Disaster response mechanisms in EU and NATO¹

Andrzej Jacuch, Military University of Technology ORCID: 0000-0003-1013-6107

Abstract

The objective of this article is to identify, analyse and assess the European Union (EU) and NATO's roles in international disaster response operations. The article adopts a broad approach and deals with mechanisms that could apply to so-called "natural" and "man-made" disasters. It considers instruments that may contribute to fulfil the rights of people stricken by disasters in Europe and beyond. The use of NATO's disaster response capabilities has drawn limited attention in scientific literature so far. The main hypothesis stipulates that NATO provides added value in international disaster response in relation to the United Nations (UN) and EU actions. NATO with its transatlantic dimension and its military capabilities can assist when a stricken nation, its neighbours and/or other international organization(s) capacity or measures cannot cope with the potential negative consequences of a natural or man-made disaster. However, EU and/or NATO disaster response actions do not substitute a stricken country actions but complements their efforts in this area. **Keywords:** Disaster response, EU, NATO, UN.

Unijne i natowskie mechanizmy reagowania na katastrofy

Streszczenie

Celem tego artykułu jest określenie, analiza i ocena roli UE i NATO w międzynarodowych operacjach reagowania na katastrofy. W artykule przyjęto szerokie podejście i omówiono mechanizmy, które mogłyby mieć zastosowanie do tak zwanych klęsk żywiołowych i katastrof spowodowanych przez człowieka. Rozważa się w nim instrumenty, które mogą przyczynić się do realizacji praw osób dotkniętych klęskami żywiołowymi w Europie i poza nią. Wykorzystanie zdolności NATO do reagowania na katastrofy przyciągnęło dotychczas ograniczoną uwagę w literaturze naukowej. Główna hipoteza przewiduje, że NATO zapewnia wartość dodaną w międzynarodowym reagowaniu na katastrofy w odniesieniu do działań ONZ i UE. NATO ze swoim wymiarem transatlantyckim i potencjałem wojskowym jest w stanie pomóc, gdy poszkodowany kraj, sąsiedzi i/lub inne organizacje międzynarodowe nie są w stanie poradzić sobie z potencjalnymi negatywnymi skutkami katastrof naturalnych lub spowodowanych przez człowieka. Przy czym działania UE i/lub NATO w zakresie reagowania w przypadku katastrof nie zastępują działań państw dotkniętych katastrofą, lecz stanowią uzupełnienie ich wysiłków w tym obszarze. **Stowa kluczowe:** Reagowanie na katastrofy, UE, NATO, ONZ

¹ This article reflects the personal views of the author and does not represent the views of any institution or organisation.

We are facing an increasing number of natural and man-made disasters, which generate great social and economic costs. When disasters strike, local authorities, civil societies and governments should assist affected people and restore essential public services, like water and food supplies, transports, communication and healthcare as well as in longer term rebuild destroyed infrastructure and environment. However, disasters often overwhelm national coping capacities. In these cases, the assistance of foreign and international actors is critical to ensuring that humanitarian needs are promptly and adequately met.

In the period from 1998 to 2017 only climate-related and geophysical disasters killed 1.3 million people and left a further 4.4 billion injured, homeless, displaced or in need of emergency assistance. Direct economic losses were valued at US\$ 2.908 billion. As for France, Germany and Italy these losses for the period are respectively 43.3; 57.9; and 56.6 in billion US\$. Flood; storm; earthquake; extreme temperature; landslide; drought; wild-fire; volcanic activity; and mass movement (dry) are responsible for most losses (CRED 2018; p. 4).

The CRED report, which focuses on hydrological, meteorological and climatological events, finds "That human cost is there for all of us to see in the alarming numbers of people who are now internally displaced every year by disasters, often losing their homes and their livelihoods, in extreme weather events and earthquakes" (CRED 2018: p. 1).

Disasters in addition to direct damages have also significant macroeconomic effects. "A disaster's initial impact causes mortality, morbidity, and loss of physical infrastructure (residential housing, roads, telecommunication, and electricity networks, and other infrastructure). These initial impacts are followed by consequent impacts on the economy..." (Cavallo, Noy 2009: p.14). Natural disasters have negative short-run economic impacts. Disasters also have adverse longer-term consequences for economic growth, development and poverty reduction. But, negative impacts are not inevitable. Monitoring, preparedness, national and international disaster response and management can reduce these impacts. These negative impacts are partially mitigated by insurance coverage. However, "Insurance coverage regarding floods and geophysical hazards is far from sufficient in quite some EU Member States" (Perrels et al. 2014: p. 4).

In 2017 there were 301 disaster events, of which 183 were natural disasters and 118 man-made disasters worldwide according to the Swiss Reinsurance Institute Sigma estimates. The costs of those disasters are enormous in term of killed/dead, injured, displaced, homeless and in economic terms. The EU has seen a wide range of natural and ecological disasters. In 2017, over 200 people were killed by natural disasters in Europe. In Portugal alone, forest fires in 2017 resulted in at least 66 deaths and 204 injured people and the direct economic damage was estimated at close to EUR 600 million, representing 0.34% of Portugal's Gross National Income. For the first time in history, significant fires occurred in Sweden and Germany in 2018 leading to deep concerns that climate change is impacting civil security in ways previously not seen (Lamos, Ketelsen 2018). In many situations the resources available to the state have been inadequate and the only solution has been to call the international community for help.

