
Legal and Functional Assumptions for Water Safety System During a Pandemic

Submitted 04/10/21, 1st revision 22/10/21, 2nd revision 13/11/21, accepted 30/11/21

Tomasz Zalewski¹, Paweł Błasiak², Dorota Rdzanek³

Abstract:

Purpose: The aim of this article is to examine the legal and functional conditions for the opening and running of the 2020-2021 bathing season, when there was a unique challenge to both the government authorities regulating safety, the local authorities organising the bathing waters and the lifeguard bodies carrying out water safety tasks. All parties organising the process worked strongly together to prepare the season taking into account current developments. The findings of the Polish model of water safety were juxtaposed with the latest developments in drowning prevention included in the UN Resolution of 2021.

Approach/Methodology/Design: Desktop-based research that consisted of a document and database review of available information, from international, national, regional sources. Time frame for the research: was set up for the years 2020-2021 with introduction showing the development of water safety system in previous decades.

Findings: Many recommendations of UN resolution have already been implemented in Poland, such as international cooperation through a civic organisation such as WOPR operating within ILS, the training process (although the systemic one is implemented not within the framework of state regulations, but more broadly by WOPR within the framework of ILS programmes) or current work on the improvement of legal regulations.

Practical Implications: The legal and organisational analysis carried out has allowed the preparation of a new functional model that could be implemented in a pandemic situation. No one is able to determine how long and which restrictions will remain in place.

Originality/Values: Given the characteristics of the pandemic period associated with rapid change and considerable uncertainty, it seems necessary that the difficult decisions associated with new legislation and the resulting procedures could be prepared for a pandemic standard regardless of whether it is SARcov-2 or a possible other threat of a similar, crisis nature in the future.

Keywords: Torusim, water safety, pandemic, bathing area.

Paper Type: Research study.

¹University of Szczecin, Institute of Spatial Management and Socio-economic Geography, Poland, ORCID: 0000-0001-7005-2947, e-mail: tomasz.zalewski@usz.edu.pl;

²Wodne Ochotnicze Pogotowie Ratunkowe, Warszawa, Poland, biuro@zgwopr.pl;

³University of Szczecin, Institute of Political Science and Security Studies, Poland, ORCID: 0000-0002-0966-4925, e-mail: dorota.rdzanek@usz.edu.pl;

1. Introduction

Water safety depends on systemic solutions implemented at the level managed by individual countries. The pandemic has forced specific areas to adapt existing systems to sanitation guidelines, ensuring social distance. For some places, this means a complete closure of designated bathing areas (DBAs), and for others, it means reorganising the existing system. Some countries, such as Poland have very detailed legal regulations on the operation of the water safety system at the statutory level and, thus, could not carry out any pandemic adaptations as a matter of urgency. Countries such as Germany, Austria, and England, having only regulations of the nature of guidelines or recommendations could locally implement procedures, taking into account specific actions to maintain a certain level of safety adapted to the sanitary regime.

The purpose of this study is to examine the effectiveness of the management of designated water areas during the pandemic, taking into account the fulfilment of all legal regulations in force in Poland. The study conducts a short regional analysis of DBAs and drownings over a ten-year time horizon, taking into account two landmark periods. The first period is due to the implementation of the new law, while the second period is related to the COVID-19 situation.

The proposed model of the study can provide an alternative solution for any other emergency situation that, for various reasons, is not foreseeable at this stage. The main research question of the study deals with the possibility of deciding whether the existing legal-administrative conditions in Poland allow for introducing a functional model effective in terms of water safety. Detailed analysis allowed to indicate specific actions that can be implemented at all levels of water safety management in Poland and showed specific indicators to maintain certain efficiency of the system.

In Poland, before the Act of 18 August 2011 on safety of persons present in water areas, which changed the organisation of water safety since 2012, there was one regulations and guidelines of one nationwide, specialised rescue organisation called Water Volunteer Rescue Service (WOPR).

These regulations were modest at the statutory level. The safety issues of persons present in water areas were regulated by acts on sports and physical culture. Since the enactment of the 2011 Act, the water area manager, the locally authorised mayor, is responsible for ensuring safety in water areas (with two exceptions). This task is one of the commune's tasks. In the past, the DBA risk assessment showed municipalities did not take necessary actions to ensure the safety of people in aquatic areas within their boundaries. Few municipalities used external funding to upgrade or build new bathing infrastructure. Municipalities avoided the costs of organising DBAs and equipping these areas with appropriate rescue equipment (Zalewski and Czapiewski, 2014).

