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ORIGINAL PAPER

JAPANESE AND AMERICAN APPROACH TO HUMANITARIAN LOGISTICS IN NATURAL DISASTERS' PREVENTION

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ABSTRACT. **Background:** The complexity of natural disasters is a fundamental aspect for coordination and integration activities from the public sectors' perspective. Tasks that are formally independent demonstrate a convergent and integrated character. Therefore, there is a justified need to synergic cooperation of public and private sector, NGOs, UN agencies, IFRC agencies, military and societies actions in the affected region. The main goal of the study was to identify similarities and differences in Japanese and American approaches to humanitarian logistics in the public sectors' perspective. Moreover, the second goal was to prepare an extended humanitarian logistics convergence procedure for national authorities.
Methods: Critical analysis has been carried out in two highly developed countries of the global economy. Author indicates determinants which are conditioned by three different types of humanitarian logistics convergence.
Results: The article describes the processes of concurrence at Japanese and American level in relation to humanitarian logistics. The characteristic of convergence factors has been followed by theoretical considerations concerning analyzed problem. Author indicates determinants with highest level of convergence as well as with the biggest differentiation. As a result, an extended procedure for national authorities that covers both outstanding approaches has been presented.
Conclusions: Neutralizing, minimizing and eliminating of natural disasters' negative effects are not an easy task. The article highlights the importance of public sectors' activities which are fundamental aspects of humanitarian logistics actions. Their coordination and integration play a key role in efficiency. Hence, all authorities interested in the analyzed concept may follow the presented procedure. Nevertheless, there is a necessity to conduct an indicator analysis associated with natural disasters occurrence, economic growth, logistics ratios, risk indexes as well as other determinants that cover convergence.

Key words: humanitarian logistics, humanitarian logistics convergence, natural disaster, integration, coordination, procedure.

INTRODUCTION

Coordination and integration of humanitarian logistics activities are indispensable aspects of efficiency. Firstly, all the planning processes and tasks require to adjust to expectations met by society. Every activity has to depend on differing requirements on human resources in order to effectively neutralize and efficiently minimize the negative effects of natural disasters. The main feature around which logistic processes and activities are concentrated during disaster relief both in USA and Japan is relying on human predispositions and rational behavior during natural disasters. Activities that are formally independent demonstrate convergent and integrated character.

The potential of humanitarian logistics may be seen from the perspective of the players as well as national viewpoint for the economic development of humanitarian activities of the population and entire country [Kessler 2013]. Therefore, the involvement of the public sector that engages a macroeconomic context is a fundamental aspect of undertaking activities.

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Furthermore, logistics is a successful factor for aid agencies in the competition for donations. It accelerates and facilitates the entire humanitarian supply chain, from purchasing to distribution of aid goods. Ipso facto, logistics lend transparency [Howden 2009, Willhaus and Stumpf 2011]. Aid agencies' activities and humanitarian aid are not characterized by competitiveness. Nevertheless, some sort of competition among humanitarian logistics players exists and is reasonable. It does not refer to maximize profits or minimize costs but to increase efficiency of disaster relief. It is a form of competitiveness that supports public sector activities rather than to replace the state.

There are four reasons for the analysis of the particular topic:

1. Periodicity of natural disasters in Japan and USA due to the Pacific Ring of Fire location.
2. Experience in neutralizing, minimizing and eliminating of negative effects of natural disasters by both countries.
3. Socio-cultural differences between Japan and USA that require a comparative analysis.
4. Authority involvement in the Japanese and American approach.

Considering the above facts, the author decided to formulate the research problem as follows: what are the similarities and differences in Japanese and American approaches to humanitarian logistics in the public sectors' perspective? Moreover, authorities' role and functions during natural disasters should be noted. Furthermore, an extended humanitarian logistics convergence procedure for national authorities should be prepared. The objects of analysis are two highly developed countries that have experienced some of the most damaging disasters in recent decades. The methodology of the article consists of critical analysis of documentation, case studies and comparative analysis.

HUMANITARIAN LOGISTICS – THEORETICAL BACKGROUND

Thomas and Kopczak [2005] as well as Thomas [2003] define humanitarian logistics as the process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials together with related information. This process begins in the point of origin and finishes in the point of consumption. The purpose of presented above actions is to alleviate the suffering of vulnerable people.