Therefore, the question should be asked whether we can improve disaster response by using international capabilities? What international disaster response mechanisms are available in Europe? This also requires answers to questions such as: How can NATO contribute to this effort in Europe? Are there instruments facilitating vital transport/ speeding up the delivery of assistance in Europe?

The use of NATO's disaster response capabilities has drawn limited attention in scientific literature so far. However, the International Federation of Red Cross and Red Crescent Societies lists NATO capabilities as mechanisms available at regional level in Europe (IFRC 2007).

The IFRC's study outlines existing legal frameworks related to international disaster response at the global, regional, bilateral and national levels. It quotes literature in areas of international law relevant to disaster response, presents analyses of relevant law and legal issues, and finds that "... bureaucratic barriers to the entry of relief personnel, goods and equipment and the operation of relief programmes, as well as regulatory failures to monitor and correct problems of quality and coordination, can undermine aid effectiveness" and that these "legal barriers can be as obstructive to effective international disaster relief operations as high winds or washed-out roads" (IFRC 2007: p. 1, 8).

The IFRC' study also presents different "disaster" definitions, proposed in: Tampere Convention, 1998, art. 1; United Nations Department of Humanitarian Affairs (UN DHA), Agreed Glossary of Basic Terms, 1992; the Agreement Establishing the Caribbean Disaster Emergency Response Agency (CDERA Agreement), 1991 art. 1(d); Red Cross/Red Crescent and NGO Code of Conduct, 1995; International Space Charter, 1999, art. 1; and Framework Convention on Civil Defence, 2000, art. 1(c). It points that the international humanitarian community has adopted a broad approach to the term disaster in policy documents.

In 1992, an "Agreed Glossary of Basic Terms Related to Disaster Management" prepared by the UN DHA defined disaster as "a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using only its own resources." (IFRC 2007: p. 23)

The CRED defines a disaster as "a situation or event which overwhelms local capacity, necessitating a request at national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering; though often caused by nature, disasters can have human origins " (CRED 2018: p. 9).

In Europe, the international cooperation takes into account Article 222 (b) of the Treaty on the Functioning of the European Union ('Solidarity Clause'), which provides (inter alia) the option for the EU and EU countries to provide assistance to another EU country which is the victim of a natural or man-made disaster (Gatti 2016). The 2010 Internal Security Strategy added disasters such as forest fires, earthquakes, and floods to the list of European Union (EU) internal security concerns, expanding on the more traditional anxieties over militaries, border protection, and the effects of poverty (Leite 2015).

Further, there has been a lot of research focusing on the growing EU capacity to coordinate crisis management and on disaster response capabilities. Examinations of

these work show that the disaster response capabilities of NATO have been neglected. The goal here is to compare, bring together and synergize existing capabilities in EU and NATO. Thus, the article brings together the EU and NATO capabilities connecting the practice and scholarly study on disaster response in Europe.

The paper maps mechanisms available to manage disasters in EU and beyond, details the wide range of crisis management capacities, and assesses the levels to which these capacities have been used.

Governmental, non-governmental and international organisations play important role in assisting the population affected by disasters. This article focuses on the European Union (EU) and the North-Atlantic Treaty Organisation (NATO). There are fundamental differences in purpose, roles and capabilities among these organisations, however, they are committed to providing disaster response in a timely and efficient manner and to ensure assistance that meets the real needs in the population affected by disasters, whether in Europe, America, Africa or in other areas.

The UN is intergovernmental organization promoting international cooperation. It holds the primary role in the coordination of international disaster relief operations. The EU is primarily a political and economic union of European states. It may carry out disaster response, humanitarian and rescue missions, peacekeeping and armed missions for crisis management, including restoration of peace. The EU is an important player in disaster response.

NATO is a political and military alliance of USA, Canada, and the most of European countries. NATO's three core tasks are collective defence, crisis management and cooperative security. However, NATO has also a long track of achievements in disaster response. The many countries are members of both the EU and NATO. Both organisations share common values and strategic interests.

The article consists of three sections. The first one discusses the EU disaster response mechanisms, tools and activities and outlines the role of the United Nations and the Office for the Coordination of Humanitarian Affairs (OCHA). Sections two is dedicated to the identification and analysis of NATO's disaster response mechanisms, tools and missions.

The next section examines three NATO's disaster response operations, what demonstrates that NATO provides substantial added value to the EU and UN efforts in international disaster response. NATO's capabilities, including civilian and military assets and capabilities played an important role in providing humanitarian relief in these three operations.

