of things (or the inner determination of phenomena), thanks to which they differ from each other, and which makes them what they are. Without clarifying the quality of objects, it is impossible to establish the pattern of their evolution. Moreover, this is the most important task of any science. However, the quality of any object does not exist without its quantity, which characterizes the phenomena in terms of their size, weight, level, pace, etc. Without the quantitative aspect of criminality, it is impossible to have an idea of criminality as a social and legal phenomenon and patterns of evolution.

The quantitative side of phenomena is studied by statistics, the subject of which is concretized in relation to its individual branches (economic, demographic, medical, etc.). One of the many branches of statistics is criminal, which mainly quantitatively investigates the most diverse aspects of criminality and measures to combat it.

Modern criminal statistics records officially registered indicators of criminality for a certain period of time. For example, the compendium "Offenses" published annually by the National Statistical Committee of the Republic of Belarus contains information in dynamics: about the number of registered crimes and the persons who committed crimes; drug and alcohol-related crimes; economic crimes; information on juvenile delinquency and convictions; the number of convicts, their composition and penalties; the number of victims of crimes; the number of administrative offenses, road traffic accidents and victims. Statistical data are presented by types of crimes, gender, age and social groups of persons, in the country as a whole, as well as by regions and the

city of Minsk, some indicators – by districts and individual cities. The collection of such data on the state of criminality is its quantitative and some qualitative characteristics (state, dynamics, level, structure, etc.). There are also statistics on the conduct of inspections and preliminary investigation of criminal cases, criminal proceedings and the execution of sentences.

However, as Russian criminologist S. Ostroumov correctly notes, “there can be no question of a quantitative statistical study of any phenomena without knowledge of the essence, quality, laws of evolution of the processes themselves. And this can be done only on the basis of the theoretical provisions of specific sciences ... Before doing statistics, you need a so-called qualitative analysis, you need to study the inner content of the studied population, for example, crime ... Therefore, statistics can be called a quantitative study of social phenomena in order to reveal their qualitative originality” ([Ostroumov 1975: 11–16](#)).

The task of disclosing the so-called quantitative and qualitative originality of the phenomenon of criminality is intended to be solved by criminological monitoring of criminality. For monitoring studies of criminality, factual data are needed not only from criminal statistics, but also from many other branches of statistics – demographic, economic, medical and others, which Russian criminologist V.Luneev called criminological statistics. Statistical accounting, in his opinion, on the one hand, serves as a factual basis, and on the other, one of the main methods of social and legal knowledge. “Criminal and criminological statistics should play the role of the factual basis of the scientific organization of the fight against criminality” ([Luneev 2013: 70, 76](#)).

Analytical studies of criminality in post-soviet countries (scientific research, analytical reports, notes and certificates of law enforcement agencies), currently being conducted, are narrowly specialized or specific temporal in nature, limited in accordance with the goals and objectives of a particular study by the framework of the period under study, the range of analysed crimes. In addition, the analytical information of law enforcement agencies is naturally focused on the analysis of their own activities, which cannot give a holistic idea of the comprehensive measures taken, the implementation of criminal policy in general.

Meanwhile, effective social control of criminality presupposes not only the reaction of law enforcement agencies to events that have already taken place, but to a greater extent includes their anticipation and prevention through the implementation of preventive actions of a complex socio-legal nature. Monitoring analysis of criminality is

not only a statistical and quantitative, but mainly a qualitative analysis of the originality and patterns of its evolution in specific conditions of place and time using appropriate criminological methods. Criminological monitoring of criminality is a natural result of the implementation of an interdisciplinary approach in criminological research and borrowing the most appropriate methodical and organizational tools from related fields of knowledge – statistics, criminal law, sociology, etc. ([Bulygin 2016: 39–43](#)).

Thus, criminological monitoring of criminality has the following advantages over the system of criminal statistics:

- structurally integrates into an entire concept the interrelated and interacting basic elements of the subject of criminology: criminality, its determinants and prevention activities, fixing uniform criminological and statistical indicators of their research;
- provides obtaining comprehensive and objective information about the nature, specificities of the prevalence and trends in the evolution of criminality, as well as its latent part;
- using the modern capabilities of computer technologies, systematically generalizes and streamlines the determinants of criminality, identifies the degree of their impact on it (including the quantitative change in crime indicators under the influence of changes in determinants);
- on the basis of socio-legal and criminological criteria assesses the effectiveness of the activities of law enforcement and other state bodies in the field of crime prevention;
- produces scientifically based criminological prognoses of the state of criminality;
- taking into account the obtained results of monitoring studies, it creates the necessary scientifically grounded preconditions for the development of effective measures to prevent criminality, strengthen the rule of law in the country and, as a result, reduces financial costs for the implementation of state policy in this area.

In the system of criminological policy, criminality monitoring performs the following functions:

- study and forecasting of criminality and its determinants;
- information support and improvement of crime prevention activities;

- general prevention of offenses.