Therefore, the tasks of humanitarian logistics are not restricted to the disaster relief only. If we take to consider a wider context, one of the main function of this concept is to support communities in the processes of establishing their own infrastructure, which may help vulnerable people threatened by disaster risks. Moreover, the principle of such situation is to enable communities to conduct a self-help [Pazirandeh 2011]. Humanitarian logistics includes some essential aspects related to activation measures that are indispensable in the area of the market economy. Those activities refer to education and vocational training. Simultaneously, they are integrating all the processes connected with the planning, implementation as well as management of relief items, personnel and resources [Baumgarten et al. 2011]. In the entire humanitarian process, logistics plays a key role in the mobilization activity being a bridge between disaster preparedness and response [Daud et al. 2016].

The entire disaster relief is provided by humanitarian logistics players. They may be differentiated into several interrelated groups: public sector, private sector, NGOs, UN agencies, IFRC agencies (International Federation of Red Cross and Red Crescent), military, media as well as affected by disaster societies [Daud 2016, Marcinkowski 2016, Kessler 2013, Over-street et al. 2011].

All of the players have important responsibilities and tasks. Because the main purpose of this paper is to present a role of the public sector during natural disasters, authorities' short characteristics shall only be

performed. It is obvious that government is an activator of humanitarian logistics actions. Only authorities have enough power and possibilities to authorize operations as well as mobilize resources [Daud et al. 2016, Kessler 2013]. Nevertheless, without the military support, disaster relief may not be performed efficiently. Soldiers play an important role while providing primary assistance associated with camp or hospital installation, route repair or telecommunications [Daud et al. 2016].

Most of the natural disasters could not be predicted [Jennings 2011]. It also refers to the demand for relief items to disaster victims that are almost unpredictable [Syahrir et al. 2015]. Therefore, all activities in the field of humanitarian logistics are divided into four basic phases [Cozzolino 2008, Daud et al. 2016]. The first one, mitigation refers to any kind of laws and mechanisms in order to reduce social vulnerability. It has an institutional character associated with the legal system. The second one, preparation (or preparedness) refers to tasks that occur during the period before the disaster strikes what makes it crucial. Activities are associated with an adequate infrastructure preparation, conducting trainings as well as development of plans and scenarios for disaster management. The function of neutralizing effects of occurring disasters is carried out in that phase. The third one, the reaction phase refers to tasks that are implemented after the disaster strikes. In its basic scope it involves disaster relief associated with protection of life and health of vulnerable people. Minimizing the negative effects of occurring disasters is the main function during that phase of humanitarian logistics. The last one, reconstruction phase, begins in the aftermath of a disaster but shows its essential role in the final stage. This phase involves reconstruction and rehabilitation activities on the basis of a long-term perspective. Simultaneously, it forces to rebuild infrastructure and to normalize the life of citizens. The main function of that phase is to eliminate the negative effects of disaster. Therefore, the entire disaster response consists of [Besiou et al. 2014] preparedness and response activities which tend to mitigate disasters impacts.

The concept of humanitarian logistics is related to humanitarian supply chain [Gizaw and Gümüş 2016, Habib et al. 2016, Cozzolino et al. 2012]. It is nothing other than coordinated network of humanitarian logistics players who are involved in disaster relief operations. Specified and precisely planned feedback as well as permanent information flow could be distinguished amongst those players. They are forming products and services with the strictly humanitarian character what is the core of the value creation in the entire chain. Therefore, material, service, information and financial flow are the basis of a humanitarian supply chain.

Nevertheless, humanitarian world has to deal with scarcity of resources and decentralization associated with decision making and earmarked donations. Such situation is ignored in humanitarian supply chain literature that assumes the possibility of unlimited resources, centralized decision making as well as free allocation. It has to be pointed out that these are typical characteristics of a commercial rather than humanitarian supply chain [Bhattacharya et al. 2015]. Moreover, forecasting is extremely difficult because of the unpredictability of disaster occurrence. What is worse, the collapse of infrastructure inhibits aid to the affected region. Therefore, management of the entire system in humanitarian supply chain is extremely challenging. A complexity and fragility of that system are shaped by presented factors, thereby it is more difficult to challenge in comparison to commercial supply chain [Yu et al. 2015].