There is also presented the Memorandum of Understanding (MoU), that facilitates vital civil cross border transport. If at least one more person is rescued in a disaster (inside or outside the EU) when the rescuers arrive in time thanks to the MoU described in the article, it will be an achievement, exceeding the importance of less practical theories. Knowledge, understanding - through scientific analysis - and further promotion of this instrument among policy and/or decision makers and first responders will contribute to its use.

In the research process qualitative research methods were used, including in the form of analyses, synthesis, abstracting, comparison, generalization and implication, as well

as conclusions. The review and analyses are based on rich empirical material: mission records, policy documents, archives online, media statements as well as practical work experience of the author, who contributed to the development of policy documents and legal instruments and supported disaster response operations.

The European Union Humanitarian Aid and Civil Protection

The European Union is very active in the field of helping victims of disasters worldwide. In doing so the EU respects the UN leading role in disaster relief coordination.

The UN role, as stated in the Chapter I of its Charter, is to maintain international peace and security, develop friendly relations among nations, achieve international co-operation and be a centre for harmonizing the actions of nations. It holds the primary role in the coordination of international disaster relief operations with its Office for the Coordination of Humanitarian Affairs (OCHA). The Office was established in December 1991 by General Assembly Resolution 46/182. The resolution provides that "...humanitarian assistance must be provided in accordance with the principles of humanity, neutrality and impartiality". As stated at the UN OCHA Website: "OCHA is the part of the United Nations Secretariat responsible for bringing together humanitarian actors to ensure a coherent response to emergencies. OCHA also ensures there is a framework within which each actor can contribute to the overall response effort." (General Assembly Resolution 46/182).

The EU and its member countries are the world's leading donor of humanitarian aid, for which the Treaty of Lisbon provides the legal basis (Official Website of the European Union, Humanitarian aid and Civil protection). Nevertheless, the EU committed to disaster response already in 1985, when Member States agreed to co-operate in the field of Civil Protection, including both the preparedness and the response in the case of major natural disasters (European Commission 1999).

The Maastricht Treaty in Article 3(t) authorized, among others, measures in the area of civil protection. On 19 December 1997, a Community Action Programme in the field of civil protection was established by the Council Decision. And in 2001, the EU established the Civil Protection Mechanism to facilitate reinforced cooperation in civil protection (European Council 2001). The key element was the establishment of the Monitoring and Information Centre (MIC) in Brussels. It operated as a centre for the dissemination of data and for early warning. The Centre assisted both within and outside the EU.

Since 2003, the EU has carried out military and civilian operations outside its territory as part of the European Security and Defence Policy. The Treaty of Lisbon in art. 214 specifies the EU role in providing assistance, relief, and protection to victims of natural or man-made disasters worldwide. It mandates the European institutions to outline the measures for such actions.

The EU is very active in the field of helping victims of disasters worldwide. The EU has worked in all major crisis areas: Syria, South Sudan, Ukraine, West Africa, the Central African Republic, and the Ivory Coast.

In 2013, the EU adopted the new Civil Protection Mechanism (CPM) (European Parlia-

ment and the Council 2013⁾. In 2014, it adopted the implementing decision on the CPM functioning (EU Commission Implementing Decision). The mechanism can be activated for any serious natural or man-made disaster within or outside the EU. The EU civil protection policy was merged with humanitarian aid policy into one Directorate General Directorate –General for European Civil Protection and Humanitarian Aid Operations (ECHO).

As stated at the DG ECHO Website: "The overall objective of the EU Civil Protection Mechanism is to strengthen cooperation between Participating States in the field of civil protection, with a view to improving prevention, preparedness and response to disasters. Through the Mechanism, the European Commission plays a key role in coordinating the response to disasters in Europe and beyond." Its devices are: the Emergency Response Coordination Centre (ERCC), that acts as a coordination centre between participating states – the affected country and experts; the Common Emergency Communication and Information System (CECIS), which is a web-based alert and notification application enabling real time exchange of information; training programme for civil protection teams; and civil protection modules (*European Civil Protection...* WWW).

The opportunity to participate in the Civil Protection Mechanism has also been granted to non-EU Member States. In addition to the EU Member States, Iceland, Montenegro, Norway, Serbia, the North Macedonia and Turkey take part in the Mechanism. Any country in the world can call on the EU Civil Protection Mechanism for help (*European Civil Protection...* WWW).

When disaster strikes the affected country's emergency response authority can activate the Mechanism. The affected state within and/or outside the EU may request assistance through the ERCC for the deployment of assistance resources. The states participating in the Mechanism may choose if and how to contribute. Once decided, they inform the ERCC of their decision through the CECIS, indicating the scope and terms of any assistance to be rendered.

Any country in the world stricken by a major disaster can make a request for assistance through the ERCC. The Centre analyses the needs, plans and execute the form and size of assistance that can be immediately deployed. The ERCC monitors emergencies around the globe on a 24/7 basis and coordinates the response of the participating countries in case of a crisis. It is active all year around.

The European Commission can enable delivery of assistance to the stricken country within a few hours by co-financing transport costs. It can also pool and consolidate shipments from various countries to the affected country, which boosts the efficiency of the European response.