The literature showed that the effect of enactment the Act and executive acts, and in particular the adopted practice of interpretation of regulations by the Ministry, was deregulation and commercialisation of this area of public policy. State bodies did not have adequate resources to perform supervisory or at least coordinating functions. It was particularly visible in three issues, the activity of newly established entities entitled to perform water rescue services, ensuring safety by the body managing the water area (most often the municipality) and the training activity of instructors from outside the WOPR. The situation was not improved by the often unclear demarcation of responsibilities between public entities-local governments at different levels, police, sanitary-epidemiological stations, fire departments and ministries.

The law transferred responsibilities without creating a coherent system of financing and introduced a system of price competition without an efficient system of control of compliance by authorised entities and managers of water areas (Czapiewski, 2016). Admittedly, the Act identifies the manager of the water area, so - when we talk about system rescue outside the DBA - the mayor (mayor, city president) and imposes on him the obligation to provide conditions for organising assistance and rescue of persons who have suffered an accident or are at risk of losing their life or health. However, for reasons either financial or lack of sanctions for failure to perform this obligation is not implemented in a considerable number of municipalities. Directive 2006/7/EC of the European Parliament and of the Council of 4 March 2006 concerning the management of bathing water quality has had an important impact on the shape of the law in Poland. It resulted in national implementation of the EU regulations in the form of the amended Water Law.

In a broad sense, rescue activities in Poland are assumed to be the responsibility of the government administration; however, because of innumerable limitations, it cannot fulfil all the needs in this regard (Adamczyk *et al.*, 2020). The COVID-19 pandemic has significantly affected the operating conditions of the government safety systems. In particular, with the restrictions on the international travel during the holiday season, the international tourist arrivals were estimated to drop (Sigala, 2020). Owing to the voluntary nature of taking the risk, optimism bias, poor social amplification, lack of reliable information or having no direct experience, they are more likely to underestimate different risks, especially those associated with the COVID-19 infection (Bruine de Bruin and Bennett, 2020). Furthermore, underestimating the risk correlates strongly with the proclivity to ignore preventive measures (Zielinski and Botero, 2020).

Findings of a study by Mariusz Sikora and his colleagues revealed a correlation between the number of drownings and the type of water activity (Sikora and Zalewski, 2020; Czapiewski *et al.*, 2021). The indicated circumstances of the event, include the five most common situations: bathing in unguarded places, bathing in prohibited places, carelessness while being at the water, fishing and other circumstances. An analysis of the causes of drownings, confirming their non-bathing

location, tentatively confirms that the number of drownings does not depend on the number of bathing sites.

2. Legal and Organisational Assumptions for the Model of an Emergency Unit Operating During a Pandemic

The determinants of the DBAs mentioned in the previous chapters show the need to prepare a model of operation of the water rescue unit, which in the existing legal order could perform its tasks as effectively as the lifeguards at the bathing site. The basic precondition is compliance with the existing law and sanitary restrictions related to the pandemic. The period of crisis makes one think about a lifeguarding model in which existing DBAs are constrained by guidelines related to maintaining social distance, which may induce users not to use them.

A natural behaviour observed in 2020 in Poland was the use of unguarded, wild, unprepared and unpatrolled by lifeguards' areas. In several places in the region, specific solutions have emerged to reduce or eliminate the DBA in favour of a mobile rescue unit operating like a paramedic ambulance with additional preventive tasks.

The analysis of legal and organisational assumptions of such a model should be based only on the entities authorized to perform water rescue activities, which have received permission to do so by administrative decision of the minister of internal affairs and had to declare compliance with four basic conditions:

- ensure readiness to perform water rescue by maintaining permanent duty of water rescuers,
- have the required number of water rescuers at their disposal to maintain the aforementioned readiness,
- have a seat,
- have the necessary specialised equipment and transportation and communication means to perform water rescues.

It should be noted that cooperation with such an entity is particularly safe for water area managers, as they are supervised by the minister. In case of non-professional activities of such an entity, there is a possibility of withdrawal of permission if the entity ceases to meet the statutory conditions or does not remove within the deadline any irregularities having an important impact on the performance of water rescue service found during the inspection.

Such a legal status allows for a detailed definition of water area security in the entire municipality and can systemically solve problems related to the maintaining water safety. In addition to standard solutions related to the organisation of DBAs, municipalities could commission entities to perform activities related to the operation of the entity throughout the water area.

