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## THE EUROPEAN REFUGEE CRISIS - A THREAT TO THE NATIONAL CRITICAL INFRASTRUCTURE

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**Abstract:** Critical Infrastructure is a system of facilities, services and information systems whose stopping, malfunctioning or destruction would have a serious negative impact on the health and safety of the people, on the environment, on the national economy, or on the effective functioning of government.

In individual cases, the disruption of vital functions essential to the health, safety, security, economic or social well-being of the population can have significant negative consequences in a country close to the borders from which the relevant risks and threats originate.

In most countries, the list of national critical infrastructure sectors and objectives are a result of relevant national values and interests.

In Bulgaria, the critical infrastructure consists of the following sectors: energy; transport; information and communication services; postal and courier services; the environment, agriculture and food, health; finance; economy; sports facilities, education, science and technology; natural resources; tourism; regional development and urban development; defense; justice, peace and security; government; crises management and cultural heritage.

In this report refugees, in particular the refugee crisis, are seen as a threat to the normal functioning of the national critical infrastructure which is located in Europe (for the purpose of the analysis this is Bulgaria).

The main goal of the research is to demonstrate and prove the impact of the refugee crisis on the normal functioning of the above-mentioned critical infrastructure's sectors, focusing on:

- alongside refugee flows, terrorists have been entering on the territory of Europe threatening the security of national critical infrastructures in Europe;
- the existence of a significant number of refugees (since the beginning of the refugee crisis, around 2 million people have arrived in Europe) requires large amounts of social spending, which for many European countries pose a threat to their stable economic and social status;
- last but not least, the refugee crisis poses a threat to the national identity of each country, part of the Old Continent.

The effective protection of the national critical infrastructure can be improved by the implementation of behavioral analysis programs which might significantly reduce the threat that the refugees pose to that system, outlining the potential malicious attacks and aggressive acts.

**Keywords:** Critical infrastructure, European Critical Infrastructure, Economic, Hazard and Refugee Crises, Behavioral Analysis Programs

### 1. INTRODUCTION

The aim of this research is to outline and demonstrate the impact of the refugee crisis on the normal functioning of the critical infrastructure's sectors, focusing on the following aspects:

- the refugee flows and terrorists alongside them who have been entering the territory of Europe pose a threat to the security of the national critical infrastructures not only to particular countries but to the whole continent;
- the significant number of refugees arriving in Europe and requires large amounts of social spending, which for many European countries also is also threatening their stable economic and social status;
- the implementation of the behavioral analysis programs might significantly reduce the threat that the refugees pose to the critical infrastructure system, outlining the potential malicious attacks and aggressive acts.

### 2. EUROPEAN CRITICAL INFRASTRUCTURE

European Commission define “**Critical infrastructure**” as “an asset or system which is essential for the maintenance of vital societal functions. The damage to a critical infrastructure, its destruction or disruption by natural disasters, terrorism, criminal activity or malicious behaviour, may have a significant negative **impact** for the security of the European Union (EU) and the well-being of its citizens”. (Migration and Home Affairs, European Commission)

“The European Programme for Critical Infrastructure Protection (EPCIP) sets the overall framework for activities aimed at improving the protection of critical infrastructure in Europe - across all EU States and in all relevant sectors

of **economic activity**. The **threats** to which the programme aims to respond are not only confined to **terrorism**, but also include criminal activities, natural disasters and other causes of accidents. In short, it seeks to provide an **all-hazards** cross-sectoral approach. (Migration and Home Affairs, European Commission)

### 3. HAZARD IDENTIFICATION

Green Paper on a European Programme for Critical Infrastructure Protection define **hazard** like any “dangerous phenomenon, substance, human activity or condition that may cause loss of life, **injury** or other **health impacts**, property **damage**, loss of livelihoods and services, social and economic disruption, or environmental damage” (UNISDR 2009)”. Usually, “hazard” is referred as synonymous to threat for the Critical infrastructure. By the same document, thereat is “any indication, circumstance, or event with the potential to disrupt or destroy critical infrastructure, or any element of its structure. An all-hazards approach to threat includes accidents, natural hazards as well as deliberate attacks”. (**Green Paper on a European programme for critical infrastructure protection**) The hazards for the critical infrastructure might be with natural, technical, economic, socio-political or geopolitical character. (**Žutautaitė, I., Martišauskas, I., Krikštolaitis, R., Augutis, J., Juričkaitė, V., Setola, R., 2014**)

### 4. ECONOMIC EFFECTS OF MIGRANT CRISIS IN THE MIDDLE EAST AND NORTH AFRICA

“A refugee is someone who has been forced to flee his or her country because of persecution, war, or violence. A refugee has a well-founded fear of persecution for reasons of race, religion, nationality, political opinion or membership in a particular social group. Most likely, they cannot return home or are afraid to do so. **War** and ethnic, tribal and religious violence are leading causes of refugees fleeing their countries. More than half of all refugees worldwide come from just three countries: Syria, Afghanistan and South Sudan”. (UN Refugee Agency, What is a refugee?)

The fiscal impact of immigration is measured in three ways: the accounting approach, it studies the fiscal impact of resident immigrants; dynamic models, it studies the fiscal impact of additional migration on budget balances; and macroeconomic models studies the fiscal implication of the overall impact of immigration on the economy.

The findings are significantly affected by assumptions made for the extend of which immigrants should bear the cost of goods such as infrastructure. The burden is usually on local governments by providing public services and welfare support.

