

Monika Adamczak-Retecka
Olga Śniadach

Climate Change and Food Security

The Legal Aspects with Special Focus
on the European Union

Gdańsk University Press

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*To Michał, Pola, Marysia and Janek
and Future Generations*

Monika Adamczak-Retecka

Olga Śniadach

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PREFACE

According to the Intergovernmental Panel on Climate Change Report presented in March 2014, today climate change is already having substantial and widespread impacts which are being felt on all continents of the world. In the recent decades, changes in climate have caused impacts on both natural and human systems. Global warming is already having serious consequences on human health, biodiversity, ecosystems and the goods and services they provide, as well as on many social and economic sectors, including agriculture and food production. The aim of this monographs is to analyse the legal aspects of climate change impacts on food security from the European Union law perspective. It will be also attempted to show that both climate change and food security are global problems to solve with necessary international cooperation. Moreover, it is essential to change the consumption mentality of the present society for the sake of future generations. We assume that the problems already experienced in tropical and subtropical countries nowadays might soon enter Europe and that European citizens should be prepared for changes. Therefore, an immediate action is required and legally binding documents are essential for adapting to the unavoidable impacts of climate change and creating „climate resilient society”.

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LIST OF ABBREVIATIONS

art.	article
CAN	Climate Action Network
CAP	Common Agricultural Policy
CDM	Clean Development Mechanism
CCS	Carbon Capture and Storage
CLJ	Cambridge Law Journal
CLIMATE-ADAPT	European Climate Adaptation Platform
CMLRev.	Common Market Law Review
COP	Conference of the Parties
CSOs	civil society organizations
CSR	corporate social responsibility
EEA	European Environment Agency
EAP	The new general Union Environment Action Programme
ECCP	European Climate Change Programme
EEELRev.	European Energy and Environmental Law Review
E.L.Rev.	European Law Review
EFSA	European Food Safety Agency
FAO	Food and Agriculture Organization
FAS	Farm Advisory System
ICLQ	International and Comparative Law Quarterly
IPCC	International Panel on Climate Change
TEU	Treaty on European Union
UNFCCC	United Nations Framework Convention on Climate Change
ICESCR	International Covenant on Economic, Social and Cultural Rights
REFIT	Regulatory Fitness and Performance Programme
SDG	Sustainable Development Goal

INTRODUCTION

1. Reasons for this research

The potential and real impacts of climate change are widely debated and investigated by scientists, economists and politicians all over the world.¹ Recently, it has become also the object of interest of the doctrine of law. The majority of research on climate change is conducted in the common law system. Nevertheless, the impact on food security and the legal aspects of that issue seem to have remained a less studied topic. That is why the research conducted is pioneering. Both authors of the monographs are lawyers and specialize in the European Union law – that is one of the reasons for choosing EU law perspective for the considerations. However, it must be stressed that the European Union is the global leader of climate change action. It has long been a motor in international negotiations on climate change and fights for a legally binding document in that field. Moreover, it was decided to place climate change in art. 191 of the TFEU and to incorporate funding on climate action into the EU budget.

The purpose of the research conducted within the project was to acquire and extend the existing knowledge concerning legal aspects of climate change impact on food security. The project is innovative as it links together legal aspects of climate change and food security, which has not been the subject of a comprehensive study so far. However, some aspects were discussed in the literature and European Union's strategies. Many articles and some books have been written in order to assess how far climate change needs to be conceived

¹ P.G. Harris (ed.), *Routledge Handbook of Global Environmental Politics*, London 2014.

as a security problem. Few authors have, however, attempted to tackle the issue of food shortages as an outcome of climate change. Also, none of them used the context of the EU legal system in order to link those two global problems. That is another reason why the authors of this monographs found it important to discuss the topic.

The solutions presented so far by the EU have mainly taken the form of soft law. The aim of this research was to obtain a comprehensive picture of the legal aspects of potential impact of climate change on the European food security. The researchers focused on the vulnerability of the European food security in the context of ecological change and looked into the new challenges and opportunities that climate and food security might face in the nearest future. The research was therefore aimed at developing a theoretical model which could serve the purpose of drafting a legally binding comprehensive act.