The social and practical tasks of criminological monitoring of criminality are:

- structured measurement of criminality in order to identify the features of its state, characteristics and evolution trends;
- measurement of social, economic, demographic and other factors, causes and conditions that determine criminality in order to identify the entire complex of sources of criminalization of society;
- forecasting the criminal situation and the criminogenic context;
- analysis of the completeness and effectiveness of the anti-criminal measures taken, their compliance with the identified features of criminality;
- development and adjustment of measures to prevent and counteract criminality, minimize the social and destructive consequences of its existence in society.

Methodology

Criminologists have recognized that criminology cannot exist and develop without a scientifically grounded idea of the trends in the evolution of criminality, targeted adequate measures to prevent this antisocial phenomenon, research using a competent methodological basis of the causal complex. The basic theoretical and methodological principles of modern criminological research of criminality are: systemic unity, the interrelation of the sciences of anti-criminal cycle; integrative school of criminology; the cognitive value of the systematic approach, the accumulation of world experience in criminological research; interdisciplinary research methods developed in natural, humanitarian, mathematical and other branches of scientific knowledge; convergence of science and modern technologies ([Sudakova and Nomokonov 2018: 531-540](#)). At present, Western European criminological research are mainly narrowly focused and are aimed at studying the emerging socio-political challenges of the European Union and the United States of America (illegal migration, terrorism, discrimination on the basis of nationality, race, gender, transnational and cybercrime, criminogenic consequences of military conflicts, xenophobia, etc.), that is why the issues of improving methodology and the formation of new methodological tools are not given sufficient attention. Despite this, scientists state that modern system of criminal justice and anti-crime activities cannot be considered in isolation from other social processes

and institutions, therefore interdisciplinary approaches are of particular relevance ([Sparks 2020: 471-494](#)).

Comparative analysis of criminological theories shows that it is important to define the theoretical paradigm of criminological research of the genesis of criminality, namely, what should underlie the criminological study of the origin of crime and highlight main structural elements that are primary sources of the determination process.

As a theoretical and methodological basis for criminological monitoring research of criminality, in my opinion, it is advisable to use a systematic approach, implemented in the context of considering criminology as an interdisciplinary social and legal science of criminality and measures to prevent it, as well as the study of criminality as a complex antisocial, criminal-illegal phenomenon and the criminological theory of destructive personal-social-natural determination, which explains the laws of the genesis and determination of criminality ([Bulygin 2016: 39-43](#)).

The theory of destructive personal-social-natural determination, which is the basis for the author's criminological monitoring research of criminality, integrates the basic principles of the theory of destructive personal-social interaction of the Belarusian criminologist N. Baranovsky ([Baranovsky 2011](#)) and the Chicago School of Environmental criminology ([Andresen 2014](#)).

The process of destructive personal-social-natural interactions that determine criminality is considered in the framework of the interaction of the following components:

- the natural environment (the geographical location of the region, the density and migration of the population, the climate, the conditions of the place of residence, work and recreation, etc. determines the physical and spiritual well-being of a person, as well as his emotions: aggression, phobias, self-interest, lust that they experience, for example, in crowded public transport, in the street at night, at a jewelry exhibition or in a night club. It also determines what opportunities exist for committing a crime);
- society (social institutions and public relations in the field of economy, culture, management, ecology, health protection, etc.) predetermines the characteristics of age, racial, gender, ethnic, religious, national, professional and other social groups;
- personality (a set of social status, sociocultural, psychological and physical properties and qualities which are inherent in individuals).

The social process of interactions of this three components in its negative manifestations reveals **the genesis** (origin and evolution) **of criminality**.

In all areas of modern knowledge, there is a need to analyse complex objects, certain systems. The system is understood as a set of elements that are in relationships and connections with each other, which forms a certain integrity. The use of a systems approach in sciences contributes to an adequate formulation of problems and helps to develop an effective strategy for their study.

In my opinion, the most acceptable is the position of Russian criminologist L. Kondratyuk, who believes that the following system of interrelated and interdependent elements should be used to define the “**criminality**”: 1) acts of criminal behaviour; 2) the persons who committed a crime; 3) victims of a crime; 4) the amount of harm caused by crime ([Kondratyuk 1978: 5-10](#)).

The concept of criminality is central to criminology. The value of criminological research of criminality is determined by the fact that, having revealed the essence and characteristics of criminality as a social and legal phenomenon, we can, on a scientific basis, develop and implement effective measures to prevent and counteract it.

At present, there is considerable disagreement in criminological science regarding the origin of criminality. Some criminologists are of the opinion that in the entire lexicon of legal and criminological terminology there is no equally abstract concept as criminality. The history of criminological thought shows that scientists were in constant search of an answer to the question about the definition of criminality, sometimes giving narrowly specialized (focused on sociology, criminal law, psychology, etc.) definitions. Despite all the diversity, the well-established traditional approaches cannot fully explain the depth of origin and evolution trends of such a complex and constantly evolving phenomenon as criminality. Modern criminology needs to diversify the methods of studying criminality, understanding its origin, taking into account the measurement and evaluation of its entire multi-level and multi-vector determination complex.

