



FOOD SECURITY AND INTERNATIONAL SECURITY: TRACING THE LINKS

BEZPIECZEŃSTWO ŻYWNOŚCIOWE I BEZPIECZEŃSTWO MIĘDZYNARODOWE – IDENTYFIKACJA POWIĄZAŃ

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ABSTRACT

The article aims to analyze food security from the perspective of international security studies. Russia's aggression against Ukraine in February 2022 has generated renewed interest in food security. The undeniable links between war and famine have taken on an added dimension in this conflict due to the importance of both warring parties to the global food market. While the way food security is conceptualized points to its indirect relationship with international security, the change that took place in the study of international security after the Cold War recognized socio-economic problems as equivalent of threats to the national security. The analysis allowed the following conclusions. First, food security should be treated as a new research area of international security because it challenges the stability of the global socio-economic system. Second, as the 2008 and 2010–2011 food crises, the COVID-19 pandemic and Russia's aggression against Ukraine have shown, food insecurity generates threats to international security.

ABSTRAKT

Celem artykułu jest analiza bezpieczeństwa żywnościowego z perspektywy studiów bezpieczeństwa międzynarodowego. Agresja Rosji na Ukrainę w lutym 2022 roku spowodowała ponowne zainteresowanie bezpieczeństwem żywnościowym. Niezaprzeczalne związki między zjawiskami wojny i głodu nabrały w tym konflikcie dodatkowego wymiaru ze względu na znaczenie obu stron konfliktu dla globalnego rynku żywności. O ile sposób konceptualizacji bezpieczeństwa żywnościowego wskazuje na jego pośredni związek z bezpieczeństwem międzynarodowym, o tyle zmiana, która dokonała się w badaniach bezpieczeństwa międzynarodowego po zimnej wojnie, spowodowała, że problemy społeczno-ekonomiczne, takie jak głód, zaczęto postrzegać jako zagrożenia dla bezpieczeństwa narodowego państw. Przeprowadzona analiza pozwoliła na sformułowanie następujących wniosków: po pierwsze, bezpieczeństwo żywnościowe powinno być traktowane jako nowy obszar badawczy bezpieczeństwa międzynarodowego, ponieważ stanowi wyzwanie dla stabilności globalnego

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systemu społeczno-gospodarczego; po drugie, brak bezpieczeństwa żywnościowego generuje poważne zagrożenia dla bezpieczeństwa międzynarodowego, co pokazały kryzysy żywnościowe z lat 2008 i 2010–2011, pandemia COVID-19, a także agresja Rosji na Ukrainę w 2022 roku.

Keywords: food security; international security; food crisis; wars over resources; weaponization of food

Słowa kluczowe: bezpieczeństwo żywnościowe; bezpieczeństwo międzynarodowe; kryzys żywnościowy; wojny o zasoby; „weaponizacja” żywności

INTRODUCTORY REMARKS

Research on security cannot be conducted in isolation from threats to it, which are dynamic: some emerge, others diminish in importance, with the concept of security becoming redefined as a result. This process perfectly illustrates the problem of food security. Initially treated as an outcome of the socio-economic underdevelopment and internal problem of the poorest countries, it has gradually gained in importance to be currently counted as one of the serious challenges facing the contemporary world.

The article aims to analyze food security from the angle of research on international security. The following research assumptions were adopted for this purpose. First, the existential nature of food makes it crucially important for the survival and development of countries, which is why it is one of the issues of key significance for security. Second, the continuing availability of food is becoming an increasingly great challenge for many countries because of the dynamics of its determinant factors that remain outside of the area of their effective control. Third, the unequal distribution of resources necessary for food production intensifies competition for access to them, which can be the source of future conflicts or wars.

Support for achieving the research objective thus formulated is to obtain the answers to the following questions: Why should food security be treated as a new research area of international security and what factors influence this? What potential threats to international security stem from food insecurity? How are the issues of food security presented in research on international security and what trends can be distinguished within it?

The article consists of three parts. The first explains the concept and essence of food security from a security studies perspective. The second part identifies

relations between food security and international security. The third presents the approaches to and trends in research on food security from the perspective of international security.