2. Problem definition

Climate change problems have recently become one of the most critical issues in law, politics and economy, both on domestic and international level. The premises of international cooperation on the reduction of greenhouse gases emission responsible for global warming were set forth in the United Nations Framework Convention on Climate Change (UNFCCC; hereinafter referred to as the Climate Convention).² The Climate Convention has initiated a process of devising norms of climate law that in the last years have become a comprehensive set of norms on climate protection. Said principles recur in the international, EU and domestic legislative acts. Their catalogue has not been closed, as the process of climate law formation has not been completed.³

² United Nations Framework Convention on Climate Change, FCC/INFORMAL/84/Rev.1 GE.14-20481 (E). The UNFCCC entered into force on 21 March 1994. Today, it has near-universal membership. The 197 countries that have ratified the Convention are called Parties to the Convention. The ultimate aim of the UNFCCC is preventing 'dangerous' human interference with the climate system. The consolidated versions of the Convention text, including amendments to Annex I and II, in all six official United Nations languages, have been prepared by the secretariat, and can be found at: http://unfccc.int/essential_background/convention/items/6036.php (access: 10.05.2018).

³ J. Ciechanowicz-McLean, *Zasady prawa klimatycznego*, „Gdańskie Studia Prawnicze” 2010, vol. 24, p. 329.

The Intergovernmental Panel on Climate Change⁴ reports find clear evidence that climate change is already having substantial and widespread consequences today and that strong and immediate action should be taken in order to minimize the negative impacts in the future. According to the 2014 Report, human influence on the climate system is clear and growing, with impacts observed across all continents and oceans. Many of the observed changes since the 1950s are unprecedented over decades to millennia. The IPCC is now 95 percent certain that humans are the main cause of current global warming. The more human activities disrupt the climate, the greater the risks of severe, pervasive and irreversible impacts for people and ecosystems, and long-lasting changes in all components of the climate system.⁵ The 5th Assessment Report of the IPCC published in 2014 confirmed with certainty that mankind will have to contend with significant challenges of climate change. Also vast majority of scientists holds a view that climate changes are a fact and their reason lies in man's activity, e.g. deforestation and burning fossil fuels (carbon, oil and gas) which causes greenhouse gas emissions.⁶ There are scientific findings showing that if the temperature rises by above 2°C in comparison with the pre-industrial epoch, the environment across the whole world is likely to suffer from irreversible changes, the effects of which may be catastrophic also for future generations.

As a result of human activity, the emission level of greenhouse gases has been on the constant rise, leading to an increase in the average temperature in the world. The denser the layer of the greenhouse gases the Earth is coated with, the more energy is stopped. An increase in the temperature is bringing

⁴ The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) in order to generate comprehensive, internationally co-ordinated scientific assessments of the magnitude, timing and potential environmental and socio-economic impacts of climate change and realistic response strategies. Series of IPCC Assessment Reports, Special Reports, Technical Papers, Methodology Reports and other products have become standard works of reference. UN General Assembly Resolution A/RES/43/53 from 6 Dec.1988. See also: F. Johns, *Non-Legality in International Law*, Cambridge 2013, p. 153.

⁵ R.K. Pachauri, L.A. Meyer (eds.), *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, IPCC 2014, Geneva, p. 151.

⁶ M. Munasinghe, *Sustainable Development in Practice. Sustainomics Methodology and Applications*, Cambridge 2009, pp. 137–138.

about phenomena of an unprecedented scale in the world. The Arctic ice cap is melting and the sea level of the oceans is rising. Disappearing ice caps in the Arctic Ocean exert an adverse influence on atmospheric circulation.⁷ The intensifying incidence of extreme weather phenomena in the world is also put down to global warming. Violent downpours, hurricanes, waves of scorching heat have been currently appearing in the regions that have not experienced such extreme weather conditions in the past. The foregoing anomalies have an increasingly visible and adverse bearing on economy, security, environment, man's health and everyday life.⁸ Climate changes are leading to drying up of natural water reservoirs, desertification, drought, flood and, in consequence, hunger.⁹

Food security has always been dependent on the environmental conditions when it comes to production, storage and distribution, and food markets have always been sensitive to weather extremes and climate fluctuations. The scope and scale of the above interactions are changing dramatically, particularly because of climate change. This has started to rise concerns about food security, not only on governmental level, but also in private sector and non-governmental organizations. These problems seem to affect mainly the developing world, but it has become clear that the industrialized countries can hardly ignore the issue either. The EU, being the main importer of food products and the main source of scientific and technological capabilities, is in the possession of policy tools that can either stop or increase global food security.¹⁰

By the year 2050, the global population is expected to increase to 9.2 billion people, 86% of whom will live in less-developed countries and 70% in urban areas. It means that agriculture will need to provide 60% more food globally if it is to meet the demand at the current levels of consumption. Food and Agriculture Organization (FAO) estimates that urbanization and changing lifestyles

⁷ K. Cowtan, R.G. Way, *Coverage bias in the HadCRUT4 temperature series and its impact on recent temperature trends*, Q.J.R. Meteorol. Soc. 2014, 140: 1935–1944. Doi: 10.1002/qj.2297.