The ERCC supports a range of prevention and preparedness activities, from awareness-raising to field exercises simulating emergency response.

The Centre has monitored over 300 disasters and has received well over 200 requests for assistance. It assisted in some of the most tragic disasters, including: the earthquake in Haiti in 2010; the disaster in Japan in 2011; typhoon Haiyan that hit the Philippines in 2013; the floods in Serbia and Bosnia and Herzegovina, the Ebola outbreak, the conflict in Ukraine in 2014; the earthquake in Nepal in 2015; the conflict in Iraq, hurricane "Matthew"

in Haiti in 2016; fires in Europe in 2017 and the refugee crisis (Jacuch 2017a: p. 170). In July 2018, Sweden has requested assistance, activating the EU Civil Protection Mechanism for the forest fires raging across Sweden. This assistance includes planes, helicopters and firefighting personnel from Germany, Lithuania, Poland, France, Italy and Portugal (*European Civil Protection...* WWW).

In November 2017, responding to the high number of recent emergencies the EU Commission announced new plans to strengthen the EU civil protection response to support Member States to better respond and prepare for natural and man-made disasters. This includes the creation of rescEU, a reserve of new civil protection capabilities, including forest fighting planes, special water pumps, urban search and rescue and field hospitals and emergency medical teams (European Commission 2017).

NATO's Involvement in Humanitarian Assistance/Disaster Response

NATO is not a major humanitarian actor. However, NATO has always placed great emphasis on the protection of civilian populations. Since its inception, NATO has understood not only the need for preparedness for war in the military area but also in civilian field, in civil defence. NATO's role in Disaster Assistance was described in a booklet issued in November 2001, which also gave examples of NATO's involvement in disaster response.

In early 50. NATO established the first civilian committees responsible for civil emergency planning, including the Civil Defence Committee to oversee efforts to provide for the civil protection, which later was renamed as the Civil Protection Committee. In 1953, NATO agreed a disaster assistance scheme recognising that the capabilities to protect populations during a potential conflict could also be used to protect them against the effects of natural or man-made disaster (NATO 2001: p. 5).

In November 1955, the field of emergency planning was further extended, and the Senior Civil Emergency Planning Committee was set up. The Chairman was the Secretary General, and the members, as a rule, those officials who are responsible for civil emergency planning in their own countries. By 1958, the North Atlantic Council (NAC) had established procedures for NATO's coordination of assistance between member countries in case of disasters, which remained in effect until May 1995 (NATO Civil Emergency Planning booklet 2001: p. 5). Then they were revised and became applicable also to Partner countries.

Later, NATO defined civil emergency planning as a basis for civil support to planning and conducting NATO operations; a catalyst for improving national resilience against all hazards, including the protection of populations and critical infrastructure; a platform for cooperation with partner nations; and a forum for engaging other international organisations.

NATO's involvement in disaster response and humanitarian operations has a long history. In 1953, NATO assisted Belgium and the Netherlands that were hit by storm floods. Until 1960', there were relatively few major disasters in Alliance member countries which exceeded national capabilities, and which required NATO coordination or assistance.

In May 1976, NATO's coordinated involvement took place in connection with an earthquake in Italy.

In 2000, the NAC decided on NATO CEP's five roles, which are: (1) Civil support for Alliance military operations under Article 5; (2) Support for non-Article 5 crisis response operations; (3) Support for national authorities in civil emergencies; (4) Support for national authorities in the protection of the population against the effects of weapons of mass destruction; and (5) Cooperation with partner nations (NATO Backgrounder 2006; p. 2).

These roles continue to be valid today, along with the decisions taken at the recent NATO summits, NATO focus shifted toward enhanced civil preparedness.

The NATO senior committee, the Civil Emergency Planning Committee (CEPC) directs four Planning Groups (PGs) covering eight functional areas: Transport Group, which covers aviation, inland surface transport and ocean shipping; Joint Health, Agriculture and Food Group; Industrial Resources & Communications Services Group; and Civil Protection Group. The CEPC and Planning Group members are representatives from national ministries. They maintain a pool of experts, interestingly, who are coming from private sector, academia and in some cases from administration (Jacuch 2017b: p. 139–140). The CEPC is responsible for carrying out all five roles, including civil emergencies as in roles 4 and 5. The Euro-Atlantic Disaster Response Coordination Centre (EADRCC) coordinates NATO's disaster response efforts. The EADRCC realises similar role in NATO like the ERCC in the EU.

The Euro-Atlantic Disaster Response Capability was created by the Euro-Atlantic Partnership Council (EAPC) on 17th December 1997. On 3 June 1998, the Euro-Atlantic Disaster Response Coordination Centre (EADRCC) started to operate. The EADRCC is NATO's principal civil emergency response mechanism in the Euro-Atlantic area. It is active all year round, operational on a 24/7 basis (*Euro-Atlantic...* WWW; Jacuch 2017b: p. 137). The other important tool is Memorandum of Understanding on the Facilitation of Vital Civil Cross Border Transport that is described later.