The analysis was carried out based on available literature on the subject (desk research), representing diverse disciplines and approaches to food security issues. Especially valuable among them were expert evaluations, program documents, and opinions illustrating the ongoing debate on the relations between food security and international security in international organizations such as the North Atlantic Treaty Organization (NATO) and Food and Agriculture Organization (FAO). Mainly publications from the last 20 years were used. However, older publications illustrating the relationship between wars and famine were also among the positions utilized. It should be stressed that while the evaluation of food from the perspective of reserves and weapon used in warfare has been present in the literature on the subject for a long time, the inclusion of food security issues in the research on international security is a relatively new problem connected with the emergence of new schools and research perspectives of security after the Cold War.

To show how perceptions of food security have changed in the context of international security, the fourth section of the article uses a comparative analysis. The result of a survey of publications posted on the websites of the International Food Policy Research Institute (IFPRI) (publications presenting the perspective of developed and developing countries), the North Atlantic Treaty Organization and the Food and Agriculture Organization are presented in two tables. The method used for content analysis was discourse analysis.

HOW MUCH 'SECURITY' IS IN FOOD SECURITY?

Russia's aggression against Ukraine in February 2022 again heightened the interest in food security. Obvious and undeniable connections between war and famine which is its consequence (De Waal, 1993, 2018; Von Grebmer et al., 2015) have gained an additional dimension in this conflict due to the importance of the two warring parties for the global food market. It turned out that the ongoing war influences not only the food security of Ukraine's directly war-affected population but it may, in the long run, also have a disastrous impact on global food security (Abay et al., 2023). The explanation of this sudden interest in the problems of food security raises suspicion at the same time that this may be also

an element of the intentional action of the forces that wish to turn the turbulence in the global food market into profits. Perhaps, however, on the eve of the 2020s, discussion on the subject is something more (World Bank, 2022; IFPRI, 2022) than going back to the themes already known since the first report of the Club of Rome (Meadows et al., 1973), and is part of a wide debate on connections between international security and food security, which has been only catalyzed by Russia's aggression against Ukraine?

When trying to answer the foregoing question, it is necessary to look closer at the evolution of the concept of food security itself that occurred as a result of changes taking place in the world, because the present-day reality decidedly differs from that of almost fifty years ago, when this concept was first formulated. It is a reality in which the accumulation of diverse overlapping and mutually determining phenomena makes the problem of food security extremely complicated but urgent and exceptional at the same time. It could be safely said that it is them that are nowadays the main source of concern for the ability to provide food security in the future.

The analysis of the concept and essence of food security should start with an obvious, even banal observation that food is a basic human need. The first manifestations of measures to provide it must have therefore involved striving for the elimination of hunger and for prevention of it. The main threat to food security thus conceived were factors that affected the physical quantity of food, i.e., crop failure, pests, or wars. Food security was achieved by accumulating food stocks thanks to food production through one's own means, i.e., maintaining food self-sufficiency.

Along with the development of world trade and technological progress, food security, in addition to its physical dimension, also gained economic and health aspects. Limited food self-sufficiency began to be compensated for by purchases in foreign markets. Under these circumstances, the food security of countries was determined to a larger extent by their financial situation and the level of income than by their own production (Shaw, 2007). Food insecurity was stimulated by the insufficient purchasing power of the poorest social strata rather than by the objective scarcity of food (Małysz, 2008, p. 85). The health dimension of food security also systematically gained importance, being related to the offered food quality, which was often a significant barrier to its provision.

A breakthrough in the approach to food security came in the 1990s. A new concept of comprehensive security (Dewitt, 1994) promoted from the beginning of the decade and supported by the evolution in the thinking of the role of an

individual in social, economic, and political life (Stanton, 2007) contributed to the identification of so-called human security, whose actor was to be an individual rather than the state. An expression of this change was the new definition of food security adopted by FAO in 1996, which stipulated that “Food security, at the individual, household, national, regional and global levels is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (FAO, 1996).

