Section 3.

SECURITY POLICIES

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SUSTAINABLE DEVELOPMENT AS A FOUNDATION OF ENSURING FOOD SECURITY. RESULTS OF A SURVEY CONDUCTED AMONG UNIVERSITY STUDENTS IN POZNAŃ

Abstract

The paper discusses the significance of the concept of sustainable development in ensuring food security. It presents the gist of both phenomena and analyses the results of a survey conducted among the students of Poznań universities. The conclusions stress the necessity to undertake integrated research into sustainable development and develop joint educational standards.

Key words: sustainable development, food security, security of individuals, education for safety

Introduction

A change can currently be noted in the discussion on how security is perceived and defined, which began in 1994 when the United Nations presented its concept of human security giving more emphasis to the requirement of focusing on humans as active contributors shaping the security environment. The UN defined seven key areas that demanded more extensive international collaboration which marked a departure from the state-centric and militaristic perception of security. The observations that "it is easy to lose perspective in today's global uncertainty as one crisis succeeds another (...) We must seek a new paradigm of sustainable human development that can satisfy the expanding frontiers of human security. We must seek a new framework of development cooperation that brings humanity together" (United Nations, 1994, pp. 1–2) remain as current as they were twenty years ago.

The food-related dimension of the security environment has taken a particular position in the discussion on its present determinants, as it combines economic, health-related and social aspects, calling for a holistic approach of both scholars and practitioners. It should not be assumed, however, that such a holistic overview of the above-mentioned issues is going to spread on its own. In order to promote it, intensive educational effort is required to be taken, especially on the basis of a reliable diagnosis of the current knowledge on food security and sustainable development among young people. This paper is a contribution to the process of developing such a diagnosis. Its main objective is to present the results of surveys conducted among the students of Poznań universities, primarily concerning the level of respondents' awareness of how important sustainable development is to ensure food security.

It should be emphasized here that the survey was conducted in line with the assumption that security has to be experienced and shaped by individual people first and foremost. Individualization of security is a prerequisite for it to make sense at the international level (McSweeney, 1999, p. 16). The individual human as the causative agent is an extremely significant element shaping security. If security is to be based on the concept of sustainable development "more attention needs to be paid now to the security culture of different entities, starting with ordinary citizens, young people in particular, as well as that of representatives of different services" (Cieślarczyk, Filipek, 2014, pp. 93–94).

The survey presented in this paper was based on the sampling method, and the questionnaire technique was applied in the research process. Survey respondents were selected by means of random sampling with sample size set at 400. Universities selected for the survey reflected the paradigm of interdisciplinarity that is typical of the current interpretation of security. Survey participants represented the following universities in Poznań: Adam Mickiewicz University, Poznań University of Medical Sciences, Poznań University of Life Sciences and Poznań University of Technology.

Survey results are presented in the context of considerations on the specific nature and the character of both sustainable development and food security. The paper indicates the need to shape awareness in the field of ensuring food security in conformity with the principles that guarantee sustainable development of modern societies.

Towards the contemporary approach to Sustainable Development

Swiss sociologist, Franz-Xaver Kaufmann wrote in his *European Foundations of the Welfare State* that the modern State will have to develop specific instruments to address the issues of new threats, includ-

ing a new attitude to environmental protection (Xaver-Kaufmann, 2012, pp. 345–346). The concept of sustainable development is among those concepts that reflect to some extent the changes in how the state's tasks of ensuring security are perceived. Its origins date back to the 1970s. The term 'sustainable development' was used for the first time during the Governing Council Session of the United Nations Environment Programme in May 1975 (Górski, 2009, p. 57). Applying this term, the Programme stressed primarily the need and eternal desire of man to manage the natural environment, while taking into regard and respecting the biosphere (Schrijver, 2008, p. 47). 'Sustainable development' quickly became a keyword that described and characterized the future directions of State policies.

Sustainable development was eventually defined in 1987 by the World Commission on Environment and Development in the report *Our Common Future*. The Commission is frequently referred to as the Brundtland Commission after its President – Gro Harlem Brundtland. During the session, the Commission decided that sustainable development would be characterized by a series of changes in the exploitation of resources, technical development and increased institutional potential that should aim at satisfying the human needs and aspirations of both present and – more importantly – future generations (World Commission on Environment and Development, 1987, p. 41).

In the early 1990s, the international community initiated numerous meetings to discuss ways to improve the condition of the natural environment. The first conference on this topic took place in Rio de Janeiro in June 1992. Its keynote was the idea that the environment and development are mutually related. The most important documents drafted at this conference were the *Declaration on Environment and Development* and the *Global Action Plan – Agenda 21*. The former clearly stressed that man and environmental protection are an integral part of the sustainable development concept, and ensuring food security should constitute a key element of sustainable agriculture of every State (Alam, 2008, p. 45).