The EADRCC supports the NATO CEP's five roles. The Centre has access to the pool of civil experts maintained by the PGs. They can be called to provide the Centre with expert advice in specific areas in the event of a major disaster. These are international experts from industry, science and administration provided by nations, selected and trained, available free of charge at a short notice (Jacuch 2017b: p. 139–140).

The EADRCC is open for NATO Allies and Partners, the Mediterranean Dialogue Countries, the Istanbul Cooperation Initiative Countries, and the Partners across the globe.

The main tasks of the EADRCC include: coordinating the response of NATO and Partner countries; dealing with the consequences of Chemical, Biological, Radiological or Nuclear (CBRN) incidents, including terrorist attacks - this task was given to the EADRCC shortly after the tragic events of the 11th of September 2001, four coordinated terrorist attacks carried out by al-Qaeda against the United States; guiding consequence management efforts; information-sharing on disaster assistance; conducting annual large-scale field exercises with realistic scenarios; organizing seminars to discuss lessons identified from NATO-coordinated disaster response operations and exercises; organizing workshops and table-top exercises to provide training for local and international participants (Jacuch 2017a: p. 171).

The UN retains the primary role in the coordination of international disaster relief operations. The EADRCC activities are closely coordinated with other international organizations, including: the UN OCHA, the EU, International Committee of the Red Cross, the International Atomic Energy Agency, the Office for the Prohibition of Chemical Weapons, and the World Health Organization, etc. The EADRCC also cooperates with NATO Military Authorities.

The Centre complements and provides additional support to the UN role, the EU and other organizations efforts. The stricken country remains responsible for disaster management. The EADRCC has coordinating role, which takes place at government level.

The EADRCC acts only upon request. A request for assistance can be received from: a stricken NATO or partner nation; the UN OCHA; exceptionally from a stricken non-EAPC nation; and from other organizations working in the field of international disaster response. Next, and after receiving political guidance as appropriate, the EADRCC coordinates, in close consultation with the UN OCHA, the responses of countries to occurring disasters. It acts as a focal point for information-sharing on disaster assistance requests among member and partner countries and maintains close liaison with the UN, European Union and other organizations involved in international disaster response (Jacuch 2017a: p. 171).

Moreover, the EADRCC acts as a clearing house for information. The Centre prepares and circulates daily Reports. It also identifies outstanding requirements and possible solutions to them. It maintains the roster of pre-declared Inventory of national capabilities for CBR consequence management. One of EADRCC tools is the Euro-Atlantic Disaster Response Unit (EADRU), which is a non-standing, multi-national mix of volunteered national civil and military elements (qualified personnel of rescue, medical and other units; equipment and materials; assets and transport). When deployed they act in coordination and cooperation with the UN and other disaster response organisations. The EADRCC maintains an inventory of multilateral and bilateral agreements, in the area of disaster response, data on visa requirements, border crossing arrangements, transit agreements, procedures for customs clearance of disaster relief goods in EAPC countries, Points of Contact of customs authorities in EAPC nations, and agreements on the status of foreign relief personnel in EAPC area (Jacuch 2017a: p. 171).

Over the past years, the EADRCC has been responding to more than 60 requests for assistance from nations. These have included floods, forest fires, dealing with the aftermath of earthquakes, heavy snow, hurricane, outbreak of Ebola, pandemic flu, refugee crisis, and with other crises. These included requests in several cases from European Union countries, however mostly from non-EU European countries, and from US, Turkey, Pakistan, Central Asia, Middle East and West African countries. In many emergencies both the EU and NATO assisted to those stricken countries.

The Centre organizes workshops, table-top exercises and seminars on response to emergency situations to improve preparedness and capabilities of stricken and assisting nations, enhance interaction between allies and partners as well as between civilians and military. It also conducts annual large-scale field exercises with realistic scenarios (Jacuch 2017a: p. 173).

Use of military assets and capabilities in NATO's disaster response operations

Since 1998, the collective use of military capabilities under NATO command in a disaster response operation has happened several times. The use of military assets and capabilities available in the NATO's Structures can only be provided on request by the stricken nation or by an appropriate international organization and upon decision of the North Atlantic Council (NAC). NATO's policy for the use of military assets in response to humanitarian situations is in line with the relevant UN guidelines as the Guidelines on the use of Military and Civil Defence Assets (MCDA) in Complex Emergencies and the Oslo Guidelines.

Three operations are analysed below. These are: NATO's intervention in response to Hurricane Katrina in the United States in August 2005; NATO's assistance to Pakistan following the earthquake in Kashmir in October 2005; and NATO support to Monsoon Floods Relief Efforts in Pakistan in 2010. In the three cases the EADRCC played a central coordinating role in NATO's disaster relief. Finally, there is also presented a unique tool that facilitates vital civil cross border transport.

Hurricane Katrina

The EADRCC final report N° 15/2005 provides a detailed account of this operation. Hurricane Katrina displaced 770,000 residents. Its death toll was 1836 people. It destroyed or made uninhabitable 300,000 homes. Katrina damaged 19 percent of U.S. oil production (NATO EADRCC 2005).