Interpretation of humanitarian supply chains as logistics networks enables size, importance and character of the states in the self-sufficiency context [Kessler 2013]. That phenomenon is essential since there is a risk that the work of humanitarian or aid organizations would displace the existing structures [Baumgarten 2011, Baumgarten et al. 2010]. Consequently, it indicates the main goal of aid organizations associated with supporting states' activities in disaster relief rather than substituting its actions.

A decreasing logistics dispersion and an effective progress of activities at the local level

compared to the entire region are evidences of the humanitarian logistics convergence [Marcinkowski 2016]. This convergence is a development which results in the individual economic variables unification and harmonization. Those variables define logistics actions during disaster relief in analyzed regions or states.

Due to the complexity of that concept three different types of humanitarian logistics convergence may be distinguished ("3 x i" humanitarian logistics convergence): institutional, infrastructural and informational [Marcinkowski 2016].

1. The institutional convergence is associated with concurrence of humanitarian logistics legal and organizational conditions, such as legal norms.
2. The infrastructural convergence refers to creation of infrastructure similar in the character, such as river regulation, flood protection solutions, earthquake engineering, etc.
3. The informational convergence relates to standardizing the ways of acquiring and transmitting of information about risks and emergencies. It contains trainings for society and adaptation of modern technology.

AMERICAN AND JAPANESE APPROACH TO HUMANITARIAN LOGISTICS

Therefore, tasks that are formally independent demonstrate a convergent and integrated character. In order to identify similarities and differences in Japanese and American approaches from the public sectors' perspective, author indicates processes and determinants which are conditioned by three different types of humanitarian logistics convergence (see Table 1).

First of all, it is essential to emphasize the relevance and importance of informational convergence in both analyzed countries. Recently, owning information is an indispensable aspect of competitive edge. Thereupon, this type of convergence ensures efficient and effective information flow amongst players. Humanitarian supply chains' individual activities are one of the main conditions of acquiring the source information and transmission to the humanitarian logistics players. Regional warning systems or informatics technology gathering disaster data are insufficient mechanisms. Without coordination and integration of activities, informational and organizational chaos during disaster could be exacerbated. It may be conditioned by improper usage of information systems and methods as well as disregarding the role of safety and disaster relief trainings for society. Therefore, informational convergence is a fundamental aspect of humanitarian supply chains and one of the main factors enabling coordination and integration. It affects indirectly the safety of the entire society and has an interdisciplinary character owed to other types of humanitarian logistics convergence.

Determinants of informational convergence both in Japan and USA are: self-help and trust in the human abilities, social functions and society integration, decentralization of activities, the complexity of disasters, utilization of every latest scientific knowledge as well as the processes of planning, and inspection of activities despite limited information. Additionally, pessimism in disaster management may be distinguished in Japanese approach, thereupon its authorities are presuming the worst. Hence, the resulting factors with the ubiquitous nature in both countries are: the necessity of mutual cooperation and permanent synergistic effect. All the humanitarian logistics players are obligated to follow the rules of mutual assistance when protection of people's life and health is crucial.

Infrastructural convergence contributes in a direct way to reducing disparities in development and standards of infrastructure. It affects the activities' unification in the scope of in-vestment, however, empowering local players through implementation in the grassroots. Determinants of this type of convergence in both countries are: decentralization of activities, the complexity of disasters as well as the processes of planning and inspection of activities despite limited

information. In American approach there are also social functions and society integration determinants.

Table 1. Determinants of humanitarian logistics convergence from the Japanese and American public sectors' approach
Tabela 1. Czynniki konwergencji logistyki humanitarnej z perspektywy sektora publicznego w Japonii i USA