⁸ R. Youngs, *Climate Change and European Security*, London 2015, p. 2.

⁹ Un/Natural Disasters: Communicating Linkages Between Extreme Events and Climate Change 2016, vol. 65(2).

¹⁰ M. Kaiser, C.M. Romeo-Casabona, *Preface to Global food security. Ethical and legal challenges* (in:) C. Casabona, L. Epifanio, A. Ciron (eds.), *Global Food Security. Ethical and legal challenges*, Wageningen 2010, p. 20.

are expected to lead to rapid increases in food demand. Existing assessments anticipate that the growth in demand for meat and milk will affect the crop production and intensification of agriculture production, which will lead to global environmental change, because the global food system is currently accountable for at least 30% of global greenhouse emission that cause climate change. It means that agriculture both contributes to climate change and is affected by climate change.¹¹ In the light of the foregoing, we can't forget that 850 million people already live in chronic hunger.

For some years, international organizations have been striving to limit global warming to 2 degrees Celsius in comparison with the so-called pre-industrial period. It has never been assumed to be carrying such drastic effects. As it transpires, however, from the latest research, an average temperature increase by two degrees will not save us from climate catastrophe. Essentially, the global climate warming cannot be stopped. With the rise in temperatures, the factors such as ice and snow caps that so far have been impeding such rise are losing their strength and simply stop operating.¹² The growth of three degrees in Earth's temperature has been projected to translate into a rise in the level of seas from fifteen to twenty five meters. Granted that the majority of people on our planet live along or close to the coastline, it is imperative to undertake not only mitigation efforts but urgent adaptation actions as well.¹³

European Union has been calling for the urgency of climate protection, persistently and consistently setting the pace for the action on climate change, as well as encouraging to change over to a low-carbon economy. Over the last thirty years, the European Union has created a complex system of environmental governance.¹⁴ Nowadays, this system is faced with an unprecedented challenge of climate change. Understood as a threat to global security, climate change demands a transnational and widespread political response. The European

¹¹ *Agriculture and climate change*, European Environment Agency, Copenhagen 2015, <http://www.eea.europa.eu/signals/signals-2015/articles/agriculture-and-climate-change> (access: 10.05.2018).

¹² V Raport IPCC AR5/2013.

¹³ L.L. Taylor *et al.*, *Enhanced weathering strategies for stabilizing climate and averting ocean acidification*, „Nature Climate Change” 2016, vol. 6, pp. 402–406. Doi:10.1038/nclimate2882.

¹⁴ R.K.W. Wurzel, A.R. Zito, A.J. Jordan, *Environmental Governance in Europe: A Comparative Analysis of the Use of New Environmental Policy Instruments*, Cheltenham 2013, p. 80.

Union has taken up the role of a green leader in a combat with climate change in order to ensure security to its citizens in all its aspects – including the food security. Climate policy has become a significant area of European environmental governance, providing framework conditions for many industries and agriculture. Since 1990, many political initiatives have been implemented in a bid to lower gas emissions level, both on domestic and EU level. The European Union has set itself targets for reducing its greenhouse gas emissions progressively up to 2050 in order to mitigate climate change. It is obvious now that also adaptation strategies are needed at all levels of administration.

3. Research questions, structure and methodology

The aim of this book is to analyse the legal aspects of climate change impacts on food security from the European Union law perspective. In order to identify the areas that require normative action at the European Union level, the authors searched for solutions to the following research questions. First of all, what are the climate change impacts on agriculture in the European Union. Secondly, how to support climate change governance and create a climate resilient community, meaning a society that is well-prepared for the negative impacts of climate change such as food (in)security. Finally, how to raise awareness and understanding of ecological issues in the civil society. In order to answer these research questions, this book will follow a specific methodology. It takes its starting point in the legal scholarship on the relationship between climate change and human rights. This analysis essentially involves the identification of the right to environment in the context of public international law. Also, the EU climate law will be presented and examined from the perspective of the relevant legal principles of international law.