In such a model, entities having authority to perform water rescue can periodically organise and conduct training of lifeguards and instructors and rescue dogs with their handlers in the field of water rescue. In accordance with statutory delegation, they organise, direct, coordinate and carry out water rescue actions, and conduct preventive and educational activities concerning safety on water areas. As a part of their duties, they keep records of rescue actions undertaken, including a record of rescue actions. Particularly important in such a municipal assignment should be the obligation to disclose dangers to the safety of persons present in water areas and report such dangers to the relevant municipal council.

Such an assignment may be carried out on the basis of the assignment of public tasks within the Polish law framework. Such an entity may also undertake activities regulated by the law within county's tasks. Such an agreement may contain an instruction to remove a ship or other floating objects from the water area if it is impossible to secure it in any other way when it was driven by a person under the influence of alcohol, a substance similar to alcohol or under the influence of an intoxicant. The disposition in this matter is made by a police officer, although the removal of vessels or other floating objects and the operation of a guarded harbour or marina may itself be performed by an entity on behalf of the county.

It should be particularly emphasised that the statutory definition of lifeguarding in water shows that it performs rescue activities, consisting in particular in organising and provide help to people who have an accident or are exposed to the risk of losing their life or health in the water area and not in a designated water area. Therefore, the legislator wanted the entities to deal with the unguarded area in particular. Unfortunately, the majority of the entities commissioned by the local government deal with guarded DBAs and provide assistance outside the bathing areas only on an emergency basis, often without any legal regulations related to such activities. Particularly as the supervisor's interpretation of the act's provisions excludes commercial rescuing of DBAs by entities authorised to perform water rescuing from the obligation to provide permanent lifeguard on duty, which should be the basis of the water rescue system outside DBAs, i.e., where most drownings occur.

There might also be a specific functional model to conduct rescue activities outside the DBA to prepare a one-stop bathing site. An example could be a municipal task to run a guarded bathing site with a mobile intervention group during the season. The organisation of such a task could assume that one, e.g., three-person lifeguard team runs the bathing site with 100 m of coastline, and an additional, mobile, two-person lifeguard team is stationed there. It can perform patrol and alarm functions for the rest of the water area. In this way, the swim team, even when there is an action, will probably not have to implement the procedure of closing the bathing site due to a rescue operation outside. The strict division of responsibilities enables all duties, such as displaying appropriate information flags on masts and supervising bathers, to be performed by the basic team. Also, the mobile team can perform all other statutory tasks, particularly outside the bathing site.

During cyclical prevention patrols, this team, both before the season in a comprehensive manner and during the season on an ad hoc basis, makes or updates the hazard analysis, including identification of places where there is a threat to the safety of people using the water area for swimming, bathing, sports or recreation. The analysis should be conducted in cooperation with the police.

Other obligations assigned to the entity can be as, marking and securing areas, facilities and equipment intended for swimming, bathing, sports or recreation on water areas and conducting preventive and educational activities concerning safety on water areas. When commissioning the duty to provide information and warnings about weather and other factors that can cause difficulties or threats to health or life of people, the commune can commission the entity to perform such activities in a comprehensive manner. At the bathing site, lifeguards use the radio or other forms of communication to inform swimmers in this area. Also, the mobile team, if necessary, can perform the same activity on the entire body of water by making an ad hoc patrol, e.g., before the approaching storm.

However, the most important duty, either performed directly by the water area manager or subcontracted to a professional service, is to ensure conditions for organising assistance and rescue of persons who have suffered an accident or are at risk of losing their life or health. The operator is in a position to design and agree with the warden on pre-season equipment purchases. The operator may also take responsibility on behalf of the municipality for the preparation of specific standard procedures, emergency procedures and any guidelines, rules and specific instructions that may assist in the process of building up the local security system.

In a well-prepared contract, such an entity could take over informational, organisational and technical duties. Informational duties could include posting information in a publicly accessible place about the rules of use of the water area, restrictions on use of the water area and how to report accidents, including emergency numbers, and ensuring that information about bans on the use of the water area is communicated. The category of technical duties may include the provision of public rescue and auxiliary equipment, signalling and warning devices (visual and auditory) as well as the removal of obstacles from the surface of the water area or the marking of places of isolated danger, such as stones, shallows, and remains of buildings.