Approach	Japanese		American	
Determinants	Resulting factor	The type of humanitarian logistics convergence	Resulting factor	The type of humanitarian logistics convergence
Self-help and trust in the human abilities	Cooperation, synergy effect, consideration of societies needs and preferences	Informational, institutional	Cooperation, synergy effect, standardization of activities, scenarios preparation, human resources policies, rational behavior	Informational, institutional
Social functions and society integration	Structural and nonstructural activities	Institutional, informational	Preparedness, social functions	Institutional, infrastructural, informational
Decentralization of activities	Local plans integration, exploiting the potential, knowledge management	Informational, infrastructural	Scenarios and plans preparation, standardization, ICS, plans integration	Informational, infrastructural
The complexity of disasters	Preparedness, reaction, reconstruction, random factor inclusion, resources and damages estimation methods, life normalization, implementation of modern technologies, security, effects evaluation	Infrastructural, informational, institutional	Preparedness, reaction, reconstruction, life and livestock protection	Infrastructural, informational, institutional
The resistant market and humanitarian logistics players' relationships	Intersectoral supports platform, commercialization, supply chain management, business continuity planning, insurance system fortification	Institutional	Activities integration, federal subsidies, liaison to the JFO	Institutional
Utilization of every latest scientific knowledge	Interdisciplinary nature of science, forecasts and scenarios preparation, preparedness	Informational	Forecasts and scenarios preparation	Informational
The processes of planning and inspection of activities despite limited information	Preparedness, trainings, collecting information systems, communication systems	Infrastructural, informational, institutional	Preparedness, trainings, cooperation of neighboring administrative units, plans preparation, communication systems, volunteers' registry	Infrastructural, informational, institutional
Pessimism in disaster management	Preparedness, forecasts preparation, analysis	Informational	-	-

Source: Author's own source based on [Marcinkowski 2016, Committee 2012, Standing Together 2005].

The complexity of disasters tends to situation when one disaster could trigger another. Thereupon, severity of damage may be increased and each hazard could be either a cause or the result of the particular disaster. Such situation took place during Japanese earthquake in 2011 when despite a seismic shock and tsunami, Japan had to deal with the breakdown in the Fukushima nuclear power plant [Committee 2012]. This is the evidence of disasters' synergic character. Therefore, one of the most common tasks for humanitarian logistics players is con-trolling the process in every phase. Hence, the resulting factors in both countries are associated with precise preparation, efficient reaction and effective reconstruction. It requires the adaptation of modern technology as well as the complex and efficient protection of regions. An effective reconstruction indicates a structural regeneration of infrastructure that raises the security levels of society and its livestock. Thus, decentralization and knowledge management [Daud et al. 2016] enables to exploit the potential and local conditions in both countries.

American approach is extended to the requirement of processes planning in every humanitarian logistics' phase. Every problem associated with each activity has to be understood in terms of its range and character. The workflow of each community and all processes have to be always correlated and

coherent with Incident Command System [2008]. Then, a wide scope of responsibilities is created in order to control scenarios and plans for effective players' cooperation. The main protection goals for logistic activities in American approach are: life and health, maintenance of the strategic infrastructure, public and private property as well as environment.

The wide range of actions require legitimacy; therefore, selected activities and tasks are gradually systematized and molded as legal norms. These humanitarian logistics determinants regulate execution of certain regulations and procedures. Legal aspects are ensured by the institutional type of humanitarian logistics convergence. It refers directly to concurrence in existing regulations, conditions as well as players' organizational structures. The institutionalization of activities in public sector is associated with efficient humanitarian supply chain. Both in Japan and USA institutional type of convergence determinants are: self-help and trust in the human abilities, social functions and society integration, the complexity of disasters, the resistant market and humanitarian logistics players' relationships as well as the processes of planning and inspection of activities despite limited information.

The institutionalization of activities is primarily associated with the administrative role of the state in terms of its functions and importance of the public sector. Such role in Japan refers to logistics processes controlling. Hence, structural and nonstructural tasks are being considered. Structural tasks are connected with infrastructural facilities construction or land protection. Nonstructural tasks refer to preparing a warning and evacuation policy as well as conducting trainings for society. Therefore, social functions are fulfilled and society is integrated. Japanese approach stands out at avoidance of conditions standardization what eliminates underestimation of possible losses or costs. Moreover, each time a random factor is included and appraisal of resources and damages is conducted. Nevertheless, that determinant is also subsumed in American approach. Ipso facto, the results evaluation and activities efficiency enable to uphold readiness in the preparation phase. In the Japanese approach, all players use methods and techniques enabling business continuity planning as well as intersectoral supports platforms preparation. Furthermore, the insurance system fortification that provide an assistance during disaster is introduced.

The essential principle of humanitarian logistics activities is mutual cooperation of all public authorities especially within the central government agencies. Therefore, prevention and disaster management plans of individual societies are being consulted and compared with central ones including its specificity. As a result, the scope of activities is institutionalized on the basis of public sector. Nevertheless, some slight differences may be distinguished in the American approach. Teams that are responsible for developing scenarios and plans use Universal Task List [2005]. It determines the scope of individual activities that are performing by the federal, state and local level as well as by the private sector. It is a comprehensive list that suggests what kind of operations have to be conducted. All the entities have a wide range of flexibility in division of responsibility and methods of its implementation.