In the context of modern criminology, **criminality** is a massive, stable in time and social space, determined by the individual, society, the natural environment and destructive personal-social-natural interactions, an antisocial criminal-illegal phenomenon, which, as a socio-legal system, includes committed crimes, criminals, victims and other socially dangerous consequences of criminal acts ([Bulygin 2016: 39-43](#)).

The origin and evolution of criminality is closely interconnected not only with socio-economic (unemployment, inflation, wages, etc.), demographic (mortality, fertility, population density, etc.) and other determinants, but also with other offenses. Therefore the problem of criminality should be considered from a “socio-deviantological” position, that is, in close connection with prostitution, drug addiction and substance abuse, vagrancy, drunkenness and alcoholism, other addictions, including such new concepts in criminology as gambling (game dependence), stocking (prosecution based on personal hostility, revenge), etc. These circumstances make it necessary to solve the problem of criminality in a broader context ([Gilinsky 2012: 5-14](#)).

The study of the essence of the criminality origin is one of the most difficult, scientifically and practically urgent problems of criminological science. Despite all the diversity, the well-established traditional approaches cannot fully explain the depths of origin and evolution trends of such a complex and constantly evolving phenomenon as criminality. Modern criminology needs to diversify the methods of studying criminality, understanding its origin, taking into account the assessment of its entire multi-level and multi-vector determination complex. The approach proposed by the author to the study of the laws of the genesis of criminality as a result of destructive interactions between the individual, society and the natural environment, implemented in the context of understanding criminology as an interdisciplinary social and legal science, supplements criminology with new knowledge and can serve as a theoretical and methodological basis for further criminological research.

Method

Theoretical, methodological and regulatory frameworks for organizing and conducting criminological monitoring of criminality as an innovative technology for its scientific and applied study, information support and measures for general prevention of offenses, qualitatively enrich criminological science with new knowledge and have great practical significance for increasing the effectiveness of criminological and, in general, criminal policy.

The following structural components are the subject of criminological criminality monitoring:

1. Criminal situation – indicators of the volume, level, dynamics, structure, nature, geography and ecology of criminality in general and the most socially dangerous and

widespread certain types of crime, which include the characteristics of: crimes; persons who have committed crimes; victims and harm caused by crimes.

2. *Criminogenic context* – indicators of the social, personal and natural determination complex of criminality, manifested in the geographic, demographic, socio-economic, social, socio-cultural, legal and moral-psychological clusters.

3. *The effectiveness of crime prevention activities* – the results of assessing the dynamics of the main quantitative and qualitative indicators of criminality and its determinants in correlation with social practice and the quality of work of crime prevention subjects, taking into account material, financial and other costs.

4. *Actions to improve the efficiency of crime prevention* – crime prevention activities based on the principles of: consistency, complexity, legal and scientific methodological substantiation, transparency and participation of public associations and citizens in crime prevention.

In the course of criminological monitoring of criminality, the following quantitative and qualitative indicators are subject to analysis, assessment and prognosis:

1) *Criminal situation:*

the volume, level, dynamics, structure, as well as the peculiarities of the territorial, socio-demographic and socio-status distribution of all crimes committed (registered and latent);

the nature of criminality, determined by the volume, level, dynamics, structure, as well as the peculiarities of the territorial, socio-demographic and socio-status distribution of the committed grave and particularly grave crimes (“nucleus of criminality”);

the volume, level, dynamics, structure, as well as the peculiarities of territorial, socio-demographic and socio-status distribution of persons who have committed crimes;

the volume, level, dynamics, structure, as well as the peculiarities of territorial, socio-demographic and socio-status distribution of victims of crimes;

the volume, structure and dynamics of physical, material and other harm caused by crimes.

2) *Criminogenic context:*

Geographic cluster:

endowment of natural resources;

the degree to which climatic conditions are favorable for the development of agriculture, industry and the life of the population;

the degree of exposure to severe seasonal weather fluctuations and natural anomalies.

Demographic cluster:

population;

urban population;

rural population;

the ratio of urban and rural population;

population density;

age composition of the population in relation to working capacity;

general fertility rate;

general death rate;

general rate of natural increase (decrease);

general marriage rate;

general divorce rate;

general rate of marriage instability;

migration increase (decrease).

Socio-economic cluster:

the size of the nominal average monthly accrued wages;

the ratio of the nominal average monthly accrued wages and the budget of the living wage;

the level of profitability of products sold;

unemployment rate;

the proportion of unprofitable enterprises;
the number of micro-organizations and small businesses;
the volume of sales of paid services per 1 resident on average;
inflation rate.