According to the conference organizers, sustainable development was to be founded on the integration and, subsequently, collaboration of three pillars: economy, society and the environment. The future brought disappointment, however, as the efforts to create a cohesive global structure to support these pillars turned out not to be effective enough (Kamprowski, 2013, p. 163).

It became inevitable to strictly combine the idea of sustainable development with the Millennium Development Goals that were to be achieved within the United Nations Millennium Project. Out of the eight goals, those of eradication of poverty and famine and ensuring environmental global balance were particularly significant in the context of food security.

On July 31, 2012, Secretary-General of the United Nations, Ban Kimoon announced 27 representatives - individual civilians, representatives of the private sector and government heads from every part of the world – to sit on a High Level Panel to advise on the global development framework beyond 2015. Given that some of the eight UN Millennium Development Goals had not been not achieved by 2015, the future framework of how to face the challenges of the globalized world needed to be considered. On May 30, 2013, the High Level Panel developed and presented a report: A New Global Partnership: Eradicate Poverty and Transform Economies though Sustainable Development. It stressed that it was necessary for central and local authorities to collaborate more energetically than they had done in the past, to slowly change the habits of generating and consuming power, water and food. It also emphasized the importance of more frequent applications of innovations and technologies that balance out everybody's chances (United Nations, 2013, p. 9) as well as the need for civil society, multilateral local and central institutions and scientific and academic circles to emerge.

At present, the importance of the concept of sustainable development continues to grow. Jeffrey Sachs, Director of the Earth Institute at Columbia University in New York noted that we are now living in the times of sustainable development which will soon become the fundamental principle of global politics and economy, as well as that of ethical matters (Sachs, 2013, pp. 1–2). He also stresses the need to found sustainable development on society's opinions and beliefs which should lay the ground for the shared values facilitating sustainable development (Sachs, 2012, p. 2). This opinion well justifies the need to ask how sustainable development is understood by students, among others.

Food security as a complex element of sustainable development

The *Strategy of National Security of Poland*, issued in November 2014, strongly focuses on the matters of ensuring the food dimension of security. The "Strategy..." stresses the fact that ensuring food security is among the strate-

gic goals of the State's security. It is right in saying that the "modern security environment is characterized by the blurring borders between its internal and external, military and non-military dimensions" (Strategia Bezpieczeństwa Narodowego Rzeczpospolitej, 2014, p. 17). It is therefore crucial to identify in as much detail as possible the current elements that influence State security in order to define and determine the security environment.

This is especially important, but also complex, in the case of food security. According to the Report by the Committee on World Food Security, the "Roundtable on Monitoring Food Security", there are over 200 definitions and over 450 indicators of food security (Committee on World Food Security, 2011, p. 2). The scope of the concept of food security has evolved over time. Ensuring food security was the main issue tackled at the World Food Conference in Rome in 1974. It was already then that it was noted that the postulate of food security could be realized exclusively, provided that each individual would be safe from the risk of hunger and malnutrition.

In 1983, the Food and Agriculture Organization of the United Nations (FAO) suggested defining food security as "ensuring that all people at all times had both physical and economic access to the basic food stuffs that they needed" (Szabo, 2016, p. 32).

The conclusions of the World Food Summit held in Rome in 1996 were of crucial importance when defining the scope of food security. The Summit determined that food security should be viewed as the situation 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" (Cohen, 2011, p. 187).

In 2009 in Rome, the FAO defined food security as physical, social and economic access to safe food at all times. The food should meet nutritional requirements and be sufficient in terms of food demands and preferences and provide for an active and healthy life (Food and Agriculture Organization of the United Nations, 2009).

The scope of the term food security has grown over time. The initial definition of food security exclusively in the economic and physical dimension has expanded to include equally significant social and health-related elements. The range of entities concerned with food security has also increased; at present it is assumed that security should be ensured not only in terms of the State or nation, but, most importantly, at the level of individual people and households, as well as globally. The significance of food preferences that are conditioned by different cultures and shape the social dimension of food security is also growing. The context of health

is frequently stressed, with reference to how important an active life is. It is therefore difficult not to agree with the observation by the FAO that the first definitions of food security have become way too simplistic to be accurate in modern times. The FAO has also emphasized that food security cannot be perceived as a goal in itself but should be a set of activities that contribute to the healthy life style of individual people (Food and Agriculture Organization of the United Nations, 2003, p. 27).