Both approaches define risk as one of the main factors of preparation phase. It results in costly effective players' involvement that is responsible for that part of humanitarian logistics. The public sector activities have to ensure the basic social functions and to integrate society. Those tasks have to be conducted in all humanitarian logistics phases: mitigation, preparation, reaction and reconstruction. Hence, social functions in the American approach are associated with [Standing Together 2005]: public health, medical care, public works, energy supply, environment, economy, water/sanitation, shelter/clothing, food, communication, security, logistics/transport, search/rescue. Moreover, the specificity of American approach indicates federal subsides, interaction and assigning a liaison to the Joint Field Office [Standing Together 2005]. That multiagency coordination center facilitates communication and coordination during emergency and is a central point for federal, state, local, NGOs and private sector organizations.

The comparative analysis of Japanese and American approaches to humanitarian logistics from the public sectors' perspective (see Table 2) indicates the synthetic summary of presented above aspects. The highest level of concurrence among conferred determinants is associated with informational type of humanitarian logistics convergence. In contrast, the biggest differentiation refers to the institutional type. Nevertheless, the public sector is a fundamental aspect of humanitarian logistics activities.

Table 2. Comparison of Japanese and American approach to humanitarian logistics from the public sectors' perspective on the basis of convergence determinants

Tabela 2. Porównanie japońskiego i amerykańskiego podejścia do logistyki humanitarnej z perspektywy sektora publicznego w oparciu o czynniki konwergencji

Differentiating determinants in Japan	**Common determinants**	**Differentiating determinants in USA**
Pessimism in disaster management, logistics processes controlling, avoidance of conditions standardization, random factor inclusion, business continuity planning methods, intersectoral supports platform, the insurance system fortification	Self-help and trust in the human abilities, social functions and society integration, decentralization of activities, the complexity of disasters, utilization of every latest scientific knowledge, the processes of planning and inspection of activities despite limited information, the resistant market, humanitarian logistics players' relationships, resources and damages estimation methods	Local plans correlation with ICS, implementation of *Universal Task List*, the specificity of American social functions, federal subsidies, liaison to the JFO

Source: Author's own source based on [Marcinkowski 2016, Committee 2012, Standing Together 2005].

However, despite the humanitarian logistics convergence in Japan, some sort of disaster response management failure occurred due to institutional weaknesses during earthquake and tsunami in 2011 [Daud et al. 2016]. Governments' response capability was ineffective because of lack of political leadership, delayed response, ineffectiveness of NGOs, inappropriate level of supports and funding, constrains in military as well as inefficient communication system [Daud et al. 2016, Panda 2012]. Similar situation applies to USA due to lack of emergency management and ineffectiveness of activities during hurricane Katrina [The Federal 2006]. Nevertheless, both countries made efforts to improve their disaster management and humanitarian logistics plans, scenarios and procedures.

AN EXTENDED HUMANITARIAN LOGISTICS CONVERGENCE PROCEDURE FOR NATIONAL AUTHORITIES

An extended procedure for national authorities that covers both outstanding approaches is a reasonable idea (see Figure 1). The procedure conditioned by three different types of humanitarian logistics convergence may be implemented by any national authority interested in the concept. Formal implementation of the regulations at the central, regional and local levels can lead directly to concurrence in existing institutional conventions, conditions, information providing as well as infrastructural aspects.

Primarily, prerequisites for the procedure have to be presented. National authority should be pessimistic in disaster management in order to implement alternative scenarios and forecasts. Presuming the worst results in more accurate mutual cooperation and synergistic

effect. Moreover, all the activities associated with scenarios, forecasts or plans preparation have to include a random factor and avoid conditions standardization. These would eliminate underestimation of possible losses or costs.

At the first stage a national authority should define its legal position in humanitarian logistics actions. Therefore, an analysis of its own determinants has to be performed on the basis of critical analysis of documentation as well as utilization of every latest scientific knowledge. As a consequence, authority's actual legal position will be prepared.