Social cluster:

the number, level and structure of production, sale and consumption of various types of alcoholic beverages;
the number and level of outlets for the sale of alcoholic beverages;
pricing policy for the sale of alcoholic beverages;
the number, level and socio-demographic structure of consumers of alcoholic beverages, drugs and toxic substances, as well as risk groups for their use;
the number, level and socio-demographic structure of persons suffering from diseases in connection with the use of alcohol, drugs and toxic substances, and those registered with drug addiction at medical institutions, including minors and women;
the scale of illegal production and sale of alcoholic beverages, drugs and toxic substances;
the scale of demographic, economic, material and other social damage (harm) from drunkenness, alcoholism, drug addiction and toxic substance abuse;
the level of provision with doctors and medical institutions (especially during the pandemic);
life expectancy and health status of the population.

Socio-cultural cluster:

the level of education of the population;
the number of educational institutions at all levels;
the number of cultural institutions (libraries, museums, cinemas, clubs, etc.);
the number of physical culture and sports facilities (clubs, sections, facilities, etc.).

Legal cluster:

the level of national security and independence in the military-strategic and foreign economic situation at the international level;

the level of political stability;

the level of legal regulation of social relations and trends in rule-making activities;

the volume, quality and efficiency of the work of state bodies and the public in the field of crime prevention and control.

Moral and psychological cluster:

the level of work efficiency and public confidence in law enforcement agencies and other subjects of activity in the field of preventing and combating criminality;

the level of the state of personal, property and public security of the population and the rule of law;

the level of criminality phobia of the population;

the level of legal and moral culture of the population;

the level of interethnic, racial, religious, sexual tolerance of the population;

the level of possibility of committing crimes with impunity (the likelihood of being prosecuted in case of violation of the norms of the criminal law);

the level of effectiveness of the impact of the penitentiary system and the existing penalties on persons brought to criminal responsibility;

the level of successful re-socialization after the commission of a crime and prosecution.

3) The effectiveness of the activities of authorized organizations to prevent and combat criminality is subject to assessment based on the established indicators:

a) the dynamics of criminality indicators (absolute number, per 10 thousand citizens and specific gravity), as well as the peculiarities of its territorial distribution:

the number of all crimes committed,

the number of grave and particularly grave crimes committed;

- the number of crimes committed by previously convicted persons;
- the number of crimes committed by minors or with their complicity;
- the number of crimes committed with complicity;
- the number of crimes committed by persons in a state of alcoholic or drug intoxication;
- the number of crimes committed against human life and health;
- the number of corruption crimes committed;
- the number of crimes committed in the area of illegal drug trafficking;
- the number of crimes committed against public order and public morality;
- the number of economic crimes committed;
- the number of murders per 100 thousand inhabitants in comparison with other states;
- the proportion of crime detection, identification of the persons who committed them;
- the number of identified persons who have committed crimes;
- the number of victims;
- the amount caused by crimes and compensated material harm;
- the number of administrative offenses, including those with increased criminogenic potential;
- the number of citizens (separately minors) who are on preventive supervision;
- the number of citizens released from penal institutions;
- b) the dynamics of alcohol consumption indicators (the absolute number of persons registered in health care institutions for diseases of alcoholic psychosis and chronic alcoholism, and per 100 thousand citizens; sale of alcoholic beverages in the retail alcohol network per 1 inhabitant; sale alcoholic beverages in terms of absolute alcohol by trade organizations and catering facilities in liters per capita);
- c) the dynamics of indicators of consumption of drugs and toxic substances (the absolute number of persons registered in health care institutions in connection with diseases of drug addiction and toxic substance abuse, and per 100 thousand citizens);

d) the dynamics of criminogenic and other socio-deviantogenic characteristics of socio-demographic, economic and sociocultural phenomena and processes, including changes in the size and composition of the population, in the family sphere, employment, quality and standard of living of the population, development of educational, cultural, sports spheres , health care;

e) the indicators of public opinion of the population of the country, as well as the opinion of experts on the structural components of the moral, psychological and legal clusters of the criminal situation.

Currently, the effectiveness of the activities of law enforcement and other government agencies to prevent criminality in Post-soviet states is determined mainly by statistical indicators for the reporting period (as a rule, in comparison with the previous year), which does not give an idea of the holistic picture of prevention in the region. Regions that are prosperous in terms of individual determinants (geographic, economic, demographic, etc.), even with a low quality of work, look better than those in which the presence of objective unfavourable determinants requires more active preventive work. Moreover, in practice, the quantitative influence of determinants on the criminal situation is not measured, and their qualitative influence is determined only at the level of hypotheses.

The criteria for the effectiveness of preventive work is the system of proposed quantitative and qualitative indicators that measure the degree of achievement of its main social goals:

a) creation of favourable conditions, a system of values and orientations that ensure optimal socialization, harmonious social and cultural progress, socially positive and law-abiding lifestyle, as well as protection of the rights and legitimate interests of the population;

b) identification and elimination of the whole determination complex of committing offenses and other antisocial manifestations;

c) detection, prevention and suppression of crimes and other antisocial phenomena;

d) ensuring positive changes in the level, dynamics, structure and nature of criminality and other anti-social phenomena;

e) reduction of material, social and moral harm caused by offenses and other antisocial manifestations;

f) social and legal control of behaviour, inevitable moral and legal responsibility, correction and social rehabilitation of offenders and persons from groups at risk of committing offenses, etc.