3. Implications

Following the World Health Organization (WHO)'s a list of 10 drowning prevention activities that are effective, feasible and scalable, it is important to identify those that could be implemented in the model presented by rescue entities that would assume responsibility for local water safety policies. (WHO, 2014) Through community engagement programmes, entities could strengthen public awareness of drowning incidents and highlight the high vulnerability of children to drowning. As a result of

hazard analyses, initiate the installation of safety features to control access to water, signs or other information, and provide safe water play areas for children with appropriate supervision. As a part of the educational activities that should be performed before the main season, lifeguards should focus on teaching children swimming skills, water safety, and how to perform safe rescues, and provide bystander training on how to perform safe rescues and cardiopulmonary resuscitation (CPR).

Prevention patrols could focus on enforcing regulations for the safe use of boats, ships, and ferries. Rescue entities could also provide substantive support in managing flood and other hazards at the local level and, in some efforts, to develop water safety plans at the regional or national level. A specialised rescue body permanently dedicated to water safety issues could be a coordinator of drowning prevention activities with those of other sectors and programmes, and collect the most relevant data on interventions, incidents and drownings, which could be useful information for the revision of rescue plans.

Implementing a systemic solution locally based on a mobile rescue unit not assigned exclusively to a seasonal bathing area but contracted year-round for the comprehensive rescue, prevention, prophylaxis, education and administrative activities listed in this analysis allows for a stable solution that can operate effectively during the pandemic and other potential emergency threats. Such a unit may include a group of seasonal lifeguards and volunteers but should operate under the direction of a year-round employed professional leader employed as a water safety coordinator. A professional who is bound by a permanent contract guarantees continuity of tasks and should be a rescue instructor.

Achievement of such a model should be based on cooperation of all stakeholders of water safety, such as a commune, district, marshal's office, regional umbrella organisation (e.g., WOPR) and others. The strategic support fund constructed in this way should first create such conditions for development that result in formation of a leader - an instructor and a team of water rescuers with appropriate qualifications.

In the next step, such a group should be equipped with proper documentation, action programmes and should be provided with a sample, tested documents, such as applications and grant applications, contracts with the local self-government unit, contracts with schools for organisation of Rescuelab, real estate lending contracts, sponsorship contracts, contracts with volunteers, rescue procedures, organisation, action and prevention programmes. The local coordinator should also have access to the entity's IT system for remote management of rescue forces and means (rights, equipment, contributions) and, as a very important member of the entity, have the possibility to participate in the strategic work of the entity's regional programme board but, at the same time, be relieved as much as possible of financial responsibility, which should be limited to locally managed assets.

Such a leader, who is well prepared to build a local water safety system should with his team independently design a plan for the development of his unit, taking into account in few years perspective acquiring of headquarters based on a local object located in a school, swimming pool, rescue base or rescue container BeSafeBox. At the same time, knowing the listed costs of individual sets, he should design the process of acquiring equipment for training rescuers, equipment for training in first aid, equipment for preventive actions, mobile rescue equipment with a specialised vehicle and individual equipment and uniforms for the basic rescue team,

The culmination of plans, projects and efforts to improve safety in reducing drowning worldwide became the Resolution on Drowning Prevention adopted by the United Nations General Assembly at its 75th session on 28 April 2021. The UN identifies comprehensive actions that, as actions at the central level, overlap with the proposals of this study. The UN recommends the following:

1. Developing a national drowning prevention plan with a set of measurable targets according to their needs and priorities as part of national health plans and programmes;
2. Developing drowning prevention programmes in line with WHO recommended interventions, namely, barriers, surveillance, swimming skills, rescue and resuscitation training, boating regulations, and flood risk and resilience management;
3. Ensuring the enactment and effective enforcement of water safety legislation in all relevant sectors, in particular health, education, transport and disaster risk reduction, as appropriate, and considering the establishment of adequate and proportionate legislation where it does not already exist;
4. Including drowning in population and health registers and aggregating all drowning mortality data in national estimates;
5. Promoting public awareness of drowning prevention and behaviour change campaigns;
6. Encouraging the integration of drowning prevention into existing disaster risk reduction programmes, particularly in communities at risk of flooding and coastal inundation, including through international, regional and bilateral cooperation;
7. Promoting international cooperation through exchanges of lessons learnt, experience and best practice within and between regions;
8. Promoting research and development of innovative tools and technologies to prevent drowning and promoting capacity building through international cooperation, in particular with developing countries;
9. Considering introducing water safety, swimming, and first aid lessons as part of school curricula, in line with the state educational governance framework.

