PROCEEDINGS
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CHANGING GLOBAL SECURITY ARCHITECTURE

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ESTONIAN ACADEMY OF SECURITY SCIENCES

Tallinn 2022

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Submission Contact

Postal address:	*Estonian Academy of Security Sciences*
	Kase 61, 12012 Tallinn
	Estonia
E-mail:	*teadusinfo@sisekaitse.ee*

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FOREWORD

Raul Savimaa
editor-in-chief

Triin Rätsepp
executive editor

It is our great pleasure to introduce the current and twenty-first issue of the *Proceedings of the Estonian Academy of Security Sciences*. The Proceedings publishes articles and studies which are predominantly focused on modern relevant security issues, questions and challenges, with an emphasis on internal security. In this new issue, entitled **"Changing global security architecture"** five articles written by different authors from Estonia, Finland, Austria, Poland, and Hungary concentrating on several actual aspects of the changed global security architecture are published.

The world has been turbulent in 2022. We have witnessed multiple waves of the COVID-19 pandemic around the world since 2020 (Soyris et al., 2022). These have changed, at least for a while, many behavioural habits in societies, including in internal security authorities (Long, 2022; Interpol, 2020). In order to keep health and safety and capacity of health systems, many countries have established temporary restrictions on the movement of people (ECA, 2022). Communication between people became more virtual and working and studying more remote, where possible. This has some advantages but disadvantages as well (British Academy, 2021). Also, the law enforcement and internal security actors faced new

tasks and needed to find new, including innovative, solutions to ensure public security and safety (Jackson et al., 2021). We can consider this two-year period as a long-time crisis (Charumilind, 2021) that requires a more sustainable and holistic approach to solve it than usual crisis management tasks that the internal security and public safety domain face every day.

While these COVID-caused restrictions have been relaxed in 2022 and societies have step by step returned to previous habits, we have experienced that the threat of a large-scale conventional war in Europe has been realised. On the 24th of February, Ukraine was attacked from outside in order to forcebly change its independently chosen way (European Parliament, 2022). The months following the aggression have brought a human crisis at an enormous scale in Europe. Around 7.8 million refugees left Ukraine, at least temporarily, seeking shelter in other countries (UNCHR, 2022). Besides the direct horror and heroism of the war in Ukraine, the humanitarian crisis has also been a heavy challenge for European countries to deal with. This crisis has provided internal security and public safety services with many valuable, yet sad experiences to ensure the sustainability and resilience of communities and society (Borrell, 2022).

But the ordinary threats and challenges for internal security and public safety have not disappeared. There are still challenges in the protection of health and security, maintaining public order and the fight against serious organised crime, drugs, terrorism, etc.

As a result, the content of this edition of the Proceedings corresponds to all levels from the international to the local scale on universally important topics.

The current 21st volume of *Proceedings*, which consists of different interdisciplinary studies, begins with an article on **Estonian professionals' attitudes, beliefs, and knowledge about issues regarding child sexual abuse**. The aim of the study, done by **Kristjan Kask**, was to investigate professionals' attitudes and beliefs about child sexual abuse as well as their knowledge about children's memory and suggestibility. The sample of 40 participants filled in the Child Sexual Abuse Attitude and Belief Scale and tried to predict children's memory and suggestibility

performance in specific situations. Self-assessment ratings were associated with previous CSA and forensic interviewing training experience. However, professional experience was not associated with knowledge of CSA, nor with the ability to predict children's memory and suggestibility performance in specific situations. The findings suggest that professional experience does not necessarily indicate a good knowledge of CSA issues among professionals.

Vesa Huotari discusses in his publication about **indicators for the effectiveness of traffic law enforcement**. The bookkeeping of public organisations, like the police, covers the resources, their allocation to various tasks and the number of outputs provided. However, without indicators reflecting their capability in making a difference in terms of their purpose, their legitimacy rests upon shifting sands. Vesa's article explicates the effectiveness of traffic law enforcement by the police and the complexities involved in it. The aim is to specify clear points of reference that reflect their purpose and provide for the formulation of indicators of their effectiveness. From the perspective of the police, a valid system of indicators, when put into use systematically, would provide them with information to help meet their purpose and, thus, help them to enhance the effectiveness of their work. The article discusses the obstacles to grasp that purpose unequivocally and figure out the deeds and activities that are essential in achieving it conceptually. The result is a conceptually comprehensive view that provides for the formulation of indicators that are useful in practice.

The third publication of this issue is written by **Gunther Hauser**, who analyses **Chinese geo-economic and strategic interests in the broader Mediterranean region.** The Maritime Silk Road as part of China´s Belt and Road Initiative (BRI) aims to entail the construction of large industrial infrastructure. Particularly port locations abroad are chosen as part of China's wider strategic effort to redirect shipping routes and play a stronger role in international shipping. These ports are likely being identified for economic, strategic, and geopolitical reasons. That is why China is also trying to acquire critical infrastructure, reconstruct ports and thus expand its political and economic influence in the strategically important Mediterranean region. Although at present it seems to be difficult to identify a detailed Chinese strategy which would apply to the whole Mediterranean region, this case study aims at taking a wider look

at the geostrategic importance of the Mediterranean for China, digging deeper into the structural aspects of China's military and diplomatic presence in the region, particularly the country's attitude towards strategic infrastructure share taking such as in ports and its maritime access to the Mediterranean. The main rationale of the study examines how China exerts influence and projects power in the Mediterranean.

The following, fourth article, concerns **legislation on combatting terrorism in the Republic of Poland.** The author, **Alexander Olech**, indicates which parts should be changed to improve the antiterrorist system in Poland. Legal regulations related to terrorist threats are crucial for undertaking successful actions by institutions tasked with combating terrorism. The antiterrorism law in Poland was introduced in 2016 and is one of the most recent sets of legal regulations concerning terrorism in the world. Moreover, it is one of the newest acts in the European Union. Its solutions include a few measures aimed at maintaining state security and are very effective - so far, there has not been a single terrorist attack in Poland. It is essential to analyse the mentioned law, as well as present its key points that constitute its basis. Alexander also points out that legal solutions should be constantly updated to meet evolving threats.

And last, but not least, **Péter Balog** brings to readers the concept of the **geospatial crisis index**. He focuses on the **use of mass data in the Hungarian Defence Forces** and his analysis is based on the collection of information from open sources. The related databases to this are a rapidly changing data set, so the analysis shows only a current state, but if the data set is large enough, it is considered mass data, and may be suitable for drawing new correlations and conclusions for the future. The geoinformation analysis system under development applicable to the security geographical analysis continuously collects data for a limited area of interest, considering predefined variables. The collection of data is basically done based on algorithms, from continuously produced data from diverse sources. The results can be obtained by continuous, rapid comprehensive analysis of these datasets and when supplemented with human analysis used in the decision-making process.

The editors of the *Proceedings of the EASS* wish you exciting new knowledge and moments of recognition while reading the 21st issue of the journal.

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ESTONIAN PROFESSIONALS' ATTITUDES, BELIEFS, AND KNOWLEDGE ABOUT ISSUES REGARDING CHILD SEXUAL ABUSE

Kristjan Kask, PhD

Associate Professor in Legal Psychology
Centre of Excellence in Behavioural and Neural Sciences
School of Natural Sciences and Health
Tallinn University
Estonia

Keywords: child sexual abuse, investigative interviewing, beliefs, attitudes, knowledge

ABSTRACT

Familiarity with research on children's memory and suggestibility, and the ability to predict children's memory and interview performance could be considered necessary components of expert knowledge about children as witnesses. The aim of the present study was to investigate professionals' attitudes and beliefs about child sexual abuse as well as their knowledge about children's memory and suggestibility. The sample of 40 participants filled in the Child Sexual Abuse Attitude and Belief Scale (CSAABS; Finnilä-Tuohimaa, Santtila, Björnberg, Hakala, Niemi & Sandnabba, 2008) and tried to predict children's memory and suggestibility performance in specific situations (Santtila, Slama, Korkman, & Finnilä, 2014). Self-assessment ratings were associated with previous CSA and forensic interviewing training experience. However, professional experience was not associated with the knowledge of CSA nor with the ability to predict children's memory and suggestibility performance in specific situations. The findings suggest that professional experience does not necessarily indicate a good knowledge in CSA issues among professionals.

INTRODUCTION

In a globalising world, the ways crimes are committed are also changing. For example, in crimes against children, online child sexual exploitation is on the rise (United Nations Children's Fund, 2021). In addition, in suspected child sexual abuse (CSA) investigations, besides the police investigators, different professionals may be involved, such as psychologists, social workers or child protection workers. In CSA cases there may not be any other evidence besides the child's narrative. However, previous studies indicate that interviews and decision-making processes in these cases can be negatively influenced by incorrect beliefs and also attitudes about CSA (Finnilä-Tuohimaa, Santtila, Sainio, Niemi & Sandnabba, 2009), therefore, it is important to study these effects in more depth in different cultural contexts.

Attitudes and pre-existing beliefs may be strong in alleged CSA cases as this type of crime can be emotionally charged (Finnilä-Tuohimaa, Santtila, Björnberg, Hakala, Niemi & Sandnabba, 2008). Several studies have been conducted to investigate the relationship between knowledge and beliefs about children as witnesses. There is research emphasizing knowledge or attitudes among laypersons, such as students or potential jurors (Magnussen et al., 2006; Quas, Thompson & Clarke-Stewart, 2005; Wright et al., 2010), also knowledge and attitudes among experts (Kassin, Tubb, Hosch & Memon, 2001). Other studies have compared experts with laypersons (McAuliff & Kovera, 2007; Kask, 2011) as well as attitudes and beliefs between different groups of professionals (Everson et al., 1996; Finnilä-Tuohimaa et al., 2005; Melinder et al., 2004; Everson & Sandoval, 2011). For example, Kask (2011), which found very small differences in knowledge of eyewitness identification issues between judicial professionals and laypersons.

Santtila, Slama, Korkman and Finnilä (2014) point out that the focus in these studies has mostly been on the attitudes of the professionals, and the results are rarely compared (but see Melinder & Magnussen, 2014; Kostopoulos, Iversen, Magnussen & Melinder, 2019) to any absolute standard of correctness, that is, factual statements where based on previous research, it can be said whether a statement is correct or not. To overcome this shortcoming, Finnilä-Tuohimaa et al. (2008) constructed a scale to measure attitudes and beliefs related to CSA and found that

several psychologists held strong attitudes and erroneous beliefs related to CSA. On average, the participants in their study agreed with incorrect answers or disagreed with correct answers in about 20% of the questions. This finding is in line with previous research suggesting that clinicians' scientifically based knowledge about CSA might be inadequate (Finnilä-Tuohimaa, Santtila, Sainio, Niemi & Sandnabba, 2005; Santtila, Slama, Korkman & Finnilä, 2014), and those clinicians sometimes use highly suggestive interviewing techniques when investigating CSA (Korkman, Santtila & Sandnabba, 2006). However, the objective classification of beliefs as correct or incorrect may be difficult when such claims are not sufficiently contextualised.

Being familiar with research on children's memory and suggestibility is an important factor in the formation of knowledge about children as witnesses (Santtila et al., 2014). Experience is a vital part of expertise and is often used to measure the expertise of professionals, especially in clinical work (Santtila et al., 2014). In order to learn from experience, people have to get feedback whether their decisions were accurate or not (Dawes, 1994). However, in practice, this could rarely be the case. Participating in courses without practical exercises and feedback may increase knowledge and confidence but not necessarily actual competence. This is what Finnilä-Tuohimaa et al. (2008) found, namely, that the more training in interviewing children the participants had, the more erroneous beliefs and stronger attitudes they possessed, and that experience did not affect attitudes and beliefs.

As studies in this field have mainly focused on the question of knowledge about issues concerning CSA, only a small proportion of research has focused on linking it with children's memory and suggestibility (Kassin et al., 2001; Kovera & Borgida, 1997; Quas, Thompson & Clarke-Stewart, 2005). If the general knowledge is assessed using attitudinal questions, then it may not guarantee accurate understanding of issues arising in a specific situation. In fact, we suggest that for an expert to claim to have specialised knowledge about children's memory and suggestibility, they should be able to predict the likelihood of children giving correct and incorrect answers in specific interview and memory testing situations. In the first study using this methodology, Quas, Thompson and Clarke-Stewart (2005) took four widely cited studies on children's suggestibility, created short overviews of the studies and asked the participants to

evaluate the results, namely, to predict the percentage of children of a certain age and context that either answered questions correctly or conformed to suggestive utterances. The overview gave the participants contextual information, and the answers were quite specific. Also, since the participants' answers could be compared with actual results from the corresponding studies, the answers could be compared to a definite and exact standard of correctness. The results demonstrated that the participants' ability to predict the behaviour of children in these situations was low.

Santtila et al. (2014) conducted a study where they let both psychology students as well as psychologists and lawyers to predict the behaviour of children in studies regarding children's memory and suggestibility. Participants first read a short overview of a study, after which they answered questions about the study. This was repeated ten times. They found that the ability to predict the children's behaviour was low and not related to professional experience.

In summary, there is evidence that child interviews performed by clinicians in legal contexts may be of questionable quality (for example, see Korkman, Santtila & Sandnabba, 2006; Korkman, Santtila, Westeraker & Sandnabba, 2008) and those clinicians have rather limited knowledge of research related to issues of child sexual abuse (Finnilä-Tuohimaa et al., 2008).

AIMS OF THE PRESENT STUDY

There is an increased need to know more about CSA related attitudes, beliefs and knowledge among professionals working with children. In Estonia, only the quality of investigative interviews has been studied so far (Kask, 2012a, 2012b) along with the knowledge of factors regarding eyewitness testimony by judicial personnel and laypersons (Kask, 2011). However, there is a gap in research attitudes, and beliefs on the one hand, and knowledge about CSA of different professionals along with the factors that could be associated with these constructs (i.e., professional experience) among different professionals on the other. The aim of the study was to investigate professionals' attitudes and beliefs as well

as their knowledge about CSA. In addition, we were interested in how professional experience would predict attitudes, beliefs and knowledge about CSA, and self-rated expertise.

1. METHOD

1.1 SAMPLE

The convenience sample consisted of 40 participants (7 men and 33 women) with a mean age of 41.9 years (*SD* = 11.9, range 23-70). In terms of education, 21 had graduated in psychology, 10 in law, five in medicine, two in education, one in social work and one had an unspecified university degree. Of the participants, 34 were working, 4 were working and studying, and two selected another option (i.e., parental leave). In terms of profession, there were 20 psychologists, five medical doctors and judges, four prosecutors, two social pedagogics teachers and investigators, one social worker, and one did not specify his/her job title. The mean work experience was 15.4 years (*SD* = 11.0, range 1-46). Sixteen (40%) participants worked with under 10-year-old children (mean duration *M* = 9.84, *SD* = 9.85; range 1-34). Twenty (50%) participants had participated in further education related to child sexual abuse and 22 (55%) in further education in forensic interviewing.

1.2 PROCEDURE

The questionnaire was distributed to potential participants through relevant professional organisations' mailing lists and was open from January 7th to March 2nd, 2020. Approval for conducting the research was granted by Tallinn Ethics Committee of Medical Research. The questionnaire consisted of information about the study, demographic questions, the Child Sexual Abuse Attitude and Belief Scale (CSAABS; Finnilä-Tuohimaa et al., 2008), knowledge of children's memory and suggestibility survey which consisted of eight overviews with associated questions, and a set of questions about the participants' professional experience (based on Santtila et al., 2014). It took approximately 30-45 minutes to complete the questionnaire.

1.3 QUESTIONNAIRE

1.3.1. CSAABS

The CSAABS consists of 36 items, 15 subjective and 19 factual (beliefs). The subjective items consisted of four subscales: Disclosure, Pro-Child, Intuition, and Anti Criminal Justice System (Cronbach alphas ranged between .70-.81 in the student sample and .65-.79 in the psychologist sample) that the participants had to rate on a 6-point Likert scale ranging from 'I do not agree' to 'I completely agree' (Finnilä-Tuohimaa et al., 2008).

1.3.2. Knowledge of children's memory and suggestibility

In this task, the participants read overviews of studies about children's memory and suggestibility using a subset of the scenarios described in Santtila et al. (2014). A summary of the studies is presented in Table 1 (read about the selection process of the studies more closely from Santtila et al., 2014). In Santtila et al. (2014) there were 15 studies of which ten were randomly presented to the participants. Each overview was associated with between two and five questions and the questions had a maximum of five response options. As the authors acknowledge that the questionnaire was long and with so many response options potentially assessing distinctions without practical relevance, we decided to decrease the number of studies presented to the participants to eight and the response options were limited to two to four (on average 2.6). The total number of questions was 30. The response options and the sequence of the studies was randomised.

First, participants were given information that the purpose of this task was to examine knowledge of children's memory and suggestibility. The participants first read an overview of a study. Then they answered several questions about this study. This process was repeated eight times. The option of leaving some questions blank or giving a "do not know" answer did not exist. The questions had a maximum of four response options, choosing either a correct or an incorrect percentage (see Table 2 for an example of the study description and questions).

Professional experience. Participants were also asked a set of questions regarding their professional experience with children. The participants were asked to answer whether they had participated in any sort of further education about child sexual abuse and forensic interviewing of children. The participants were also asked to rate their own knowledge (self-rated expertise) regarding children's memory and suggestibility on a 7-point Likert scale from 'very small' to 'very large.'

TABLE 1. List of the Studies Included in the Questionnaire of the Present Study

Study	Title	Main authors	Year of Publication	Main Topic	Children's Age	No. of Questions
1a	Effects of questions repetition on the eyewitness testimony of children and adults	Poole & White	1991	memory, suggestibility	4-8	7
1b	Two years later: Effects of question repetition and retention interval on the eyewitness testimony of children and adults	Poole & White	1993	memory, suggestibility	6-10	(7)
2	Children's memory of a physical examination involving genital touch: Implications for reports of child sexual abuse	Saywitz et al.	1991	memory, suggestibility	5-7	5
3	The effects of stereotypes and suggestions on preschoolers' reports	Leichtman & Ceci	1995	suggestibility	3-6	6
4a	Interviewing preschoolers: Effects of nonsuggestive techniques, parental coaching, and leading questions on reports of nonexperienced events	Poole & Lindsay	1995	memory, suggestibility	3-7	3
4b	Children's eyewitness reports after exposure to misinformation from parents	Poole & Lindsay	2001	memory, suggestibility	3-8	(3)
5	Planting false childhood memories in children: the role of event plausibility	Pezdek & Hodge	1999	suggestibility	5-12	4
6	Emotion and memory: children's long-term remembering, forgetting, and suggestibility	Quas et al.	1999	memory, suggestibility	3-13	4
7	Maltreated children's memory: accuracy, suggestibility, and psychopathology	Eisen et al.	2007	memory, suggestibility	3-16	7
8	Children remember early childhood: Long-term recall across the offset of childhood amnesia	Sutcliffe et al.	2008	memory	1-5	8

TABLE 2. Example Description and Questions

Study	Overview of the study	Question	Correct response
Study 2: Children's memory of a physical examination involving genital touch: Implications for reports of child sexual abuse (Saywitz et al., 1991)	Five- and seven-year-old girls experienced a standardized medical check-up. For half of the girls, a vaginal and anal examination was included. For the other half, a scoliosis examination was included. One week later, the children were interviewed. The girls were asked to freely recall everything they could remember, after which they were asked to demonstrate what happened using an anatomically correct doll. Finally, they were asked more specific questions, some of which were misleading (e.g. "The doctor had really long hair, didn't she?")	Question 1: When asked to freely recall everything they remembered about the visit to the doctor, which group of children remembered the most information?	The 7-year-olds who had not experienced the vaginal and anal examination (4 options)
		Question 2: When asked to freely recall everything they could remember, what percentage of the girls who had experienced the vaginal and anal exam mentioned this?	Below 50% of the girls (2 options)

2. RESULTS

2.1 GROUP DIFFERENCES IN BACKGROUND FACTORS

There was no significant gender difference in education $\chi^2(3) = 2.1$, $p > .05$ nor education difference in age, work experience, working with young children, and participating CSA or forensic interview trainings (F-s > .52, p-s > .089).

2.2 CSAABS

Although our sample size was small (n = 40), we conducted principal component analysis extraction with varimax rotation as previous research suggests that this type of analysis can be done with such a sample size (MacCallum, Widaman, Zhang, & Hong, 1999; de Winter, Dodou, & Wieringa, 2009). The Kaiser-Meyer-Olkin measure of sampling adequacy was .267 and Bartlett's test of sphericity was significant, $\chi2(630) = 1031.22$, $p < .001$. Eleven eigen values were larger than one. The three-factor solution (see Table 3), which explained 44% of the variance (27%, 9% and 8%, respectively), was preferred because of its previous theoretical support and the difficulty of interpreting subsequent factors. No items were removed as they loaded to the factors at least .2 or above.

To the first factor, 16 items loaded that were related to believing in children's reports and attitudes favouring an intuitive approach to CSA investigations. We labelled this factor the Pro-Child and Intuition subscale. The 11 items loaded on the second factor concerned problems (e.g., by any means necessary) with disclosure of CSA, named the Disclosure subscale. The 9 items loaded on the third factor focused on negative attitudes towards the functioning of the criminal justice system in CSA cases, labelled the Anti Criminal Justice System subscale.

Mean composite variables were calculated by summing the items belonging to each scale and dividing by the number of items. Correlations were computed between the three subscales (see correlations between constructs in Table 4). Significant correlations were found between the subscales, range $r = .41$ – $r = .51$.

TABLE 3. Principal Component Loadings of the CSAABS Items

Component	1	2	3
17. My first impressions whether the child is abused or not is usually correct.	.768	.241	
39. I can see when the child is telling the truth.		.756	
23. I trust my intuition.	.697		
8. You can tell if a child has been exposed to suggestion.		.674	.296
11. In cases of child sexual abuse symptom evidence should be enough for a conviction if experts claim that the symptoms have been caused by sexual abuse.	.558		.422
38. Child molesters do not usually have normal relationships with other adults.	.548		
5. I usually know before the interview whether the child has been sexually abused or not.	.548		
19. Reports of child sexual abuse are seldom unfounded.	.542	.225	-.453
25. It is not possible to make the child lie that abuse has happened.	.525		.281
21. Encouragement and praising help the child to tell what has happened.	.521	.296	
40. In my opinion, sexual abusers should be punished harsher than they are now.	.515		.394
14. 95% of the children brought to investigations have been victims of sexual abused.	.509	.282	.282
3. It is important for the interviewer to express he/she is on the child's side.	.490		.437
37. Medical procedures would be a suitable punishment for child sexual abuse.	.437		.320
22. I can easily put myself in the position of the victim's parents.	.417		
1. No professionals use suggestive techniques when working with sexually abused children.	.264		
4. Children must be interviewed repeatedly because they are often afraid to admit abuse.		.820	
15. Several interviews are required for the child to reveal what has actually happened.	-.225	.733	
27. Sometimes suggestive techniques can be useful when trying to get a child to tell about real events.	.362	.663	
33. If the interviewer believes that abuse has taken place, he/she should interview the child again even if the child denies the incident.	.339	.657	

24. In the beginning of the investigations children usually deny that abuse has taken place.		.616	
13. In cases of child sexual abuse the threshold to convict should be kept lower than in many other crimes.	.262	.601	.323
16. It is good for the interviewer to know as much as possible of the case in question before the beginning of the investigations.		.585	
12. Clinical experience is the best guarantee to get to the truth.	.431	.576	
26. Suggestive interviewing methods only affect remembering of details and mundane things when children are concerned.	.463	.528	
29. I do not believe in the possibilities of the legal system to catch the perpetrators.		.483	.442
31. In 95% of suspected cases of sexual abuse of children the suspected perpetrators are guilty.		.297	
20. Children do not usually tell everything that has happened.	-.222		.716
28. Revealed cases of child sexual abuse are only the tip of the iceberg.	.297		.714
10. The other parent in families with incest usually closes their eyes to the sexual abuse going on.	.293		.664
30. In the interviewing situation it should be expressed that the child is safe from the perpetrator.			.648
36. In cases of child sexual abuse courts often hesitate to convict the suspect.		.266	.538
7. Children are not usually ready to reveal what has happened to a stranger.		.308	.449
35. Perpetrators often start abusing children already when they are young.	.270		.429
6. Observation of free-play is a good investigation method, because while playing the child can express him/herself spontaneously.	.283	.389	.413
9. Children do not fabricate stories about sexual abuse, because they do not know anything about such things.	.204		.257
Cronbach alpha	.875	.744	.737
Mean	3.17	3.16	4.24
Std. Deviation	1.38	1.40	1.21
Minimum	1.06	1.0	1.56
Maximum	5.63	5.63	6.0

Note. 1 = Pro-Child and intuition Attitudes; 2 = Disclosure Attitudes, 3 = Anti Criminal Justice System Attitudes.