The evolution, conditioned by civilization progress, of the approach to food security has unintentionally shaped contemporary thinking about it. Its essence can now be reduced to the following pillars: availability, economic access, stability of food supply that guarantees unimpeded access to food in crisis situations, healthy food quality, and its utilization combined with related goods like clean water.

Interestingly enough, each subsequent definition of food security again posed the question of entities responsible for its assurance. This duty rested naturally with states. It was only in the situation of problems with fulfilling it that the issue acquired a supranational dimension. This conviction stemmed from the fact of using the concept of food security in studies on food availability in individual countries, i.e., in the assessment of whether they are self-sufficient in food production and whether they are able to satisfy the demand for it (Pinstrup-Andersen, 2009, p. 5). This way of understanding food security also allowed its inclusion in research on international security because it interpreted food in terms of a strategically important good that ensures the survival and development of countries (Hough, Pilbeam, & Stokes, 2015).

There is no doubt that the provision of food security requires complex instruments, i.a., the inclusion of food security issues in foreign policy matters, both in order to more actively influence the directions of development of the international food production and distribution system, as well as to identify negative trends in the food market, and to counter the effect of food insecurity, which can easily evolve into a conflict, thus contributing to an increase in the instability of the international environment.

The inclusion of food security in the context of research into international security is particularly encouraged by the discussion on the factors determining its level that are often perceived in terms of threat. Of such character was, without doubt, Thomas Malthus’ theory pointing to the relationships between demographic processes and food supply, or, equally pessimistic, the first report

of the Club of Rome “The Limits to Growth”, which saw threats in excessive exploitation of the natural environment. At present, because of the diversified approach to food security, such a position is, however, only partly justified since the publications of international institutions differentiate between food security and lack of it – food insecurity (European Commission, 2009, p. 8).

Food security is treated as a problem with a long time horizon, which means that its level is influenced by long-term phenomena (trends), such as demography, climate change, and changes in nutritional habits or biofuels production. In this context, it seems justified to analyze them as potential threats. Food insecurity, in turn, is treated as a dynamic phenomenon, but diversified at the same time both in terms of duration and severity, which is influenced to the greatest extent by local factors: socio-economic, cultural, geographic, climatic, and institutional (European Commission, 2009, p. 8). With regard to food insecurity, its causes rather than threats to it are taken into consideration. The more so that it can be temporary – this situation took place in Poland during the system transformation (Michna, 1992) – or permanent (structural), characteristic of the most poorly developed countries.

CONNECTIONS BETWEEN FOOD SECURITY AND INTERNATIONAL SECURITY

The manner of conceptualization of food security indicates a connection with international security but only an indirect one as it does not offer a satisfying answer to the question why it should be regarded as a new area of international security, what factors influence this and what threats to international security are related to food insecurity. In this respect, it may be helpful to distinguish three axes that would permit to establish the character of their interrelations. The first one associates international security with measures taken by individual states in order to provide food security. The second associates international security with the effects of food insecurity, whereas the third illustrates relationships between factors determining food security and international security.

The popular perception of food often omits its existential nature. To speak bluntly: we would all be dead without food. This obvious truth is of fundamental importance not only for the persistence of human civilization but also the assurance of its security. It is not without reason that most of the ancient civilizations emerged in the areas conducive to the provision of food security:

in river basins guaranteeing access to water and fertile soils. The changes taking place nowadays in the form of an unprecedented population growth, economic development stimulating improved living conditions and thereby a modification of nutritional habits, boost the demand for food, which, the experts estimate, may double in the nearest fifty years (Cribb, 2011, p. 123). On the other hand, however, these changes are accompanied by adverse phenomena such as the shrinking resources of arable land, diminishing reserves of drinking water and adverse climatic changes that significantly limit the possibility of food production. When taken separately, each of these changes is not necessarily a problem that individual countries or the whole internal community would not be able to cope with – on the contrary (Cribb, 2011, p. 124). However, the synergic nature of these phenomena remains outside of the sphere of countries' perception, which means that a solution to one problem may contribute to compounding another (Cribb, 2011, p. 124). Such an interrelationship is observable, for instance, in the context of allotting land for development. According to the World Bank, for that reason the industrialized countries lose 2.9 million hectares of farmland every year (Deininger et al., 2011, p. xxviii). What is more, the experts from the United Nations Convention to Combat Desertification point out that large-scale land acquisition has skyrocketed between 1997 and 2017. Especially food-importing states are seizing large tracts of farmland, as a hedge against future price volatility and food insecurity (UNCCD, 2017). Inevitably, these processes may intensify competition between countries in order to ensure their access to arable land abroad.