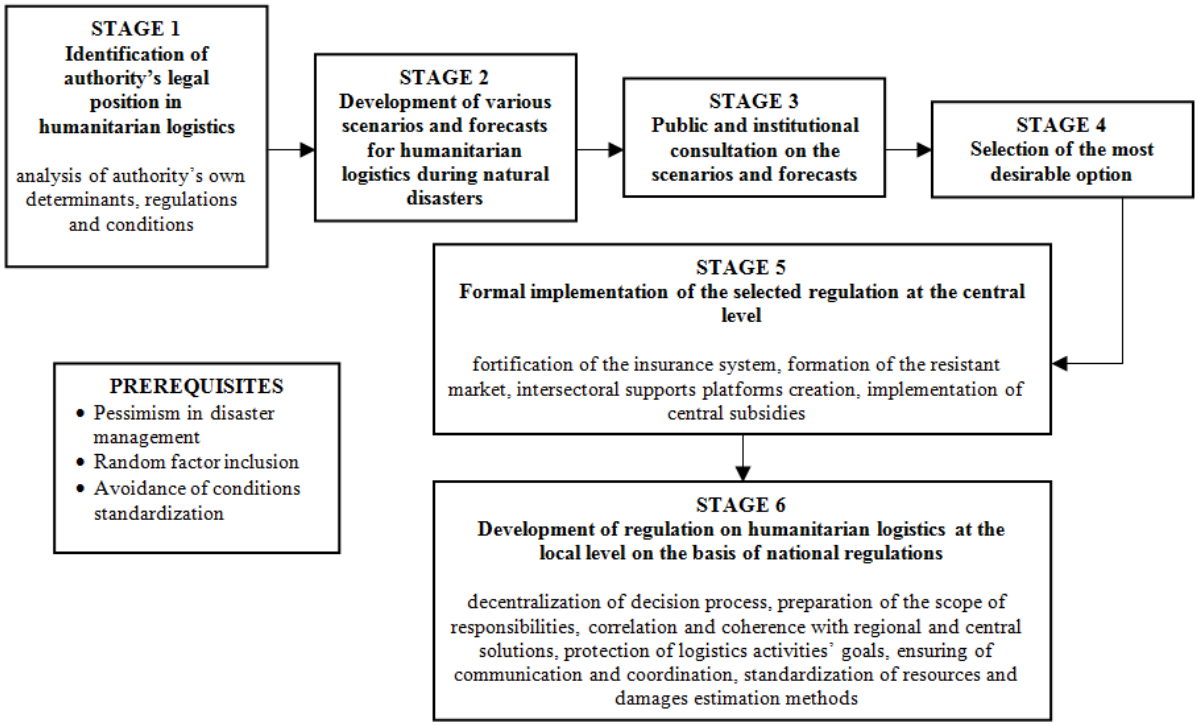

Fig. 1. An extended humanitarian logistics convergence procedure for national authorities
Rys. 1. Uniwersalna procedura konwergencji logistyki humanitarnej dla organów państwowych

Development of various scenarios and forecasts for humanitarian logistics during natural disasters instead of the stiffed plans indicates the second stage of the procedure. A wide range of possible solutions for every kind of natural disaster enable to effectively neutralize and efficiently minimize theirs' negative effects. Subsequently, the third stage begins with public and institutional consultation on the projected scenarios and forecasts that include society, NGOs, public and private sector in decision making. Selection of the most desirable option that meets all the expected requirements indicates the fourth stage.

The proper part of the procedure consists of formal implementation of the selected regulation at the central level which indicates the fifth stage. Hence, the insurance system fortification that provides an assistance during disaster as well as the resistant market should be formed. The market independent from the catastrophic risk influence provides economic stability of the country and the entire society. Furthermore, intersectoral supports platforms as well as central subsidies shall be implemented. Mutual cooperation and financial assistance are indispensable aspects of effective humanitarian logistics' actions.

Subsequently, the sixth stage consists of development of regulation at the local level on the basis of national regulations. Therefore, decentralization process has to be deployed in association with decision making and earmarked donations. This kind of solidarism supports self-help and promotes trust in human abilities. Furthermore, a wide scope

of responsibilities for humanitarian logistics players have to be introduced at the local level to control plans and scenarios for effective cooperation. As a consequence, the workflow, scope of responsibilities and all the processes of each community shall be correlated and coherent with regional and central solutions. The higher level of public sectors' hierarchy, the more general responsibilities. Therefore, the central one should protect goals for logistics activities in the following areas: life and health, critical infrastructure maintenance, environment as well as property. Whilst, the regions should be concerned with communication and coordination during emergency at the local level. Finally, resources and damages estimation methods should be standardized in order to effectively control humanitarian logistics actions.