TABLE 4. Correlations between Different Constructs

	D	PCI	ACJS	Belief	Knowledge	Education	Experience	CSA	FI
PCI	.513**								
ACJS	.414**	.429**							
Belief	-.207	-.067	-.184						
Knowledge	.249	.128	.005	-.061					
Education	-.078	-.052	-.158	-.130	-.222				
Experience	-.188	-.267	-.299	.083	-.165	.213			
CSA	-.054	-.100	-.013	-.101	-.114	-.149	.204		
FI	.035	-.075	.050	-.230	-.056	-.230	.226	.905**	
SA	-.046	.071	-.024	-.097	-.202	.101	.276	.402*	.363*

Note. D - Disclosure Attitudes; PCI - Pro-Child and Intuition Attitudes; ACJS - Anti Criminal Justice System Attitudes; Belief – belief (factual) item score; Knowledge – score in knowledge items; Experience – work experience with children younger than 10-years; CSA – participating CSA course; FI – participating forensic interviewing course; SA – knowledge self-assessment. ** $p < .01$, * $p < .05$.

Participation in courses regarding child sexual abuse and forensic interviewing of children, self-rated expertise and length of professional experience. Independent samples *t*-tests revealed that there were no significant differences between those who had and those who had not participated in courses regarding child sexual abuse or regarding forensic interviewing of children on the three CSAABS subscales (see Table 5). Also, neither self-rated expertise nor the length of professional experience correlated with any of the subscales (*r*s <.07, *p*s >.05). However, participating in CSA and forensic interviewing trainings were significantly correlated, $r = .905$, $p < .01$.

Belief items. Next, we analysed the 19 items assessing factual beliefs about child abuse. We computed the frequency of clearly agreeing with a false statement or clearly disagreeing with a correct statement (Finnilä-Tuohimaa et al., 2008). The total number and percentage of participants choosing scores 5 or 6 for all factual items were computed, except for items 9 and 16 which were coded reversely. The proportion of correct responses was .75 (*SD* = .15, see Table 6). The range of correct responses were from .37 to 1.00, which indicates that the variance between the participants was large.

There were no significant correlations with education and professional experience (i.e., adult training in CSA or in forensic interviewing, or self-assessment of knowledge of children's memory, suggestibility, and interviewing skills).

TABLE 5. Means and Standard Deviations for the Scores on CSAABS Subscales Concerning Participation in Courses of Child Sexual Abuse and Forensic Interviewing of Children

		Participated		Not participated	
		n	M (SD)	n	M (SD)
CSA course	Disclosure	20	2.97 (.66)	20	3.05 (.86)
	Pro-Child Attitudes and Intuition	20	3.09 (.73)	20	3.25 (.92)
	Anti Criminal Justice System	20	4.31 (.67)	20	4.33 (.65)
FI course	Disclosure	22	3.04 (.67)	18	2.98 (.88)
	Pro-Child Attitudes and Intuition	18	3.11 (.71)	22	3.24 (.96)
	Anti Criminal Justice System	22	4.34 (.65)	18	4.28 (.68)

Note. CSA – child sexual abuse; FI – forensic interviewing; M – mean; SD – standard deviation.

TABLE 6. The Frequencies of the Incorrect Answers to the Factual Items

Item	number of incorrect answers	% of incorrect answers
30. In the interviewing situation it should be expressed that the child is safe from the perpetrator.	36	90
16. It is good for the interviewer to know as much as possible of the case in question before the beginning of the investigations.	35	88
9. Children do not fabricate stories about sexual abuse, because they do not know anything about such things.	26	65
6. Observation of free-play is a good investigation method, because while playing the child can express him/ herself spontaneously.	21	53
21. Encouragement and praising help the child to tell what has happened.	17	43
11. In cases of child sexual abuse symptom evidence should be enough for a conviction if experts claim that the symptoms have been caused by sexual abuse.	13	33
33. If the interviewer believes that abuse has taken place, he/she should interview the child again even if the child denies the incident.	11	28
8. You can tell if a child has been exposed to suggestion.	9	23
14. 95% of the children brought to investigations have been victims of sexual abused.	7	18
39. I can see when the child is telling the truth.	6	15
31. In 95% of suspected cases of sexual abuse of children the suspected perpetrators are guilty.	6	15
27. Sometimes suggestive techniques can be useful when trying to get a child to tell about real events.	6	15
17. My first impressions whether the child is abused or not is usually correct.	6	15
12. Clinical experience is the best guarantee to get to the truth.	5	13
25. It is not possible to make the child lie that abuse has happened.	4	10

1. No professionals use suggestive techniques when working with sexually abused children.	3	8
5. I usually know before the interview whether the child has been sexually abused or not.	1	3
26. Suggestive interviewing methods only affect remembering of details and mundane things when children are concerned.	1	3
19. Reports of child sexual abuse are seldom unfounded.	0	0

2.3 KNOWLEDGE OF CHILDREN'S MEMORY AND SUGGESTIBILITY

The proportion of correct responses was .57 (*SD* = .09, range .40 to .77), which was higher than the .39 proportion of correct responses expected based on chance responding using a one-sample *t*-test, $t(39) = 12.82$, $p < .001$. For example, the question concerning what percentage of the recent events where at least one thing was accurate that a 1 year 7-month-old child recalled was answered accurately by 38 (95%) of the participants whereas only 7 (18%) answered correctly to question related to age differences in the change of answers in response to repetitive questions.

There were no significant correlations with education and professional experience. There was also no correlation between the belief items score of CSAABS and the overall score of the knowledge questionnaire, and between CSAABS subscales and the overall score of the knowledge questionnaire.

Self-assessment of knowledge of children's memory, suggestibility, and interviewing skills. Finally, we were interested in the relation of self-assessment of knowledge of children's memory, suggestibility, and interviewing skills with different predictors (*M* = 3.48, *SD* = 1.20). We found significant correlations with previous CSA training, $r = .402$, $p < .01$, and previous forensic interviewing training, $r = .363$, $p < .021$. To examine this association in more depth, a linear regression backward method was conducted which resulted in a regression model that was statistically significant, $F(1,38) = 7.31$, $p < .01$, $R^2 = .161$. In this model, participating in CSA training was a statistically significant predictor of the self-assessment score, $\beta = .95$, $t = 2.70$, $p < .01$.

3. DISCUSSION

The findings suggest that education and professional experience does not necessarily indicate a good knowledge in CSA issues among professionals (see also Santtila et al., 2014; Quas, Thompson & Clarke-Stewart, 2005). Thus, we must place a strong emphasis on the importance of experience. Experience is often emphasized in clinical work and CSA investigations as enhancing expertise (Finnilä-Tuohimaa et al., 2008), but may not correct factual misconceptions. Experienced clinicians may lean more on their professional experience than on scientific, theoretical experience (Finnilä-Tuohimaa et al., 2005) resulting in a more intuitive approach to CSA. Horner et al. (1993) also note that clinicians with large experience may use different evidence to rationalise their intuitive perceptions.

Previous research indicates that training may not be effective for correcting erroneous beliefs and attitudes, and thus may not improve decision making in CSA cases (Finnilä-Tuohimaa et al., 2008), but only confirm pre-existing beliefs (Dawes, 1994). What could be critical here is to receive rapid and adequate feedback during the trainings (Dawes, 1994) as it is known that positive gains of trainings fade significantly over time (Lamb, Sternberg, Orbach, Esplin & Mitchell, 2002). Also, the professionals may possess attitudes and beliefs early in their career and participating in training leads to interpreting the training selectively according to these attitudes and beliefs.

The study has several limitations regarding the sample size and formation. Our sample size was small (possibly due to a lengthy questionnaire) and also we have to bear in mind that our sample was relatively diverse by education - roughly half of the participants were psychology graduates, 25% in law, 13% in medicine etc. therefore, we have to be very careful generalising the results to a larger professional population. Thus, this topic should be further investigated with a larger sample size.

To conclude, self-evaluated expertise may not be a guarantee of an actual good quality of expertise. Self-assessment ratings were associated with previous CSA and forensic interviewing trainings, however, professional experience was also not associated with the belief (factual) item scores

of knowledge of CSA nor with predictions regarding research on children's memory and suggestibility. Thus, it can be suggested that besides theoretical trainings, constant practical trainings are needed for the interviewers to implement newly acquired knowledge into practice and to repeat the practical training over time to maintain the good quality of investigative interviews with children.

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Contact:

Kristjan Kask, PhD
Associate Professor in Legal Psychology
Centre of Excellence in Behavioural and Neural Sciences
School of Natural Sciences and Health
Tallinn University
Estonia
E-mail: kask@tlu.ee

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INDICATORS FOR THE EFFECTIVENESS OF TRAFFIC LAW ENFORCEMENT

Vesa Huotari, PhD

Senior researcher
Police University College
Finland

Keywords: police, effectiveness, traffic law enforcement, complexity, indicators

ABSTRACT

The bookkeeping of public organisations like the police covers the resources, their allocation to various tasks and the number of outputs provided. However, without indicators reflecting their capability in making a difference in terms of their purpose, their legitimacy rests upon shifting sands. This article explicates the effectiveness of traffic law enforcement by the police and the complexities involved in it. The aim is to specify clear points of reference that reflect their purpose and provide for the formulation of indicators of their effectiveness. From the perspective of the police, a valid system of indicators, when put into use systematically, would provide them with information to help them meet the purpose and, thus, help them to enhance the effectiveness of their work. The article discusses the obstacles to grasp that purpose unequivocally and figure out the deeds and activities that are essential in achieving it conceptually. The result is a conceptually comprehensive view that provides for the formulation of indicators that are useful in practice.

INTRODUCTION

Traffic law enforcement by the police, ever since the early years of motoring, has not sat well within the police institution, as the primary purpose of the latter has been the fight against crime. Policing the roads with the aim of increasing their safety has cumulated diverse criticism from inside the police and from the public (e.g. Brown, 1908; Donovan & Lawrence, 2008; Emsley, 1993; Hough, 1987; Seo, 2019). The police have been criticised for lacking systematic understanding of the effectiveness of their activities on the roads. While they measure the use of resources, the inputs and the immediate outputs, they pay insufficient attention to the more encompassing effects of their work in fulfilling its very purpose (e.g. Palmer & Corbett, 2015). Such a criticism puts the justification of the respective activities in question and undermines the legitimacy of the public provider in question. However, I will argue that this common criticism is true but unwarranted; the habit of measuring the inputs in controlling, say, speeding and drunk driving, are also good proxies for their effectiveness. The main aim of this article is to lay the groundwork for the formulation of indicators for the effectiveness of traffic law enforcement by the police.

I shall, firstly, explicate the very idea of effectiveness and outline two possible ways to approach it empirically. After a short discussion of the nature of traffic laws and the complexities underpinning their effective enforcement, I shall put forward an alternative view to traffic law enforcement and the role of the police in it (c.f. Meares, 2013). The purpose of traffic laws, unlike the Criminal Code, is to keep risks on the roads at a level that society finds acceptable (c.f. Elder, 1964; Zaal, 1994). Therefore, traffic law enforcement by the police should aim to ascertain that the law accurately reflects the true risks on the roads and that it is followed in practice too. As my third point, I shall draw out a framework for determining a system of indicators that would not only provide information on the effectiveness of the police on the roads, but also help in coming to terms with it in practice. The above calls for a systematic approach to the evaluation of effectiveness that succeeds in covering the process, not just its expected results.

Arguably, the effectiveness of law enforcement on the roads by the police is a complex and controversial issue (e.g., Churchill & van Norden, 2010; Bierschenk, 2016; Fichtelberg, 2013; Jacobs, 2016). I believe that the challenge of identifying good indicators for it reflects the problems in determining effectiveness in open and complex environments where the desired end results, like road safety, emerge because of the work of systems and systems of systems. The specific character and purpose of traffic laws and the controversial role of the police in maintaining good order on the roads by enforcing such laws add to this complexity.

However, we should address this complexity directly and aim to tackle the issues in their complexity rather than dissolving them by introducing simple analytical models as true accounts of the reality underlying the diversity of empirical events. Arguably, there is a wide gap between the aforementioned models and the real world. Overcoming it will not happen with a great single leap but by persistent and piecemeal conceptual pursuit. This article represents my attempt towards such a pursuit.

1. THE IDEA OF EFFECTIVENESS

The police that enforce traffic laws on the roads are part of the institution that, above all, but among its other duties (e.g., Friedman, 2021; Sparrow, 2016), fights crime, prevents it from taking place and, if such prevention fails, investigates the incidents as the first step in the criminal process. Arguably, the very purpose of traffic law enforcement is, at least in part, to provide for the accomplishment of the more general purpose of the police. However, the role that the police play in the criminal justice system implies that the purpose of the police is partly defined by the purpose of the criminal justice system. In addition to this, policing the roads aims to make the roads safer for their users. This aim, or the desired state of affairs, defines the purpose of work for a number of other agencies and organisations as well. Therefore, whether good or bad, it is a result of many independent, more or less coordinated pursuits and activities (e.g., McIlroy, Plant, Hoque, et al., 2019; Mohan, Tiwari, Varghese, et al., 2020; Churchill & van Norden, 2019). Accordingly, the outcome represents a joint accomplishment that does not offer any uncomplicated way to single out the contribution from an individual provider such as the police from the collectively accomplished outcome.

The obscurity of the purpose of the police, not to mention contradictions among the various purposes (Hough, 1987), has hampered all attempts to measure the effectiveness of the police (Kirby, 2013). Even more pressing is the question of whether the effectiveness of the police is basically a simple or straightforward technical matter that will be resolved as soon as the purpose(s) is (are) made clear for good. What is at stake here is the fundamental question of whether the police and policing manifest some value in themselves or whether their value is reduced fully to their instrumental utility and effectiveness.

Engel and Eck (2015) point out that effectiveness is not a supreme value. It cannot be pursued blindly or at the cost of other important values like equity, fairness, legitimacy, and quality. Strategies that are effective but not fully justified in the eyes of the citizens simply undermine the police as an institution. (Engel & Eck. 2015; Chatterton, 1987; Goldenbeld, Heidstra, Christ, et al., 2000). However, instrumentalist orientation

characterises our time to such a degree that the view that the citizens care about nothing, but the results seem almost inevitable, Tyler (2021) notes. Success in meeting socially held criteria for "good" police work, but failure to achieve the desired situation that is seen as belonging to the responsibility of the police will eventually turn the tables.

Thus, there are fundamental conceptual and practical issues in defining the purpose of the police as well as in determining the effectiveness of the police as an institution or of any of their distinctive functions, like traffic law enforcement. Table 1 evaluates the true complexity of the case.

The eight points highlighted in Table 1 undermine our efforts to measure empirically the effectiveness of traffic law enforcement by the police. However, such a method is not the only option for the evaluation of effectiveness.

It is possible to evaluate the effectiveness of an activity, not in terms of its intended effects on some desired state of affairs, but in terms of how closely the actual practice approximates to an ideal model for its functioning or realisation. Such a theory- or model-driven approach could proceed as follows:

- Figuring out the best available accounts explicating the causal mechanisms between the desired state of affairs and the possible courses of action.

- The selection of the model that, taking into account a variety of criteria, represents the most promising or otherwise warranted line of action.

- The model specifies the abstract categories and the causal relations between them. The next step is to transfer the categories into the world of traffic law enforcement by the police and use them to give a substantial yet ideal account and description of such enforcement.

- As the last step, the characterisations of the actual activities would be contrasted with the ideal model for traffic law enforcement in order to detect the possible compatibilities and shed light on possible discrepancies between the two. Such analysis would suggest

TABLE 1. The dilemmas in the evaluation of effectiveness.

Difficulties in the evaluation of effectiveness	The practical consequences resulting from them
The activity in itself and/or the state of affairs pursued by it are difficult to circumscribe unequivocally and measure empirically.	We cannot measure the changes either in the target activity of which the effectiveness interests us, or in the state of affairs that would change due to adjustments in our activity.
A significant time lapse that often exists between the deeds and materialisation of their effects hampers the efficient measurement of the latter.	We cannot determine beforehand the exact point in time when the expected effects should materialise, and thereby provide the desired proof in the matter.
In an open environment, the materialisation of effects is likely to depend on the state of a number of other factors that remain beyond our control or grasp.	As a rule, simply doing the proper thing in theory is insufficient in an open situation to guarantee the materialisation of the expected effect.
All activities tend to come with effects, some of which are undesirable or cause collateral costs that cannot be overlooked in the evaluation of the effectiveness. However, the true value or significance of the unintended effects is difficult to pin down and measure.	There is no objective method available for deciding the true value of the desired effects while taking full notice of the value of the undesirable ones too.
Theories that guide us in the connection between our deeds and the desired state of affairs are either ideal types or abstract. Their scope never covers all factors, effects or relations that intermingle with practice.	We build our plans on the best available knowledge and experiences verified by the past. However, the quality of those theories in representing the real mechanisms and their mutual relations escapes us, so our knowledge of the adequacy of our deeds remains obscure.
Our beliefs on effectiveness are hardly ever backed up by warranted empirical evidence, but for the most part reflect wishful thinking and our aspirations.	The evaluation of the effectiveness of anything is accomplished in a context characterised by strong expectations on the effectiveness of the evaluand.
Effectiveness is often an emerging result from numerous individual deeds, actors and systems in action. The interrelations between various elements remain a mystery to us.	It is impossible to determine afterwards the contribution from a single level or system to the outcome, or to determine how much of the success is coincidentally produced and how much is genuinely accomplished collectively.
Often organisations simultaneously pursue purposes that are competitive, occasionally even contradictory.	The effectiveness of the pursuits represents a compromise between the various purposes. In any situation, it is impossible to determine what would be the ideal balance between various purposes in it and how to attach a specific value to it.

> ways to improve the performance of the target activity, i.e., to identify areas where it leaves room for improvement from the point of view of the ideal state.

It is possible to carry out the aforementioned comparison between the actual and the ideal, and to identify possibilities for enhancing the effectiveness without the need to verify the empirical manifestation of the intended effects.

This approach is built upon the presupposition that the efficient functioning of anything is a prerequisite for its effectiveness. Therefore, everything we can do to advance the smooth functioning of something, like lessen the friction in it, is likely to increase its effectiveness.

Unfortunately, this is purely a technical view of the issue and simply implies that effectiveness is improved by increasing the efficiency of something. This view is often compatible with the interests of management. From the management's point of view, the onus is on the efficient task accomplishment rather than on the larger external effects or outcomes resulting from the accomplished tasks.

In the evaluation of effectiveness, we should take full notice of the aforementioned complexities comprising difficult conceptual, methodological, technical and political issues, even dilemmas. Most noteworthy, possibly, is the difference between the view that puts the emphasis on the internal, efficiency-related, technical issues and the view often put forward by the external audit authorities that question the legitimacy of the activity under evaluation and see the latter as nothing but an option in the investment portfolio.

Arguably, the purposes driving the police do not consist of a coherent, well-aligned system. Occasionally, but also regularly, road safety becomes compromised by the activities of the police. This happens whenever police officers decide to pursue a car that fails to stop as ordered or whenever there is an emergency and the police patrols speed to get to the site (e.g., Lum & Fachner, 2008; Alpert & Lum, 2014; Christie, 2020). Police pursuit tends to compromise the safety of other users of that particular section of the road, the police officers involved in it, as well as the driver and possible passengers in the runaway vehicle. Clearly, policing

the roads and keeping them safe for their users are two separate, therefore also potentially incompatible, purposes.

Anyone assigned with the task of identifying and formulating indicators for the effectiveness of traffic law enforcement by the police should not expect a simple and straightforward journey. However, something being complicated, perhaps even beyond our capacities, is not a reason for avoiding tackling it. The questions related to the effectiveness of our pursuits confront us with fundamental questions.

2. THE CURIOUS NATURE OF TRAFFIC LAWS

Although all traffic laws come under the same label ("law"), they comprise a multitude of different kinds. The enforcement of a law reflects or resonates with the kind of law in question. Some laws outlaw several deeds categorically and everyone would find it easy to agree when an incident represents a clear breach of that law. The enforcement of such a law leaves no room for the discretion of the police whenever such an offence is witnessed, and the culprit is caught red-handed. (E.g., Boucher, 2005; Ewick & Silbey 2002; Simmonds, 2005; Yagil, 1998.)

Then we have traffic laws that leave much more room for police discretion, because they do not prohibit acts or deeds categorically, only to a certain degree, like allowing a car to be driven unless the driver is deemed too drunk to do so by law (Yagil, 1998; Hertogh, 2004). The use of roads is regulated in law to manage the risks related to them, i.e., the risk of accidents resulting in death and injuries. The factors that correlate with the risk of road accidents are well-known, and they are also closely monitored by the police (e.g., Zaal 1994; Goldenbeld, Heidstra, Christ, et al., 2000; Mäkinen, Zaidel, Andersson, et al., 2003).

The enforcement of traffic laws aims to keep the risks involved in the use of public roads at a level that society finds acceptable in general, and that the police find agreeable at any specific place and time. This leaves room for both unspoken and pronounced negotiations and implicit contracts between the police and road users. There is traffic law and then there is the implicit agreement between the regular users of a specific road and the police enforcing both the law in the area, but also the agreement that keeps the traffic running smoothly and the locals both safe and happy with the police. A driver on an unfamiliar road is more likely to follow the example of the other drivers than the stipulations of traffic law.

The public regulation of traffic on the roads is essentially an attempt at joint risk management. The aim is to manage the likelihood of accidents dangerous to life and limb and resulting in private suffering and direct and indirect public costs. The laws in question reflect the accepted level of risk. Arguably, the risk could be reduced to zero simply by

categorically prohibiting all traffic on the roads. Moreover, traffic laws, their nature, purpose, and competency are also controversial and debatable from the democratic point of view. In them, expert knowledge, bureaucratic practices, public interests, and democratic principles often come head-to-head.

The way that traffic law is applied at a specific road or in some section of it, like in setting the speed limit for it, is often decided somewhere by someone, often without hearing those living by it or only hearing the loudest of them. In most cases, the act is justified by the specific expertise of the responsible authority and by knowledge of accident statistics and the results of research (see Turner, 2003; Kennedy 2005). Thus, in practice, the enforcement of traffic law means enforcing specific limits on a road that neither the police nor the regular road users find warranted or feel that it represents authentically their collective interests or will. However, the last three, i.e., enforcement, justifiability, and ownership, are essential elements in compliancy with the law.

At the focus in traffic law enforcement by the police is the risk of a road accident. The application of law leaves room for police discretion. The discretion leaves room for negotiation, both within the police and on the roads (e.g., Buvik 2016; Elder, 1964; Edwards, 2006; Ferrett & Spenlehauer, 2009; Jackson, Bradford, Hough, et al., 2012; Joh 2007; Lichtenberg, 2003; Miller, 2015; Tyler, 2016; Sklansky 2005). Whenever the determination of the restrictions on a specific section of a road is not in local hands, the road users may find them difficult to agree with, unwarranted and something externally set upon them. This is also likely to affect their enforcement.

Long experience of policing road users since the early days of motoring, and the criminal investigation of road accidents have strengthened specific expertise in the police on traffic-related risk. Therefore, the role of the police is not limited to the enforcement of traffic laws that have passed the parliamentary process. The police should use their expertise on risks on the road in more proactive ways to ensure that the relevant risks are actually covered by law. Thus, the police should actively get involved in the law-making process either directly or in cooperation with other organisations dedicated to the safety of the roads.