Thus, the effectiveness of crime prevention is determined, first of all, by the degree of its positive impact on the structure, dynamics and level of criminality and other antisocial phenomena on the territory of the republic, region, city, district, as well as the real state of public order and public safety on the streets and in other public places, in the residential sector, at transport facilities.

The integral indicators by which it is necessary to comprehensively assess criminological information about criminality are the following:

A) The dynamics of the evolution of the criminogenic context and the criminal situation:

- positive – a significant improvement in most of the assessed indicators, the presence of positive trends and features;
- satisfactory – no changes, minor changes in the estimated indicators;
- negative – a significant deterioration in most of the estimated indicators, the evolution of negative trends and characteristics.

B) Effectiveness of crime prevention activities:

- high – significant improvement in most of the indicators that are evaluation criteria;
- medium – no changes, minor changes in statistical indicators, which are evaluation criteria;
- low – significant deterioration of most of the statistical indicators that are the evaluation criteria.

4) The development of actions to improve the effectiveness of activities to prevent and combat criminality is based on the following principles:

a) systematic approach – the unity and interaction of the main directions of preventive activities to identify, neutralize and eliminate criminogenic factors, causes and conditions that determine the commission of crimes (“negative prevention”), as well as the creation of favorable social and personal conditions for positive, safe and lawful behavior of citizens (“positive prevention”), expressed in job security:

with groups at risk of committing crimes and other offenses, and with population as a whole;

with persons who commit crimes and are serving a sentence for crimes;

who have served a criminal sentence and are under preventive supervision;

b) complexity – a combination of the following preventive actions:

general prevention (actions aimed at preventing criminality as a social and legal phenomenon; legal education of citizens; criminological expert examination of draft regulatory legal acts and current legislation; conducting public opinion polls on the activities of subjects of crime prevention and coverage of their results in the media; incentives for citizens to provide reliable information about prepared or committed crimes, and others);

special prevention (actions directly aimed at preventing certain types of crime, as well as the specific most criminally active and socially dangerous categories of criminals);

individual prevention of crimes (a preventive conversation; an official warning about the inadmissibility of unlawful behavior, and others).

c) normative-legal and scientific-methodological substantiation – normative-legal regulation of principles, algorithms and socio-legal mechanisms of the organization and functioning of the socio-legal system of crime prevention, including the creative use of scientific achievements of modern criminology and other sciences.

d) publicity and participation of public associations and citizens – openness and accessibility of citizens to criminological information on criminality and actions to prevent it, as well as active involvement of citizens and public associations in the prevention of criminality and other offenses.

The methods of criminological monitoring of criminality include the use of both traditional and innovative technologies, in particular, the mathematical study of statistical laws of the genesis of criminality (correlation-regression and trend analyses, calculation of elasticity and determination coefficients, analytical groupings), which allow to obtain new quantitative and qualitatively significant information about criminality and about a diverse determination complex, the mechanisms of influence of criminogenic socio-demographic, economic, social, cultural determinants.

Correlation and regression analyses are important methods of studying the deterministic complex of criminality and establishing its quantitative impact. These tools of mathematical statistics allow us to quantify the strength of the relationship between criminality and its determinants in the form of correlation coefficients (r) and a regression equation. When studying the determining complex of criminality, criminologists use the concept of elasticity coefficient (e). Elasticity shows the percentage change in the controlled variable (criminality) with a one-percent change in the control variable (determinant) ([Ryabtsev and Vedyakhin 2000: 49-54](#)).

It should be noted that in the mathematical analysis of such a complex socio-legal phenomenon as criminality, the connection between it and its determinants is multivalued and probabilistic. The polysemy lies not only in the fact that each crime (or criminality in general) is the result of the influence of many determinants, but also in the fact that each determinant, interacting with a set of others, can have an unequal effect on the predicted object in different time intervals. In this regard, it is necessary to carry out a qualitative analysis of the quantitative expression and nature of the relationship, using not only mathematical, but also other methods of criminological research: surveys of the population and experts, content analysis of the media, empirical criminological research, analytical materials of law enforcement agencies and others.

Monitoring analysis of criminality is not only a statistical and quantitative, but mainly a qualitative analysis of the originality and patterns of its evolution in specific conditions of place and time.

Organization of criminological monitoring of criminality includes the passage of the following stages. The stages of criminological monitoring of criminality are an continuous technological complex of structurally isolated interconnected and interdependent actions aimed at solving monitoring problems. Each stage must comply with the principles of logical completeness, form the factual basis for the next, thus ensuring the unity of the monitoring activity process.