On 3 September 2005, the USA sent a request for assistance to NATO/EADRCC. Next, the EADRCC dispatched its liaison officer to Washington. Twenty-three nations offered assistance directly to the EADRCC; twelve nations informed the EADRCC about their offers through the EU Civil Protection Mechanism. Additional four EAPC nations made their offers of assistance directly to the USA. In total thirty-nine EAPC nations provided assistance to the US.

On 9 September 2005, the NAC approved a transport operation to move donations from Europe to the United States. NATO established air-bridge from Ramstein, Germany to Little Rock, Arkansas. It delivered 200 tons of relief goods. With the completion of the NATO air transport operation on 2 October 2005, all donations accepted by US authorities were delivered (Jacuch 2017a: p. 174).

NATO's Assistance to Pakistan Following the Earthquake in Kashmir

The NATO EADRCC final report N° 23/2006 provides a detailed account of this operation. On 8 October 2005 a devastating earthquake hit Pakistan, killing an estimated 73,000 people and left up to four million people homeless in the affected area. In certain districts, 90 percent of the houses were destroyed, and all the school buildings collapsed (NATO EADRCC 2006).

On 10 October 2005, the EADRCC received from Pakistan an urgent request for assistance in coping with the aftermath of the devastating 8 October earthquake. In addition, the UN asked NATO for assistance in putting together its own relief operation. In response, the NAC approved a major air operation to bring supplies from NATO and Partner countries as well as from the United Nations High Commissioner for Refugees (UNHCR) to Pakistan. The NAC approved a two-stage Alliance response. The first stage focused on the air-bridge.

The EADRCC, acted as a single point of contact. The EADRCC worked in conjunction with NATO Military Authorities, Pakistan authorities, UN OCHA and the EU. The Centre coordinated all offers from NATO and Partner nations that requested NATO transportation assistance. The SHAPE Allied Movements Coordination Centre (AMCC) coordinated the execution of the movement.

NATO conducted air transportation through two air bridges, from Germany and Turkey. NATO Response Force (NRF) aircraft were used for repositioning aid supplies within Europe and in delivering aid directly to Pakistan, mainly UN goods from Turkey. A total of 42 EAPC nations aided Pakistan, either on a bilateral basis, through the EU Civil Protection Mechanism or through the EADRCC. In total, some 168 NATO flights delivered almost 3500 tons of relief supplies. The airlift came to an end on the 9th of February 2006. The NATO relief flights were the largest single contribution to the airlift relief effort. The NATO air-bridge was used by 19 EAPC and 2 non-EAPC nations and by the UNHCR, the World Food Programme, the UN OCHA and NGOs. NATO military liaison officers and civil experts augmented the EADRCC.

The second stage of the operation included NATO's deployed elements of the NATO Response Force: a headquarters command and control structure, engineering units, helicopters and military field hospitals. Altogether about 1000 NATO engineers and supporting staff as well as 200 medical personnel worked in Pakistan during the operation. NATO forces worked closely with both the government of Pakistan and the UN. The goday mission ended on the 1st of February 2006 (Jacuch 2017a: p. 175-176).

Pakistan 2010 Monsoon Floods

The EADRCC final report N° 24/2011 provides a detailed account of this operation (NATO EADRCC 2011). The 2010 monsoon floods in Pakistan were the worst in recorded history. They killed more than 2000 people and affected 18 million – more than a tenth of the population. An estimated 11 million people were made homeless because of the disaster. The floods destroyed hundreds of thousands of hectares of cultivatable land and crops in the traditional food-basket regions of Sindh and Punjab, and many farmers lost their seeds. And at least 1.2 million livestock died.

On 20 August 2010, in response to the request submitted by Pakistan, the NAC decided that NATO would, with immediate effect, commence flood relief support by means of airlift/sealift operations in coordination with other stakeholders engaged in the relief op-

eration. EADRCC was approved as a Clearing House for information sharing and donations coordination. NATO Civil-Military Assessment and Liaison Team went to Islamabad. As of 22 November 2010, which was the last day of NATO's air bridge to Pakistan, twenty-four humanitarian relief flights delivered 1019.55 tons of relief items. NATO donated to Pakistan an emergency bridging equipment (234 meters), delivered by a ship sponsored by Turkey in January 2011. The operation was terminated after 90 days (Jacuch 2017a: p. 176).

Memorandum of Understanding on the Facilitation of Vital Civil Cross Border Transport

The other important NATO's tool, which aims at improving the speed and efficiency of assistance to victims of humanitarian crises or disasters, is the Memorandum of Understanding on the Facilitation of Vital Civil Cross Border Transport (MoU). The MoU was agreed by the EAPC in September 2006 (NATO 2006).

The MoU has been developed under the supervision of the NATO SCEPC, which in 2010 was re-named to read Civil Emergency Planning Committee (CEPC), in close cooperation with the NATO Planning Board for Inland Surface Transport (Jacuch 2009).