The effectiveness of traffic law enforcement not only depends on efficiency in enforcing compliancy with traffic law, but also reflects the success in getting the law to cover all the risk factors too. The purpose of policing roads is aligned directly with the rule of law and indirectly with the number of road accidents, the fatalities in them or the injured. Therefore, possible deficiencies in the law in relation to true risks compromise the effectiveness of the police in ways that cannot be compensated for by simply increasing their efficiency in accomplishing their traffic-related tasks. Thus, the effectiveness of the police in terms of road safety is conditioned by their effectiveness in identifying all the risks and having them included in the relevant laws.

3. TWO AVENUES FOR THE ENHANCEMENT OF THE EFFECTIVENESS OF TRAFFIC LAW ENFORCEMENT BY THE POLICE

The indicator most used for road safety is the number of accidents, especially fatal ones, and the number of persons injured in them (e.g., Goldenbeld, Heidstra, Christ, et al., 2000; Mäkinen, Zaidel, Andersson, et al., 2003). However, once an accident has taken place, the likelihood of fatalities depends on the quality and availability of health services and on the level of safety devices and structures in the vehicle. Only the use of safety devices like seat belts or child safety seats is within the direct, but often sporadic, control of the police. Therefore, while those numbers remain relevant in determining the effectiveness of traffic law enforcement by the police on a large scale, they are not a good indicator of it. The effectiveness of the police should not be judged in terms of something not fully under the police's control (Pritchard, Culbertson, Malm, et al., 2009).

Hierarchal organisations are characterised by the division of tasks and responsibilities. The responsibility for dividing the task of the organisation into subtasks and formulating them and their mutual relations in such a way that those assigned with the responsibility of accomplishing them do not need to worry about the effectiveness and can focus solely on the efficiency and quality of their work, rests at the top. The responsibility for a task usually comes with the means and powers needed to accomplish it, but often also includes expectations for continuous improvement in it. However, in complex organisations simultaneously pursuing several purposes, the question of effectiveness carries most weight and significance at the aggregate level only.

The effectiveness of traffic law enforcement by the police necessarily includes the purpose of the police at large too. This effectiveness is directly linked to the way the specific responsibilities in terms of road safety have been formed and formulated within the police. However, traffic law enforcement as a specific police task also has a history of its own (e.g., Emsley 1993). The two tasks, i.e., crime fighting and enhancement of road safety, are not always compatible as purposes (Hough

1987). Conflict or competition occurs between policing measures that are meant to enhance safety on the roads and those deemed effective or needed in fighting crime (e.g., Alpert & Lym 2014; Corbett, 2008). On the roads, measures against crime, once implemented, tend to compromise the very purpose of maintaining road safety. Moreover, policing citizens who fail to follow the traffic law in the same way as people who breach the Criminal Code intentionally is detrimental to the support and contribution of the public that the police need in tackling crime successfully (e.g., Cooper 2010; Snow, 2019). Thus, following the same strategy in both is likely to be counterproductive from the point of view of the purpose that both police and citizens see as the true one, i.e., fighting crime (Hough 1987).

When it comes to managing the risks to safety on the roads, the police have both long first-hand experience in managing those risks and, through their road crime investigations, substantial understanding of them, which contributes to their identification as well as to the evaluation of their significance. Therefore, the effectiveness does not lie solely on the side of efficiency in enforcing the relevant risk management device called traffic law, but also in engaging in developing traffic law in terms of comprehensiveness, inclusiveness, and adequacy. Figure 1 shows the

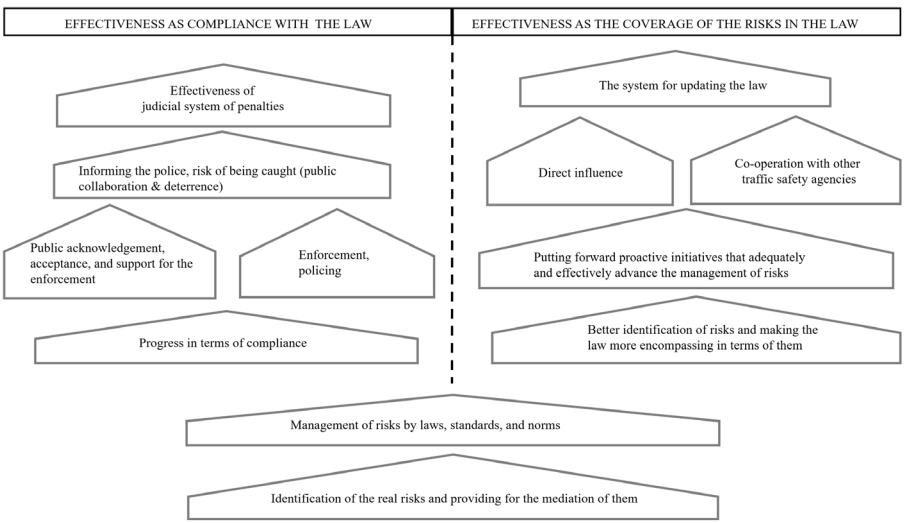

FIGURE 1. The ways to enhance the effectiveness of traffic law enforcement by the police

two sides of the issue and depicts the aspects underlying the idea of effectiveness of traffic law enforcement by the police in a conceptually comprehensive way.

Basically, the development of traffic law is driven by the need to successfully cover the risks to road safety. From the point of view of law enforcement by the police, identification of risks is followed by risk management measures. On the one hand, they include further enhancement of compliance with the current norms as they are applied on the roads. This means that the users of the roads voluntarily agree with them and support their enforcement by the police with the aim of persuading the reluctant others to follow them, too. The criminal justice system rests on its functioning of the idea of effective deterrence (e.g., Chalfin & McCrary, 2017; Zaal, 1994; Goldenbeld, Heidstra, Christ, et al., 2000; Paternoster, 2010). Whether the criminal justice system works in practice as presumed in theory determines the effectiveness of the police as an essential element in its functioning (e.g., Daly, 2012; Dandurand, 2014; Smith 2015).

On the other hand, the effectiveness of traffic law enforcement by the police depends on the quality of those very norms in identifying the risks, determining a risk level that is accepted and agreed by society, and providing the police with the means needed to carry out its duties in managing the risks in practice. In a continuously evolving society characterised by the emergence of unforeseen technologies, the risks on the roads, their types, sources, and dynamics do not stand still but emerge too. The effectiveness of the police in keeping the risk levels on the roads at the agreed level requires an active role from them in the development of the very basis of their risk management work.

The police usually have privileged access to road accidents through their investigatory responsibilities, and to the behaviour of drivers on the roads through their role in enforcing traffic law. Therefore, they should engage directly and in cooperation with other agencies dedicated to fostering the common cause of road safety by developing traffic law from the point of view of risk coverage. In practice, this means eventual interaction with the political system.

Figure 1 depicts the two purposes and the two main pathways for enhancing the effectiveness of traffic law enforcement by the police. The

two interrelated purposes aim to, on the one hand, enhance compliance with the law and, on the other, ensure that the law represents the best understanding of the risks compromising safety on the roads. Thus, the indicators for the effectiveness of road policing should provide information for the police on their success in terms of both these purposes. However, learning about success says very little, if anything, on the possible steps needed to improve it further. From the police's point of view, the dominant interest does not lie in the awareness of their effectiveness, but in finding ways to increase it in a systematic and continuous manner.

4. INDICATORS OF THE EFFECTIVENESS OF TRAFFIC LAW ENFORCEMENT BY THE POLICE

An indicator provides valid and reliable information on the state of affairs for some specified use and user. It is not possible to cater to all possible uses by a single measure. Moreover, when it comes to the effectiveness of a public service provider like the police, the many stakeholders have different interests, and therefore also different requirements for relevant information and indicators. Accordingly, what is a useful indicator for one may well appear irrelevant to another. In this sense, indicators resemble tools. They should fit the purpose of the task, the needs, and capabilities of their presumed users, work reliably, and be economical in their use.

From the point of view of the police, the indicators should contribute to their attempts to increase their effectiveness. Therefore, the indicators that measure the impact of their efforts on the desired situation in the operating environment are necessary but, from the point of view of the aforementioned interest, insufficient. The missing links are indicators that give them information on their very effort itself, its immediate results, and the way they connect with, and contribute to, the emergence of the desired change in the situation, like safer roads, something that resonates with their purpose.

Therefore, the indicators for the effectiveness of traffic law enforcement by the police, despite all the complexities involved in it, should consist of a system that includes their resources, effort and learning as well as their mobilisation by leadership, strategies, tactics and intended activities that turn into outputs, outcomes, and effects. The achievement of such systemic comprehensiveness becomes more urgent the more we understand policing as a field of true expertise, and police officers collectively as the medium for the realisation of that professional capacity in society.

Traffic law enforcement by the police should culminate in compliance with the law. While the police necessarily serve the interests encoded in the law, in well-functioning modern democracies the interests should

also reflect the interests of society (e.g., Amir, 2001; Bierschenk, 2016; Jacobs, 2016). Among such interests, then, is safety on the roads.

Therefore, a natural indicator of the effectiveness of traffic law enforcement should reflect citizens' perceptions of the level of traffic-related risks and sense of safety on the roads. One would expect that compliancy with traffic law would correlate positively with this.

However, the perceived safety on the roads, compliance with traffic law and preparedness to collaborate with the police in enhancing safety and compliancy would need some indicators of their own too, like the percentage of cars following the speed limit and the number of contacts made to the police regarding reckless driving. Without citizens' active and voluntary collaboration such as reporting crimes to the police, stepping forward as an eyewitness and giving evidence, the effectiveness of the police would evaporate (e.g., Saunders, Popper, Morral, et al., 2014).

Most likely, the readiness to contact the police relates to several factors. Among them are the perceived legitimacy of police activities on the roads as well as the general acceptance of traffic laws and the way they are applied in a specific place (e.g., Watling & Leal, 2012). Citizens' views of traffic law enforcement and the police, in general, are derived mainly from encountering the police on the roads and from their perceptions of being treated fairly, politely, and without prejudice when doing so (e.g., Bates, 2014; Jackson, Bradford, Hough, et al., 2012; Mazerolle, Bennett, Davis, et al., 2013; Meares, 2013; Tyler, 2004; van Damme & Pauwels 2016). Moreover, the belief of citizens that the police and the criminal justice system in general are interested in their safety, their communities and the roads, and work well in enhancing it, contributes to their readiness to support police work. This is further enhanced by the personally felt responsibility of road safety and the view that one can contribute to it by informing the police about road users who endanger it (Saunders, Popper, Morral, et al., 2014). The sense of being personally responsible for following the law and thereby maintaining lawful order on the roads resonates with a sense of ownership. This feeling is enhanced when one has, in one way or another, participated in the process in which laws are formulated, accepted, or applied them locally, has found them justified and well-warranted, and has seen the system as enforcing them legitimately and efficiently and working for the benefit of all. Therefore, if the

police want to improve their effectiveness, it is fundamental for citizens to feel that it is a question of their own laws that are being enforced on their behalf by the police, for their joint benefit and, essentially, with their help, too. Readiness to collaborate with the police without proper ways and means for doing so, like informing the police of possible criminal activities, reduces the effectiveness of the police.

Road safety is a joint accomplishment. It involves several authorities and other participants working both separately and in tandem to keep it up and maintain it. The police have limited resources for the task, but even these limited resources can be put to work and organised in an efficient way. Time can be spent on paperwork, on patrolling the roads (see Pritchard, Culbertson, Malm, et al., 2009. 2009) or in cooperating with other agencies and authorities on a local, regional, national, or international level. The activities can be based on analysed data, received intelligence, experience, findings from accident investigations and decisions from the courts, learning from experimenting with different tools, tactics, and approaches. Finding the right balance between such a portfolio of measures that are all significant from the point of view of road safety calls for strategies and strategic thinking (e.g., Smith, Beard, Durrell, et al., 2015).

Indicators of effectiveness should provide criteria that relate meaningfully to the activities of the police, are relevant in terms of the number of road accidents and their severity and help the police to learn about the best ways to further the safety of road users through their activities both on and off the roads. For this objective, the indicators should provide information on the desired effects, the tasks accomplished, the resources available for them and the ways those resources are organised and put into action. Figure 2 provides a schematic presentation of the process. It outlines the main components and specifies potential criteria for the evaluation of the effectiveness of traffic law enforcement by the police. Such an inclusive system of indicators system should assist them best in learning from their efforts to increase their effectiveness.

The costs for an evaluation of effectiveness that aims at conceptual comprehensiveness need to be balanced with its potential benefits in practice. No model can capture all relevant factors responsible for the variance in the criteria, and any model that is not seen as relevant by police officers

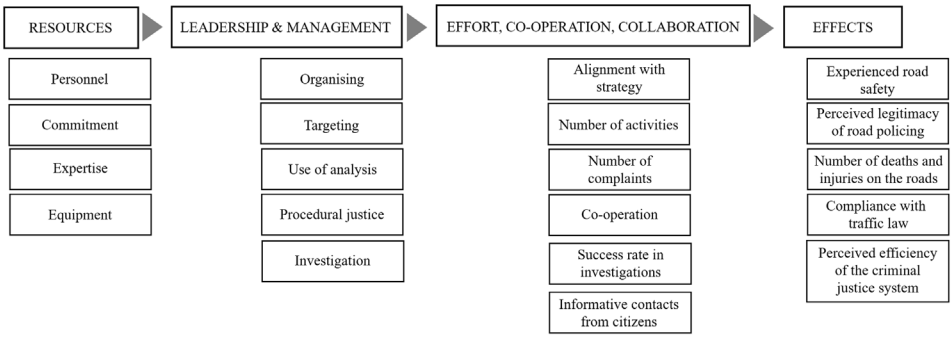

FIGURE 2. Criteria for the effectiveness of traffic law enforcement and its components from the point of view of the police

themselves, that does not aim at helping them to do their work better and that bypasses the critical role of citizens and other agencies in road safety, remains flawed. Road safety issues are not solved by one action or agency, but by proceeding co-operatively in a progressively informed way and with the consent of citizens.

CONCLUSIONS

I started with a brief and compact discussion on the difficulties of figuring out the effectiveness of anything. My focus has been on the effectiveness of public service providers, especially on the enforcement of traffic law by the police.

Arguably, any state of affairs in society at one point of time emerges as a joint or cumulative effect from all the interventions, approaches and policies that touch the lives of citizens and either make a difference to it or fail to do so, eventually influencing everyone's situation. When systems for social care, education or political representation fail, the price is paid in several spheres of life, including criminal pursuits, compliancy, and public order. From this perspective, no matter how effective the police are, one should not expect them to compensate for failures in other systems and service providers in society. Nevertheless, often the blame is put on the police. They are claimed to be inefficient, lacking effectiveness, integrity, and up-to-date, evidence-based approaches (James 2014).

Wherever and whenever all laws are followed both in terms of their spirit and letter, and compliance with them prevails, there is not much left for the police to do in meeting their purpose or fulfilling their role in society. Another question is how well the true risks are kept at bay and how road users find a balance between their perceptions of the risks and their needs for moving smoothly from one place to another.

Risk management concerns the identification of risks, their sources, severity, and the risk level that is found acceptable by society. Traffic law should encapsulate the results of that work. In principle, by enforcing traffic law, the police work to keep the risks at an agreeable level. The risk level they see as acceptable at a given time and place is continuously being negotiated between the police, drivers, and other road users. The actual restrictions that the police should enforce are usually equally imposed upon all road users without any of them having a say in the issue. This is hardly the ideal situation from the point of view of respect for and compliance with them.

Questions about effectiveness directed at the police by, say, a national audit authority, and questions of effectiveness put forward by the police themselves may appear identical, but they originate from very different perspectives, give rise to different assumptions, and aim at satisfying different interests in terms of knowledge. I believe that the police are interested in getting a better picture of their effectiveness, mainly to do their work better, to draw the right lessons from their experiences on the roads, and to do things right as well as the right things. Meeting their interest in effectiveness calls for indicators that capture both the situation reflecting safety on the roads as experienced by users and the very efforts the police put into action to influence the behaviour of road users.

This article has outlined a scheme that points out the key components and core elements behind road safety from the perspective of the police. Arguably, the infrastructure of the roads, safety devices in vehicles, the level of health care and the licence requirements play their part too, but these factors tend to remain very much beyond the control of the police. It is essential that the effectiveness of traffic law enforcement by the police is conceptualised in terms that are relevant to police work, and that police officers consider it helpful in their efforts to make the roads safer for their users.

At the aggregate level, safety on the roads is a complex result of a multitude of activities and numerous agencies in an environment where the level of risk does not remain constant. Identifying and measuring the specific contribution to it from the enforcement of traffic law by the police requires both conceptual work and experimentation in practice. Ideally, we would proceed both from a more ambiguous concept to a less ambiguous one in an evaluation model that is formulated in close cooperation with the end-users of the information, and that progressively serves their interests in the continuous growth of expertise in the enforcement of traffic law for greater safety on the roads.

Undoubtedly, the aforementioned task represents a complex endeavour with many layers. However, the challenge posed by it is best tackled by approaches that aim to reflect that complexity authentically rather than to reduce or misrepresent it in one way or another. It seems that the notion of complexity, at least occasionally, is used as an excuse for disengaging a task, the tackling of which in its complex multi-dimensionality

requires an alternative approach or set of conceptual skills. I believe that the path forward in research requires opposite approaches that come with clear risks and include wrestling with conceptual complexities at every level, along with crossing over disciplinary boundaries as well as the wastelands between them.

Contact:

Vesa Huotari, PhD
Senior researcher
Police University College
Finland
E-mail: vesa.huotari@polamk.fi

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CHINESE GEO-ECONOMICS AND STRATEGIC INTERESTS IN THE BROADER MEDITERRANEAN REGION

Gunther Hauser, PhD
Hon. Prof.
Institute for Strategy and Security Policy
National Defence Academy
Austria

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ABSTRACT

The Maritime Silk Road as part of China´s Belt and Road Initiative (BRI) aims to entail the construction of large industrial infrastructure. Particularly port locations abroad are chosen as part of China's wider strategic effort to redirect shipping routes and play a stronger role in international shipping. These ports are likely being identified for economic, strategic and geopolitical reasons. That is why China is also trying to acquire critical infrastructure, reconstruct ports and thus expand its political and economic influence in the strategically important Mediterranean region. Although at present it seems to be difficult to identify a detailed Chinese strategy which would apply to the whole Mediterranean region, this case study aims to take a wider look at the geostrategic importance of the Mediterranean for China, digging deeper into the structural aspects of China's military and diplomatic presence in the region, particularly the country's attitude towards strategic infrastructure share taking, such as ports and its maritime access to the Mediterranean. The main rationale of the study examines how China exerts influence and projects power in the Mediterranean.

INTRODUCTION

The project of 'building' a Maritime Silk Road as part of the BRI was put forward by Chinese President Xi Jinping in 2013. The Maritime Silk Road aims to entail 'The construction of large industrial parks and special economic zones (SEZs), coupled with manufacturing plants within these areas. From the view of the Chinese political leadership, the Maritime Silk Road aims to witness further investment in shipping, construction, energy, commerce, tourism, information technology, biotechnology and alternative energy.'[1] According to The Blueprint of the 13th Five Year Plan of the National Economy and Social Development (2017-2021), China intends to implement the Belt and Road Initiative (BRI) 'for an overall opening-up pattern of connectivity joining both the land-locked powers and the marine states, and both Eurasia and Africa. Efforts will be made to promote interconnectivity of infrastructure (railways, highways, sea lanes and air facilities) and unobstructed shipping lanes, to jointly construct corridors (also ports) for international economic cooperation.'[2] Particularly port locations in Asia and Europe are chosen as part of China's wider strategic effort to redirect shipping routes 'and play a stronger role in international shipping, and to increase trade via Chinese-built and operated container ports. This is guaranteed through Chinese port ownership, leasing, construction, and long-term management.'[3] These ports are likely being identified for economic, strategic and geopolitical reasons.[4] By investing largely into critical infrastructure in foreign countries, it cannot be denied that China intends to use its political power to boost its political influence globally when heading towards a 'restructuring of global economic governance'. Based on

[1] Farooq, M., S., Yuan, T., Zhu, J., and Feroze, N., 2018. Kenya and the 21st Century Maritime Silk Road. Implications for China-Africa Relations, China Quarterly of International Strategic Studies, Vol. 4, No. 3, World Century Publishing Corporation and Shanghai Institute for International Studies, pp. 401-418, p. 406.

[2] Sun, D., and Zoubir, Yahia., 2017. 'Development First': China's Investment in Seaport Constructions and Operations along the Maritime Silk Road, Asian Journal of Middle Eastern and Islamic Studies, 11:3, Routledge, London, pp. 35-47, p. 39.

[3] Nouwens, V., 2019. China's 21st Century Maritime Silk Road. Implications for the UK, Occasional Paper, Royal United Services Institute for Defence and Security Studies, London, p. I.

[4] Ibid, p. 6.

that objective, the Xi Jinping administration has come up with slogans such as the construction of a 'new type of international relations.'[5] The research questions this paper is asking to consider are as follows:

- What are the strategic objectives of China in the Mediterranean?
- What concrete actions has China taken to achieve these goals in the past decade?
- What role do military, economic, diplomatic, cultural, information and political domains play in Chinese strategy in the region?
- How and to what extent does China project power in the Mediterranean?
- Who are China's main allies/supporters/relations in the Mediterranean?

Although at present it seems to be difficult to identify a detailed Chinese strategy which would apply to the whole Mediterranean region,[6] this case study aims to take a wider look at the geostrategic importance of the Mediterranean for China, digging deeper into the structural aspects of China's military and diplomatic presence in the region, particularly the country's attitude towards strategic infrastructure share taking, such as ports and its maritime access to the Mediterranean. The main rationale of the study[7] examines how China exerts influence and projects power in the Mediterranean. The opinions expressed in this study are the responsibility of the author alone.

[5] NIDS China Security Report, 2019. China's Strategy for reshaping the Asian Order and Its Ramifications, Tokyo 2020, p. 2.

[6] Ekman, A., 2018. China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, p. 3.

[7] Originally, this study was drafted as a food for thought paper commissioned by The Hybrid Centre of Excellence (Hybrid CoE) – European Centre for Countering Hybrid Threats based in Finland. The Hybrid CoE is an autonomous, network-based international organisation countering hybrid threats. The approval to publish this paper was granted in consultation with the Hybrid CoE in March 2022.

1. A NEW ECONOMIC-MILITARY APPROACH?

Since the end of the Cold War, military bases in the Indian Ocean, Eastern Africa and the Mediterranean Sea 'have been key instruments for Western nations to project naval power: For instance, in 2017, over 30,000 troops were stationed by the US in nine countries and regions around the Indian Ocean and the Mediterranean Sea. Among whom about 10,000 had been stationed in Qatar; in 2017, France and Britain had been deploying about 3,500 troops, respectively, in that same area. Italy, too, had deployed several hundred troops, while Japan had stationed 500 sailors since it established its first overseas military base in Djibouti in 2009.[8] As a naval base, according to a British book on 'Imperial Military Geography', its importance is two-fold:

- It is the first stepping-stone in the line of communication between different coastlines;

- It is the first outpost giving a fleet a central station for the defence of routes, even when they are used commercially. [9]

The new Chinese expansion in ports across Eurasia and Africa seemingly could be partly compared with British global economic and geopolitical strategies during its imperial centuries, when Great Britain was 'the receiving and distributing centre', 'the heart', and the lines of sea communication were the 'arteries': 'The existence of the great industrial centres of England, the movement of raw materials from the outlying parts of the Empire necessary for peace and war, and of troops and supplies to any point which is attacked, all depend on the maintenance of these lines of communication.' [10] Furthermore, the defence of these lines of communication relied on two factors: 'a navy to guard, and the holding of positions from which that navy can most effectively carry out its work. In other words, it rests on the naval strength of a country applied by means of its geographical situation, and the suitable bases for operations,

[8] Sun, D., and Zoubir, Y., 2017: 'Development First': China's Investment in Seaport Constructions and Operations along the Maritime Silk Road, Asian Journal of Middle Eastern and Islamic Studies, 11:3, Routledge, London, pp. 35-47, p. 36.

[9] Cole, D.H., Capt., 1925: Imperial Military Geography, Third Edition, Sifton Praed & Co. Ltd, London, p. 113.