The process of organizing and conducting criminological monitoring of criminality includes the following stages:

- organizational and preparatory (assumes a preliminary definition of: subjects of monitoring, taking into account possible human and material and technical resources; time boundaries, spatial scales and the object of research);

- program-targeted (at this stage, there is a preliminary definition of goals, objectives, hypotheses and terms; preparation of research tools and methods; adaptation of the methods to specific research conditions; implementation of preliminary research in order to verify and clarify the skills and abilities, individual provisions of the methods; establishing a sequence collection and generalization of analytical materials, procedures for monitoring the implementation of activities and their effectiveness);
- informational (consists in collecting, analysing, summarizing and evaluating information regarding the monitoring object);
- analytical (provides for the tracking and assessment of the collected information on the state of criminality and its determinants, the parameters of the crime prevention system in terms of the cost of activity, the degree of achievement of the set goals and the social effectiveness of the activities of the subjects of crime prevention; construction of predictive scenarios for the evolution of the criminogenic context and the criminal situation and in connection foreseeing organizational (structural, resource, personnel, etc.) and functional risks, and ways to overcome them);
- practical (includes the preparation of management decisions based on the results of monitoring, their development and adoption, the organization of implementation, adjustment and control).

Any management activity is based on certain initial principles, guiding outlines of organization and implementation, which form the strategic basis for using management resources in order to achieve the stated objectives. We are talking about the principles or conditions for conducting criminological monitoring as fundamental methodological positions, a kind of standards for management activities. Their designation seems to be very important in the development of the concept and methods of criminological monitoring of criminality.

The organizational principles for conducting criminological monitoring of criminality are:

- integrity (the inclusion of criminological monitoring of criminality in criminological and criminal policy as a permanent process of information and analytical support of all components of the system);
- legality and objectivity (the boundaries of monitoring activities and the behaviour of its subjects regarding the exercise of rights and obligations are in a format defined by

legislation, the research process is conducted regardless of the influence of the current or expected political and economic situation);

- structural orderliness and scientific and methodical substantiation (the presence of a system in the order of conducting and methodical support of the monitoring research, which implies cluster structuring of the subject of monitoring, clear recording of research stages. This principle also means the organization and conduct of monitoring on the basis of a scientific methods that ensure completeness, consistency, verification and validity of the information received);

- consistency and complexity (each subsequent stage of monitoring activities should be based on the data of the previous stage, providing the integrity, management predictive orientation and scientific validity of monitoring as a process of continuous observation with a comprehensive coverage of public life spheres in the implementation of research);

- constancy and temporal regularity (the level of representativeness of monitoring findings depends not only on the systematic nature of the study, but also on the regular accumulation and processing of information. Constancy means, first of all, the research permanence of the observation process, during the implementation of which the cyclical continuity of the monitoring activity, its sequence is achieved);

- social and legal status and legal regulation (monitoring activity, like any other activity in the field of social management, has certain boundaries and is expressed in the presence of a clear organizational structure with the development of regulations on organizational units, the rights and responsibilities of managers, job descriptions of executors, establishment of material liability for violations, regulations on bonuses to employees, etc. This principle provides for the responsibility of each of its subjects for the completeness and reliability of work results, which should be enshrined in legislation);

- social relevance and implementation of its results into practice (each subject of preventing and combating crime is interested in increasing the effectiveness of criminal policy and reducing costs for it, in connection with which, not only the scientific, but also the practical nature of criminological monitoring studies is an essential condition for their holding. These studies should solve the tasks assigned to them at the lowest cost and study not only criminality in general, but also its individual types, depending on the emerging social tension in a particular field of activity).

Quantitative and qualitative empirical study

As the famous Belarusian legal expert V. Khomich rightly noted, today it is extremely important for criminology to provide an inversion approach from the practice of conducting random episodic, discrete studies of criminality to the systemic study of this asocial phenomenon, the entire set of its connections and interdependences and factors of determination ([Khomich and Asanova 2008: 30](#)).

In this regard, interdisciplinary research and the use of complex methods in the study of criminality are of particular importance. One of the characteristic features of 21st century science is the global computerization of research. The use of mathematical techniques for studying the statistical patterns of criminality (correlation-regression and trend analyses, calculation of elasticity and determination coefficients, analytical groupings) make it possible to obtain new, previously not investigated, (tangible, not abstract) quantitative information about the nature of the determinative relationships of criminality. This technique allows you to identify the most significant determinants affecting criminality; the percentage probability of a change in criminality indicators when the values of the determinants change and specific numerical values of the expected changes. At the same time, the synthesis of the obtained quantitative data through the prism of such sociological methods as polls and questionnaires, along with the use of progressive knowledge of legal science, allows us to enrich science and practice with qualitatively new significant criminological information.