The MoU is a multilateral instrument which provides the general framework for the facilitation of vital civil cross border transport movements across the territories of the signatories. It is applicable for the provision of humanitarian assistance in response to disasters, including those triggered by a Chemical, Biological, Radiological or Nuclear (CBRN) event.

The MoU does not constitute a legally binding agreement. It does not create any new regulations above the national or international legislation. It has several specific features that make it extremely suited for that purpose, in particular: the MoU aims at the speed-ing up and simplification of existing national border crossing procedures, and not at their abolishment; no new privileges and/or immunities are foreseen and/or requested for any of the participants in the relief operations; it includes a confidence-building measure by ensuring that full compliance with national regulations, bi- and multilateral agreements, international laws and conventions is recognized by Participants of the MoU.

The MoU is a multilateral instrument signed by individual nations. It does not create any new regulation above national as well as international legislation. The MoU has been signed and entered into force between more them 30 NATO Allied and Partner for Peace nations.

The MoU has been a significant achievement in improving international response to crisis and emergencies. In 2006, the MoU was released to the International Federation of Red Cross and Red Crescent Societies as well as to the Organization for Security and Co-operation in Europe (OSCE), UN-OCHA, and the World Customs Organization at their request.

The NATO MoU speeds up the delivery of disaster response, provides that requesting states will accord priority to civilian disaster relief transport, including permission to cross otherwise closed borders. The MoU is referred by the IFRC in line with the ASEAN Agreement, the Kyoto and Istanbul Customs Conventions as those instruments relaxing i.a. customs procedures and duties in disaster response operations (IFRC 2007). The MoU is an important instrument available in Europe and beyond. Therefore, it should be promoted between first responders, decision and policy makers in EU at all levels.

Conclusions

Today, natural and man-made disasters are the part of the environment in which we live. In most cases, we are not fully prepared when it occurs. The clear leadership and responsibility of a stricken nation as well as the role of the UN as the prime focal point for the coordination of international disaster relief operations should always be recognized. Both the EU and NATO respects UN OCHA's leading role in disaster relief.

The EU helps victims of man-made and natural disasters worldwide. The ERCC monitors emergencies around the globe on a 24/7 basis and coordinates the response of the participating countries in case of a crisis. It is active all year around.

NATO's role and added value is in respect of short-term disaster relief. NATO's support can be provided at the request of a stricken country, the UN OCHA, or other organizations working in the field of international disaster response. It would be aiming at improving the conditions for recovery. Then, it can be taken over by other more appropriate actors. NATO civil emergency response mechanism, the EADRCC, is active all year round on a 24/7 basis monitoring emergencies and coordinating contributions in case of a crisis.

The growth of large scale natural, man-made and environmental disasters has led to the increased deployment of military assets and capabilities in disaster response. The responsibility for a disaster response rests with the stricken country. However, when the magnitude of a disaster exceeds the national response capability, there may be a need for international assistance, including, if requested, assistance by or through NATO.

In international disaster NATO can use its military assets and capabilities. Then, the EADRCC and the Alliance's military structures provide coordinating, liaising and facilitating functions. These enable contributors to provide necessary capabilities, such as hospitals, purification units, generators, folded bridges, etc. This coordination role that characterizes NATO-led operations has proven useful both to the authorities of the receiving country, to the United Nations, or other actors. The three operations analysed above provide practical and successful examples when NATO military assets and capabilities were used.

The time of delivery of assistance to victims of humanitarian crises or disasters, including cross border is crucial. Here, the Memorandum of Understanding on the Facilitation of Vital Civil Cross Border Transport, bilateral and multilateral border crossing agreements can improve the speed and efficiency of assistance. When a disaster strikes, every minute counts for saving lives. Immediate, coordinated and pre-planned response is essential.

There are fundamental differences in purpose, roles and capabilities among EU and NATO, however both organizations are committed to providing disaster response in a timely and efficient manner and to ensure assistance meets the real needs in the

population affected. They have their policies and respect each other roles in the process of response, built their coordinating mechanisms and can mobilize certain capabilities that could be used to assist a stricken country.

Andrzej Jacuch – Dr Eng., Assistant Professor at the Military University of Technology. He was employed as a civil officer at NATO's International Staff, focused on civil preparedness, transport. Before NATO, he had worked at Ministry of Transport and at the Naval Academy. He is a former Polish Navy Captain. He publishes in Defence Sciences Review, Defence24, as well as in edited volumes by Springer, Aspra and Marszałek.