Assurance of food security is therefore closely combined with access to other goods of strategic significance, which was distinctly shown by Russia's aggression against Ukraine in February 2022. The issue here is, first of all, land, energy and water, without which it is impossible to produce food on a scale ensuring its physical availability and economic access to it because the ongoing warfare has contributed to the exclusion of many fields from cultivation in Ukraine, which has an adverse impact on the availability of food in other countries. Furthermore, a dramatic increase in energy prices as a result of war, first of all those of oil and gas, has an effect on the costs of food production (fuel, fertilizers), whereby its price increases, thus diminishing economic access to it.

Competition for access to goods essential for industrial-scale food production, as well as measures undertaken to maintain the capacity of food distribution channels, inevitably increase the threat of conflicts. What is more, in the face of shrinking resources the market may become an ineffective regulator of demand

for food. Holders of goods (food, energy resources) may cut down exports in order to secure their own interest or dictate prices unacceptable to buyers. Such a scenario confronted the world already in the early period of the COVID-19 pandemic in 2020 and also as a result of Russia's aggression against Ukraine. Although we are not yet dealing with the worst-case scenario of "wars for land" (Evans-Pritchard, 2010), the signs of "geopoliticization" of food are already observable. One of its new stages is the question of controlling transport routes crucial to global food distribution.

This discussion inevitably leads to the identification of the first interrelation axis combining food security and international security. Fearing for their own food security after the food crisis in 2007–2008, many countries took measures intended to secure physical access to fertile farmland abroad (i.e., fields having their own water resources). These practices came to be called "land-grabbing" – seizure of land because they essentially resemble actions of the colonial period, their object being mainly the developing countries. According to the estimates of the International Fund for Agricultural Development (IFAD), between 2004 and 2009 alone the purchase or leasing of farmland in Ethiopia, Ghana, Mali, Sudan, and Madagascar covered 2.5 million hectares (Cotula et al., 2009). What is more, in 2006–2009 foreign investors, behind which there were individual states, secured for themselves the rights to almost 20 million hectares of arable land in developing countries (*Outsourcing's Third Wave*, 2009).

A special area of competition for access to unused farmland is Latin America and Africa. Several big players are involved in this peculiar "race for land". First, the desert countries in the Middle East that have considerable financial resources from oil sales – in 2009 alone, Saudi Arabia signed a contract to lease half a million hectares of agricultural land in Tanzania (Karam, 2009). A year earlier, an investment firm from Dubai – United Arab Emirates – bought over 320 thousand hectares in Pakistan (Kerr & Bokhari, 2008). Second, Asian countries threatened by food insecurity to the highest extent because of enormous population, such as China and India, but also Japan and South Korea, whose food policies are largely based on imports. According to estimates, as much as 95 percent of arable land in Asia is already used, which may in future step up the competition between the countries in the region for access to farmland in other parts of the world (De Schutter, 2009). The third player is private investment funds seeking new investment opportunities (Evans-Pritchard, 2010).

Interrelationships between food security and international security are illustrated in a special way by the measures taken by China. Already today China

is the leader in acquiring farmland outside its own borders. The country leases large stretches of arable land in Indonesia, Laos, Myanmar, Cameroon, Uganda, Kazakhstan, and in the Philippines (McCartan, 2008). The area of China's special interest is the fertile soil of Siberia, which belongs to the Russian Federation. By 2010, China used 80,400 hectares, which it obtained at a cost of 21.4 million USD (Visser & Spoor, 2011).