The methodology is used in two distinct ways: analytical – in order to investigate to what extent EU law answers the global threats like climate change, and normative – in order to confront law against legal principles and to propose solutions. Proposing this assessment, several assumptions were made about climate change and food security. First, it was assumed that climate change is caused by human activity. Secondly, it was accepted that „climate change is a global problem with grave implications: environmental, social, economic, political and for the distribution of goods. It represents one of the principal

challenges facing humanity in our days. Its worst impact will probably be felt by developing countries in coming decades”.¹⁵ Finally, the vast potential of both the policy and the law options to address climate change and climate change related threats such as food in-security were noticed.

The book is composed of four chapters and ends with a final conclusion. Chapter one was meant to be introductory, building the background for further research. In this part, the terminology is explained and the fundamental concepts such as common good and the relationship between climate change and human rights are presented. The right to life as a fundamental human right and other associated rights such as right to food cannot be guaranteed without a friendly environment in which individuals can exercise these rights. That is why the right to environment is discussed also in this chapter. Moreover, it was crucial for further analysis to briefly present the main sources of law applied in the fields of environment and agriculture. The role that certain union institutions and agencies play in their actions and initiatives towards preventing adverse effects of climate change was emphasized in order to show later on that the effects of climate change constitute a global problem, solution of which calls for the solidarity and cooperation between different actors on various levels.

In chapter two, after setting out the legal framework of EU environmental law, the main documents governing climate change are presented. The UNFCCC and the Kyoto Protocol are relevant for further analysis of EU legislation and action plans in the field of climate change. The presentation of the normative framework of EU climate law follows the general classification of rules and general principles that form the legal analysis. This chapter presents not only legal bases and achievements of the European Union with regard to climate protection, but also strategies for the future. The strategy of adaptation to inevitable changes was also given some weight there. Due to the monograph's legal and not biological nature, the problem of adverse climate change effects has been discussed briefly, merely to provide a background to a further analysis. Reports by the World Meteorological Organisation (WMO)¹⁶ and Intergovernmental

¹⁵ *Laudato Si*, Encyclical letter of the Holy Father Francis, 2015.

¹⁶ WMO Statement on the Status of the global climate in 2015, World Meteorological Organization (WMO), WMO, 2016 (WMO, 1167); *Responding to the challenges of climate change*, 2015, vol. 64 (2); Un/Natural Disasters, *Communicating Linkages Between Extreme Events and Climate Change*, 2016, vol. 65 (2).

Panel on Climate Change (IPCC)¹⁷ that expressly point at the anthropocentric character of changes and the urgency of action to stall and adapt to inevitable changes have become the starting point.

Chapter three explains the problem of food security which is not just the economic problem anymore. The concept of food security is analysed in this chapter through the modern approach to agriculture and food production, mainly at the EU level. The special impact is put on the human rights dimension in this respect, as the right to food is at the core of deliberations. The study presents both legal strategies and social approaches to the problem of food in-security in the context of human rights. It also concentrates on the new initiatives such as the sustainable production and consumption in accordance with widely understand food.

The considerations presented in chapters two and three were used to address the greatest methodological challenge connected with the topic of the thesis, namely showing the interconnection between climate change and food security in chapter four. The aim of chapter four was to show that both climate change and food security are global problems and as such need transnational action. In order to be successful, the efforts taken up at the global level require the involvement of various types of actors, including states, governments and the civil society. Also, the role of modern technologies of information and communication should be noticed.

The conclusion makes final remarks about the potential role of the legal instruments to provide food security in the climate-resilient society and to strengthen the protection offered by states to peoples threatened by climate change. At the European Union level, climate change can no longer be deliberated as a separate area of policy but it should be incorporated horizontally into all policies, not only environmental and common agricultural policy. However, European Union is just one of the actors at the global scene that need to be involved in the combat with climate change.

¹⁷ Resolution UN/A/RES/43/53. See also: F. Johns, *Non-Legality in International Law. Unruly law*, Cambridge 2013, p. 153.

Europe's climate is changing

A changing climate will affect almost every aspect of our lives. Increased intensity and frequency of rainfall in many parts of Europe will mean frequent and serious flooding events. Elsewhere in Europe, including in southern Europe, higher temperatures and reduced rainfall will mean that many areas might face droughts.