Nevertheless, the procedure presented above is associated only with formal and legal aspects that may be introduced. The high technology implementation, infrastructure modernization as well as society training are another aims that determine effective humanitarian logistics actions. Moreover, an authority should be aware about its socio-cultural position if there is a wish to follow this procedure. The American approach is more independent and flexible while Japanese is more formal and skeptical. Therefore, author decided to present an extended procedure for national authorities that covers the best of both outstanding approaches. Nonetheless, the higher level of flexibility and skepticism should encourage and force the particular authority to opt for this procedure.

CONCLUSIONS

Permanent cooperation of humanitarian logistics players is provided by disasters activities' efficiency. Though, the uncertainty of time, place and type of emergency is problematic to determine the size of necessary resources to minimize the negative effects of disasters. Nevertheless, the protection of life, health and livestock is more important than costs and flow effectiveness. All the plans and scenarios as well as independent activities require systematization and legitimacy. Hence, both Japanese and American approach indicates the local disaster management plans integration in the regional and central level. This requires involvement of recommendations and guidelines of crisis management centers. Such situation results in efficient and effective neutralization of the negative effects of natural disasters.

Furthermore, it has to be emphasized that in Japanese approach a public entity is always a coordinating body. It plays a primary role towards local agencies. Common participation of all stakeholders is an indispensable aspect and requirement of disaster management plans. Whereas, in USA the policy is more flexible. Therefore, some communities and players do not participate in regional coordination teams. They are more independent but less integrated and hard to coordinate.

To conclude, public sector is an indispensable aspect of every humanitarian logistics activity. Ipso facto, a synergic cooperation of every player tends to efficient disaster relief. The scope of effective work is associated with coordination and integration aspects that also include public awareness. Hence, all authorities interested in the analyzed concept may follow the presented procedure. Nevertheless, an indicator analysis should be prepared to fully determine the importance of humanitarian logistics convergence. Indicators shall refer to natural disasters occurrence, economic growth, logistics ratios, risk indexes as well as other determinants that cover convergence theory. Therefore, the author has planned to continue research in a different part of presented theory through creating a comprehensive mathematical model for humanitarian logistics convergence.

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JAPOŃSKIE A AMERYKAŃSKIE PODEJŚCIE DO LOGISTYKI HUMANITARNEJ JAKO NARZĘDZIA WALKI Z KATASTROFAMI NATURALNYMI

STRESZCZENIE. **Wstęp:** Złożoność i problematyka występujących katastrof naturalnych stanowi istotny problem koordynacji i integracji działań z poziomu sektora publicznego. Zadania, które formalnie realizowane są w sposób niezależny, wykazują charakter zbieżny i zintegrowany. W związku z powyższym, istnieje uzasadniona potrzeba synergicznej współpracy sektora publicznego, prywatnego, NGO, agend ONZ, agend ruchu IFRC oraz oddolnych działań podejmowanych przez mieszkańców na terenach dotkniętych katastrofą. Celem badania było zidentyfikowanie podobieństw oraz różnic występujących w podejściu do logistyki humanitarnej z perspektywy sektora publicznego w Japonii oraz USA. Ponadto, drugim celem było opracowanie uniwersalnej procedury konwergencji logistyki humanitarnej dla sektora publicznego.

Metody: Analizę krytyczną przeprowadzono w dwóch wysokorozwiniętych państwach go-spodarki światowej. Wskazano determinanty powstawania zbieżności, które są określane przez trzy odrębne rodzaje konwergencji logistyki humanitarnej.

Wyniki: W artykule opisano procesy powstawania zbieżności na płaszczyźnie japońskiej oraz amerykańskiej w odniesieniu do logistyki humanitarnej. Charakterystyka czynników konwergencji została poprzedzona krótkimi teoretycznymi rozważaniami dotyczącymi analizowanego problemu. Wskazano determinanty cechujące się największym poziomem zbieżności, a także świadczące o znaczącym zróżnicowaniu. W konsekwencji, zaprezentowano uniwersalną procedurę dla zainteresowanych państw łączącą oba wyróżniające się podejścia.
Wnioski: Przeciwdziałanie, minimalizowanie i eliminowanie negatywnych skutków katastrof naturalnych nie jest zadaniem prostym. W niniejszym artykule podkreślono istotność funkcjonowania sektora publicznego, który stanowi fundament projektowanych działań z zakresu logistyki humanitarnej. Koordynacja i integracja działań jest kluczowym aspektem warunkującym jej skuteczność. Stąd też, wszystkie jednostki administracji publicznej zainteresowane analizowaną koncepcją mogą wdrożyć zaprezentowaną procedurę. Niemniej jednak, autor artykułu wskazuje na konieczność przeprowadzenia analizy wskaźnikowej dotyczącej występowalności katastrof, wzrostu gospodarczego, mierników logistycznych, czynników ryzyka oraz innych wskaźników, które łącznie świadczą o postępującej konwergencji.