Many countries for which it is a vital challenge to ensure food security seek to gain control over areas upon which the provision of food to a substantial part of the world's population will depend in the future. The risk stemming from this type of activity is caused by the increasing competition for agricultural land outside a country's own borders. Many countries already now impose restrictions on the sale of land to foreign investors for fear that behind these transactions there are specific countries seeking to ensure their food security at the expense of the former (Evans-Pritchard, 2010). Also, the World Bank experts point out that transactions whose object is arable land should be open, otherwise this poses a threat of monopolization of resources and the deepening of the already enormous gap between the rich and the poor, with the difference that in the case of food this gap many mean a difference between life and death (Deininger, 2011).

The second interrelation axis links international security with the effects of food insecurity. The intensification of studies on the subject was caused by events connected with a dramatic rise in food prices in 2008, whose immediate outcome were mass protests both in the developing and highly developed countries. It was observed at the time how easily food insecurity could transform from a socio-economic issue into a serious security problem. Analyses by FAO and World Food Program (WFP) provided a new look at the reasons why food shortages should be recognized precisely as a security problem (Brinkman & Hendrix, 2011). Also NATO directly confronted this issue, an example thereof being a discussion in the "NATO Review", in June 2008, which was entirely devoted to relations between security and food (NATO Review, 2008). The tenor of the comments therein explicitly showed that food security was of key importance from the standpoint of international security, which was forcibly confirmed by another dramatic rise in food prices in February 2011, whose direct consequence was the wave of protests that swept through North African and Middle East countries, turning in many cases into bloody riots.

Food insecurity may thus generate serious consequences for security such as outbreaks of protests and social unrest, a growing risk of the collapse of politi-

cal systems, civil wars or disturbances, and, to a lesser degree, of international conflicts (Brinkman & Hendrix, 2011, p. 4). It should however be emphasized that the level of risk of such phenomena is also determined by other factors. It depends on the political system, the condition of political institutions, the level of economic development, as well as on existing social security or demography. This risk is particularly high in the countries recovering from conflicts, where the political system is very weak (Sumpsi Viña, 2008). This relationship is confirmed by data. In 2008 alone, serious riots broke out in many countries, caused by rising food prices. They took the form of both peaceful demonstrations, as was the case with Italy, and bloody internal conflicts that required international intervention – as happened in Haiti. The so-called hunger protests were reported in 48 countries, mainly in the developing ones and dependent on food imports: Bangladesh, Cameroon, Egypt, Haiti, Indonesia, Senegal, and Yemen. In the case of developed countries, the food price rise did not spark dramatic protests yet it caused a debate on food security. In Europe, for example, it was recognized that an effective protection against crisis was the Common Agricultural Policy implemented from the beginning of integration (Rankin, 2011).

Food insecurity may also result in increased migration movements, which were recognized as a serious challenge to international security after the crisis of 2015. Many experts stress that the direct result of the rise in food prices in the aftermath of Russia's aggression against Ukraine in 2022 may be another wave of migration from the African countries, especially from those that base their food security strategies on food imports (European Commission, 2022). This is becoming part of the worldwide trend of growing migration movements motivated by food insecurity. At the same time, it is estimated that this process will increase with the population growth and intensification of adverse climate changes.

An equally real effect of food insecurity can be a growing risk of trade wars. When faced with competition for access to food, countries may use protective instruments such as price control or ban on exports, which may result in increased internal and international tensions. In 2008, due to a dramatic increase in food prices, many countries imposed a ban on exports of selected food products, which negatively translated into security issues. The ban on exports imposed by India triggered serious riots across Asia and Africa, for example (Galani, 2022). Also in 2020, many countries imposed restrictions on food exports in fear of shortages caused by the COVID-19 pandemic, of which 33 tightened their export policies by controlling food exports: among these was Russia – one of the

largest exporters of agricultural raw materials, and Vietnam – the world leader in rice exports (Evenett, 2020). Also, in the wake of Russia's aggression against Ukraine in 2022, many countries have banned the export of food commodities out of concern for their own food security.