Arctic

- Temperature rise much larger than global average
- Decrease in Arctic sea-ice coverage
- Decrease in Greenland ice sheet
- Increasing risk of biodiversity loss
- Intensified shipping and exploitation of oil and gas resources

North-western Europe

- Increase in winter precipitation
- Increase in river flow
- Northward movement of species
- Decrease in energy demand for heating
- Increasing risk of river and coastal flooding

Coastal zones and regional seas

- Sea-level rise
- Increase in sea surface temperatures
- Increase in ocean acidity
- Northward expansion of fish and plankton species
- Changes in phytoplankton communities
- Increasing risk for fish stocks

Mediterranean region

- Temperature rise larger than European average
- Decrease in annual precipitation
- Decrease in annual river flow
- Increasing risk of biodiversity loss
- Increasing risk of desertification
- Increasing water demand for agriculture
- Decrease in energy demand for heating
- Increasing risk of forest fire
- Increase in mortality from heatwaves
- Expansion of habitats for disease-carrying insects
- Decrease in hydropower potential
- Increase in summer tourism and potential increase in other seasons

Northern Europe

- Temperature rise much larger than global average
- Decrease in snow, lake and river ice cover
- Increase in river flows
- Northward movement of species
- Increase in crop yields
- Increase in energy demand for heating
- Increase in energy potential
- Increasing damage risk from winter storms
- Increase in summer tourism

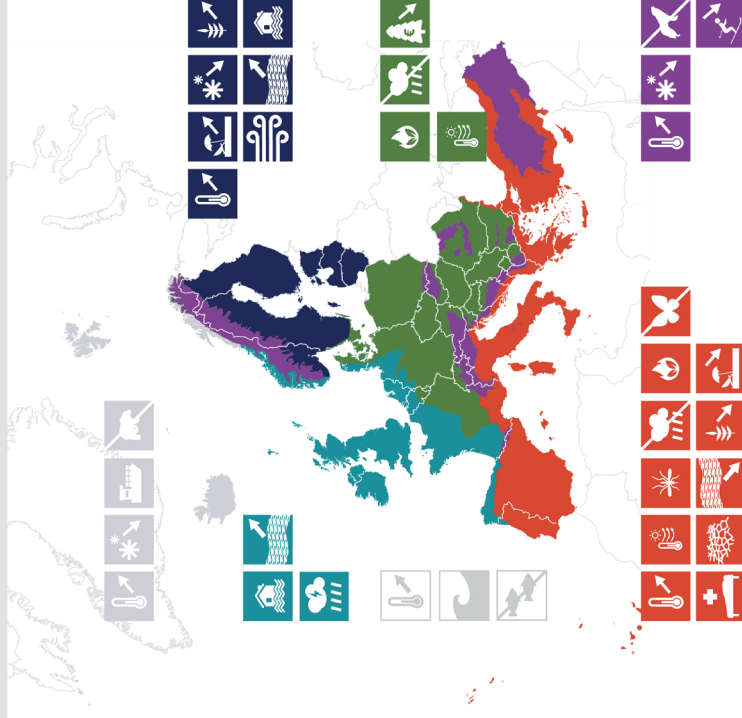
Central and eastern Europe

- Increase in warm temperature extremes
- Decrease in summer precipitation
- Increase in water temperature
- Increasing risk of forest fire
- Decrease in economic value of forests

Mountain areas

- Temperature rise larger than European average
- Decrease in glacier extent and volume
- Decrease in mountain permafrost areas
- Upward shift of plant and animal species
- High risk of species extinction in Alpine regions
- Increasing risk of soil erosion
- Decrease in ski tourism

Many economic sectors depend on healthy and stable ecosystems to provide a variety of products and services to humans. Changes to the balance of species and habitats in ecosystems could have wide-reaching effects. A reduction in rainfall in southern Europe could make it impossible to grow certain crops, while higher temperatures might allow alien invasive species and species that carry diseases to migrate northwards.



Chapter I

SETTING THE SCENE

1. General remarks

In an effort taken to show the relationship between climate change and food (in)security at the European level, the authors referred to the concepts rooted in the public international law, the terminology commonly used in the analysed fields and the legal framework as constituted by the institutions and acts of the European Union. That is why it was decided to start with an overview of the above mentioned issues in order to avoid repentance in the following chapters. It is becoming increasingly obvious that a high quality environment is key to the fundamental human rights of life and health and associated rights such as the right to clean water, adequate housing, and food. In this book, the issues concerning human rights and the environment are only touched, as there is no place for deeper deliberation; however, the connection between climate change and human rights is worth noting. That is why we discuss the right to environment and the relationship between climate change and human rights in this introductory chapter.