[10] Ibid, p. 64.

victualling, fuelling, etc., which it possesses. The defence depends not on either of these factors singly but on both combined.' [11]

Contrary to the US, Russian, British and French foreign strategies of installing naval bases and stationing troops overseas, China 'tends to extend a geo-economic presence and pursue economic opportunities, a development-driven model of 'Beijing Consensus'.[12] Since the end of the Cold War, especially European countries have placed emphasis on 'democracy governance', arguing that free elections and political democratisation are preconditions for economic revitalisation and social process. China, however, disregards this 'European Consensus', arguing that for developing countries, development is more urgent and crucial than democracy, 'bread is more important than the ballot box'.[13] Therefore, 'China's participation in the Indian Ocean, Eastern Africa and the Mediterranean seaport constructions indicate that China is a builder for a 'better world', not a destroyer of 'an old world' as America, the UK and France did in terms of 'regime change' and 'humanitarian intervention'.'[14]

Historically, China was a pure land power, its economic and military presence along the Maritime Silk Road 'is a relatively new phenomenon.'[15] Additionally, China indeed also has been aware that it must be able to evacuate its nationals in at-risk areas, including the Mediterranean, more independently and quickly than before. In 2011, China's first significant military action in the region took place, when the People´s Liberation Army (PLA) helped to evacuate thousands of Chinese workers from Libya before NATO airstrikes began.[16] China had to hastily evacuate more than 35,000 nationals in Libya. It could not have done

[11] Ibid, p. 40.

[12] Sun, D., and Zoubir, Y., 2017. 'Development First': China's Investment in Seaport Constructions and Operations along the Maritime Silk Road, Asian Journal of Middle Eastern and Islamic Studies, 11:3, Routledge, London, pp. 35-47, p. 36.

[13] Ibid, p. 40.

[14] Ibid.

[15] Sun, D., and Zoubir, Y., 2017. 'Development First': China's Investment in Seaport Constructions and Operations along the Maritime Silk Road, Asian Journal of Middle Eastern and Islamic Studies, 11:3, Routledge, London, pp. 35-47, p. 36.

[16] Ghafar, A. A., and Jacobs, A. L., 2019. Beijing strengthens its presence in the Maghreb, Monday, September 9th, 2019, Brookings, https://www.brrokings.edu/opinions/beijing-strengthens-its-presence-in-the-maghreb/ (accessed November 24th, 2020).

so without the help of European countries, and particularly Greece, the country which most of the evacuees had to transit through.[17] In March 2015, China also had to quickly evacuate nearly 600 nationals from civil-war-torn Yemen and China 'could still have to do so in the future in other Mediterranean countries, given the high number of Chinese workers in the region. Since these events, the Chinese navy has been aware that it must strengthen its presence in the region to be able to carry out new evacuations.'[18] In 2017, China opened its first overseas military base in Djibouti, putting the Eastern Mediterranean coast within reach of its navy and air force. In January 2018, two warships from the 27th Chinese naval escort stopped by Algiers for a four-day 'friendly visit' as part of a four-month tour.[19]

During the last ten years, China has also been launching military exercises in and close to Europe. In 2013, China committed one of its most impressive-looking warships, the 689-foot-long *Jinggangshan*, to the Eastern Mediterranean to sortie with Russian vessels – at the height of the Syrian civil war.[20] In May 2015, for instance, China carried out joint military drills for ten days in the Eastern Mediterranean Sea alongside Russia for the first time.[21] In July 2017, Russian and Chinese navies also carried out joint exercises in the Baltic Sea.

However, China's Maritime Silk Road Initiative and particularly its participation in the commercial seaport constructions ostensibly aims to provide a great opportunity for its military forces to deploy globally in order to provide public goods, engage in international peacekeeping, provide military training, humanitarian aid, consular protection, convoy for commercial ships, and engage in joint military rehearsals. Beijing

[17] Ekman, A., 2018. China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, p. 19.

[18] Ibid.

[19] Ghafar, A. A., and Jacobs, A. L., 2019. Beijing strengthens its presence in the Maghreb, Monday, September 9th, 2019, Brookings, https://www.brrokings.edu/opinions/beijing-strengthens-its-presence-in-the-maghreb/ (accessed November 24th, 2020).

[20] Chang, G. G., 2020. China In The Mediterranean, Friday, January 10th, 2020, Hoover Institution, Strategika – Conflicts of the Past as Lessons for the Present, Issue 62, https://www.hoover.org/research/china-mediterranean (accessed November 24th, 2020).

[21] Müller-Markus, C., 2016. China Moors in the Mediterranean: A Sea of Opportunities for Europe?, CIDB notes internacionals No 156, Barcelona Centre for International Affairs, October 2016, https://www.cidob.org/en/publications/publication_series/notes_internacionals/nl_15 (accessed November 24th, 2020).

highlighted that, as one of the permanent members of the UN Security Council, China has the duty to maintain world peace, protect its overseas expatriates and supply public goods for the rest of the world.'[22]

From the Chinese political leadership's standpoint, seaport construction abroad serves 'as the symbol of achievement.' Furthermore, the Indian Ocean, African and Mediterranean countries are promising markets with business opportunities for China's redundant industrial capacities. Unlike those countries, China boasts a complete industrial system, advanced technology and rich capital, as well as a relative advantage to export its commodities and services to drive its domestic economy.'[23] The seaport construction is one of the keys to the BRI: 'Through investments, the Chinese reckon that they could promote interconnectivity between China and the Eurasian and African counties for a new type of globalisation.'[24] However, 'China considers it vital to ensure its routes to Europe, its most important trade destination, with Piraeus as the geo-economic hub.'[25] Thus, 'the port of Piraeus is the anchor, the centrepiece, of the Chinese presence in the Mediterranean.'[26]

[22] Sun, D., and Zoubir, Y., 2017. 'Development First': China's Investment in Seaport Constructions and Operations along the Maritime Silk Road, Asian Journal of Middle Eastern and Islamic Studies, 11:3, Routledge, London, pp. 35-47, p. 40.

[23] Ibid, p. 40.

[24] Ibid, p. 41.

[25] Müller-Markus, C., 2016. China Moors in the Mediterranean: A Sea of Opportunities for Europe?, CIDB notes internacionals No 156, Barcelona Centre for International Affairs, October 2016, https://www.cidob.org/en/publications/publication_series/notes_internacionals/nl_15 (accessed November 24th, 2020).

[26] Chang, G. G., 2020. China In The Mediterranean, Friday, January 10th, 2020, Hoover Institution, Strategika – Conflicts of the Past as Lessons for the Present, Issue 62, https://www.hoover.org/research/china-mediterranean (accessed November 24th, 2020).

2. PIRAEUS – "THE PEARL OF THE MEDITERRANEAN"

China aims to link Southern Europe together with Central and Northern Europe by huge investments into traffic infrastructure. The overland transport corridor that links the Greek port of Piraeus with the Czech Republic, and that is part of the BRI, was established by COSCO in close cooperation with both HP (Hewlett-Packard, USA), and Foxconn, Taiwan.[27] China's interest in the Port of Piraeus first became apparent in the 1990s, when China Shipping Container Lines (CSCL – a subsidiary of China Shipping, which was acquired by COSCO in 2016) concluded a contract with the Piraeus Port Authority (PPA) to use Piraeus for transhipment.[28] This significantly predates the BRI which was first announced by Chinese President Xi Jinping in 2013. Around the time or not long after this contract expired in 2001, COSCO expressed an interest to develop and enlarge Piraeus as a transhipment hub. A high-level contract between COSCO and the Greek government was established in 2006, when COSCO's chairman met with the Greek prime minister. On November 25th, 2008, after a tendering process, COSCO signed an agreement with the PPA to operate and develop piers (later terminals) two and three of the Piraeus Container Terminal (PCT). The agreement was signed in Athens in the presence of (then) Chinese President Hu Jintao and Greek Prime Minister Kostas Karamanlis. COSCO obtained a 35-year lease contract and franchise rights[29] in return for an initial payment of 50 million euros, a percentage of annual revenues and an annual lease fee. Moreover, COSCO promised to invest additional sums in developing the two terminals. In order to operate terminals two and three, COSCO created a new entity, Piraeus Container Terminal (PCT), which constituted the company´s first wholly-owned terminal subsidiary outside of China.[30] COSCO stated that the company 'is confident

[27] Van der Putten, F-P., 2019. European seaports and Chinese strategic influence. The relevance of the Maritime Silk Road for the Netherlands, Clingendael Report, Netherlands Institute of International Relations, The Hague, December 2019, p. 8.

[28] Ibid, p. 10.

[29] Chang, G. G., 2020. China In The Mediterranean, Friday, January 10th, 2020, Hoover Institution, Strategika – Conflicts of the Past as Lessons for the Present, Issue 62, https://www.hoover.org/research/china-mediterranean (accessed November 24th, 2020).

[30] Van der Putten, F-P., 2019. European seaports and Chinese strategic influence. The relevance of the Maritime Silk Road for the Netherlands, Clingendael Report, Netherlands Institute of International Relations, The Hague, December 2019, p. 10.

that Piraeus Terminal can be developed as a major transhipment centre in the Mediterranean region and as a gateway to Southern Europe.' [31] In 2016, the Greek government – forced to do so to repay its debt to the International Money Fund (IMF) and the European Union – sold its majority stake in the PPA.[32] The sale followed a bidding process from which COSCO emerged as the sole bidder. On August 10th, 2016, the Greek government transferred 51 percent of the company's shares to COSCO in return for 280.5 million euros. Part of the agreement was that COSCO purchased a further 16 percent of the PPA's shares from the Greek state at 88 million euros in 2021. Under COSCO´s leadership the PPA announced it would invest at least 294 million euros into port improvements. COSCO now has four main subsidiary firms in Greece. The two main holdings are the PPA (which operates terminal one and all non-container parts of the port) and PCT (which operates terminals two and three of the container terminal).[33]

Moreover, COSCO is also increasingly focused on developing the port from a major transhipment hub into a significant entry/exit point for overland trade between Piraeus and Central Europe. To this end, it has been developing the so-called China-Europe Land-Sea Express Route (LSER).[34] As stated by COSCO, 'By connecting its shipping routes with China-Europe Railway Express, the Company strived to develop itself into a one-stop service provider linking the Silk Road Economic Belt and the 21st Century Maritime Silk Road.' [35] Furthermore, a map on the wall of the PPA office suggests that COSCO´s ambition is to establish the LSER as a north-south transport corridor from Piraeus up to Hamburg via the Balkans, Hungary, Austria, Czech Republic, Poland and Germany.[36] In late 2017, COSCO established Ocean Rail Logistics, a Greek subsidiary aimed at becoming the platform to link rail and sea transport via Piraeus. In November 2019, COSCO acquired a 60 percent share in Piraeus Europe Asia Rail Logistics (PEARL), a railway and logistics services company also based at Piraeus. COSCO intends to use PEARL to develop further the China-Europe Land-Sea Express Route. Shortly

[31] Ibid, p. 10.

[32] Ibid, p. 11.

[33] Ibid, p. 12.

[34] Ibid, p. 12.

[35] Ibid, p. 13.

[36] Ibid, p. 13.

thereafter, COSCO announced that it would take a 15 percent-stake in Rail Cargo Terminal BILK (BILK: Budapesti Intermodális Logisztikai Központ), a railway terminal in Budapest/Hungary with a capacity of 230,000 TEUs (twenty-foot equivalent unit) annually. Yet another initiative by COSCO launched in November of 2019 is the Rijeka Land Sea Express, that consists of a maritime shipping link between Piraeus and the port of Rijeka/Croatia, as well as block trains from Rijeka to Budapest and to Belgrade/Serbia.[37]

In October 2019, Greece´s Port Planning and Development Committee approved most of the PPA's plans for port improvement. The plans, which amount to 612 million euros, involve, among other things, a new cruise terminal, new car terminal, four hotels, and new storage facilities. With these huge investments, COSCO is planning to convert the port into the biggest commercial harbour and boost it to become an unrivalled hub of growing Asia-Europe trade. And, with the acquisition of Piraeus at the gate of Europe, China strongly enters the heart of Europe.[38] Part of these activities are planned to be financed through a 140 million euro loan from the European Development Bank (EIB) – backed by a guarantee from the China Export-Import Bank.[39] Additionally, 'one of the first things COSCO did in Piraeus was to arrange to have Huawei Technologies, China's champion telecom-equipment manufacturer install an IT network and communications system.'[40] So far, Greece is by far the country with which China has pushed maritime cooperation projects the furthest, particularly during 2015, when it was decreed as the 'China-Greece Maritime Cooperation Year.'[41] However, further similar 'camel´s nose-in-the-tent-tactics' through Chinese 'port construction diplomacy' can be expected in Mediterranean countries, for instance, in Italy.[42]

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37 Ibid, p. 13.

38 Khushnam P. N., 2020. China's String of Pearls in Eastern Mediterranean and its implications, 04/06/2020, World Geostrategic Insights (WGI), https://wgi.world/china-s-string-of-pearls-in-eastern-mediterranean-and-its-implications, (accessed November 24th, 2020).

39 Van der Putten, F-P., 2019. European seaports and Chinese strategic influence. The relevance of the Maritime Silk Road for the Netherlands, Clingendael Report, Netherlands Institute of International Relations, The Hague, December 2019, p. 14.

40 Chang, G. G., 2020. China In The Mediterranean, Friday, January 10th, 2020, Hoover Institution, Strategika – Conflicts of the Past as Lessons for the Present, Issue 62, https://www.hoover.org/research/china-mediterranean (accessed November 24th, 2020).

41 Ekman, A., 2018. China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, p. 10.

42 Ibid.

3. CHINA'S SEAPORT CONSTRUCTIONS AND OPERATIONS IN EUROPE – A COMPREHENSIVE APPROACH

In March 2019, Italy signed a BRI memorandum of understanding with China. Thus, Italy became the first of the Group of Seven Nations (G7) to sign up for the BRI, and the Italian ports of Genoa and Trieste signed cooperation agreements with the state-owned China Communications Construction Company (CCCC). In June 2019, at the Transport Logistic fair in Munich, the Italian port of Genoa signed a cooperation agreement with the Chinese port of Shenzhen.[43] Together, in 2019, China's COSCO Shipping Ports and Qingdao Port International Development already had a 49.9 percent stake in two terminals in Genoa.[44]

China COSCO Shipping, for instance, is the world´s largest overall shipping company, the third largest container carrier, and the fifth largest port terminal operator.[45] This huge company derives its relevance from the fact that it is both a leading shipping company and a major investor in northern Mediterranean ports. In EU countries, COSCO owns minority stakes in container terminals in Antwerp, Rotterdam, and Las Palmas. COSCO has controlling stakes in container terminals in Piraeus, Valencia, Bilbao and Zeebrugge.[46] In Spain, COSCO has a 51 percent stake in, and managerial control of, COSCO Shipping Ports (Spain) Terminals, which owns and operates the largest terminals in Valencia and Bilbao. In Zeebrugge, COSCO owns 90 percent of the only terminal operator, COSCO Shipping Ports Zeebrugge Terminal.[47]

The company COSCO was established in 1961 by the Chinese government as a state-owned enterprise for overseas shipping. Its main activities include 'bulk and container shipping, port management, logistics, shipping finance, shipbuilding and repairs, ship and crew management,

[43] Belt and Road News, 2019. Europe Continues to Welcome Chinese Investments in its Ports, June 22nd, 2019, https://www.beltandroad.news/2019/06/22/europe-continues-to-welcome-chinese-investments-in-its-ports (accessed November 24th, 2020).

[44] Ibid.

[45] Van der Putten, F-P., 2019. European seaports and Chinese strategic influence. The relevance of the Maritime Silk Road for the Netherlands, Clingendael Report, Netherlands Institute of International Relations, The Hague, December 2019, p. 4.

[46] Ibid, p. 5.

[47] Ibid, p. 5.

and real estate and hotel management.' [48] In 2016, COSCO expanded substantially in size when it acquired China Shipping, another major state-owned firm that was founded in 1997. In 2018, COSCO acquired a 50.46 percent share in Orient Overseas Container Line (International) Ltd., the Hong Kong company that owns container carrier Orient Overseas Container Line (OOCL). COSCO´s company headquarters are in Shanghai.[49] Other major China and Hong Kong companies with current and recent port investments in the EU and southern Mediterranean countries are as follows: [50]

- China Merchants Group (established in 1872 during the Qing dynasty, based in Hong Kong): this company is China's oldest multinational enterprise. Like COSCO, it is a state-owned enterprise with major subsidiaries listed on stock exchanges. The company refers to BRI as the core of its internationalisation strategy. Its subsidiary, China Merchants Port Holdings (CMP), is the world's sixth-largest port terminal operator. In 2013, CMP took a 49 percent stake, in return for 400 million US dollars, in Terminal Link, a joint venture with the French shipping firm CMA CGM. Through Terminal Link, CMP has minority stakes in 13 terminals worldwide, including Antwerp/Belgium, Montoir/France, Dunkirk/France, Le Havre/France, Fos/France, Thessaloniki/Greece and Marsaxlokk/Malta. On November 25th, 2019, CMP and CMA CGM announced that Terminal Link would purchase CMA CGM´s stakes in ten terminals that were previously not part of Terminal Link.[51]

- CK Hutchison Holdings, which is a conglomerate that is registered in the Cayman Islands and headquartered in Hong Kong. Its ports subsidiary, Hutchison Port Holdings (HPH) is the second-largest port terminal operator in the world and has stakes in terminals in Rotterdam/The Netherlands, Stockholm/Sweden, Barcelona/Spain, Felixstowe/UK, Harwich/UK, Kent/UK and Gdynia/Poland. In addition, it operates inland terminals in Duisburg/Germany, Venlo/The Netherlands, Amsterdam/The Netherlands, Moerdijk/The

[48] Ibid, p. 5.

[49] Ibid, p. 5.

[50] Ibid, pp. 6 to 7.

[51] Ibid, p. 6.

Netherlands and Willebroek/Belgium. HPH is the largest terminal operator in Rotterdam. The Singaporean state-owned enterprise Port of Singapore Authority (PSA), which is the largest terminal operator worldwide, has a 20 percent stake in HPH.[52]

- Shanghai International Port Group (SIPG) is majority-owned by the government of Shanghai and 15 percent-owned by COSCO. SIPG is the operator of all public terminals in the Port of Shanghai, the world's largest container port. SIPG owns 9.9 percent of Orient Overseas (International) Ltd. (OOIL), the Hong Kong-based company that owns OOCL and that itself is majority-owned by COSCO. Until 2017, SIPG had a 25 percent stake in the Zeebrugge container terminal, which was then acquired by COSCO. SIPG currently has no port investments in the EU.[53]

Since 2013, China has been launching several sub-regional initiatives involving countries in the Mediterranean region. In February 2013, Beijing organised a conference in Rome bringing together representatives from the Ministry of Agriculture (including several ministers) of six Southern European countries (Italy, Spain, Portugal, Greece, Cyprus and Malta) and China for the first time with the aim to strengthen agricultural cooperation between the participating states. In November 2015 at Xiamen, the State Oceanic Administration and the Chinese Ministry of Foreign Affairs organised another meeting with these same six Southern European countries, this time focusing on maritime cooperation. This meeting – the first of this type – known as the 'Forum of Marine Cooperation between China and South European Countries' – brought high-level officials and experts on maritime issues together. At the end of this forum, and gradually over the last few years, China has developed 'Comprehensive Maritime Cooperation' partnerships with Greece, Italy, Spain, Portugal, Cyprus and Malta including the construction or development of ports, industrial parks in the surrounding areas, transport networks, tourism and fishing. [54] Cooperation between China and these six European countries – and primarily Greece – would form 'the European extension of the maritime route according to Chinese

[52] Ibid, p. 7.

[53] Ibid, p. 8.

[54] Ekman, A., 2018. China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, p. 9.

officials. The objective, according to the official jargon, is to create a 'China-Indian Ocean – Africa – Mediterranean Sea Blue Economic Passage.' [55]

[55] Ibid, pp. 9 and 10.

4. CHINESE PORT AND INFRASTRUCTURE PROJECTS IN THE EASTERN MEDITERRANEAN

In 2015, Shanghai International Port Group (SIPG) won the tender to build a container port in Haifa/Israel. SIPG now intends to expand the Container Terminal of Haifa Port. China's concession in Haifa, lasting 25 years, began in 2021.[56] However, Israel opened the Chinese-operated shipping port terminal in Haifa Bay on September 1st, 2021. In addition, a Chinese government-owned firm, Pan Mediterranean Engineering Company (PMEC) – part of China Harbour Engineering Company (CHEC) – has won a tender to upgrade Ashdod´s main dock. Haifa is Israel´s busiest port and the base of its main naval fleets. Israeli submarines, widely reported to be capable of launching nuclear missiles, are docked there,[57] also the US Sixth Fleet considered it as homeport, several ships visit the port every year. In addition, US ships visit the Israeli port of Ashdod. The US Sixth Fleet, headquartered in Naples/Italy, conducts many joint exercises like *Noble Dina*, *Noble Melinda* and *Juniper Cobra* exercises with the Israeli navy in the strategic Mediterranean Sea.'[58] Thus, Chinese port infrastructure constructions cause security concerns, especially in the US, which relate to 'dual-use technology, such as artificial intelligence and cyber-security products, which could be used for surveillance and intelligence purposes.'[59] As key allies in the region, Israel and the US share some of the most sensitive intelligence. Therefore, the US administration has been apprehensive 'from the very beginning.'[60] Furthermore, port handling could give China access to Israeli-US military communications. In a move to renew business links, however, Israel has constituted an advisory committee to evaluate the national security risks from prospective foreign investments. Around 11 out of 92 Chinese business deals in Israel were found concerning, such as the expansion of

[56] Chang, G. G., 2020. China In The Mediterranean, Friday, Jan 10, 2020, Hoover Institution, Strategika – Conflicts of the Past as Lessons for the Present, Issue 62, https://www.hoover.org/research/china-mediterranean (accessed November 24th, 2020).

[57] The Economist, 2018. Israel and China. Too open for business?, The Economist, October 13th, 2018, pp. 33-34, p. 33.

[58] Khushnam P. N., 2020. China's String of Pearls in Eastern Mediterranean and its implications, 04/06/2020, World Geostrategic Insights (WGI), https://wgi.world/china-s-string-of-pearls-in-eastern-mediterranean-and-its-implications, (accessed November 24th, 2020).

[59] The Economist, 2018. Israel and China. Too open for business?, The Economist, October 13th, 2018, pp. 33-34, p. 33.

[60] Ibid.

the Ashdod Port, partial construction and operation of the port of Haifa, construction and operation of the Tel Aviv light rail, and the digging of the Carmel Tunnels near Haifa.[61]

The Chinese concern is also 'not trying to hide the fact that about three billion US dollars (including equipment and leasing costs) has so far been invested in the new Haifa Bayport project, with the aim of integrating it into the BRI.'[62] From a Chinese standpoint, Israel´s role would have been pivotal in the BRI 'as a tech powerhouse and a key destination.'[63] After construction, the planned capacity for the entire Haifa port area is 1.86 million containers per year. Haifa will be the newest and most advanced port in the Mediterranean, according to the SIPG´s president at a conference in January 2020.[64] Haifa Bayport's infrastructure 'is already installed, and includes huge remote-controlled cranes ready to handle the largest container ships in the world, autonomous smart power supply systems, robotic transport systems, 5G wireless communication networks, and more.'[65]

Next in the series of Chinese port constructions is Tripoli/Lebanon. The China Harbour Engineering Company Ltd. (CHEC) is at work in the deep seaport of Tripoli to upgrade it so that it can accommodate larger vessels. In addition, to enable the port to perform the new role, another firm, Qingdao Haixi Heavy-Duty Machinery Co., sold two 28-storey container cranes so that it is capable of serving 700 containers per day.[66] The capacity check was performed by the docking of a huge container vessel of COSCO in December 2018 and a formal inauguration of a new maritime route between China and the Mediterranean was made. The

[61] Siddiqui, S., 2020. US Puts the Brakes on Burgeoning Israel-China Ties, Belt and Road News, June 14th, 2020, https://www.beltandroadnews/2020/06/14/us-puts-the-brakes-on-burgeoning-israel-china-ties (accessed November 24th, 2020).

[62] Ben-Gedalyahu, D., 2020. Could China take all in Haifa Bay?, Globes, October 26th, 2020 17:05, https://en.globes.co.il/en/article-could-china-take-all-in-haifa-bay-1001347140 (accessed November 24th, 2020).