The literature of fiscal impact on immigration is provided in an overview in Organisation for Economic Co-operation and Development (OECD) Migration Outlook (2013). The gross domestic product (GDP) is impacted +/- 1% studies indicate, subject to key assumptions. OECD European Countries such as Belgium, France, and Sweden, immigrants’ employment rates have been raising compared to native rates and the budget impact is more than 0.5% of GDP.

The fiscal impact is affected by factors such as immigrant population (age and reason for migration). Young skilled migrants who are employed, literature suggests, can be expected to be net fiscal contributors between the ages of 40 and 45. Generally, labour migrants who emigrate for family or humanitarian reasons have a positive fiscal impact.

The net fiscal profile of immigrants is affected by employment. In countries where employment rate of migrants is rising would significantly boost the public budget balances. The OECD studies confirm that the conclusion is: in the long run immigration is neither a major burden nor a major panacea for the public purse.

“It’s important to note that most European countries have an active immigration program designed to attract workers from around the world. For these countries, immigration is a nation-building strategy and a practical means of obtaining the skills and human resources needed to grow the economy. Research shows that Germany needs to fill one million vacant jobs, two thirds of which require skilled workers”. (Easy Markets, The Economic Impact of Europe’s Refugee Crisis)

### 5. PROTECTION OF THE NATIONAL CRITICAL INFRASTRUCTURE

There are two main issues that the critical infrastructure is facing as a result of the refugee crisis. Firstly, there is a significant risk of terrorists entering a certain critical infrastructure area or a European country in general. That is highly possible if they manage to enter alongside the masses of refugees and stay undetected as terrorists. Secondly, there exists a potential risk in escalation of social tension and pressure during the refugee flow process. If it is caused by the refugee side it could endanger the law enforcement agencies, border police or the other civilians.

The instruments of the behavioral analysis might present an unique solution to both those problems. According to the specialists in the sphere of nonverbal communication the behavioral analysis could facilitate and improve the identification process of suspicious or aggressive individuals. In that way it might improve the critical infrastructure security and eliminate the level of omission of potentially dangerous individuals.

When we are considering human factor in situation like refugee flows or terrorist acts, it is crucial to focus on mechanisms for prediction and analyzing of aggressive, malicious or terrorist behavior. In particular, those systems and programs that detect the attack before it is occurred and in that way lead to an adequate counter-action in order to reduce the threat to the critical infrastructure and the individuals that are on its territory.

More and more programs are developed in the area of detection of dangerous behavior that could be introduced in the border control process reducing the risk that the refugee flows pose to the critical infrastructure system. Although the important role of the trained and well-prepared specialists cannot be diminished, these programs are designed to significantly facilitate the process of monitoring, detection and control, especially in cases of mass entering in a given country.

Paul Ekman, psychologist and pioneer in the study of emotions and deception detection expert and developed several technologies to perform behavioral analysis. He emphasizes on the importance of the introduction of instrument for detection of dangerous behavior (Ekman created *Dangerous Demeanor Detector*) based on the researches he conducted in this field. Ekman claims that there are seven universal emotions (anger, disgust, contempt, fear, happiness, sadness and surprise) revealing of which might be of help for outlining deceptive behavior when they are in contrast to the actual actions or verbal statements. In order to prove that Ekman presented a group of police officers of different nationalities with images showing facial emotions of anger, disgust, contempt and aggression. 85 % of the interviewed recognize the expression of the attacker in one of the provided images, seconds before the aggressive act appears.

Another of his instruments is the *Micro Expression Training Tool (METT)*, which includes modules for comparison of contrasting emotions having positive effect in trainings and improvements in the analysis of nonverbal behavior. Ekman is outlining an important fact in his established systems – the warning of dangerous behavior is not a definite proof that the person is a terrorist or is having a hostile intent. (Ekman, P., 2011)

After the terrorist attacks of 11<sup>th</sup> September United States introduced in numerous airports the *Screening Passengers by Observation Technique – SPOT* based on the monitoring of passengers by observation technique. Trained specialists observe the passengers for the appearance of suspicious indicators on a list of 30 signs, each of which has a degree determined by a number. If an individual collects a certain number of points, he or she became a subject of questioning by the security authorities.

According to Ekman, consultant on the program, essential for its success is to be found the reason for the hidden emotions, because if it is are not based on trivial factors, then the individual is suspicious and additional interrogation need to be performed. SPOT specialized groups have successfully detected people trying to smuggle drugs, using false documents or committing crimes different than terrorist attacks. (Karp,J. and Meckler,L., 2006)

Despite SPOT faces some criticism on the criteria for collecting data, it is an example of system for detection of suspicious behavior that might be introduced in the monitoring and control process of the refugee flows. Other similar integrated systems which could be implemented in the attempt for overcoming the already mentioned threats of terrorist or malicious acts are the *COGITO* system and *Future Attribute Screening Technology (FAST)*.

The COGITO technology is already used in airports and border crossing screening for detecting terrorists, illegal immigrants, smugglers, as well as conducting secondary screening of suspicious individuals. (Suspect Detection Systems website, *Technology*). FAST, on the other hand, aims in improving the ability to promptly analyze the behavior of individuals and detect dangerous or suspicious ones combining behavioral and psychological sciences, theories for detection of forensic behavior and sensory technologies.

## 6. CONCLUSION

Most European countries have an active **immigration program** designed to attract workers from around the world. For these countries, immigration is a nation-building strategy and a practical means of obtaining the skills and human resources needed to grow the **economy**.

The introduction of systems for behavioral analysis needs to be adequately considered based on the needs of the definite critical infrastructure. Although researches in the field are still under development, there are numerous programs that might be used as guidelines in the implementation of new, modern and more sophisticated ones.

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