The list of international institutions which have contributed to the development of the human right to adequate food – and by that to promote the food security – is very long. Most of the international organs related to issues of climate change and food security are those linked in some way to the United Nations. The General Assembly, the Security Council and Economic and Social Council are founded upon the UN Charter. The Committee on Economic, Social and Cultural Rights is responsible for monitoring of implementation of the ICESCR,

one of the most meaningful acts concerning the right to food. In the year 2000, the Commission on Human Rights installed the Special Rapporteur on the Human Right to Adequate Food as the body to promote and recommend full realization of the right to food. His or her mandate covers presenting recommendation and cooperating with all international actors. Among many institutions, Food and Agriculture Organization (FAO) deserves special attention in regard to food security.

A broad array of binding EU secondary legislative acts adopted in the field of environment is sectoral in its nature. Subject areas covered by sectoral regulations are as follows: nature, biodiversity, air, industrial emissions, water, waste, chemicals, noise and genetically modified organisms (GMO). Since 1985, horizontal regulations that embrace the environment in its entirety have played an increasingly crucial role in the area of environmental protection. Said regulations pertain to, *inter alia*, such questions as access to information, assessment of the impact on the environment, participation of community, environment management, liability for damage to environment. The authors also observe the increasing role of soft law as a source of European Union law. The role of the standards set by the acts of soft law are worth to be noticed, especially in the field of climate law and food law. That is why it is discussed in a separate part of this chapter.

2. Terminology

According to the United Nations Framework Convention on Climate Change (UNFCCC), „climate change means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is – in addition to natural climate variability – observed over comparable time periods”. Adverse effects of climate change means changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare. „Emissions” means the release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time. „Greenhouse gases” means those gaseous constituents

of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.¹⁸

The concept of „food security” has been developed during the last thirty years, at the beginning much more as the economic and policy way of thinking. Nowadays, new dimensions have entered into the concept of food security, including the ethical and human rights dimension of food security. A widely-accepted definition of food security is that of the World Food Summit held in 1996. According to FAO: „Food security is a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”. This definition implicitly includes the multidimensional nature of food security by more profoundly considering the four main dimensions (food availability, access, use and stability) required to be guaranteed in order to assure food security.

One of the modern concepts that the Authors refer to is the concept of „new governance”. Therefore, it seems of great importance to explain the term of „governance” in the first place. According to the Longman definition, „to govern” means to exercise continuous sovereign authority over or to control and direct the making and administration of policy. It also means to control, direct or strongly influence the actions or conduct of (something or someone).¹⁹ „Governance” as a word does not travel well between languages. „Governance”, especially when „good” is added, becomes a concept that is culturally defined. „Governance” in practice has fundamentally changed in the last decades. It is also clear that „governance” in theory and public administration (PA) research are struggling to encompass this evolving practice.²⁰

¹⁸ Art. 1 UNFCCC.

¹⁹ The Longman Dictionary of the English Language, Longman, UK, 1993.

²⁰ One could look at the visibility of ‘governance’ in the research activities in the field, not to mention the history. As G. Bouckaert noticed, „Conference themes are grouped under this umbrella, master’s degrees are relabeled, institutes are (re)named, and journals are created around the concept of ‘governance’. At the Organisation for Economic Co-operation and Development, there is a directorate of Public Governance and Territorial Development. International comparative research is also increasingly organized and shared. The Horizon 2020 European Science Foundation call for research proposals has ‘governance’ of a range of policy fields as a key word”. G. Bouckaert, *Taking Stock of „governance”: A predominantly European Perspective*, Governance 2016, pp. 1–8; wileyonlinelibrary.com/journal/gove (access: 10.05.2018).