Ensuring food security continues to pose quite a challenge for theoreticians developing the concept of sustainable development. On account of the dynamic changes that influence this dimension of security multi-dimensional monitoring of different aspects named in the above-quoted definitions needs to be kept. At present, food security is one of the most fundamental human needs, and serves as a kind of a key to discuss human rights and development policies. The relations between food security and the concept of sustainable development are illustrated in Figure 1 below.

state institutions international organizations non-governmental organizations political decisionmaking education and information for security sustainable climate change development international policy on-going monitoring individual food policy development strategy of the state perception of the state of security education of society

Figure 1. Transdisciplinary model of research into food security

Source: Kamprowski, 2015, p. 164.

Survey results

The following research hypotheses were formulated before the survey:

- 1. Students of social sciences demonstrate a higher level of knowledge about sustainable development than their peers in the faculties of natural sciences, technology and medicine.
- 2. As knowledge on sustainable development increases, so does knowledge on food security.

Students covered by the survey were requested to answer the following questions, among others:

- 1. How do you assess your knowledge of the concept of sustainable development?
- 2. How do you assess your knowledge of the concept of food security?
- 3. What are, in your opinion, the fundamental objectives of sustainable development?
- 4. Is food security in Poland, in your opinion, created in conformity with the principle of sustainable development?

When assessing their knowledge of the term sustainable development, one quarter of respondents described it as good, and two fifths as satisfactory. One third of respondents assessed their knowledge as poor. Students of social sciences demonstrate, relatively, the greatest sense of having sufficient knowledge of the concept of sustainable development.

very good; 3.25% good; 25.75% satisfactory; 39.50%

Graph 1. Assessment of one's own knowledge on sustainable development

Source: Author's analysis on the basis of survey results.

poor; 21%

good; 34%

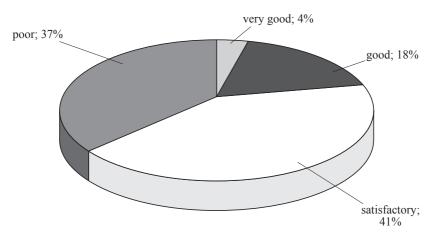
satisfactory;
39%

Graph 2. Assessment of one's own knowledge on sustainable development among students of social sciences

Source: Author's analysis on the basis of survey results.

Students of medical and technical universities as well as students of natural sciences demonstrate a comparable, but lower sense of having knowledge and understanding of the concept of sustainable development.

Graph 3. Assessment of one's own knowledge on sustainable development among medical students

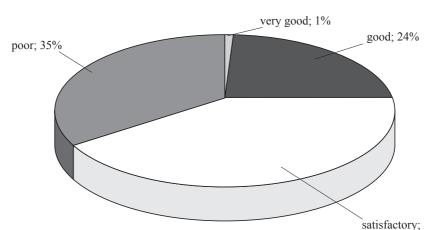


Source: Author's analysis on the basis of survey results.

poor; 33%
good; 27%
satisfactory;

Graph 4. Assessment of one's own knowledge on sustainable development among technical students

Source: Author's analysis on the basis of survey results.



Graph 5. Assessment of one's own knowledge on sustainable development among students of natural sciences

Source: Author's analysis on the basis of survey results.

Respondents' answers to the question about the assessment of their knowledge on food security are similar. The indications of students' hav-

40%

38%

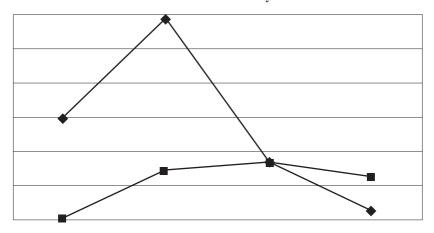
ing better knowledge on sustainable development are therefore typically accompanied by a higher assessment of their knowledge on food security. This is illustrated by the graph below.

Table 1
Assessment of one's own knowledge on sustainable development (survey results by university)

	University				
Answer	Adam Mickie- wicz University	University of Life Sciences		Poznań Universi- ty of Technology	
Very good	6%	1%	4%	2%	
Good	34%	24%	18%	27%	
Satisfactory	39%	40%	41%	38%	
Poor	21%	35%	37%	33%	

Source: Author's analysis on the basis of survey results.

Graph 6. Assessments of one's own knowledge on sustainable development and on food security



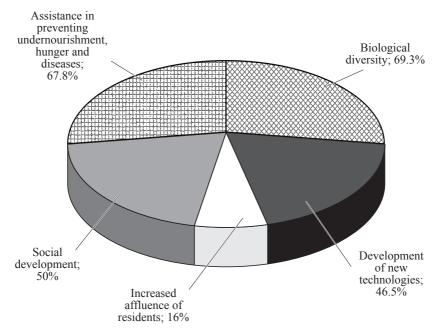
positive assessment of one's knowledge on food security

positive assessment of one's knowledge on sustainable development

Source: Author's analysis on the basis of survey results.