Food insecurity may also translate into radicalized views or into joining extremist and terrorist groups motivated by search for food. Such mechanism was observed in 2008 in Afghanistan, where, when faced by the food crisis, many young men defected to the Taliban, treating this as a way of escaping from hunger (*What Does the Food Crisis Mean in Afghanistan?*, 2008).

The third identified relationship axis concerns food security-determining factors that have an impact on international security. At present, namely, the provision of food security is determined by a number of factors that remain beyond the effective control by countries. Of fundamental importance in this area are food distribution channels as well as access to the means of support for agriculture: fuels, fertilizers, fodder, and plant protection products. Many countries, operating in the conditions of globalization, gave up producing food on their own to rely on market mechanisms, thereby becoming dependent not only on the world's economic situation but also on political conditions. How serious this risk is was already shown by the COVID-19 pandemic, and confirmed by Russia's aggression against Ukraine in 2022. At the same time, the two events reminded us of the geopolitical dimension of food security, the provision of which largely depends on uninterrupted channels of food distribution. Despite the physically existing food, Russia's blockade of the Ukrainian Black Sea ports prevents it from reaching the market, which reduces its availability. The reduced food supply translates into a rise in prices, which may, following the pattern of the previous food crises, contribute to the increased instability not only of individual countries but also regions, which will in turn influence international security.

Access to water, energy, and farmland is the basis for food production, which in turn guarantees the possibility of ensuring food security. However, in the face of adverse demographic trends, each of these factors is a conflict-producing area. Already now, water is a serious problem of security, its largest user being agriculture. Production of a larger amount of food to cope with the needs of another two billion people in 2050 will mean increased exploitation of available water resources and land. This situation creates a serious threat not only to food security but also to international security because of the growing competition for clean water.

Water scarcity also stimulates other adverse phenomena that determine food security and impact on the level of international security. The progressive desertification of soils (according to forecasts the problem may affect as much as one third of farmland) is a factor that already now seriously influences the level of food security in many countries. The population directly affected by the effects of this phenomenon, now estimated at 250 million, will be forced to migrate, which involves a number of threats to security. Another, not less important factor determining food security and international security is energy. The striving of countries to ensure their energy security leads in a growing interest in biofuels. Many independent analyses show that biofuel production causes a significant reduction in food supply, and, consequently, a rise in food prices and the lowering of food security. The increase in acreage for biofuel production at the expense of food production brings about specific social costs: limited availability of food and a disturbed balance in the food market.

THE WAYS OF PERCEPTION OF FOOD SECURITY AS A NEW AREA OF INTERNATIONAL SECURITY

The end of the Cold War brought an increased interest in non-military dimensions of security. The revolution that took place in research on international security indirectly stemmed from an illusory conviction that the risk of a worldwide military conflict as an existential threat was eliminated, and the main source of threats to the survival of countries were socio-economic problems such as hunger, poverty, an increase in the number of population, climate change, or diseases. It was therefore concluded that the absence of effective measures in these areas could be conducive to conflicts and instability, thereby generating new threats to international security. The process of redefinition, initiated by the end of the Cold War, thus brought a new look at international security, i.e., the concept of comprehensive security (Buzan, Wæver, & de Wilde, 1998) and the concept of human security (UNDP, 1994). Comprehensive security meant the broadening of the understanding of security with new dimensions, including economic, social and ecological issues in the field of analyses since it was recognized that to define security exclusively in military terms might be detrimental from the standpoint of its assurance just as it would be to disregard non-military phenomena. The concept of human security in turn opened a debate on the “reference object” of security. While the traditional approach to security placed the state and its

structures in the center of analyses, the concept of human security recognized an individual and society as a security subject (actor), broadening the range of threats to it (security) with such issues as: economic security, food security, health security, ecological security, personal security, social security, and political security (UNDP, 1994, p. 24). The two concepts opened research on international security to new issues, including food security. The authors of concepts of non-traditional security threats went much further: they recognized that ecological and socio-economic phenomena such as climate change, natural disasters, infectious diseases, uncontrolled migrations, famine, or organized crime could lead to armed conflicts and be a challenge to the survival and prosperity of societies and countries (Caballero-Anthony, 2016).