It indicates practically the same problems and ways of solving them as in this study, which relates more to the local area, but it also indicates a wider range of activities,

such as in education. It should be noted that some of these recommendations have already been implemented in Poland, such as international cooperation through a civic organisation such as WOPR operating within ILS, the training process (although the systemic one is implemented not within the framework of state regulations, but more broadly by WOPR within the framework of ILS programmes) or current work on the improvement of legal regulations.

It seems that thanks to the resolution - if it is properly implemented by the government - the introduction of the aforementioned project (improving the system of ensuring safety on water areas) can be realised.

References:

- Adamczyk, M., Giza, A., Kurylczyk, A., Terefenko, P., Zalewski, T. 2020. Spatial Distribution Characteristics of Water Safety Services in Poland. *Journal of Coastal Research*, 95(SI), 733-737. DOI: 10.2112/SI95-143.1.
- Bruin de Bruin, W., Bennett, D. 2020. Relationships Between Initial COVID-19 Risk Perceptions and Protective Health Behaviors: A National Survey. *American Journal of Preventive Medicine*, 59(2), 157-167. DOI: 10.1016/j.amepre.2020.05.001.
- Czapiewski, T., Sikora, M., Zalewski, T. 2021. Safety Management System for the People in Water Areas in West Pomerania during COVID-19 Crisis. *European Research Studies Journal* Volume 24(S1), 145-158.
- Czapiewski, T. 2016. Regulacja w celu deregulacji. *Polityka bezpieczeństwa obszarów wodnych w Polsce*, Wrocławskie Studia Polilogiczne, no. 21.
- Dyrektywa, 2006/7/WE Parlamentu Europejskiego i Rady Europejskiej dotycząca zarządzania jakością wody w kąpielisku z 4 marca 2006 r. Dz.Urz. UE L 64 z 4 marca 2006, Dz.Urz. UE L 188 z 18 lipca 2009, ze zm., Dz.Urz. UE L 353 z 28 grudnia 2013.
- Kłóska, R., Ociepa-Kicińska, E., Czyżycki, R., Szklarz, P. 2020. Regional Development in Poland in Taxonomic Terms. *Sustainability*, 12(11), 4780.
- Kurylczyk, A., Czapiewski, T., Zakrzewska, M. 2021. Implementation of the Directive 2006/7/EC in Selected EU Member States in the 2017-2019 Period. *European Research Studies Journal*, 24(2B), 1174-1184. DOI: 10.35808/ersj/2336.
- Rezolucja ONZ ws. utonięć. Retrieved from: www.undocs.org/en/A/75/L.76.
- Sigala, M. 2020. Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of business research*, 117, 312-321. DOI: 10.1016/j.jbusres.2020.06.015.
- Ustawa z dnia 18 sierpnia 2011 r. o bezpieczeństwie osób przebywających na obszarach wodnych, Dz.U. z 2011 r., Nr 209, poz.1240.
- Ustawa z dnia 25 czerwca 2010r. o sporcie. Dz. U. 2010 Nr 127 poz. 857.
- Ustawa z dnia 18 stycznia 1996 r. o kulturze fizycznej. Dz.U. 1996 nr 25 poz. 113.
- Ustawa z dnia 18 lipca 2001 r. – Prawo wodne, Dz. U. 2005 r., nr 239, poz. 2019, z późn. zm.
- World Health Organization. 2014. *World Drowning Report. Ways of prevention.*
- Zalewski, T. et al. 2018. Stan bezpieczeństwa wodnego w województwie zachodniopomorskim w 2018 r. *Papirex*. 250 pp.Szczecin.
- Zalewski, T., Czapiewski, T. 2014. The impact of processes associated with risk assessment and categorization of bathing waters on the water safety system development on Polish Baltic coast. In: Green, A.N. and Cooper, J.A.G. (eds.), *Proceedings 13th International*

Coastal Symposium (Durban, South Africa). *Journal of Coastal Research*, Special Issue 70, 551-555.

Zalewski, T., Sikora, M. 2020. Założenia prawno-organizacyjne procesu rozwoju systemu bezpieczeństwa wodnego. *Rozprawy i Studia*. Uniwersytet Szczeciński, (1207)1133 Wydawnictwo Naukowe Uniwersytetu Szczecińskiego.

Zielinski, S., Botero, C.M. 2020. Beach tourism in times of COVID-19 pandemic: critical issues, knowledge gaps and research opportunities. *International Journal of Environmental Research and Public Health*, 19. DOI:10.3390/ijerph17197288.