[63] Siddiqui, S., 2020. US Puts the Brakes on Burgeoning Israel-China Ties, Belt and Road News, June 14th, 2020, https://www.beltandroadnews/2020/06/14/us-puts-the-brakes-on-burgeoning-israel-china-ties (accessed November 24th, 2020).

[64] Ibid.

[65] Ibid.

[66] Khushnam P. N., 2020. China's String of Pearls in Eastern Mediterranean and its implications, 04/06/2020, World Geostrategic Insights (WGI), https://wgi.world/china-s-string-of-pearls-in-eastern-mediterranean-and-its-implications, (accessed November 24th, 2020).

Chinese government is trying to make Tripoli part of the BRI and turn it into a special economic zone, and an important transhipment point between Chinese and European markets. Chinese construction companies are planning to connect Tripoli Port with developed transportation networks by building an advanced railway connecting it with Beirut and further to Homs and Aleppo in Syria. The port is being equipped with the latest technology and infrastructure and by 2022 it will become a strategic logistics location of the whole region and for land routes connecting the Mediterranean to Central Asia what China intends is to avoid Suez transit and reduce time.[67] In addition, China is in close negotiation with the Syrian government to establish a maritime industries city between Tartous and Latakia with a vision to control the Syrian coastline as per the Syrian-Chinese Business Council. Thus, gradual Chinese involvement in Syrian reconstruction will likely give Beijing access to its strategic ports of Tartous and Latakia.[68]

As well, China enjoys good economic relations with Turkey, which is also planning to increase the volume of cooperation with the BRI-related countries in terms of enabling the Middle Corridor – a crucial part of the BRI – to be a more attractive route. In November 2016, Beijing and Ankara signed a memorandum of understanding on harmonising their BRI and the Middle Corridor´s Initiatives to cooperate on key projects.[69] This Turkish proactive policy aims to set up a transport route from Anatolia to the Caspian Sea, further on to Central Asia and China. With the completion of the Baku-Tbilisi-Kars (BTK) railway link, Turkey has connected its national railways to the Trans-Caspian International Transport Route (TITR) – an important part of the China-Turkey-Europe transit corridor.[70] The Middle Corridor lies at the heart of the BRI also linking Turkey to Georgia and Azerbaijan via rail, crossing the Caspian Sea and reaching China through Turkmenistan and Kazakhstan. Other investment projects undertaken by Turkey as part of the Middle Corridor include the Yavuz Sultan Selim Bridge over the

[67] Ibid.

[68] Ibid.

[69] Guo, X., and Fidan, G., 2018. China's Belt and Road Initiative (BRI) and Turkey´s Middle Corrdidor: 'Win-Win Cooperation?', June 26th, 2018, https://www.mei.edu/publications/chinas-belt-and-road-initiative-bri-and-turkeys-middle-corrdidor-win-win-cooperation (accessed November 24th, 2020).

[70] Ibid.

Bosporus, the Eurasia Tunnel and Marmaray, the Çanakkale 1915 Bridge over the Dardanelles, high-speed railways, logistics hubs and communication infrastructure.[71] Filyos is planned to serve as the port for the corridor reaching from central Konya and Iskenderun provinces on the country's southern border, opening to the Mediterranean. The railway project with its Gebze-Sabiha Gökçen Airport – Yavuz Sultan Selim Bridge – Istanbul Airport – Halkalı connections will constitute one of the most important links at the European part of the Silk Railway route passing through Turkey.[72] The Istanbul-Ankara high speed railway, which has been operating since July 2014, was also constructed within the scope of the Sino-Turkish partnership. The project was funded by China with a 750 million US dollar loan, it was the first high-speed railway project of a Chinese company abroad.[73] China-Germany Railway Project manager Gao Tian highlighted that Istanbul is a significant hub for the BRI project: 'Therefore, we want to establish closer cooperation with Turkey'.[74] He explained that the modern Silk Road project includes a southern line that will pass through Kazakhstan and arrive in Baku. From Baku, the line will reach Istanbul and Europe, Gao stated. Thus, a train that leaves Xian arrives in Germany within 16 to 18 days. Each day, four to five trains are planned to depart from Xian and each train will transport 141 containers. In addition to railway transport, Chinese goods will also be transported to Turkish ports via the Maritime Silk Road project. In September 2015, Chinese giant container terminal operator COSCO Pacific, along with China Merchants Holdings International and China Investment Corporation, acquired Turkey´s third-largest port, the Kumport terminal in Istanbul, for 940 million US dollars. The company holds a 65 percent stake in the port.[75] Additional ancillary projects to help develop the Middle Corridor include Turkey´s Hunutlu Thermal Power Plant project, worth nearly 1.7 billion US dollars. This project was announced in September 2019 and is aimed at ensuring the country's

[71] Ay, H., 2020, Turkey to build regional transit hub port in Eastern Mediterranean, Daily Sabah, October 28th, 2020 1:23 pm, https://www.dailysabah.com/business/transportation/turkey-to-build-regional-transit-hub-port-in-eastern-mediterranean (accessed November 24th, 2020).

[72] Ibid.

[73] Daily Sabah, 2018. China calls for more cooperation with Turkey to boost 'Belt and Road' project, Daily Sabah, October 3rd, 2018 12:00 am, https://www.dailysabah.com/economy/2018/10/03/china-calls-for-more-cooperation-with-turkey-to-boost-belt-and-road-project (accessed November 24th, 2020).

[74] Ibid.

[75] Ibid.

long-term energy security after its completion.[76] Issues of insolvency have already impacted Chinese-funded projects. Yavuz Sultan Selim Bridge, one of the tallest in the world, was financed by China to the tune of 2.7 billion US dollars. When it became clear the owner would not be able to pay it back, the bridge was sold to Chinese investors for 688 million US dollars.[77]

[76] Imtilak Real Estate, China´s Largest Investment in Turkey, 2019-09-30, last update 2022-01-05, https://www.imtilak.net/en/articles/chinese-investments-in-turkey ((accessed July 25th, 2022).

[77] Railly News, Yavuz Sultan Selim Bridge sold to Chinese for 688 million dollars, 29/12/2019, https://en.rayhaber.com/2019/12/Yavuz-Sultan-Selim-Koprus-was-sold-to-the-demon-for-688-million-dollars/ (accessed July 25th, 2022).

5. CHINESE INFRASTRUCTURE INVESTMENTS IN NORTH AFRICA

In September 2017, the BRICS Summit was held in Xiamen, which initiated the '5+9' mode (BRICS plus nine emerging market countries and developing countries). The summit provided an important communication platform for emerging market countries and developing countries to exchange experiences of development., 'thereby facilitating them to find their own developmental paths and promoting South-South cooperation.'[78] In July 2018, during the 8th Ministerial Meeting of the Sino-Arab Cooperation Forum held in Beijing, the foreign ministers of more than 20 Arab countries and China jointly issued the Declaration of Action on China-Arab States' Belt and Road Cooperation, and on several other documents.[79] In North Africa, Beijing established a Comprehensive Strategic Partnership with Algeria, as well as with Egypt, in 2014, and a Strategic Partnership with Morocco in 2016.[80]

In recent years, Chinese companies have also invested in ports in North Africa, e.g. in Cherchell/Algeria, in Port Said and in Alexandria/Egypt, in Tangier and in Casablanca/Morocco.[81] Since King Mohammed VI visited China in 2016, investment and trade with Chinese companies has increased in Morocco. Thus, the Tangiers Med Port complex became the largest container port in Africa, ahead of rivals Port Said/Egypt and Durban/South Africa. Chinese companies, such as telecommunications giant Huawei, plan to establish regional logistical headquarters there. China Communications Construction Company (CCCC) and its subsidiary China Road and Bridge Cooperation signed a memorandum of understanding with the Moroccan government on April 26th, 2019, in Beijing during the Belt and Road Forum to construct the Mohammed

[78] Chen, J., 2018. Strategic Synergy between Egypt 'Vision 2030' and China's 'Belt and Road' Initiative, Outlines of Global Transformations: Politics, Economics, Law, Vol. 11, No 5, Shanghai, pp. 219-235, p. 223.

[79] Ibid.

[80] Ghafar, A. A., and Jacobs, A. L., 2019. Beijing strengthens its presence in the Maghreb, Monday, September 9th, 2019, Brookings, https://www.brrokings.edu/opinions/beijing-strengthens-its-presence-in-the-maghreb/ (accessed November 24th, 2020).

[81] Ibid.

VI Tangier Tech City, which shall include several industrial zones.[82] The new developer aims to take over existing plans: 'The business case is that 200 Chinese companies will open factories, generating around 10 billion US dollars in investment and creating 100,000 jobs. The attraction will be Morocco's free trade agreement with the EU and the US, as well as the growing African market.'[83] Tangier would be supported by the modern port of Tangier Med, the motorway network, a high-speed train line and industrial and logistics areas.'[84] In Morocco, China is also considering investing in the development of a Marrakech-Agadir railway line.[85] In 2016, the China Railway Bridge Engineering Group completed its construction of the 950-meter, cable-stayed King Mohammed VI bridge between Rabat and Salé, the longest cable-stayed bridge in Africa.[86] With the opening of its new terminals in late June 2019, Tangier Med became the Mediterranean's largest port, surpassing Spain's Algeciras and Valencia ports in container capacities. With the six million twenty-foot equivalent unit (TEU) capacity of Tangier Med 2, the Tangier Med port's total container capacity stands at nine million TEU.[87] On the 10th anniversary of the port's opening, Rabat announced a 10 billion US dollar investment project, named Mohammed VI Tangiers Tech City, which is set to host 200 factories by 2029, making Morocco Africa's largest Chinese industrial platform.[88] China's plan was also to elevate Morocco as one of the top 20 global tourist destinations by 2020. China's other interests in Morocco include investments in the Kenitra Atlantic Free Zone and in the Casablanca Finance City. Under the BRI, China 'has committed to encourage its industrial enterprises to invest in Morocco in the automotive, textile, electrical goods, aviation, mining and renewable

[82] GCR (Global Construction Review), 2019. Tangier tech city plans revived with selection of Chinese giant CCCC, May 1st, 2019, https://www.globalconstrcutionreview.com/news/tangier-tech-city-plans-revived-selection-of-chinese-giant-cccc (accessed November 24th, 2020).

[83] Ibid.

[84] Ibid.

[85] Ekman, A., 2018. China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, pp. 14 and 15.

[86] Tanchum, M., 2020. Morocco´s Africa-to-Europe Commercial Corridor: Gatekeeper of an emerging trans-regional strategic architecture, AIES Fokus 8/2020, Austria Institut für Europa- und Sicherheitspolitik, Hainburg / Donau, p. 3.

[87] Ibid, p. 2.

[88] Ghafar, A. A, and Jacobs, A. L., 2019. Beijing strengthens its presence in the Maghreb, Monday, September 9th, 2019, Brookings, https://www.brrokings.edu/opinions/beijing-strengthens-its-presence-in-the-maghreb/ (accessed November 24th, 2020).

energy sectors.'[89] In addition, Chinese auto manufacturing companies have signed agreements with the Moroccan government to build various manufacturing plants.[90]

In August 2015, the new Suez Canal was successfully opened. Chinese companies such as the China Harbour Engineering Company Ltd (CHEC) and the Sino Hydro Group Ltd. participated in the construction of the new Suez Canal in the fields of energy, railway and electronics. In August 2018, CHEC started the construction of the Sokhna Port to the south of the Suez Canal.[91] In January 2016, Chinese President Xi Jinping visited Egypt, both leaders reached an agreement on the Five-Year Implementation Program of the People´s Republic of China and the Arab Republic of Egypt strengthening the Comprehensive Strategic Partnership between the two countries on the basis of the establishment of a comprehensive strategic partnership made in 2014.

Furthermore, both heads of state also made detailed plans and a program for the development and cooperation of Sino-Egyptian relations in the five years to come and in the memorandum of understanding of the Government of the People´s Republic of China and the Government of the Arab Republic of Egypt on Jointly Promoting the Silk Road Economic Belt and the 21st-Century Maritime Silk Road, covering bilateral cooperation on 80 items of ten major projects involving politics, economy (construction of infrastructure) and trade, technology (e.g. aeronautics and astronautics), finance, military and security, energy (electricity) and oil and gas industrial cooperation, culture, climate change etc.[92] In 2017 and 2018, China's direct and indirect investment in Egypt had reached about seven billion US dollars, and created more than 10,000 jobs. In 2018, the flagship project of Chinese-Egyptian cooperation – TEDA Suez Economic and Trade Cooperation Zone – has attracted 68 enterprises for settlement, with the investment of about one billion US dollars.

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89 Nyongesa, G., 2019. Morocco´s ties with China give big boost to tourism, China Daily Global, Updated: October 18th, 2019, 09:12, https://www.chinadaily.com.ccn/a/201910/18/NS5da9116ea310ef3e35571306.html (accessed November 24th, 2020).

90 Ibid.

91 Chen, J., 2018. Strategic Synergy between Egypt 'Vision 2030' and China's 'Belt and Road' Initiative, Outlines of Global Transformations: Politics, Economics, Law, Vol. 11, No 5, Shanghai, pp. 219-235, p. 226.

92 Ibid, p. 225.

More than 2,000 employment opportunities have been created for local people.[93]

Before the outbreak of the coronavirus in late 2019, the number of Chinese tourists to Egypt had been increasing year by year. Two Confucius Institutes and three Confucius Classrooms have been built by China and Egypt, with nearly 2,000 registered students. The scale of international students in both countries has been expanding. In 2018, there were more than 1,000 Egyptian students studying in China, and more than 2,300 Chinese students studying in Egypt. Egypt in 2018 ranked the first in West Asian and North African countries in terms of the number of Chinese students.[94] The number of direct flights between China and Egypt also significantly increased during this period of time, also many Chinese films and television programmes became popular in Egypt.[95] In September 2018, Egyptian President Abdel-Fattah al-Sisi attended the Beijing Summit of the Forum on China-Africa Cooperation (FOCAC) and held talks with Chinese President Xi Jinping. Xi pointed out that China regarded Egypt as an important and long-term cooperative partner in the co-building of the BRI, and was willing to synergise the BRI and the development strategies of Egypt 'Vision 2030' and the 'Suez Canal Corridor Development', 'thus promoting the pragmatic cooperation of the two countries and strengthening their cooperation on the security of counter-terrorism.'[96] In Egypt, Chinese companies and banks intend to finance real estate and infrastructure projects for the new administrative capital northeast of Cairo, a petrochemical plant, a possible water treatment and storage station, and a coal-fired power station.[97] In the construction of the new capital of Egypt, China played a vital role. The two sides signed a package of contracts, involving the construction of the National Convention Centre, the Parliament Building, the Convention and Exhibition Town, and the Office Buildings of 12

[93] Ibid, p. 229.

[94] Ibid, p. 230.

[95] Ibid.

[96] Ibid, p. 223.

[97] Ghafar, A. A., and Jacobs, A. L., 2019. Beijing strengthens its presence in the Maghreb, Monday, September 9th, 2019, Brookings, https://www.brrokings.edu/opinions/beijing-strengthens-its-presence-in-the-maghreb/ (accessed November 24th, 2020).

Ministries.[98] China has become the largest trading partner of Egypt, and it mainly exports mechanical and electrical products, vehicles and their accessories, steel and steel products, plastics and their products, and textiles to Egypt; and imports crude oil, liquefied petroleum gas, stone and agricultural products from Egypt. Egypt also expanded its exportation of agricultural products to China in 2017; from January to September, the value of imported fresh oranges from Egypt reached 80 million US dollars, with a year-on-year growth rate of 208 percent.[99]

After the outbreak of the civil war in Libya in 2011, China had to evacuate its citizens and drop important projects and investments. However, its Libyan oil purchases have more than doubled since 2017. The Chinese government has repeatedly stated that China is willing to participate in the reconstruction effort once peace is restored.[100] China has maintained business interests in Libya since long before the conflict in Libya began in 2011. Chinese companies engaged in various infrastructure activities, and Libya sent considerable capital to China in return. By 2011, China had 75 companies conducting roughly 18.8 billion US dollars worth of business in Libya. These activities involved more than 35,000 Chinese labourers working across 50 projects, ranging from residential and railway construction to telecommunications and hydropower ventures. Most notably, in the year leading up to Libya´s revolution, Libya was providing three percent of China's crude oil supply – that is, three percent of the supply for the world´s second-largest consumer, constituting roughly 150,000 barrels per day; or one-tenth of Libya´s crude exports.[101] All of China's top state oil firms – CNPC, Sinopec Group and CNOOC – had standing infrastructure projects in Libya.[102]

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98 Chen, J., 2018. Strategic Synergy between Egypt 'Vision 2030' and China's 'Belt and Road' Initiative, Outlines of Global Transformations: Politics, Economics, Law, Vol. 11, No 5, Shanghai, pp. 219-235, p. 226.

99 Ibid, p. 228.

100 Ghafar, A. A., and Jacobs, A. L., 2019. Beijing strengthens its presence in the Maghreb, Monday, September 9th, 2019, Brookings, https://www.brrokings.edu/opinions/beijing-strengthens-its-presence-in-the-maghreb/ (accessed November 24th, 2020).

101 Wehrey, F., and Alkoutami, S., 2020. China's Balancing Act in Libya, Carnegie Endowment for International Peace, May 10th, 2020, https://carnegieendowment.org/2020/05/10/china-s-balancing-act-in-libya-pub-81757 (accessed November 24th, 2020).

102 Ibid.

In Algeria, China is interested in vast oil and gas reserves. Chinese imports are the highest in the Maghreb region, recorded at 7.85 billion US dollars in 2018.[103] China became Algeria´s top trade partner in 2013, surpassing France. Chinese companies are primarily interested in the construction, housing, and energy sectors. Major construction projects, such as the Algiers Opera House, the Sheraton Hotel, the Great Mosque of Algiers and the East-West Highway, mark the landscape. These activities have brought in thousands of workers and merchants who have established a 'Chinatown' in the district of Boushaki, in the eastern suburbs of Algiers.[104] Despite setbacks, the government of Algeria is eager to restart construction of the port of El Hamdania, in Cherchell, due to its strategic importance. Located 90 miles from Algiers, Algeria envisions the Port of El Hamdania as a regional hub for North Africa in the Mediterranean, competing with Morocco´s Tangier Med Port. A memorandum of understanding for the project was signed in January 2016, which committed the China State Construction Engineering Company (CSCEC), China Harbour Engineering Company (CHEC), and the Algerian Port Authority to the project. In exchange for Chinese financing, the agreement handed the port´s operations to the Chinese for the first 25 years.[105]

China is also seeking to deepen its trade with Tunisia. During the FOCAC summit in Beijing in September 2018, the Tunisian delegation signed agreements with China for various projects, including turning the port of Zarzis into an economic and commercial centre; the construction of a railway line linking Médenine, a region rich in minerals in Gabès, the heart of the petrochemical and processing industry of phosphates, and Zarzis; establishing a production plant for SAIC Motor Corporation Ltd., a Chinese state-owned company, to build and export cars to the countries around the Mediterranean and in Africa. In addition, China

[103] Ghafar, A. A., and Jacobs, A. L., 2019. Beijing strengthens its presence in the Maghreb, Monday, September 9th, 2019, Brookings, https://www.brrokings.edu/opinions/beijing-strengthens-its-presence-in-the-maghreb/ (accessed November 24th, 2020).

[104] Ibid.

[105] US Department of Commerce / International Trade Administration, 2019, Algeria´s El Hamdania Port, https://www.trade.gov/market-intelligence/algerias-el-hamdania-cherchell-project (accessed November 24th, 2020).

is currently building a hydraulic dam in the Kef region.[106] Tunisia has also called upon Chinese expertise to build a solar power plant. Tunisia is a country with huge unexploited capacity in this sector and plans to develop at least 835 megawatts of solar power plants by 2030.[107] In July 2019, Tunisia signed a memorandum of understanding with Chinese corporations with expertise in renewables to develop solar energy and to continue importing equipment and products from China. Two months before, China and Tunisia announced their intention to develop their security cooperation in health services and training for Tunisia's military. The Tunisian armed force has been in cooperation with China since 2013 'to boost its operational capabilities in the fight against terrorism and other illegal activities.'[108]

[106] Zoubir, Y. H., 2020. Expanding Sino-Maghreb Relations. Morocco and Tunisia, Chatham House, February 2020, https://www.chathamhouse.org/2020/02/expanding-sino-maghreb-relations/4-tunisia-and-morocco (accessed November 24th, 2020).

[107] Ibid.

[108] Ibid.

CONCLUSIONS

China has made 'a concerted push into ports' in the Mediterranean region.[109] Chinese companies are already in pursuit of developing and upgrading ports in the whole region and to run or hold stakes in a dozen European ports.[110] Hence the 2017 BRI action plan states: 'Chinese enterprises will be guided to participate in the construction and operation of ports. Projects for the planning and construction of submarine cables will be jointly advanced to improve connectivity in international communications.'[111] Therefore, Chinese investments in submarine cables are 'rapidly accelerating' in the Mediterranean region as much as in other regions as part of the BRI, whose action plan, published in 2015, explicitly mentions telecommunications, and especially submarine cables, as a priority sector for future investments. Since 2018, Huawei Marine Networks has been increasing investments, it has mainly developed the 'Hannibal' cable, connecting Tunisia to Italy in 2009 and another, connecting Libya to Greece since 2010. [112]

Chinese 'port diplomacy' projects in the Northern Mediterranean region are entry points for the purpose of consolidating a more comprehensive type of cooperation (both economic and political) with sub-regions in Europe. For instance, the so-called and former '16+1' (now '14+1') model (Greece joined this forum in 2019 in an enhanced '17+1' format, Lithuania said on May 22nd, 2021 it was quitting the '17+1' format, so this cooperation had been continued again in a '16+1' model until Estonia and Latvia decided on August 11th, 2022 to quit this forum due to deep

[109] Chang, G G., 2020. China In The Mediterranean, Friday, January 10th, 2020, Hoover Institution, Strategika – Conflicts of the Past as Lessons for the Present, Issue 62, https://www.hoover.org/research/china-mediterranean (accessed November 24th, 2020).

[110] Ibid.

[111] State Council of the People´s Republic of China, Vision for Maritime Cooperation under the Belt and Road Initiative, June 20th, 2017, quoted by: Ekman, Alice (2018): China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, p. 16.

[112] Ekman, A., 2018. China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, p. 17.

concerns over China´s ties with Russia when waging war with Ukraine),[113] an annual forum which was created at China's initiative at the format's inaugural Warsaw 2012 summit, brings together China and 16 Central and Eastern European (CEE) countries (among these, EU member states and non-members). Greece decided to join this cooperation forum 'for an obvious reason: to explore more opportunities for closer economic collaboration with China and the countries in the Southeast, Central and Eastern Europe' aiming to promote 'connectivity across the globe in implementing the Belt and Road Initiative. Knowledge is the key to its success."[114] Thus the Chinese government is also financing high-speed rail connections between the port of Piraeus, Belgrade and Budapest. This project should reduce freight transport times from the Suez Canal – where the expansion in 2015 allowed traffic between the Red Sea and the Mediterranean Sea to increase – to Western Europe.[115] Despite this format, China still handles its economic affairs on a bilateral basis. '14+1' is neither a multilateral forum nor a bilateral one: It is an exercise of 'multilateral bilateralism', with China 'acting as a hub in the middle."[116] However, the continuous Chinese investments in the European port infrastructure open new trade routes 'towards not only the North, but also in all directions of the Mediterranean and beyond."[117]

Furthermore, in July 2019, the White Paper titled 'China's National Defence in the New Era' highlighted the crucial role of world shipping routes – the sea lines of communication (SLOC) – for China and the People' s Liberation Army (PLA):

[113] Tzogopoulos, G. N., 2019. From the '17+1' to a new vision for the Mediterranean, November 15th, 2019, http://www.china.org.cn/opinion/2019-11/15/content_75411083.htm (accessed November 24th, 2020); and Stuart Lau (2022), Down to 14+1: Estonia and Latvia quit China´s club in Eastern Europe, August 11, 2022 / 4.59 PM, https://www.politico.eu/article/down-to-14-1-estonia-and-latvia-quit-chinas-club-in-eastern-europe (accessed August 13th, 2022)

[114] Ibid.