3. Fundamental concepts

3.1. Climate as common good

Finding the appropriate definition for the notion of common good in contemporary language is not easy. Although it is discussed in philosophical, legal, social, political and ethical sciences and thus the literature is very diverse²¹, it is hard to find common language for the real interdisciplinary dialogue. Plato, who relied on common interest in order to distinguish a good government from the bad one, is the father of the common good concept. Aristotle spoke rather about common interest from the perspective of the citizens. The difference shows that common good can be defined either as the goods of individuals.²² On the other hand, Thomas Aquinas put emphasis on the role of communities. In his view, man naturally organizes himself into different communities, starting with family and ending with state. Pursuant to his philosophy, evolution of individuals requires their cooperation for common good of the whole community. The next important theory was popularized by Hardin – „The Tragedy of the Commons”. According to his reasoning, unrestricted access to any resource leads to its over-exploitation to the detriment of all potential users.²³

In modern times, the common good theories are associated with Elenor Ostrom and her concept of „Tragedy of the Commons”. In her work, she investigates the way communities co-operate to share resources. She also has contributed to the debate about resources use, the public sphere and the future of the planet. The Latin *bonum commune* is the core of all these cases; it is based on the assumption that common good is the basic factor of social life, being the incentive for social activities of people making up a given community, the real goal of every man or woman and, at the same time, of the entire community.²⁴ The issue is that the „commons concept” is particularly applied

²¹ See for example: Ch. Erasmus, *In search of the Common Good*, New York 1997; A. Etzioni, *Rights and Common Good. The Communitarian Perspective*, New York 1995; B. Jordan, *The Common Good. Citizenship, Morality and Self-Interest*, Oxford 1989.

²² O. Nawrot, *Justice* (in: J. Zajądło, K. Zeidler (eds.), *Philosophy of Law*, Warszawa 2016, p. 245.

²³ G. Hafner, *The Division of the Commons? The Myth of the Commons: Divide or perish* (in: H. Hestermeyer (ed.), *Law of the Sea in Dialogue*, Berlin 2011, p. 97.

²⁴ O. Hołub-Śniadach, *The concept of common good in the European Union*, Inter-Disciplinary Press 2014, <http://ww.inter-disciplinary.net/publishing/id-press> (access: 10.05.2018).

to resources that have not yet been completely investigated and explored, such like space, deep sea-bed or climate. Similarly, when new information becomes available or exploration may be done more efficiently due to new technologies, it is necessary to elaborate new mechanisms because the law is no longer considered adequate.²⁵

The union law does not include a direct reference to the EU common good, as it happens e.g. in the case of the Constitution of the Republic of Poland. Both jurisprudence and bodies applying the law in EU do not find an unequivocal term for the concept of the common good, however, among the union goals expressed in art. 3 of the TEU, traditional designates of the common good can be found, such as: ensuring peace, security, taking care of the quality of the natural environment and protection of European cultural heritage. As an example, the Court of Justice have used the notion of common good many times in its judgments with a view to preserving concrete values protected by law. A good example to supply here are the Court's rulings where it recognized „ecosystems as a legal good of particular importance, whose protection seems necessary”.²⁶

3.2. Solidarity and human rights

3.2.1. Solidarity

Human rights are the fundamental rights of all human beings to which people are entitled by virtue of being members of human community. On the one hand, they limit the power of the State to arbitrary interference with people's free exercise of their rights; on the other hand, they require the State to take positive measures to enable people enjoy these rights. The idea of human rights seem to be contained in the historical development of many major cultures and philosophers.²⁷ The way in which the rights are conceptualized varies over time and across cultures, but in general they are common to all humankind and have benefit for all. The respect for human rights has its core in U. N. Charter as a global institution, but also regional bodies took up the human rights

²⁵ G. Hafner, *The Division of the Commons?*..., p. 107.

²⁶ See the opinion of Advocate General D. Ruiz-Jarabo Colomer in case C-176/03 Commission v European Union Council, EU:C:2005:311.

²⁷ R. Teitel, *Human Rights Genealogy* (in:) D.K. Anton, D.L. Shelton (eds.), *Environmental Protection and Human Rights*, Cambridge 2011, p. 157.

challenge, among which the European Union is the one of our interest. There has been and still is a tension between human rights in theory and in practice, and that one of the major allegations raised against the human rights system is the claim indicating its weakness deriving from the fact that it is hard to determine who is to be truly obliged to fulfil a given right. Kołakowski wrote of necessary conditions a given right is to meet to be recognized as a human right.²⁸ The capacity to determine the entity responsible for the right violation was one of such conditions. That is why the classic approach to human rights is based on the notion of 'state'. According to many authors, only in the context of an organized society with public authorities does the notion of 'human rights' make sense²⁹ Contemporarily, the role of international community must be underlined in the light of 'new' human rights granted on the concept of solidarity.