When indicating the objectives of sustainable development, respondents typically chose one of the two options among the five given. The

most frequent answers indicated the objectives of maintaining biological diversity and assistance in preventing undernourishment, hunger and diseases.



Graph 7. Objectives of sustainable development

Source: Author's analysis on the basis of survey results.

It should be noted that the response may depend on the type of university, but the differences turn out to be negligible. The respondents from Adam Mickiewicz University and Poznań University of Life Sciences indicated biological diversity and prevention of hunger as the most important objectives. The representatives of Poznań University of Medical Sciences and University of Technology indicated the same responses, but in the reverse order.

The fourth question was as follows: is food security in Poland, in your opinion, created in conformity with the principle of sustainable development? Slightly more than half respondents gave a negative answer, which is illustrated in Graph 8.

probably not; 44.75% probably yes; 2.25%

Graph 8. Assessment of ensuring food security in Poland on the basis of the principle of sustainable development

Source: Author's analysis on the basis of survey results.

The table below illustrates the relation between the answers and the university of the respondents.

Table 2
Assessment of ensuring food security in Poland on the basis of the principle of sustainable development (survey results by university)

	University				
Answer		University of Life			
	wicz University	Sciences	dical Sciences	ty of Technology	
Yes	5%	2%	1%	1%	
Probably yes	45%	59%	37%	43%	
Probably not	45%	33%	54%	47%	
No	5%	6%	8%	9%	

Source: Author's analysis on the basis of survey results.

Conclusions and recommendations

Sustainable development is a key concept in the process of ensuring security, including its food dimension. However, knowledge of this subject is not spread equally in Polish universities, as exemplified by the survey results presented in this paper. It is evidenced that students of dif-

ferent universities in Poznań have a different assessment of their level of knowledge on the role of sustainable development in ensuring security.

The survey results have also demonstrated that the activities of the United Nations in the area of food security and sustainable development, including the Millennium Project, are practically unknown to the survey's participants. Answering this question, 43% of respondents indicated the answer "I don't know." There was also a high proportion of missing answers (28.75%).

Considering the above, it seems justified to call for academic circles to offer more intensive and efficient education in the matters of both sustainable development and food security in the future. Taking into account the discrepancies identified by the survey, it seems necessary to integrate academic circles more broadly and profoundly in order to develop joint educational standards in this respect.

It should also be emphasized here that, currently, it is becoming fundamental to carry out integrated research into ensuring human security through sustainable development, research that would simultaneously go beyond the rigid framework of individual disciplines. It is obviously a mundane process whose results will be neither easily nor rapidly seen. It seems, however, that this challenge is worth undertaking in order to review the current status of actual threats to society as exhaustively as possible.

As concerns research into food security, it should no longer be perceived vertically, that is from the perspective of individual disciplines, and exclusively in economic terms. It seems essential to indicate political and academic leaders, at both central and local levels, in the field of integrated research into food security.

It would be beneficial to establish interdisciplinary teams to collaborate in drawing up concrete joint solutions taking into account the specific nature of individual academic disciplines. Numerous problems could be solved if courses on the methodology and theory of food security and sustainable development were incorporated into BA programs.

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Streszczenie

W artykule przedstawiono rolę koncepcji zrównoważonego rozwoju w kreowaniu bezpieczeństwa żywnościowego. Omówiono istotę obu zjawisk oraz poddano analizie wyniki przeprowadzonych badań. W podsumowaniu zwrócono uwagę na konieczność podjęcia zintegrowanych badań nad zrównoważonym rozwojem oraz opracowania wspólnych standardów kształcenia.

Słowa kluczowe: zrównoważony rozwój, bezpieczeństwo żywnościowe, bezpieczeństwo jednostki, edukacja dla bezpieczeństwa

Резюме

В статье представлена роль концепции устойчивого развития в создании продовольственной безопасности. Оговорена сущность обоих явлений, а также проанализированы результаты проведенных исследований. В резюме обращено внимание на необходимость принятия интегрированных исследований в области сбалансированного развития и разработку общих стандартов обучения.

Ключевыес слова: сбалансированное развитие, продовольственная безопасность, безопасность индивидуума, образование для безопасности

Резюме

В статті представлено роль концепції сталого розвитку в створенні продовольчої безпеки. Обговорено сутність обох явищ і проаналізовані результати досліджень. В підсумках звернено увагу на необхідність дослідження проблем сталого розвитку та розробку загальних стандартів навчання.

Ключові слова: сталий розвиток, продовольча безпека, безпека людини, безпека життєдіяльності