Criminological monitoring methods for quantitative studying the deterministic complex of criminality and the revealing of its impact are correlation and regression analyses. These tools of mathematical statistics allow you to quantify the connection force between criminality and its determinants in the form of correlation coefficients (r) and the regression equation. The correlation coefficient illustrates the links of two phenomena. When there is a positive connection between them, i.e. $r > 0$, the dependence is directly proportional. The determination coefficient (d) is also calculated, which is equal to the correlation coefficient squared. Transferring the determination coefficient to percentage, we will be able to see what the percentage probability of changes in one value when the other changes.

It is considered that:

if $|r| < 0,3$, then the correlation dependence is weak,

at $0,3 < |r| < 0,5$ - moderate dependence,

at $0,5 < |r| < 0,7$ - a significant dependence,

at $0,7 < |r| < 0,9$ - a strong dependence,

at $|r| > 0,9$ - the dependence is very strong, close to linear functional ([Ryabtsev and Vedyakhin 2000: 49-54](#)).

The result of the correlation and regression research is the regression equation:

$$y = ax + b,$$

where the variable y is the level of criminality,

variable x - determinants of criminality,

The coefficients a and b are calculated by the mathematical program.

In a correlation analysis of causal criminality links with its determinants, the author accepted that to show dependency a value of the correlation coefficient should be more than 0,6 for direct and less than - 0,6 for reverse dependence.

Thus, having statistical data on criminality and its determinants for certain period of time, it is possible to reveal a connection between the signs and the degree of its closeness, to identify the dominant determinants, as well as to provide the criminality forecast.

In recent years, the method of calculating *elasticity* is becoming increasingly important for studying the determinant of criminality and modelling. In modern economic science, elasticity serves as an effective tool for explaining and predicting various economic phenomena. Elasticity allows us to find out the degree of reaction of the analysed value to the change in various factors, identify the most significant factors on the effects. It shows how much percent will change the value when the other value is changed by one percent. Elasticity does not have a dimension and is a coefficient that allows a comparative analysis of functions ([Lapushinskaya and Bazhenova 2003: 9-16](#)).

The study of the criminality elasticity on various deterministic factors is carried out by criminologists that are conversant in advanced statistical analysis. American researchers Edward L. Glaeser and B. Sacerdote found that the elasticity of criminality in the size of the city is 0,15, i.e. 10% population growth increases the criminality rate by 1,5%, and C. Levitt revealed that the elasticity of criminality in the United States depending on the coefficients of arrests is approximately 0,3 in relation to theft, i.e.

10% growth of the coefficient of arrest reduces the theft rate by about 3% ([Uzihanova 2006: 96-99](#)).

The Russian researcher S. Olkov was studied the relationship between certain types of crimes (premeditated murders, robbery, intentional infliction of serious bodily harm, suicides) and the Gini coefficient, which is used to characterize the degree of uneven distribution of the population in terms of income. As a result, a very close connection was established (close to functional) between the dynamics of the Gini coefficient (independent variable) and the dynamics of premeditated murders in the Russian Federation in the 90s of the twentieth century. So, when changing the Gini coefficient by 1%, the level of premeditated murders changes by 1,19%. With the Gini coefficient equal to 0,3, elasticity is 1,27. With the Gini coefficient equal to 0,2 elasticity is 1,48. The probability of error on the regression coefficient is zero. The rounded correlation coefficient is 98% ([Olkov 2004: 236-244](#)).

The elasticity coefficient allows to reveal the weight of a particular determinant in the onset of the relevant consequence in the present and the past, as well as make a forecast for the future. For example, it is possible to calculate the elasticity of criminality using the dynamics of population, terms of unemployment, inflation level, income of the population, terms of alcohol and drugs consumption ([Luneev 2004: 6](#)).

The use of a method for calculating elasticity will allow to obtain probabilistic assessments of the effect of demographic, economic and other determinants on criminality.

Monitoring study of the criminogenic context (demographic, economic, socio-cultural indicators) in the Republic of Belarus in 2000-2019, conducted by the author using mathematical methods (correlation and regression analyses), showed that the following determinants have the greatest impact on the criminality rate:

- the proportion of the population in working age (the tone of connection (r) of the criminality level with this determinant is high, direct and equal to 0,84. The probability of changes in one value with another (d) - 71%, with a single-percent change in the control variable (determinant) criminality will change by 8,2% (e). The prognosis of criminality (variable y) can be made using the regression equation: $y = 18,558x - 979,94$;
- GDP increase (e = 5,4%; d = 64%; r = 0,8; $y = 7,046x - 601,05$); - number of persons with alcoholism diagnoses for the first time per 100 000 inhabitants (e = 1,1%; d = 80%; r = 0,89; $y = 0,5695x - 11,774$).

Criminological monitoring research of the *criminal situation* (volume, level, dynamics, structure, nature, geography and ecology of criminality in general and the most socially dangerous and widespread certain types of crimes, which includes the study of crimes committed, persons who have committed crimes, victims and harm, caused by crimes) allows you to get an idea of the current features of the state and dynamics of criminality. It provides a statistical basis for the subsequent measurement of quantitative and qualitative relationships with the determinants of criminality, the formation of predictive scenarios for the evolution of criminality and the development of proposals for improving activities to prevent it.