The influence of the redefinition of international security on the recognition of food security as a new research area of the former can be understood in two ways. On the one hand, the redefinition was undoubtedly a factor that legitimized the inclusion of non-military phenomena in the area of security analyses: climate change, infectious diseases, natural disasters, uncontrolled migration, access to food, human trafficking and other forms of transnational crime, while on the other, it contributed to seeking new research approaches, situated between followers of the traditional interpretation of security in terms of state as well as intentional threats, and those espousing the approach represented by the concept of human security, focused on the security of an individual and society, and on non-intentional threats.

The question that requires a separate explanation is the way of perceiving food security as part of the issue of international security. Is it perceived in the same way by all the interested parties or not, and what factors impact upon this? Trying to answer the foregoing questions it is necessary to draw attention to the high contextuality of this phenomenon since the way of perceiving food security as a security problem is strongly determined by the context in which it is done. The problem looks different from the perspectives of the developed countries and the developing ones. Different is also the perception of it at the international and at national levels. Second, it should be remembered that the problem of food security becomes a challenge to security only when there is reduced food security or there is none. Temporary food insecurity does not necessarily pose a threat to security, but permanent insecurity – most certainly. Third, of great importance is also the specificity of identified threats. Are they intentional or non-intentional, do they really exist posing an objective threat of hunger, or do they exist only in the consciousness of decision-makers as a potential problem?

Taking all these into consideration, it should be said that the contextuality of food security influences the way it is perceived as an international security problem, and, in consequence, its inclusion in the research field of international security. To illustrate this relationship, matrices will be used distinguished on the basis of two variables: the type of threats to food security and the level of their identification. In the case of the type of threats, their contextuality allows the distinction of subjective and objective threats. The former should encompass all those that directly translate into the restriction or lack of access to food but are, at the same time, not connected with and do not depend on human will, such as a rise in food prices, climate change, or demographic pressure. Subjective threats, in turn, comprise those that entail a potential risk of shortage or lack of food and stem from human actions, e.g., agroterrorism. The second variable is the levels of identification of problems related to food insecurity, within which the national and the international level can be distinguished. At the national level, the differentiating factor is the degree of a country's development. At the international level, it is the object of action by an organization – strictly focused on international security (NATO) and strictly focused on food security (FAO). On this basis, two matrices can be constructed that illustrate the ways of presenting food security as a problem of international security.

Table 1. The Ways of Perception of Food Security as the Problem of Security at the National Level

Identification level Type of threats	Developing countries	Developed Countries
Objective threats	Existential problem	Socio-economic problem
Subjective threats	Lack of perception	Target of terrorist attacks

Source: Author's own elaboration based on publications from IFPRI website.

Table 2. The Ways of Perception of Food Security as the Problem of Security at the International Level

Identification level Type of threats	FAO	NATO
Objective threats	Humanitarian, development, and security problem	Lack of perception
Subjective threats	Lack of perception	Target of terrorist attacks

Source: Author's own elaboration based on FAO and NATO publications from the official websites.

Since the 2008 food crisis the problem of food security has systematically gained in importance both at the national and international levels. The fundamental axis that differentiates approaches to this issue is the perception of threats. In the objective dimension, food insecurity means hunger. This type of perception is characteristic of developing countries with numerous populations, dependent on food imports, conflict-ridden or exposed to the effects of climate change to the highest extent. For these countries, the problem of food security becomes an existential one influencing and determining biological survival. In this case, the deterioration of food security directly translates into both a country's internal security and international security. The situation is different in developed countries. In their case, the problem of food security is not perceived as an existential problem but rather as a socio-economic one.