Słowa kluczowe: logistyka humanitarna, konwergencja logistyki humanitarnej, katastrofa naturalna, integracja, koordynacja, procedura

JAPANISCHE UND ANGLOAMERIKANISCHE ANSÄTZE HUMANITÄRER LOGISTIK ALS BESTANDTEIL DER HILFELEISTUNG BEI NATURKATASTROPHEN

ZUSAMMENFASSUNG. Einleitung: Die Komplexität der auftretenden Anforderungen bei Naturkatastrophen und die dadurch notwendige Integration wichtiger Akteure stellen ein Problem der Koordinierung im öffentlichen Sektor dar. Die Aufgaben, die voneinander unabhängig umgesetzt werden, führen letztlich zu einer Konvergenz. Es ist daher ein legitimes Bedürfnis, Synergien zwischen den öffentlichen und privaten (nichtstaatlichen) Organisationen, der UN, dem IFRC, den Infrastrukturbehörden, aber eben auch zwischen den Bewohnern der von der Schadenslage betroffenen Gebiete zu finden und zu nutzen. Das Ziel der Untersuchung war es, Ähnlichkeiten und Unterschiede in den Lösungsansätzen für die Anforderungen an die Logistik in der humanitären Hilfe aus der Perspektive des öffentlichen Sektors in Japan und in den USA zu identifizieren. Darüber hinaus war das andere Ziel es, eine erweiterte humanitäre Logistik als Konvergenzverfahren für nationale Behörden vorzubereiten.
Methode: Die hier gezeigte kritische Analyse wurde in zwei wirtschaftlich hochentwickelten Ländern durchgeführt. Die dabei gefundenen Determinanten der Entstehung von Überschneidungen lassen eine Einteilung der Konvergenz der Logistik der humanitären Hilfeleistung in drei unterschiedlichen Arten zu.
Ergebnisse: Der Artikel behandelt die Prozesse bei der Entstehung einer Konvergenz bei logistischen Anforderungen der humanitären Hilfe in Japan sowie in den USA. Der Charakteristik der Konvergenzfaktoren wurde eine kurze theoretische Betrachtung des analysierten Problems vorangestellt. Es werden die wichtigsten Determinanten mit ihrem Einfluss auf die Konvergenz aufgeführt, sowie deren beachtliche Vielfalt. Als Ergebnis wurde ein universal brauchbares Verfahren für nationale Behörden bereitgestellt, das die beiden herausragenden Ansätze umfasst.
Fazit: Die Schäden von Naturkatastrophen zu verhindern, zu minimieren oder gar zu beseitigen, stellt die entsprechenden Akteure vor große Herausforderungen. Der Artikel zeigt auf, in wieweit der funktionierende öffentliche Sektor als die wichtige fundamentale Ebene bei der Bearbeitung von Fragestellungen der humanitären Logistik zu betrachten ist. Die Koordination und Integration der wichtigen Akteure als die Führungsaufgaben stellen dabei einen wichtigen Aspekt des Zusammenspiels der beteiligten Stellen dar. Daher können alle an dem betreffenden Konzept interessierten Einheiten der öffentlichen Verwaltung die projizierte Prozedur effektiv einführen. Dabei weist der Autor auf die Notwendigkeit hin, die Indikatoren der Prävalenz von Naturkatastrophen, die Parameter des Wirtschaftswachstums, der logistischen Kapazitäten, der Risikofaktoren und anderer Kennziffern sowie der möglicherweise auftretenden Konvergenz einer Analyse zu unterziehen.

Codewörter: humanitäre Logistik, humanitäre Logistik-Konvergenz, Naturkatastrophe, Integration, Koordinierung, Verfahren

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