The complex of the main factors, causes and conditions that determine criminality is determined as the *criminogenic context*. Measuring, analysing, assessing and determining crime-determining processes, as well as predicting their possible evolution, is (along with research and forecasting of a criminal situation) the basis for the formation and practical implementation of a system of actions to prevent criminality, as well as determining the degree of effectiveness of activity in this area.

Organization of criminological monitoring of criminality at the regional level is especially relevant and practically significant for the coordination and management of activities to prevent and combat criminality. The conducted experimental criminological monitoring confirmed the reliability and effectiveness of the developed scientific and applied model of its systemic study, and also made it possible to obtain **new empirical data** about the peculiarities of the genesis and determination of criminality.

Qualitative criminological analysis has shown that the following determinants have the greatest influence on the state and dynamics of criminality in Belarus (new empirical data):

- the transition to a market economy, accompanied by an increase in income differentiation and social and property stratification of the population;
- intensification of the processes of migration of the rural population to cities and urbanization, as well as seasonal migration of the urban population to the adjacent countryside and migration of foreign citizens associated with the geographically border location of the country;
- the spread of drunkenness and alcoholism, as well as drug addiction in combination with insufficiently effective state anti-alcohol and anti-drug policy;

- lack of an effective system of social rehabilitation and re-adaptation of convicts who have served their sentences;
- low productivity of the activities of law enforcement and other state bodies on crime prevention, due to the lack of consistency, complexity and scientific substantiation, the dominance of the practice of using individual educational, repressive and situational efforts, which are not complemented by active economic, social and socio-cultural preventive work.

Quantitative criminological analysis of criminality in Belarus also established the presence of a number of the most significant criminality features:

- high level of latent criminality together with the lack of actions taken to identify it;
- high crime rate in areas adjacent to large cities;
- consistently insurmountable high proportion of crimes committed in a state of alcoholic intoxication and previously convicted persons;
- the growing threat of an increase in cyber-crime, as well as a high proportion of registered crimes related to illegal drug trafficking.
- high homicide rate in international comparison.

Experimental testing of the scientific and applied model of criminological monitoring of criminality in Belarus made it possible to obtain new empirical data that qualitatively complement the available statistical information on the state, structure, dynamics and genesis of criminality. This made it possible to identify urgent demanded social and practical problems, as well as to comprehensively assess the effectiveness of activities to prevent crime and other antisocial phenomena interconnected with it.

The use of criminological monitoring of criminality in science and practice allows solving the long-overdue problem of creating a single structured system of quantitative and qualitative indicators that provide objective criminological information about the state of criminality, its determinants and the effectiveness of preventive activities.

Scientists and practitioners recognized the proposed concept of criminological monitoring of criminality in the Republic of Belarus, and the obtained empirical conclusions were introduced into the activities of prevention subjects, and were used in research activities and the educational process. This gives grounds to believe that

the developed theory of knowledge of criminality may be of interest to the scientific and practical community of Europe.

Conclusion

The development of new theoretical and methodological foundations for the study of criminality, approaches to its social control has historically been the priority of research of the entire international criminological community. In the modern era of globalization criminologists play an important role in reminding domestic and international organizations that criminality is also an international political problem ([Blaustein *et al.* 2018](#)).

The most effective in modern society is the state policy in the field of preventing and combating criminality, which is based on the strategy of systemic social, criminological, victimological, legal and social rehabilitation prevention and counteraction to criminality and misdemeanor.

The developed original theoretical and applied approach and methods for criminological monitoring of criminality, based on interdisciplinary socio-legal methodology and the use of the latest computer information methods of analysis, are aimed at meeting the scientific and practical needs of systematizing criminological indicators that simulate the state of criminality and its determinants. This approach advances theory of contemporary understanding of criminality genesis and practice of its prevention.

The author's concept of criminological monitoring has a scientific structure and includes a criminological study of criminality, victims, criminals, harm caused by criminality, determinants of criminality, crime prevention activities, as well as the subsequent development of management decisions to improve the effectiveness of this activity on the basis of relevant criteria.

Currently, there is no criminological theory in science, which would systematically united this criminological terms in a single concept therefore study results make important contribution to general criminological theories.

The implementation into social practice of the institution of criminological monitoring of criminality makes it possible to obtain the necessary and reliable criminological empirical data about the state and dynamics of criminality, the peculiarities of its structure and nature, as well as to predict criminality and assess the social efficiency

of crime prevention, elaborate actions to improve criminal law and criminological policy.

The proposed scientific and practical concept of criminological monitoring of criminality is the basis for going beyond the purely preventive and criminal-legal aspects of crime problems, for the adoption of integrated and comprehensive countermeasures against it. In today's changing world, crime prevention and the criminal justice system are central to the rule of law, and such policy decisions will have a positive impact on the long-term sustainable economic and social advancement of states.

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