E-mail: andrzej.jacuch@wat.edu.pl

Andrzej Jacuch – dr inż., pracownik naukowy Wojskowej Akademii Technicznej. Był zatrudniony jako cywilny funkcjonariusz w Sekretariacie Międzynarodowym NATO, zajmując się gotowością cywilną, transportem. Przed NATO pracował w Ministerstwie Transportu i Akademii Marynarki Wojennej. Jest byłym oficerem, komandorem, Marynarki Wojennej RP. Publikuje w Przeglądzie Nauk Obronnych, Defence24, a także w opracowaniach wydawanych przez Springer, Aspra i Marszałek. Adres e-mail: andrzej.jacuch@wat.edu.pl

References

- CAVALLO Eduardo, NOY Ilan (2009), *The Economics of Natural Disasters, A Survey*, Inter-American Development Bank
- CDERA (1991), Agreement Establishing the Caribbean Disaster Emergency Response Agency.
- CRED (2018), *Economic Losses, Poverty & Disasters 1998-2017,* Centre for Research on the Epidemiology of Disasters report.
- Code of Conduct (1995) for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGOs)in Disaster Relief
- Department of Humanitarian Affairs (1992), *Internationally Agreed Glossary of Basic Terms Related to Disaster Management*, U.N. Doc. No. DHA/93/36.
- *Euro-Atlantic Disaster Response Coordination Centre (WWW)*, https://www.nato.int/cps/en/natohq/ topics_117757.htm (22.10.2018)
- European Commission (1999), *Vademecum of Civil Protection in the European Union*, https: //ec.europa.eu/echo/files/civil_protection/vademecum/index.html (16.10.2017)
- European Commission (2014), Implementing Decision 2014/762/EU.
- European Commission (2017), Press release, *rescEU a new European system to tackle natural disasters*, https://europa.eu/rapid/press-release_IP-17-4731_en.htm (23.11.2017)
- *European Civil Protection and Humanitarian Aid Operations* (WWW), https://ec.europa.eu/echo/ index_en (20.01.2019)
- European Council (2001), Decision 2001/792/EC.
- European Parliament and Council (2013), Decision no 1313/2013/EU on a Union Civil Protection Mechanism
- Framework Convention on Civil Defence Assistance (2000), Geneva 22.05.2000, https://www.ifrc. org/Docs/idrl/I319EN.pdf (20.01.2019)

- GATTI Mauro (2016), *Disaster Management in EU Law: Solidarity among Individuals and among States*, in: Marlies Hesselman, Antenor Hallo de Wolf, Brigit Toebes (eds), Socio-Economic Human Rights in Essential Public Services Provision", Routledge.
- General Assembly Resolution 46/182 (1991), which led to the creation of the Department of Humanitarian Affairs (DHA), https://www.humanitarianresponse.info/en/coordination/clusters/document/general-assembly-resolution-46-182 (19.12.1991)
- International Charter on Space and Major Disasters (1999), https://disasterscharter.org/web/guest/ home (20.01.2019)
- IFRC (2007), Law and legal issues in international disaster response: a desk study, International Federation of Red Cross and Red Crescent Societies, https://www.ifrc.org/PageFiles/125639/113600idrl-deskstudy-en.pdf (30.10.2007)
- JACUCH Andrzej (2009), Harbour Protection Through Data Fusion Technologies, CEP and Transport PB&Cs, Springer
- JACUCH Andrzej (2017a), NATO's Involvement in Humanitarian Operations/Disaster Response, Defence Science Review, no. 4.
- JACUCH Andrzej (2017b), *Civil Preparedness NATO Civil Experts Capability*, Defence Science Review, no. 3.
- LAMOS Evan, KETELSEN Malte (2018), *Ecological disasters in the EU: Can new technologies save lives?*, https://www.euractiv.com/section/climate-environment/video/ecological-disasters-in-theeu-can-new-technologies-save-lives/ (23.11.2018)
- LEITE Christopher C. (2015), *Cooperation in EU disaster response and security provision: circulating practices, "Journal European Security"*, Volume 24, Issue 4.
- NATO Backgrounder (2006), NATO's Role in Civil Emergency Planning
- NATO EADRCC (2005), Final Report (Nº 15) Hurricane Katrina USA
- NATO EADRCC (2006), Final Situation Report Nº 23 Earthquake Pakistan
- NATO EADRCC (2011), Situation Report No. 24 (Final Report) Floods in Pakistan
- NATO (2001), Civil Emergency Planning booklet, Second Edition (2001), *Euro-Atlantic Disaster* Response Coordination, NATO's Role in Disaster Assistance,
- NATO (2006), *NATO Allies and Partners agree a Memorandum of Understanding on crises assistance*, Press Release (2006)109, https://www.nato.int/docu/pr/2006/p06-109e.htm (13.09.2006)
- PERRELS Adriaan, NURMI Väinö, ERLICH Marc, CABAL Agnès (2014), *Insurance coverage of natural hazard damages and fiscal gap in EU*, 5th International Disaster and Risk Conference IDRC Davos, Global Risk Forum Davos, Switzerland
- Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations (1998), Tampere, 18 June 1998, https://treaties.un.org/pages/ViewDetails. aspx?src=TREATY&mtdsg_no=XXV-4&chapter=25&clang=_en (20.01.2019)
- The Maastricht Treaty Treaty of European Union, Maastricht, 7.02.1992, WE 1992 C 191 The Treaty of Lisbon, 13.12.2007, UE 2007 C 306.