[115] Ekman, A., 2018. China in the Mediterranean: An Emerging Presence, Notes de l´Ifri, Institut français des relations internationales, Paris, February 2018, p. 16.

[116] Karásková, I., 2020. Engaging China in 17+1: Outline of ACT Strategy, AMO – Association for International Affairs (2020): Authors: Karásková, Ivana; Bachulska, Alicja; Szunomár, Ágnes; Vladisavljev, Stefan; Bērzina-Čerenkova, Una Aleksandra; Andrijauskas, Konstantinas; Karindi, Liisi; Leonte Andreea; Pejić, Nina; Šebok, Filip; Prague, April 2020, pp. 11-13, p. 11.

[117] Tzogopoulos, G. N., 2019. From the '17+1' to a new vision for the Mediterranean, November 15th, 2019, http://www.china.org.cn/opinion/2019-11/15/content_75411083.htm (accessed November 24th, 2020).

'The PLA actively promotes international security and military cooperation and refines relevant mechanisms for protecting China's overseas interests. To address deficiencies in overseas operations and support, it builds far seas forces, develops overseas logistical facilities, and enhances capabilities in accomplishing diversified military tasks. The PLA conducts vessel protection operations, maintains the security of strategic SLOCs, and carries out overseas evacuation and maritime rights protection operations. In August 2017, the PLA Djibouti Support Base entered service. The base has provided equipment for the maintenance of four escort task groups, offered medical services for over 100 officers and sailors on board, conducted joint medical exercises with foreign militaries, and donated over 600 teaching aids to local schools.'[118]

China is trying to enhance its economic power policy globally. Nevertheless, scepticism on Chinese investments globally raised concern due to growing risks of increasing financial and economic dependence on China´s 'socialist market economy' and therefore becoming an instrument for China´s economic and geopolitical expansion. However, this study provides two conclusions as follows:

- First, EU Mediterranean countries are recommended to strengthen the mechanism for screening foreign investment which is already set up by a new EU regulation aimed at urging governments to carefully consider the potential 'security or public order' effects of foreign direct investments in 'critical infrastructure, critical technologies and critical inputs.'[119] The category of critical infrastructure shall include seaports and the investments by Chinese (state-owned) firms in ports and their possible strategic impacts. Chinese involvement in Mediterranean seaports is likely to acquire a geopolitical significance that goes far beyond bilateral relationships.

- Second, today, a response to the threat of expanding Chinese influence in the form of shutting Chinese companies out does not seem impossible. European governments could argue such a move with the

[118] The State Council Information Office of the People's Republic of China, 2019. White Paper, 'China's National Defence in the New Era', July 24th, 2019, Foreign Languages Press Co. Ltd, Beijing, p. 15.

[119] Van der Putten, F-P 2019. European seaports and Chinese strategic influence. The relevance of the Maritime Silk Road for the Netherlands, Clingendael Report, Netherlands Institute of International Relations, The Hague, December 2019, p. 3.

> protection of strategic infrastructure. However, in dealing with China, as proposed by a Czech think tank, a three-pronged ACT (adapt – counter – target) strategy, modelled on the realities of Chinese-CEE and Chinese-Mediterranean forums, could be suggested. Therefore, national and international strategies 'need to assess the existing and potential scope of China's presence, define priorities as well as risks stemming from this phenomenon, and implement or address them through subsequent politics.'[120]

China aims to internationalise and develop its centrally-defined priorities. Chinese commercial interests in the Mediterranean – namely the construction and up-grading of port infrastructure – are surely the building blocks of its BRI and the Maritime Silk Route 'vision facilitating its trade across Asia and Europe, but it also augments its naval presence to counter risk to its trade, interests, and global pursuit of power.' [121] However, the Chinese government no longer hesitates to underline European weaknesses and to position itself as an alternative market to Mediterranean countries. China could perhaps find an efficient way to better bridge its policies towards Africa, Europe and the Middle East. From a Chinese standpoint: 'The Mediterranean, a destination of the ancient Silk Road, needs to dream of a better future and China is able to contribute to its realisation.' [122] International forums together with China are part of the BRI, the most important foreign and economic policy project of the Communist Party of China, the 'crown jewel' of all projects.[123] Thus, BRI 'will make tactical adjustments, not strategic', as Wang Jun, a former director of the Information Department at the China Centre for International Economic Exchange, stated.[124]

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[120] Karásková, I., 2020. Engaging China in 17+1: Outline of ACT Strategy, AMO – Association for International Affairs (2020): Authors: Karásková, Ivana; Bachulska, Alicja; Szunomár, Ágnes; Vladisavljev, Stefan; Bērzina-Čerenkova, Una Aleksandra; Andrijauskas, Konstantinas; Karindi, Liisi; Leonte Andreea; Pejić, Nina; Šebok, Filip; Prague, April 2020, pp. 11-13, p. 12.

[121] Khushnam P. N., 2020. China's String of Pearls in Eastern Mediterranean and its implications, 04/06/2020, World Geostrategic Insights (WGI), https://wgi.world/china-s-string-of-pearls-in-eastern-mediterranean-and-its-implications, (accessed November 24th, 2020).

[122] Tzogopoulos, G. N., 2019. From the '17+1' to a new vision for the Mediterranean, November 15th, 2019, http://www.china.org.cn/opinion/2019-11/15/content_75411083.htm (accessed November 24th, 2020).

[123] CNTG, 2019. Chinese International Broadcast, 'Restructuring of global economic governance', Beijing, April 26th, 2019, 06.00 to 07.00 a.m. US East Coast (Boston) time.

[124] Perlez, J., 2019. China tries to loosen its Belt and Road-plan, The New York Times International Edition, April 27th-28th, 2019, pp. 1 and 7, p. 1.

Since the mid-1990s, Chinese scholars also realised that the EU had also been planning to invest comprehensively into North African and Eastern Mediterranean infrastructure (highways, railways, ports, airports) and to increase cultural and people-to-people contacts at the economic and academic level[125] – but some of these processes have not yielded fruitful results: Political challenges in this complex region overshadowed such as the Palestinian-Israeli and Iranian-Israeli conflicts, instability in Libya and in Syria, the American-Russian rivalry in the region, the migrant and refugee crisis and terrorism only complicated the situation. Even relations between Greece and Turkey are still strained, and the possibility of a military accident around Cyprus seems to be possible due to disputes on gas and oil fields close to Cyprus. A comprehensive Chinese approach to connect all the Mediterranean region therefore seems to be hard to realise – perhaps in the long run.

In just two decades, China has strengthened its position in the broader Mediterranean region. However, it is still too early to reach a definitive conclusion about the implications of this comprehensive engagement.

Contact:

Gunther Hauser, PhD
Hon. Prof.
Institute for Strategy and Security Policy
National Defence Academy
Austria
E-mail: gunther.hauser@bmlv.gv.at

[125] Hauser, G., 2006. The Mediterranean Dialogue. A Transatlantic Approach, CRiSSMA Working Paper N. 9 – 2006, Centro di ricerche sul sistema sud e il mediterraneo allargato / Research Centre on the Southern System and wider Mediterranean, Pubblicazioni dell´I.S.U Università Cattolica, Milano / Milan, pp. 23-31.

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LEGISLATION ON COMBATTING TERRORISM IN THE REPUBLIC OF POLAND

Aleksander Olech, PhD

Expert
Defence24
Poland
Visiting lecturer
Baltic Defence College
Estonia

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ABSTRACT

Legal regulations related to terrorist threats are crucial for undertaking successful actions by institutions tasked with combating terrorism. The antiterrorism law in Poland was introduced in 2016 and is one of the latest sets of legal regulations concerning terrorism in the world. Moreover, it is one of the newest acts in the European Union. Its solutions include a number of measures aimed at maintaining state security that are very effective - so far, there has not been a single terrorist attack in Poland. It is essential to analyse this law, as well as present its key points that constitute its basis. It should also be pointed out that legal solutions should be constantly updated to evolving threats. Thus, the article indicates which parts should be changed in order to improve the antiterrorist system in Poland.

INTRODUCTION

At the outset of the analysis of the act[1] on anti-terrorism operations of 2016, it should be pointed out that from the moment Poland gained independence on 11 November 1918 until 10 June 2016, there had been no uniform law that would have universally obliged the selected and delegated entities to fight terrorism (Gałęzowski and Ruman 2010). The Polish government's response to the threats that occurred in Europe in 2015 (Bigo et al. 2015) was to create a new law that would systematise the actions necessary for undertaking counter-terrorist/anti-terrorist[2] operations. The new regulations also introduced significant amendments to the matter of immediate response – the use of counter-terrorist units, among others (Gabriel-Węglowski 2018). The law regulating the elimination of terrorist threats has become the key element of the whole system of combating terrorism in Poland.

The multiplicity of terrorist attacks in the European Union's member states made it necessary to take systemic action to combat terrorism. The affiliation of the Republic of Poland with international organisations, and thus anti-terrorist coalitions, has in a way forced a response to the emerging threats (Olechnowicz 2017). A risk of assaults or cyber-terrorist attacks in the territory of Poland constituted a real threat that could have prevented the state from proper functioning (Tyburska and Jewartowski 2016). The actions taken by Poland were aimed not only at increasing the level of security in the country, but also strengthening ineffective and unstable international structures allowing for free travel within the EU

[1] Bills are proposed legislation presented before the parliament. An act is a bill that has been approved by the parliament after voting. It is the law applied to the whole country, and if anyone disobeys it, they are punished. All acts were bills before the approval, and any change required in them has again had to be approved by the parliament, which is a time-consuming process. Some acts are passed only to remove the old act.

[2] Typically, the terms "anti-terrorism", "counter-terrorism" and "the fight against terrorism" are used interchangeably in international literature, because the actions taken in the various stages come down to countering the terrorist threat. Accordingly, the detailed distinction could change considerably if one looks at the activities of individual institutions – interventions with weapons, tracking a suspected terrorist, taping of conversations, analysis of non-cash transactions, activity on the Internet or operational arrangements aimed at verifying whether a person may have connections with terrorist or criminal organisations. What distinguishes them is the character of their actions, methods, means and powers. Counter-terrorism is more active action carried out by units/troops. Anti-terrorism has a more general character.

borders (Popa 2016). The European Union's general anti-terrorism policy would not have been sufficient if it had not been for national solutions and a long-term strategy to combat terrorism (Masiul 2015).

At present, the most significant legal act regulating the fight against terrorism in the Republic of Poland is the act of 10 June 2016 on counter-terrorism operations with the notice of the Marshal of the Sejm of the Republic of Poland of 9 February 2018 on the announcement of the consolidated text of the act on anti-terrorism activities.

The purpose of this article is to analyse the legislative process leading to the introduction of anti-terrorism law in Poland and demonstrate the application of anti-terrorisism law. Defining a coherent security policy in the context of contemporary threats of a terrorist nature is of key importance for the security of the state. Moreover, the author points to the substantial elements that have been amended and now constitute a basis for the implementation of counter-terrorism operations, and analyses of important modifications in the Criminal Code. Fundamental sources consist of national bills, acts, legal comments, the penal code, scientific articles in the field of law and terrorism, reports from think-tanks, as well as, national authorities, and press releases.

Research on this scale conducted in English, focused on law against terrorism in Poland, has been published to a very limited extent. This study allows valuable conclusions to be drawn, which shall be the basis for further research on anti-terrorism legislation in the world. Furthermore, it is a signpost for other countries in Central and Eastern Europe on how to develop their own anti-terrorism law.

Poland has noticed only 2 terrorist cases in the 21st century, however, more than a dozen attacks were prepared, but perpetrators had been stopped. It clearly demonstrates that anti-terrorism law and the jurisdiction given to anti-terrorist services are crucial in preventing terrorist activity in the country.

1. ACT'S MAIN ASSUMPTIONS

The fundamental purpose of enacting the Anti-Terrorist Act was to provide relevant legal and organisational instruments in the face of growing terrorist threats. So far, the provisions in force in this area had a decentralised character and did not guarantee proper cooperation between the specified entities. In view of the intensification of terrorist acts in Europe, their cross-border nature and the variety of methods employed by terrorists, it was necessary to create adequate tools for proper identification and assessment of threats and their subsequent effective elimination (Europol 2016). The relevant services in Poland had to be prepared to take decisive and immediate actions in case of a terrorist attack, as well as to remove its aftereffects. In order to achieve an appropriate level of cooperation, the basis for a system that would involve all services, authorities and institutions (including local authorities, the private sector and civil society) in a multi-faceted effort to combat terrorism had to be created (Gabriel-Węglowski 2018, 43–64).

In accordance with the act on anti-terrorism operations and the National Anti-Terrorism Programme 2015-2019, the Internal Security Agency is the institution delegated to provide comprehensive protection against terrorist threats to the Republic of Poland (Act of 24 May 2002 on the Internal Security Agency and the Intelligence Service). It has statutory rights to undertake actions of operational and exploratory, analytical and informational, as well as of an inquiring and investigative nature. These operations are carried out in order to recognise, detect, and prevent terrorism-related crimes and prosecute persons responsible for them. In addition, a key role is played by the Polish National Police, whose main task is to protect human health and life as well as property from attacks, to protect safety and public order, and to ensure order in public places and on public transport. The Police also undertake preventive and educational activities (Act of 6 April 1990 on the Police).

The legislator explicitly identified in the Act four phases of action to combat the spread of terrorism:

(1) Prevention - anticipation and sanctioning of events bearing the hallmarks of terrorism.

(2) Preparedness - development of a plan of action to take control and stop the negative events caused by terrorism.

(3) Response - organising and reorganising actors whose task is to eliminate threats and limit the negative consequences of terrorist attacks.

(4) Recovery - reconstructing systems with the necessary modifications to improve future responses and to restore lost assets (Stelmach 2016).

Although the successive phases of counter-terrorism operations do not have to ensue consecutively, they constitute the components of anti-terrorism operations and the basis for functioning of the Polish system for combating terrorism. The head of the Internal Security Agency, together with the delegated to co-operate entities of competence,[3] are responsible for the validity and effectiveness of the actions taken. In this manner, a permanent system of combating terrorism in the Republic of Poland is being established.

Due to the nature of the carried-out activities, it is important to pay attention to the area and the incident, which are closely related to the occurrence of terrorism. The legislator stresses the importance of both the place of the incident and its nature. The act singles out:

(1) The place of an event of a terrorist nature – to be understood as an open or closed space in which an event of a terrorist nature occurred or in which its result occurred or was to occur, and a space in which threats related to a terrorist event occur.

(2) The event of a terrorist nature – to be understood as a situation which is suspected to have arisen as a result of an offence of a terrorist nature listed in article 115 § 20 of the Criminal Code.[4]

[3] This refers to: Internal Security Agency, Intelligence Agency, Military Counterintelligence Service; under these actions the following entities are also used: Police, Border Patrol, Parliament Guard, State Protection Service, State Fire Service, National Revenue Administration, Military Gendarmerie, Government Centre for Security.

[4] "serious intimidation of many people, forcing a public authority of the Republic of Poland or another state or an authority of an international organisation to undertake or abandon specific actions, causing serious disturbances in the economic system of the Republic of Poland, another state or international organisations."

1.1. ALARM LEVELS

In accordance with the recommendations of the Act, the four-stage alert system in force in NATO in the event of terrorist threats was introduced, including CRP alert levels. They may be introduced by order of the Prime Minister (following consultation with the minister in charge of internal affairs and with the Head of the Internal Security Agency). In the event of a terrorist threat or any other danger, one of the four alert levels is introduced:

1. ALFA – the first alert level

2. BRAVO – the second alert level

3. CHARLIE – the third alert level

4. DELTA – the fourth alert level (Kamiński 2018, 109–110)

If a terrorist threat that directly affects the ICT system of public administration authorities or ICT systems that form part of the critical infrastructure or an event with similar characteristics occurs, one of the four CRP alert levels is introduced:

ALFA - CRP – the first alert level

BRAVO - CRP – the second alert level

CHARLIE - CRP – the third alert level

DELTA - CRP – the fourth alert level

Higher alert and CRP levels may be activated omitting transitional levels. They can also be introduced in parallel or independently. Alert levels are to be lifted as soon as the threat which gave rise to them has been reduced or eliminated.

In the event of a terrorist attack on the territory of Poland and the lack of an appropriate and effective reaction of the Police (i.e. if forces and resources prove insufficient to combat the danger), support in the form

of the Armed Forces of the Republic of Poland may be called for, adequately to their specialist preparedness, equipment and weaponry at their disposal, and the needs which have arisen. This occurs when the third or fourth alert level is introduced (Act of 24 May 2002).

2. ACT'S ORIGIN

Until the entry into force of the act of 10 June 2016 on anti-terrorism operations, in the Polish legislation there had been no coherent legal act regulating issues of undertaking anti-terrorism operations, counteracting or combating existing terrorist threats, including those of an international nature. At that time, the basic regulations used to stop and fight terrorism, as a supplement to the undertaken activities, had been the following acts:

- Act of 6 June 1997 – the Criminal Code with the definition and description of offences of a terrorist nature.

- Act of 16 November 2000 on counteracting money laundering and financing of terrorism – defining the rules, regulations and procedures for counteracting the financing of terrorism.

- Act of 26 April 2007 on crisis management – characterising and defining events marked as terrorist attacks.

The main assumption of establishing the act on anti-terrorism activities was an attempt to strengthen the anti-terrorism system of the Republic of Poland, which relied on combining into one act the powers and responsibilities of individual entities. In order to implement the proposed assumptions, the following main objectives strengthening the system for combating terrorist threats were presented:

(1) Defining the tasks assigned to particular entities.

(2) Development of skills and improvement of existing abilities to prevent and stop terrorist threats.

(3) Training and preparation of services, institutions and relevant entities in the event of a terrorism occurrence, not only on the national scale, but also the international one.

(4) Development of capacities and capabilities for responding in a proper manner in the event of terrorist threats.

(5) Improving the ability to use the forces and means established to prevent and combat threats of a terrorist nature.

(6) Verification of the modern anti-terrorist strategy and its optimisation in the face of emerging threats.

(7) Strengthening of international cooperation to combat and stop the spread of terrorism.

(8) Permanent training of counter-terrorist units, due to the evolution of terrorist threats.

(9) Education and training in order to raise awareness of terrorist threats.

(10) Ongoing national and international cooperation to maintain the required level of national security (Michalczak 2016, 66–67).

The tasks and competences in the field of anti-terrorism and counter-terrorism have also been organised into one act. Among others, the duties of public administration entities have been amended and the powers of selected entities responsible for combating terrorism on the territory of the Republic of Poland i.e. officers of the Police, Border Guard, Internal Security Agency, soldiers of the Military Police or soldiers of the Armed Forces of the Republic of Poland have been assigned, delegated or increased. At the same time, the adopted law had been drawn in accordance with European Union law (Bill on anti-terrorism 2016).

2.1. THE COURSE OF THE LEGISLATIVE PROCESS OF THE ACT ON ANTI-TERRORISM OPERATIONS

The legislative process in Poland refers to all actions undertaken in order to adopt a law. The most important acts regulating the legislative process are the following: the Constitution of the Republic of Poland, the Standing Orders of the Sejm of the Republic of Poland, and the Rules and Regulations of the Senate of the Republic of Poland. The legislative process begins with submitting a bill in writing to the Sejm exclusively

by certain entities with the right of legislative initiative, i.e.: MPs, the Senate of the Republic of Poland, the President of the Republic of Poland, the Council of Ministers, and a group of at least 100,000 citizens with the rights to elect the Sejm (so-called citizens' initiative; art. 118 of the Polish Constitution). The bill is submitted with a justification (Standing Orders of the Sejm, item 34 section 2). It may concern not only enactment of a new law on matters that have not been regulated thus far, but also amendments to the law already in force (amendment). Bills are submitted in writing to the Marshal of the Sejm (Borski 2018, 39–56).

The main objective of the anti-terrorism act was to increase the effectiveness of the counter-terrorism system in order to eliminate emerging threats. It was also essential to adjust the new regulations to the standards in force in other EU countries. It was supposed to increase the level of security in the whole European Union, as well as combat cross-border threats occurring in some countries of Western Europe. Poland should have had appropriate tools for correct verification and analysis of terrorist threats and to counteract their occurrence. Equally important is the competence to respond in an adequate manner and deal with an attack's aftereffects. Before the adoption of the act on anti-terrorism operations, the regulations had been of a de-concentrated nature and had not guaranteed application of the adequate legal and organisational tools from the perspective of threats of a terrorist nature occurring in Europe.

The act on anti-terrorist operations was made public on 22 April 2016 on the platform of the Government Legislation Centre, and selected elements of the new regulation had already been discussed a month earlier on 24 March 2016 at a press conference of the Minister of the Interior and Administration Mariusz Błaszczak and Minister – Special Services Coordinator Mariusz Kamiński. The project was proceeded separately due to the urgent preparation of regulations caused by the intensification of terrorist activities in the world, including some Western European countries, as well as the need to ensure the security of the international events planned for July 2016, i.e. World Youth Day, the visit of Pope Francis to Poland, and the North Atlantic Treaty Organization summit (Act of 16 March 2016 on special solutions concerning the 2016 Warsaw Summit of the North Atlantic Treaty Organization in the Republic of Poland). The bill was authored by the Governmental Council for Special Services, operating at the Chancellery of the Prime Minister, in

cooperation with the Ministry of Interior and Administration. It was not decided to conduct public consultations of the bill.

The project was discussed by the Standing Committee of the Council of Ministers on 21 and 28 April 2016. The inter-ministerial Team for Terrorist Threats, chaired by the Minister of the Interior and Administration, was responsible for its draft. Subsequently, on 28 and 29 April, working meetings were held to agree on the bill at the Government Legislation Centre. Already at the Standing Committee of the Council of Ministers stage, the Minister of National Defence, the Minister of Digital Affairs, the Minister of Foreign Affairs, the Minister of Infrastructure and Construction and the Minister of Finance issued comments to the bill. Therefore, it was necessary to prepare yet another bill by the Governmental Council for Special Services. It was forwarded on 5 May to the Standing Committee of the Council of Ministers. The bill was adopted by the Council of Ministers on 10 May 2016.

Upon analysing the bill on anti-terrorism operations, as well as hearing comments from individual ministers, the Council of Ministers referred it to the Sejm. On 16 May 2016, the Marshal of the Sejm referred the bill on anti-terrorism operations and amendments to some other acts with executive order bills for first reading. After the first reading on 20 May, the bill was dealt with by the Administration and Internal Affairs Committee, as well as – for the purpose of issuing an opinion – the National Defence Committee and the Special Services Committee. On 8 June 2016, the second reading took place and the bill was referred again to the Administration and Internal Affairs Committee in order to examine the amendments and verify the recommendations made. The third reading was held at a meeting of the Polish Parliament on 10 June 2016. The law was passed with 279 in favour, 173 against and 10 abstentions. The law was referred to the Marshal of the Senate of the Republic of Poland on 13 June 2016, but the assembly did not table any amendments. The President of the Republic of Poland signed the act on anti-terrorism operations and amendments to certain other acts together with executive order bills on 22 June 2016 (Babiński 2016, 241–242). It was published on 24 June 2016 in the Journal of Laws under item 904.

It is worth considering the nature of works on the act. Its dynamics are certainly remarkable, especially when it comes to such an important

and dangerous phenomenon as terrorism. Such a great involvement of various entities and a quick legislative process once the approval by the Standing Committee of the Council of Ministers had been granted was important because of the need to maintain the state's security in conditions of terrorist threat in Europe (Babiński 2016, 243). At the same time, the urgency of adopting the regulation arose from the need to ensure security concerning the activities which were being planned at that time. As mentioned earlier, in July 2016, international-scale events were to take place, thus it is understandable that a special procedure would be adopted in order to maintain security. On the other hand, it is worth taking into account the international situation at that time, as it was changing rapidly due to the migration crisis, conflict in Ukraine and a number of attacks in Western Europe (especially in the French Republic.) An accuracy and meticulousness in drafting an anti-terrorism law would have to be of utmost priority. Due to special powers given to the services, as well the nature of emerging threats, the regulation would have had to be fine-tuned, as it would constitute the basis of the system for combating terrorism in the Republic of Poland. Moreover, as it results from the Regulatory Impact Assessment (RIA,) the bill was already drafted in 2006 by the inter-ministerial team for terrorist threats established on the basis of the ordinance 162 of the Prime Minister of 25 October 2006. The most appropriate means would have been to implement amendments in stages, starting from the implementation of the first ideas that emerged already 10 years prior (Olech, 2021). The combating terrorist threats system should have then been improved and strengthened on the basis of changes in the geopolitical security environment in Europe, adjusting it to the existing needs and requirements (this would have been done by constantly observing and analysing international threats and the situation in the European Union.) Modern legislation on combating terrorism, despite a very fast process of its adoption, in fact, came into being a decade ago, therefore some of its regulations will soon need to be amended. Apart from that, what also lacked were both scientific consultations with Polish experts and a realistic assessment of the situation in other countries threatened by terrorist attacks, such as the French Republic, together with the use of their experience in the fight against terrorism (Olech, 2021).