In the perception of developed countries, the awareness of the weight and significance of the food security problem, however, manifests itself increasingly often in fears of destabilization of the food system through hostile actions or factors that remain beyond the state's effective control such as the COVID-19 pandemic or Russia's aggression against Ukraine. What is more, the observable "weaponization" of food by Russia in Ukraine (the intentional destruction of crops and agricultural equipment, stealing agricultural produce, seizing food stocks) shows that food is becoming an element of the hybrid war, in which the risk of terrorist attacks against the targets related to the agro-food is recognized as a crucial threat to national security. Fears connected with the destabilization of food supply are heightened by the specificity of food production process. Threats identified in this field concern the access to crops (farmland is not protected, it is easy to contaminate soil and groundwater) or the susceptibility of animal breeding and crops to diseases and pests (Katz, 2005). Such an approach to the issues of food security is characteristic of NATO because the research conducted by this organization focuses on food security as the target of possible hostile measures, rather than on food insecurity threats to national and international security. In its publications, NATO focuses more on the system of food production and distribution and the ways of protecting it against terrorist attacks and natural disasters (Alpas & Çırakoğlu, 2008) than on countering destabilization or conflicts caused by food insecurity.

Entirely different is the perception of food security by FAO. Unlike NATO, this organization sees vital relationships between food insecurity and international security. From its perspective, food insecurity is not only an economic problem stemming from economic underdevelopment, or a humanitarian problem, but

increasingly often also a security problem, on whose solution depends the stability of the whole world. According to FAO, the level of the world's food security deteriorating from 2008 is the proper justification for considering it in terms of international security.

CONCLUSIONS

To sum up the foregoing discussion, it should be said that the problem of food security is slowly gaining in importance as a new research area of international security, which is an objective trend intensified by such phenomena as the COVID-19 pandemic, or Russia's aggression against Ukraine in February 2022. Although the way of perceiving the problem is still highly diverse and contextual, changes in this field are already observable. The conducted analysis also allows the formulation of several conclusions, which will at the same time be an answer to the research question posed at the beginning.

First, food security should be treated as a new research area of international security as it is no longer an exclusively humanitarian or economic problem but a challenge, which, if not responded to, may contribute to the destabilization of the situation in the world. Forecasts showing the persistence of negative trends influencing food security in the world, such as the increase in the population numbers, desertification of farmland, water shortages, or climate change, make these issues exceptionally urgent. Since, as the studies show, food is the most sensitive criterion of ecological security (cleanliness of the natural environment), economic security (purchasing power, income), energy security (biofuels, energy price increase, embargoes and sanctions), and social security (poverty, hunger), to disregard these relationships would only show the naivety and short-sightedness of institutions and politicians responsible for international security.

Second, as the 2008 and 2010–2011 food crises, the COVID-19 pandemic, and Russia's aggression against Ukraine in 2022 demonstrate, food insecurity generates serious threats to international security in the form of the growing risk of conflicts over resources, the breakdown of global supply chains, destabilization of the global food market, a dramatic rise in food prices that translates into an increased risk of instability and internal conflicts (the case of the Arab Spring), as well as increasing migration movements. In this context, it should be also observed that the specificity of the contemporary global food system, upon which many countries base their policies of food security, is conducive to

the phenomenon of the “weaponization” of food, i.e., its purposeful destruction, appropriation and blocking of its supplies in order to destabilize international situation, which is shown by Russia’s operations in Ukraine.

Third, the redefinition of the concept of security, which took place after the end of the Cold War, has contributed to a more comprehensive approach to problems that have or may have an impact on the security of countries and stability of the international system. Undoubtedly, the justification for the inclusion of food security in the research on international security are new concepts such as comprehensive security, human security, or the concept of non-traditional security threats, which have revealed the existing relationships between international security and the problems often omitted in security analyses, e.g., hunger or poverty.

The above article is the result of preliminary research on the relationship between food security and international security. The author’s intention was not to analyze the topic exhaustively, but only to establish existing relationships and indicate potential directions for further research. Undoubtedly, the issue deserves deeper exploration, including, among others, the theoretical justifications for the direct inclusion of food security in international security studies, the concept of food weaponization, which is becoming increasingly important in the context of the war in Ukraine, or the geopolitics of food, which may heavily affect international security as well as food security in future.

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