2.2. NATIONAL ANTI-TERRORISM PROGRAMME 2015-2019

The regulations of the anti-terrorism act comply with the National Counter-Terrorism Programme 2015-2019, which marks contemporary terrorist threats, presents determinants of the assessment of terrorism levels in Poland and ultimately sets out the functioning of the counter-terrorism system in Poland on the basis of the crisis management phases which include the following: prevention, preparation, response and reconstruction (Skomry 2010, 27–64). The main objective of the programme is to verify actions necessary to fight terrorist threats and thus to strengthen the anti-terrorism system by preparing the state for responses in case of threats of a terrorist nature (Cichomski and Więcek 2014, 313–327).

The Anti-terrorism Programme 2015-2019 complies with the premises and objectives of the Efficient State 2020 strategy, Long-term National Development Strategy – Poland 2030, The National Security Strategy of the Republic of Poland of 2014, the Strategy for the Development of the National Security System of the Republic of Poland 2022, The Europe 2020 Strategy, and complies with the guidelines adopted, among others, in the National Crisis Management Plan, The National Security Threats Report, and The Defense Concept of the Republic of Poland. The adopted premises and proposed solutions comply with the research and observations conducted by the Anti-Terrorism Centre of the Internal Security Agency. They define current threats on the basis of the obtained information and in connection with the dynamically-changing situation in the world. In addition, the level of terrorist threat in Poland is assessed on a monthly basis (Makarski 2010, 101). The Anti-terrorism Programme 2015-2019 has defined the budget needed to undertake the fight against terrorism and it amounted to PLN 12.9 billion in total[5].

The programme also defines international cooperation with such entities as: North Atlantic Treaty Organization (NATO,) the European Union (EU,) the UN Counter-Terrorism Committee (CTC,) the Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism (Moneyval), and the Global Initiative to Combat Nuclear Terrorism (GICNT).

[5] About 3 billion EUR.

3. MAIN AMENDMENTS TO THE POLISH LEGISLATION

The Act regulates amendments to 32 other acts, primarily defining new types of offences related to international terrorist activities. This is a response to increased migration to Europe and the growing threat from newcomers. Persons who are identified as foreign fighters (who do not have Polish citizenship and are suspected of terrorist activities) may be expelled from the territory of the Republic of Poland (Globsec, 2019). This is particularly important for terrorists who may treat Poland as a transit country, a point of monitoring operations carried out in other countries or as a place of refuge (Ptak, 2015).

The Act passed makes it possible for selected entities to take decisive action against individuals who pose a potential threat. Upon the request of the Head of the Internal Security Agency or the Military Counterintelligence Service, the Minister of Internal Affairs may expel from the country a foreigner suspected of conducting terrorist activities. Such measures were taken, among others, in relation to a 28-year-old Austrian citizen who was detained during the World Youth Day in Poland (Defence24, 2016).

It was significant for the proper functioning of the system for combating terrorist threats in Poland and the reordering of the existing organisational process of anti-terrorism and counter-terrorism activities to establish detailed tasks of the Internal Security Agency.

The agency was obliged to continually supervise the identification, detection and prevention of threats which could undermine the state's security and the continuity of its proper functioning (including threats to critical infrastructure, energy, water and sewage, heating and ICT systems and networks).

The legal solutions adopted in the act on anti-terrorism operations are to contribute to increasing the level of security of the citizens of the Republic of Poland and other persons present in its territory. The author characterises the legislation concerning fighting terrorist threats in the Republic of Poland and offers a kind of assessment of the functioning of the systems to counter terrorist threats and the emerging challenges.

Changes required to improve anti-terrorist activities are also identified, as the process of improving structures should be permanent. The evolution of terrorist threats requires a continuous response and the discussed act on terrorism is responsive.

3.1. FIREARMS USE UNDER THE ANTI-TERRORISM ACT

The act also regulates the use of firearms against the person making an assassination attempt, even if such an action will result in the attacker's death. This is a new provision that expands the operational range of the intervening troops. Thus far, Polish law had not regulated this matter. The current amendment is crucial for the services responsible for security. Although a shot can be fatal for the terrorist, it is permissible in order to protect defenseless people from unlawful violence or aggression. The decision to fire such a shot is made by the sharpshooter (if, in their opinion, such action is justified) or the officer in charge of an operation. Officers of the Police, Border Guards, Internal Security Agency, soldiers of the Military Police or the Polish Armed Forces have the right to special use of a weapon. However, the act does not provide a detailed definition of firearms: it only entails the use of any multiple-barrel firearm which fires one or more bullets (Gabriel-Węglowski 2018, 189).

The hitherto use of weapons had involved the use of a so-called "rescue shot" (or shot on command) against a potential terrorist. The divergences and doubts related to its use were so significant that the issue was reconsidered in the act on anti-terrorism operations in order to present new competences to officers (Pawlaczyk 2017, 193–204) undertaking counter-terrorism operations. This is a very significant regulation in connection with the continuing terrorist threat in Europe, allowing for the detention of the terrorists taking active actions in the territory of Poland. Nowadays, officers, engaging in activities in a dynamic environment, have powers to respond, should it be necessary for the effective prevention of crimes (Olechnowicz 2017, 33–42).

This solution made it possible to give considerable competences to the formations in charge of responding to terrorist threats, with full awareness and ability to carry out high-risk operations without fear of firing

a shot that could save the life and limb of dozens of citizens and the shooter himself (art. 23). If human life is at risk, every element of the system to counter terrorism – in this case the officer – must decide to do what is necessary and eliminate the threat (Stelmach 2016, 465–468). These measures may be taken if the following conditions are met:

- It is necessary to prevent a direct, unlawful and violent attack on human life or limb and to secure the release of a hostage.
- A shot from a firearm that would cause minimal injury to an opponent is not possible.
- It is necessary to take action to eliminate the assailant or to free a hostage when there is no other way to carry out rescue operations.
- Weapons must be used only against a person who has been identified as the aggressor, carrying out an attack or holding a hostage (Gabriel-Węglowski 2016, 191).

However, the special use of weapons may not be applied in the case of the protection of property – even though it may be a viable terrorist target – regardless of the value of that property.

The decision to take a shot raises doubts. Determining whether the person at the scene of the incident is a terrorist shall have to be rapid. A protracted decision may have an impact on human life. At the same time, a decision that is too rapid can deprive an innocent person of their life. An example worth mentioning in connection with the use of weapons to fight terrorism is the reaction of the French forces during the attacks at the Bataclan Theatre on 13 November 2015. Since the beginning of the terrorist attack (at 9:30 p.m.,) for almost three hours no counter-terrorist action took place, despite the emergence of specialised units (Research and Intervention Brigade - BRI and Recherche, Assistance, Intervention, Disissasion - RAID) in front of the building after about 50 minutes (assault on the bombers took place at 12:20 a.m., and 7 out of 8 terrorists were killed (Jalabi et al. 2015; Dupont-Aignan 2017).

The solutions adopted in the anti-terrorism act were significant for strengthening the powers of entities combating terrorist threats. The

regulations are crucial for initiatives ensuring the required level of security in the country and allow the forces to respond much more extensively, covering several levels of counter-terrorism operations. It will be crucial to translate theoretical recommendations into practical actions, when a rapid response is essential. Special shot is the ultimate method in the fight against terrorists, yet it has also been introduced for this purpose.

Given the circumstances, it is recognised that special use of firearms can primarily occur in two types of situations:

1. Actions taken by a "counter-terrorist group"[6] against persons (terrorists) in a specific location.

2. The (sharp)shooter's recognition that the terrorist is committing an attack on human life or health, which requires an immediate response (Gabriel-Węglowski 2016, 194).

3.2. SIM CARD REGISTRATION AS A CUSTOMER OBLIGATION UNDER THE ACT ON ANTI-TERRORISM OPERATIONS

An important solution regulated by the new legislation is the statutory obligation to register a SIM card (decommissioning of pre-paid telecommunications services) (art. 23). Mandatory real-name registration of a phone number is a significant element of stopping the emerging terrorist threats. On several occasions, terrorists in France and Belgium have contacted each other using recently-purchased SIM cards. Although the new regulation is described by many critics as a form of restriction of civil liberties, it is undoubtedly a key element strengthening security on the Polish territory. The information obtained facilitates the work of the investigating authorities and makes it possible to identify the perpetrators, which may multiply the chances of apprehending potential terrorists (The Act on Anti-Terrorist Activities).

[6] Police, Border Patrol, Internal Security Agency, Military Gendarmerie, Armed Forces, after: Act on anti-terrorism operations. Art. 23.

It is worth adding that telecommunications entrepreneurs are obliged to store and share user data at their own expense for a period of 12 months (data retention.) This is of utmost importance for counter-terrorist activities (Dąbrowski 2018, 265–266).

The de-anonymisation of persons with unregistered SIM cards is not novel in most European countries. While card registration systems vary and individual operators have their own requirements for the process itself, the policy remains the same. The purpose is to identify the SIM card owner. It should be taken into account that the restrictions introduced in no way affect the cost of using the mobile network, and registration can take place either at any point selling SIM cards, or online. Similar restrictions have also been introduced in Germany, the UK, Spain, Bulgaria and Hungary[7].

In the French Republic, operators also require registration, but with Lycamobile, for instance, one can bypass this protection by topping up the card and using the Internet. As a result, it is possible to make calls using phone apps such as WhatsApp or Facebook Messenger. Therefore, the introduction of the restriction into the Polish legislation was necessary (Act of 17 February 2005 on computerisation of activities of entities performing public duties). The next step should definitely be to verify the effectiveness of the measures taken. According to the figures regarding the situation, six months after the introduction of the mandatory registration of SIM cards in Poland, the number of false reports concerning explosive devices placed under public institutions decreased by 46 percent (from 249 to 134 reports). Meanwhile, the number of active cards decreased, with 6 823 million deactivations recorded (Adamska 2017).

3.3. AIRBORNE THREAT PREVENTION – USE OF UNMANNED AERIAL VEHICLES BY TERRORISTS

Article 39 of the anti-terrorism law is also of considerable interest as it gives the services the right to destroy or take control over unmanned ships, i.e. drones (Gabriel-Węglowski 2016, 39). This is currently the

[7] Timeline of SIM Card Registration Laws, "Privacy International" https://privacyinternational.org/long-read/3018/timeline-sim-card-registration-laws [accessed: 28 October 2019].

least recognised operational method undertaken by terrorists, and at the same time – highly lethal. It allows for the use of a 22-inch diameter unmanned vehicle carrying a bomb or bacteria (A. Fellner, Mańka, R. Fellner 2016, 35–40). Therefore, such a use of drones must be considered in an anti-terrorism concept within terrorist threat prevention. The technological development causes an increasing number of dangers to arise from anonymous attacks on the state's strategic objects (Tanchum 2019, 1–6). According to the provisions of the act, an unmanned aircraft, including a flying model, may be destroyed, immobilised or the control over its flight may be seized.[8] Thus, threats to the Republic of Poland have been redefined due to the dynamically changing international situation in the area of security.

[8] The officers of the Police, the Border Guard, the Government Protection Bureau, the Internal Security Agency, the Intelligence Agency, the Central Anti-Corruption Bureau, the Military Counterintelligence Service, the Military Intelligence Service, the Customs Service and the Penitentiary Service, guards of the Marshal's Guard, soldiers of the Military Police and the Armed Forces of the Republic of Poland as well as employees of specialist armed protection formations are entitled to destroy or immobilise an unmanned aircraft or take control over its flight.

4. NEED FOR AMENDMENTS TO THE ACT

Due to the importance of coordinating operations aimed at combating terrorism, some of the provisions of the act on anti-terrorism operation, in the author's opinion, must be called into question:

- No instructions or guidelines on how to supervise, update and monitor terrorist threats have been included. These assumptions should constitute the basis for the implementation of counter-terrorist activities, as they possess the most important function of the system for combating modern-day and future terrorist threats.

- The act provides no definition of coordination, which is extremely important during the implementation of activities, especially in legal circumstances.

- The provisions of the act do not provide for a permanent process of coordination of the system for combating terrorist threats.

- There is no actual and reasonable description of the cooperation between the entities in regards to the information transfer. The act imposes an obligation, but does not indicate procedures, methods and tools.

- No attempt has been made to specify detailed methods of international cooperation to combat terrorism.

Thus, it is of utmost importance for the security of Poland to determine the direction of operations and cooperation within the framework of coordination of particular elements of the system for combating terrorist threats which are carried out by the designated entities (Liedel 2016, 451–452).

Michał Gabriel-Węglowski (2016, 38) indicates that the Act on Anti-Terrorist Activities does not refer in any of its Articles to operational intelligence activities undertaken by the Police or secret service, and, at the same time, does not expand the powers of the entities on the issue of stopping or fighting terrorism. As a result, there are no changes in this field that could significantly improve the actions taken to date which are

essential in countering terrorist threats. The new law should - by extending the powers of the security services - have a positive impact on the security situation in the country.

The act's lack of definition on when counter-terrorist operations begin and end has also been criticised. This notion is not equivalent to the introduction or termination of an alert (also CRP alerts.) It involves an ambiguous determination of the threat that may occur both when a terrorist attack happens and when there is a risk of an occurrence of such an offence. This depends on the circumstances of the event, which must be assessed and verified on an ad hoc basis by the persons appointed to be in charge of a situation of terrorist nature or an attempted crime (Gabriel-Węglowski 2016, 38).

Despite the irregularities presented above, it is worth pointing out that the act is considered by many specialists one of the best in the world and is put forward as a model counter-terrorism policy. Jukka Savolainen, The Director of Security at The European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE)[9] has stated that the legal solutions adopted in the Polish act deserve to be considered model and should contribute to the development of other legislation of the European Union's member states. As it is, the act integrates previously dispersed legislation covering the fight against terrorist threats.

[9] Hybrid CoE (Finnish: *Euroopan hybridiuhkien torjunnan osaamiskeskus*) is an international intergovernmental analytical centre with headquarters in Helsinki focused on responses to hybrid threats under the auspices of the European Union and NATO.

5. AMENDMENTS TO POLISH CRIMINAL CODE

The essence of analysing Polish legislation in regard to combating terrorist threats is primarily to determine what constitutes a crime. Although the Criminal Code does not contain a definition of a crime, in his studies, Lech Gardocki (2013, 29–41) proposes the following description: "a crime is an act (action or omission) of a human being, prohibited by law under penalty as a felony or a misdemeanour, committed intentionally or unintentionally, and socially harmful to a degree greater than negligible". Here, it is worth underlining the role of a human being, whose actions are decisive in the implementation of operations, including those of a terrorist nature, as well as the propensity to commit a crime is taken into account.

The anti-terrorism act has introduced a number of amendments to the Criminal Code (art. 2, 32 of anti-terrorism law). They have been essential for maintaining order in the country and constituted a tool for the detention and rehabilitation of potential terrorists. The regulations in the Criminal Code refer mainly to the responsibility for the preparation of acts of a terrorist nature and complicity in committing such offences. The legislation of 2016 clearly indicates organisational motives, such as crimes against humanity, financing of terrorism, crimes against security or freedom. By their specific nature, these provisions modify the principles of the Code of Criminal Procedure, presenting law enforcement authorities with tools to effectively search for perpetrators of crimes of a terrorist nature (Golik 2017).

Article 115 § 20 of the Criminal Code defines what a terrorist offence is, specifying it constitutes a criminal offence (including the threat of committing such an act,) punishable by imprisonment with the upper limit of at least 5 years, committed with the following intent:

(1) To seriously intimidate many people.

(2) To force a public authority body of the Republic of Poland or another state, or an international organisation body to undertake or abort specific actions.

(3) To cause serious disturbances in the system or economy of the Republic of Poland, other state, or international organisation.

It is worth noting that an unintentional crime cannot be defined as a crime of a terrorist nature. The essence of such an action is the specific intention, as well as the achievement of a planned goal (Golik 2017).

There is no doubt that a crime of a terrorist nature must have a directional intention. This means that the perpetrator takes action in order to achieve a specific goal. As such, according to Robert Zgorzały (2007, 66), the Criminal Code does not regulate the following issues:

1) Whether arrangements for a terrorist offence shall be penalized.

2) Whether the instigator and the aide to a crime triggering a terrorist attack shall be penalized.

3) How to qualify and describe a terrorist offence.

Article 110 of the Criminal Code regulates liability for offences committed abroad. Polish criminal law applies to foreigners who commit a terrorist offence abroad, directed against the interests of the Republic of Poland, a Polish citizen, a Polish legal person or an organisational unit without legal personality. In the cases indicated by the act, the Internal Security Agency, the Police and the Border Guard will have the right to take fingerprints, biological material used to determine DNA, as well as to record the image of the foreigner's face. This will be possible, e.g. in case of suspicion of illegal crossing of the Polish border or illegal stay in the country, and suspicion of being connected with events of a terrorist nature or participation in terrorist training.

Due to a multi-stage process of combating the financing of terrorism, it is important to dispense justice to those supporting such operations (Filar ed. 2016, 984-993). Article 165a § 1 of the Criminal Code regulates that the person who collects, transfers or offer means of payment, financial instruments, securities, foreign currencies, property rights or other movable or immovable property in order to finance a terrorist offence is subject to the penalty of deprivation of liberty from 2 to 12 years.

The essence of maintaining the security of the state is also to continuously educate the community regarding the punishable offences. In addition, it is worth emphasizing the need for involving the local community in cooperation with law enforcement authorities. All persons holding credible information about a punishable arrangement, attempt or execution of a criminal act or an offence of a terrorist nature, who will not immediately notify the authority appointed to prosecute the crime, are subject to the penalty of imprisonment of up to 3 years (art. 240 of the Criminal Code). All information which may be of significant value to the functioning of the system for combating terrorist threats is essential in the process of taking counter-terrorism measures.

Given the modern public availability of the Internet, social media and ease of contact via ICT networks, it was crucial to regulate the matter of sharing content related to terrorist activities. It follows from Article 255 of the Criminal Code that anyone who disseminates or publicly presents content which may facilitate the commission of a terrorist offence with the intent to commit such an offence is punishable by imprisonment from 3 months to 5 years. In addition, a person who, with a view to committing a terrorist offence, participates in arrangements which may enable someone to commit such an offence, shall be subject to the same penalty.

The legislator drew attention to the collective nature of terrorist activity. Most often, the assassins are part of a larger extremist group. The operations of a terrorist nature require the involvement of several members, and – if they are in a territory which is located far from the country where other assassins are stationed (e.g. Syria,) it is more difficult for them to undertake proper effective agency, but they can do so upon returning to their country. Therefore, attention was also paid to the nature of the undertaken journey (Lizis 2016, 58). Addressing the consequences for participation in an organised group, organisation or branch whose aim is to commit a terrorist offence is an important step in anti-terrorism legislation. The perpetrators of such activities are penalised by imprisonment from 6 months to 8 years. The person leading or forming such a group is punishable by imprisonment of not less than 3 years (art. 258 of the Criminal Code).

With open borders in the Schengen area, illegal migration and the prolonged conflict in Ukraine, which borders on Poland, an important regulation was Article 259 (of the Criminal Code), which pointed out that persons who cross the border of the Republic of Poland in order to commit a terrorist offence on the territory of another country are subject to the penalty of imprisonment from 3 months to 5 years. Law enforcement authorities offer extraordinary leniency to persons who reveal to them all essential circumstances of committing an act, or prevent an intended crime from happening (e.g. by acting in a terrorist group.)

According to Polish legislation, an act of terrorism is not an act of detonation of an explosive device carried out by an undetermined perpetrator whose aim is not to force a certain action from the state authorities and society, but to cause damage to the insured person's property (Judgement of 26 June 2003…).

6. ASSESSMENT OF THE IMPLEMENTED ACT

In view of the importance of coordinating counter-terrorism activities, some of the provisions of the Act on Anti-Terrorist Activities should be challenged:

- It does not include dispositions and guidelines on surveillance, updating and monitoring of terrorist threats. These assumptions should be the basis for the implementation of anti-terrorist activities, as they are the key function of the system to counter contemporary and future terrorist threats.

- There is no definition of coordination in the Act, which is extremely significant when implementing actions, especially under legal circumstances.

- No permanent process for coordinating the system to counter terrorist threats has been put forward in the provisions of the Act.

- There is no description of the actual and legitimate cooperation between entities in relation to the transfer of information. The legislation imposes an obligation but does not indicate procedures, methods or tools.

- No attempt has been made to identify specific methods of international cooperation to fight terrorism.

For this reason, it is so important for the security of Poland to determine the direction of action and cooperation as part of the coordination of individual elements of the system to counter terrorist threats, which are carried out by previously designated entities.

The Act on Anti-Terrorist Activities does not refer in any of its Articles to operational intelligence activities undertaken by the Police or secret service, and, at the same time, does not expand the powers of the entities on the issue of stopping or fighting terrorism. As a result, there are no changes in this field that could significantly improve the actions taken to date which are essential in countering terrorist threats. The new law

should - by extending the powers of the security services - have a positive impact on the security situation in the country.

The failure of the Act to specify when anti-terrorist activities begin and end has also been criticised. The concept is not equivalent to the introduction or termination of an alert level (including CRP). This is related to the ambiguous definition of the threat that can occur both when a terrorist attack takes place and when there is a risk of such an offence being committed. This varies depending on the circumstances of the event, which must be assessed and verified on an ad hoc basis by those appointed to command during a terrorist situation or attempted commission of an offence.

In addition to the reservations raised above, it should be noted that all coordination tasks are currently vested by the Head of the Internal Security Agency. Thus, for terrorist attacks, which are usually unexpected, sudden and dynamic, and are commonly carried out in the city centre, an immediate response is required. Therefore, the major decisions regarding the first steps to be taken in response to a threat should be delegated to the provincial police headquarters.

CONCLUSIONS

The enacted law aims to strengthen the Polish anti-terrorism system by combining the operations of entities which are responsible for the prescribed areas of security. Individual provisions of the act are closely related to the rapidness and correctness of the issued decisions, which are linked with a long-term strategy for combating terrorism. The implemented regulations indicate the direction of changes in selected units. This will enable the development of intra-state cooperation aimed at increasing the effectiveness of current activities. The coordination and supervision allow for the acceleration of the decision-making process, which is of utmost importance in combating terrorist threats.

Modern legislation in Poland related to combating terrorist threats indicates progressive changes towards unification of national and international law. The ongoing legislative changes in other EU member states constantly affect the Polish legal order. Future international solutions will also constitute an important element in the process of further changes in the development of Polish anti-terrorist law.

It is extremely relevant to constantly analyse the changing situation in the geopolitical environment, not only in Europe, but also in other continents. Terrorist attacks and the methods employed by terrorists must be urgently scrutinised. As a result, it will be possible to implement a law in Poland which will enable the security services to take appropriate action to combat terrorist threats.

Countering terrorist threats has become one of the greatest challenges to the security of states and international organisations in the 21st century, not only because of the repetitiveness of attacks, but also due to governmental and military actions leading to the repression of individuals not associated with terrorist organisations. The test for modern governments is to ensure security in the state using available methods and means, while respecting human rights. The activities of the police, secret service, army and other bodies assigned to the fight against terrorism must be subject to legal regulation, which in the case of anti-terrorist (counter-terrorism) operations must ensure the security and fundamental rights

of citizens. This is an issue that requires a re-examination of the legislation in relation to existing terrorist threats.

Contact:

Aleksander Olech, PhD
Expert
Defence24
Poland
Visiting lecturer
Baltic Defence College
Estonia
E-mail: aleksander.olech@baltdefcol.org

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GEOSPATIAL CRISIS INDEX – USE OF MASS DATA IN SECURITY GEOGRAPHIC ANALYSES IN THE HUNGARIAN DEFENCE FORCES IN THE FUTURE

Péter Balog, MSc

Doctoral School of Military Sciences
University of Public Service
Hungary

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ABSTRACT

Security geography examines the military geographical factors that influence the security system and environment of an area, its method of investigation is rooted in geography. The analysis is based on the collection of information from open sources. The related databases to this are a rapidly changing data set, so its analysis shows only a current state, but if the data set is large enough, it is considered mass data, which may be suitable for drawing new correlations and conclusions for the future. The geoinformation analysis system under development applicable to the security geographical analysis continuously collects data for a limited area of interest, considering predefined variables. The collection of data is basically done based on algorithms, from continuously produced data from diverse sources and forms. The above-mentioned results can be obtained by continuous and rapid comprehensive analysis of these datasets. The results can be used in the decision-making process, and supplemented with human analysis.

INTRODUCTION

At the beginning of my article, I would like to clarify what I mean by the security geography support of the Hungarian Defence Forces, later I will examine how mass data can be used for this, in the present and in the future. I will examine the information that can be obtained from open sources, its role in geoinformation support, the types used, and method of application. Finally, I present the geospatial analysis system under development and the related geospatial crisis index.

The leading and managing body of military geospatial support in Hungary is the Geoinformation Service of the Hungarian Defence Forces (HDF). I am the Head of Military Geography and Training Department of this organisation. At the same time, I am a student at the Doctoral School of Military Sciences of the National Public Service University, where my research topic is the possibility of developing geospatial evaluation and analysis systems for the security and defence geography analysis of Crisis Zones in the Area of Interests of the Hungarian Defence Forces.

The aim of the geospatial support is to provide the organisations of the Hungarian Defence Forces with all the geospatial materials, information, and data essential for their activities, to provide the geospatial data of the areas necessary for the execution of the given tasks both during peace tasks and during crisis response or war operations, thereby contributing to the geospatial support of the activities of the allies.

This activity includes the production and acquisition of cartographic and military geography materials and data, as well as meteorological information, their timely delivery to HDF and NATO organisations, and preparation for the use of materials and information. Being landlocked, Hungary does not collect oceanographic data, therefore, „GEOMETOC" (Geospatial, Meteorological and Oceanographic) data is limited to „GEOMET" in the country.

I have examined the following hypotheses during my doctoral research so far.

- Can military geographic factors and their methodology be used for security geography analysis as part of a geospatial analysis system?

- Does the mass data available provide the quantity of spatial data suitable for such a geospatial analysis system?
- How should we plan the geospatial analysis to support military personnel?
- How can we delaminate the area to be analysed?

1. SECURITY GEOGRAPHY

Security is the absence of a threat (Gazdag and Remek, 2018, p. 17). Security geography examines the totality of military geographic factors that affect the security system and environment of a given area (Siposné Kecskeméthy, 2019a). Military geographic analysis uses a basically territorial, military, and strategic division in its analysis at tactical, operational, and strategic levels. Although there are Regional Security Complexes based on geographical proximity in the context of security geography analysis, which Buzan and Wæver say is a group of states whose security-related problems are closely interlinked, the spectrum of security threats is examined in a complex way, security complexes are being developed (Buzan and Wæver, 2003, p. 44).

Marton introduces the concept of a question-specific security complex, where security complexes are based not on territorial but on causal events (Marton, 2019). According to him, spatiality cannot be drawn for all security complexes, although it does not call the role of geography or maps into question, their role in depicting certain geographical sources, pathways and mechanisms still remains. He says the definition of a threat within a security complex can be geographically or causally debatable, and can exist from multiple legitimate perspectives (Marton, 2019, p. 121). It does not deny the geographically based relationship, it just doesn't satisfy it. This idea is also based on the opinion that certain elements of a threat form spatial boundaries with each other, so there is a geographically mappable spatial connection between them.

Both security geography and military geography are rooted in geography, so it can be stated that security geography analysis includes military geographic factors, such as geographical location of countries, physical geography, socio-political conditions, economic, transport characteristics, military, national security information, history, ethnic and armed conflicts in the country (Siposné Kecskeméthy, 2019b), only the approach of the analysis is different. It is important to mention here that some of the threats, armed and, especially ethnic conflicts are not necessarily limited to a country, so sometimes for these analyses we need to use other kinds of delimitation than administrative boundaries. Military geography helps us to delimit the crisis area, and the Military Security Strategy (Hungarian Government, 2021) derived from the National

Security Strategy (Hungarian Government, 2021) helps us to identify threats. During the security geographic analysis and geospatial assessment, we perform the expert work that gives the result.

1.1. DIMENSIONS OF SECURITY GEOGRAPHY AND DATA

There are social, environmental, political, economic, military and IT dimensions of security, so these are examined and analysed by the respective sub-science of geography dealing with them (Gazdag and Remek, 2018, pp. 21–24). Nowadays, in the age of unlimited warfare, it is difficult to define where the battlefield ends and where the area that is no longer part of the battlefield begins. Geographically relevant, mainly natural areas (terrestrial, marine, aerial and cosmic), social spaces (military, political, economic, cultural and psychological) have become operational dimensions as well – forming more dimensions, so it is considered more like a battlespace than a battlefield. Respectively, the cyberspace connecting geo and social spaces has all become an operational dimension (Szenes, 2017, p. 90). Attacks that threaten security can no longer be characterised simply by occupying or retaining territory.

The information and data used for security geographic analyses can all be linked to the Earth and its immediate surroundings, it refers to its immediate environment, in our current terms these are all geospatial data. There is no difference between the safety geography and the geospatial analysis in the location of the examined area, only in its size and delimitation, similarly there is no difference in the available data, only in the methodology of processing.

The Hungarian Defence Forces should use a geospatial-related dataset to ensure the security of Hungary in security geography matters derived from and in conformity with Hungary's National Security Strategy (Hungarian Government, 2020). See chapter 3.2 for details.

1.2. SECURITY GEOGRAPHY AND GEOSPATIAL INFORMATION

Geospatial information is "a set of spatial data and information about the Earth and its immediate surroundings" (Kállai, 2019a). All factors that have a geographically relevant security dimension or have an impact on geographical and social relations that may influence the outcome of a potential crisis, the possible course of armed conflict, must therefore be part of modern geospatial analyses. Different dimensions of security examine different sub-areas, yet together they affect the security of an area, so that a crisis area needs to be delineated and studied locally, regionally or globally, depending on the nature of the effect (Gerencsér, 2016, p. 21). This effect may vary, as mentioned above, social, environmental, political, economic, military and IT dimensions of security are differentiated.

We needed a large dataset to be collected for this study. All data from publications intended for wider use should be obtained from an open source to avoid classification. In addition to the use of printed sources, the Internet and open-source information gathering provided excellent opportunites.

2. OPEN-SOURCE RECONNAISSANCE

The Geoinformation Service HDF uses publicly available databases and resources, especially when preparing publications of the Military Geography and Training Department, all of this data is collected by the method of Open Source Intelligence (OSINT).

OSINT is an intelligence using open, non-secret (meaning freely accessible, usable and downloadable) public, accessible resources (Kovács, 2019). The point is that the data is publicly available to all individuals through legal means, possibly with limited dissemination, but not classified information. The exploration, collection, selection, analysis and evaluation of the use of this data for professional purposes is covered by open-source reconnaissance. There are several advantages and disadvantages to this.

The advantage of OSINT is that, besides such information, especially spatial data, has never been available before (Olasz, 2017, p. 12), a large amount of information can be obtained in a relatively cost-effective way (Dobák 2019 p. 87). Of course, it is not enough to collect this data, the information must be filtered, selected, organised, analysed and evaluated, always according to the defined purpose. This can be a disadvantage as it slows down the process, requires professional qualifications and experience, along with continuous training and organisation. Likewise, too much information can be a disadvantage if not handled properly. The need to know everything about everyone may be an expectation, but it is unachievable. As Karcsai (2021) demonstrates the problem "It is like a pizza: basic information, as topographic background (pizza dough) and technical data (tomato sauce) are musts, but all other information (just as all kind of toppings) cannot or can hardly be placed on a map (the pizza dough)." However, it is a rational need to collect all this information and, after a suitable professional selection, analyse and display it to the required extent.

There are three types of open source data that shall be clearly distinguished, They are (1) open source data, which means a raw document or knowledge that can be provided by primary sources like a photograph etc., (2) open source information, which means data processed, collected, selected, and evaluated according to a given approach, and

(3) open source information acquisition, which is the procedure itself, when information is obtained from openly available sources, in order to achieve a specific goal. During the activities carried out at the Military Geography and Training Department of the Geoinformation Service HDF, the given approach is to strive for the implementation of geoinformation support, to ensure the objective, relevant, current – in space and time – and accurate preparation of military geography materials and publications. This means simultaneously supporting the preparation of text publications and the construction and maintenance of geospatial databases.

It is necessary to prioritise, to be able to determine which of the available data should and can be used for the given task - which is relevant. To filter out what we know, and what may be useful to us later, but we don't take into consideration now. This also requires experience and qualifications, but the development of competent professional skills (IT solutions, experts, analysts) requires additional resources. In addition, we can – and we have to – sort through the data. Multiple matching data can be confirmed if multiple independent sources contain the same information, it can make the data more authentic, but care must be taken because redundant storage can tie up excess capacity. The availability of metadata, secondary information assigned during processing, is potentially essential in this regard, potentially for anything we consider important to associate it with, it also provides data retrieval.

If we follow the above concepts, we will carry out the process of searching for, collecting, selecting, evaluating and using data within the activities of OSINT. It is worth mentioning that we do this from open sources so that publications made from them are not classified and available to the target audience. The importance of OSINT connected to cyberspace is becoming more and more decisive, and the ability to analyse mass data files also provides an extraordinary opportunity for the Hungarian Defence Forces. At the same time, the time factor has become one of the most important elements of OSINT, which is an indispensable factor for quick decision-making in addition to credibility and control (Dobák, 2019, p. 87). Of course, OSINT does not replace the collection of secret information, but it complements and orients it, and may even replace it in the preparation of geospatial-related publications, depending on the target task.

3. TERRITORIALISATION OF DATA AND EVER-CHANGING GEOGRAPHICAL SPACE

The interpretation of space is constantly changing, becoming multidimensional, in English terminology the term "battlespace" is used much more than "battlefield". The military science approach and definition of space is also changing. Anything that has a spatial or geographical relevance can be interpreted as space. Geography is an unavoidable factor for warring parties. The mode of warfare, the forms and methods of application of the armed forces, depend crucially on the factors influencing its implementation (Szendy, 2017, p. 106). These factors are realised in space, so in all five dimensions of the new battlefield concept – land, air, sea, cosmic, information (Szenes, 2017, p. 97). Time also has an increasing role: the significance of having immediate access to real-time information has become more vital than ever. We need information about everything, and we need it now. It influences the warring parties, shapes the weapons used, and increasingly resolves conflicts. The analysis of the characteristics, determining the essential properties, components and relations of the space, and the analysis of the data collected by the methods of the examination of military geography is the task of the geospatial evaluation (Kállai, 2019b). After data collection, the totality of military geographic factors is examined by security geography, which determines the security system of a given area and its surroundings (Siposné Kecskeméthy, 2019a) both horizontally and vertically.

3.1. OPERATIONAL SPACE

"However, a network-centric military operation is not a substitute for the professional (military) knowledge and preparedness of commanders and soldiers. In other words, we can only pass on so much information to decision-makers that they have an accurate understanding of the situation, not more" (Szternák, 2008). The space known in this way is the operational space, which, contrary to the "traditional" battle areas has no dimensionally, but rather, technical limits. Thus, the operational space is the cognitive space of the geographical space that has been specially learned and processed by decision-makers and executives for a given level of operation and activity. This operational space and military

activity interact, shaping each other dynamically, as the operational space is the one where planned and ongoing military activities take effect. Geospatial information analysis is a tool for cognition and processing of it. In the context of the security space of Hungary, operational space should be understood as any potential armed conflict areas, most importantly in the area of Hungary itself and in the bordering countries in order to assist that the safety of Hungary, even in the worst-case scenario, could be guaranteed."

Hungary published a new National Security Strategy in April 2020 and a new National Military Strategy in June 2021. According to this mass migration is a key issue in Hungary. The armed forces participate in international crisis-management missions, most importantly in the Balkans and Iraq, approximately 1200 Hungarian officers are deployed on international missions. (The Military Balance, 2022). Moreover, Hungary is sending officers to the Sahel region and the Iraqi mission of the national defence has also been extended. In the second half of 2022, the Hungarian Defence Forces will also perform the airspace policing tasks of the Baltic states. In addition, Hungarian soldiers serve in Kosovo, in the NATO-led KFOR peacekeeping force, in Bosnia-Herzegovina, in Cyprus, in the UN mission, officers perform observation tasks in Georgia and Western Sahara, perform training and preparation tasks in Mali, and Hungarian soldiers are present in Kuwait and also in Lebanon. These mission areas are also regarded as possible targets of geospatial-related crises analyses.

4. ROLE OF MASS DATA IN GEOSPATIAL INFORMATION ANALYSES

Gartner is a global research and consulting firm that provides information, advice, and tools in areas such as IT and communications. According to them Big Data – in this article I regard mass data the same in volume and nature – is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision-making, and process automation (Gartner Glossary, 2021). This means capturing, processing, analysing, sharing, and visualising unprecedented amounts of mass data from a variety of sources.

The amount of data available exceeds the capabilities of commonly used data capture and processing software. According to the most common definition, this kind of spatial mass data is characterised by three things: quantity, speed, and variety (Laney, 2012). It means that a huge amount of data is available that is generated continuously and quickly, and all of this is usually unstructured (Szűts and Jinil, 2016, p. 11).

4.1. SPATIAL MASS DATA

Studying the geospatial analysis system under development is part of my doctoral research. Analyses discussed in this article are derived from the results originating from the system as well as the developments made to it. All geo-related spatial data and specific sources for data collection had to be accurately determined before the developing process, through the system plan. The database should be large enough to draw appropriate conclusions, however, an agreement on the definition of the term "large" has not yet been reached. Potentially the whole internet is a dataset, and the developed system should analyse it regarding the respective crisis phenomena.

Spatial data in the traditional sense, such as vector and raster data, have also undergone tremendous development, encouraged by the development of data collection software. Data collection time has been shortened and the amount of data surveyed at one time is increasing, largely due

to new generation technologies, such as the Unmanned Aerial Vehicle (UAV) used for remote sensing, aerial surveying or orthophoto, the Remotely Piloted Aircraft (RPA) and laser-based remote sensing, LiDAR (Light Detection and Ranging) (Olasz, 2017, p. 12). Analyses show that the amount of newly or repeatedly generated digital data reaches 44 zettabytes (1 zettabyte = 44×10^{21} byte). However, only about a third of the data set created in this way is suitable or worthy of analysis, so most of the data we create, and store is not useful in this sense (Gantz and Reinsel, 2012).

As the available data increases, the processability of the data does not keep pace. The rate at which supercomputers are being built cannot keep up with user demand. The analysis of the data after the data collection and the publication of the knowledge is not fast enough compared to the amount of data received, therefore pre-processing, data preparation, coordination of data and information from different sources and, if necessary, targeted data collection plays a particularly important role.

One of the key elements in processing, in addition to relevance, is speed. Spatial mass data is always linked to a well-defined geographical location, furthermore, it can be originated from very different sources and in very different formats. This data needs to be cleaned, filtered, analysed and published in a very short time as expected (Olasz, 2018, p. 33). In spatial mass data technology, reliability, connectivity, value, and display characteristics are paramount when analysing spatial data (Olasz, 2018, p. 34). Collecting and characterising spatial data alone is not enough, Shekhar said in a 2012 presentation that "location-aware datasets are of a size, variety, and update rate that exceeds the capability of spatial computing technologies" (Shekhar et al, 2012).

All data, especially the data used for urgent security geographic analysis, should be available almost immediately and should cover as accurately as possible the area and security factor we intend to analyse. Thus, we have reached the limit of the processing capacity in the possibility of quantitative data collection, it does not make sense to collect more data, or increase the processing volume, the pre-selection and the targeted data collection needs to be developed (Lee and Kang, 2015, p. 78). The geoinformation analysis and evaluation system that we are developing during my doctoral research uses the latter method.

Big Data – in this case mass data – is a huge data set that is created when using networked devices that change rapidly, so its analysis shows only a momentary state. If the data set is large enough, it may be suitable for a level of knowledge of a given process that can be used to formulate relationships that have not been explored with good efficiency or to draw conclusions for the future (Szűts and Jinil, 2016, p. 9).

The system to be developed continuously collects data for the delimited, given area of interest, considering the variables we have defined. The delimitation of the area can be done on an administrative basis – by designating country borders, regions, groups of countries – or by defining the specific security complexes in the case of cross-border natural and social phenomena, natural and/or social disasters, such as flooding or locust infestation and, as a most likely consequence of it, migration.

The data collection is basically based on algorithms, which were further supported by the spread of IoT (Internet of Things) tools and the resulting larger amount of data. The available database is often not a single database, but a set of data that is continuously produced from a variety of sources and formats, with the continuous, fast comprehensive analysis of which results can be obtained (Szűts and Jinil, 2016, p. 11).

4.2. RISK FACTORS TO BE EXAMINED

What could be the risk factors to be examined? According to Hungary's National Security Strategy (Hungarian Government, 2020), the key security risks which may affect Hungary, closely related to security geography, are the following:

- illegal migration
- unexpected armed attack
- financial and economic destabilisation of Hungary through diplomatic, information and intelligence operations
- cyber-attacks

- an act of terrorism in Hungary or against Hungarian interests abroad
- attempts to infringe on national sovereignty by depriving national decision-making powers
- sustained population decline, ageing population
- international economic crisis
- disruption of energy imports
- the establishment of a "failed state" in the immediate vicinity of our country or in our region
- revolutionary technological developments falling into unauthorised hands
- strengthening the influence of criminal organisations
- an attack or terrorist act against Hungary or the surrounding countries with weapons of mass destruction (nuclear, radiological, biological, or chemical)
- industrial accidents in Hungary or neighbouring countries
- an epidemic causing mass illness
- the formation of higher floods and extensive inland waters
- permanent water shortages due to global warming.

All geospatial information (as a minimum set) related to the above-mentioned crisis possibilities should be studied by the Hungarian Defence Forces to enhance Hungarian security in the best possible manner.

It is, therefore, necessary to provide the most probable results derived from the huge mass of openly available data as soon as possible, so that the command decision-making process can been shortened. I call this

result the Geospatial Crisis Index. It helps to decide which area is necessary to be analysed in more detail, and needs geoinformation assessment with the involvement of human resources, even with the help of experts from other related disciplines. The system, however, will not replace a detailed, human-intensive evaluation analysis, but precede it. It helps with prioritisation, so work can be more focused and thus more efficient.

During the conversion of text-based mass data into textual geospatial evaluation, the data is transformed and can be stored in a traditional GIS database after format conversion, but is not interpreted on its own. The data must be provided with metadata for the geographical location, socio-geographical database (Olasz, 2017, p. 19). It reduces the size of the database, the types of data to be systematised, and if the area is properly delineated and the risk factor is properly defined, the algorithm collects data in a targeted manner. It is not the processing time that is shortened in the first place, but the time of data collection – of course, this shortens the whole process.

5. GEOSPATIAL CRISIS INDEX

As part of the geoinformation analysis system under development, a new index is being developed. The Geospatial Crisis Index is a unitless numerical value issued by the geospatial assessment and analysis system used for the geospatial analysis of crisis areas. It is created by an algorithm-based methodology based on open-source data related to military geographic factors. It provides a benchmark that allows areas to be compared for a fixed risk factor, or to organise the factors into a hierarchy by fixing the area. This helps to shape the order of the analysis, speeds up the actual textual and map evaluation, reduces the need for human resources, and supports commanders in decision-making. The methodology of the algorithm-based definition of the crisis index, based on military geographical factors, is under development as well.

The target group of users of the Geospatial Crisis Index is primarily the professional staff of the Hungarian Defence Forces dealing with geoinformation, including those whose tasks include geoinformation evaluation but, as a consequence of it, the entire defence staff can enjoy the benefits of this innovation. At the commander level, the expectation is a quick, clear, essential product, accordingly, where the Geospatial Crisis Index along with other specific information and data such as thematic maps are useful tools in evaluation and, based on them, decision making.

5.1. SYSTEM PLAN OF THE GEOSPATIAL ANALYSIS SYSTEM

The system plan of the geospatial analysis system under development is as follows.

Crawler/spider:

- Downloads information from web pages into a Local Database.
- Based on existing, downloaded web pages, it searches for "similar" web pages using machine learning algorithms.

Processing engine:

- Extracts important information for the system from downloaded web pages.
- NLP – Natural Language Processing. Preprocessing involves preparing original text data for software to be able to analyse it, and for an algorithm to work with.
- ElasticSearch – It is a search and analytics engine that can be used to search any kind of document. Acts as a stable environment during the process of storing large amounts of data and content. In addition, this technology enables data retrieval and storage extremely quickly.
- Data reliability investigation and testing new data.

Administration interface (UI):

- Here one can set the search parameters, such as:
    - search terms
    - value limits
    - events to watch
    - territorial distribution
    - etc.
- Manages the source data:
    - a new source that can be added manually (typically, for example, a new web address)
    - existing data that can be modified or deleted
    - new, raw data can be uploaded

- ranks the sources (e.g., in terms of reliability).

Risk factor (Geospatial Crisis Index) calculation module:

- Weighs the processed data based on the parameters specified on the administration interface.
- Calculates the risk factor of the given area or event.

Display:

- Displays the parameters specified on the administration interface and the resulting risk factor in a way that is acceptable to users:
  - on a map
  - in a graph
  - external data requester, in a form that can be processed by a third party (ArcGIS).

The results of my research so far:

- The investigation method of security geography is rooted in geography, it examines the military geographic factors that influence the security system and environment of an area. Publications on it must be open materials to reach the target audience, so we use data from open sources to create them.
- After quality processing, i.e., selection, analysis, and evaluation of a sufficient amount of the available spatial data, a new opportunity will present itself for the preparation of security geography analyses based on geoinformation professional foundations.
- Algorithms can be applied to the momentary analysis of the ever-expanding, huge geo-information dataset regarded as mass data. This can be used in the commander's decision-making system, and prioritised before decision-making.

- The process is suitable for the analysis of the security geography risk of an area, even for hitherto undiscovered connections, or for formulating conclusions about the future.

The geoinformation analysis system usable for security geography analysis examined in my research continuously collects data for a delimited area of interest, depending on specified variables – geographical factors regarding the specified crisis phenomena. The data collection is basically based on algorithms, from a set of data that is continuously produced from diverse sources and forms, and the above results can be obtained through continuous, rapid comprehensive analysis.

CONCLUSIONS

The analysing method of security geography is rooted in geography, examining the military geographic factors that affect the security system and environment of a given area. This necessary territorial delimitation is the basis for the preparation of geospatial information analyses and evaluations examining the same factors. These publications must be open materials in order to reach the target audience, so we use open-source data to produce them. The risk factors to be considered in security geographic analyses can be created on the basis of the National Security Strategy, the delimitation of the operational space is the task of security geography specialists. After defining the area of interest and the crisis factor, we can perform the analysis and evaluation, and the Geospatial Crisis Index. The final concept of this, the finalised solution of the data processing algorithm and a working demo version of the whole geospatial analysis system is part of future research, and a topic for a future article.

The amount of spatial data available for this purpose today provides a new opportunity for quality processing – selection, analysis, evaluation – during the preparation of security geographic analyses based on geospatial information. Relying on the system created by the experts, the data for the given variables can be collected and used according to the purpose of the task. With regard to the ever-expanding, geospatial mass dataset, algorithms can be used for instantaneous analysis. This can be used in the command decision-making system to help prioritise. The process is suitable for analysing the geospatial security risk of an area, either to formulate unexplored correlations or to draw conclusions for the future.

REMARK

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Contact:

Péter Balog, MSc
Doctoral School of Military Sciences
University of Public Service
Hungary
E-mail: balog.peter@mil.hu

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