In the preamble to the Charter of Fundamental Rights, the word „solidarity” appears next to equality, dignity and freedom as an indivisible value underpinning the European Union. Solidarity has also been perceived as an idea that should capture and reflect as far as possible the sense behind all integrating actions between the European peoples and states on the institutional and substantive law level, thereby becoming synonymous with 'common interest', or 'common good'. The discussion about solidarity has shifted from the national level to an international and trans-national level. If we can recognize something like leading ideas in law, then we have to acknowledge not only solidarity but also dignity, equality, freedom and justice.³⁰ Therefore, solidarity is not merely about supranational institutions and policies to create a single common market. It is also a spiritual expression of an intent to transcend the ideological, cultural and religious traditions that have historically been used to divide (and at times conquer) Europe – and which are also the foundations of Europe's civilisation.³¹ We need to look at the European Union not only as the collection of states but

²⁸ L. Kołakowski, *Po co nam prawa człowieka*, „Gazeta Wyborcza”, 9.12.2010.

²⁹ A. Eide, *The international human right system* (in:) *idem*, W.B. Eide (eds.), *Food as a human right*, Tokyo 1984, p. 153.

³⁰ J. Zajadło, *Solidarity* (in:) *idem*, K. Zeidler (eds.), *Philosophy of Law...*, p. 230.

³¹ A. Pimor, *Solidarity was a founding principle of European unity – it must remain so*, <http://theconversation.com/solidarity-was-a-founding-principle-of-european-unity-it-must-remain-so-74580> (access: 10.09.2017).

also as the state of mind. The key point for the Community is the community of values, and solidarity is in the centre.³² This is acknowledged as the Union's „spiritual and moral heritage” in the preamble of its Charter of Fundamental Rights. According to the preamble of the Charter which refers to the ‘ever closer union’, the EU is founded on the indivisible values of human dignity, freedom, equality and solidarity.

After all, solidarity is also a treaty principle.³³ As an axiological core, solidarity derives and draws its strength from the spirit of Christian Europe. John Paul II, in his Encyclical *Sollicitudo Rei Socialis* conceived a surprisingly universal and the most comprehensive definition of the term: ‘Solidarity is a strong and durable determination to commit oneself to acting for the common good, i.e. for everybody’s good, since we all bear responsibility for all the people’.³⁴ Such a stance quite clearly underlines the awareness of interdependence of some subjects on others, with this being not only about a correlation between the nations, but also about the correlation between the individuals or entities. Solidarity is a feeling of concern and respect for common interests, pursuit of common goals, with a concurrent care for not only our own good, but also for the good of others. It expressly manifests itself in the responsibility for another person, and even more broadly speaking, responsibility for any type of beings or creatures, including future generations.³⁵

This is the way of thinking typical for the solidarity-responsibility approach, which should prevail in EU’s sectoral policies. The Common Agricultural Policy (CAP) is a good example, as the latest reform has included new environmental and territorial purposes as well as extra active solidarity demands for the beneficiaries. Hopefully, solidarity is capable of becoming a leitmotif of a renewal of European Energy Policy, as the art. 194 of TFUE indicates a solidarity of Member States. However, in order to give substance and to generate the long term solidarity around common objectives, there is still a need to define areas of active

³² Z. Brodecki, *Idea solidarności* (in:) C. Mik (ed.), *Solidarność jako zasada działania Unii Europejskiej*, Toruń 2009, p. 10.

³³ Art. 4 TEU.

³⁴ M. Radwan, L. Dyczewski, A. Stanowski, *Dokumenty nauki społecznej Kościoła*, Rzym-Lublin 1987.

³⁵ C. Mik, *Solidarność w prawie Unii Europejskiej. Podstawowe problemy teoretyczne* (in:) *idem* (ed.), *Solidarność jako zasada...*, p. 47.

solidarity that might enable reciprocity to be established between countries whose capacities and needs are often very far apart.³⁶

3.2.2. The right to environment

The relationship between environmental protection and human rights is still very much in progress, but it is being formalized into law in many legal systems, EU system being one of them.³⁷ Deliberations on the existence of a right to exploit natural environment of an adequate quality and a guarantee for its exploitation are one of the constitutive elements of the environment protection law. Said deliberations gained importance with the development of a concept of human right protection in the second half of the 20th century.³⁸ The right to environment falls under so-called third generation human rights, and accordingly within a group of solidarity rights that hinge on an awareness of belonging to one community. The adoption of a new typology within the framework of the Charter of Fundamental Rights distinguishes the resolutions under EU law. The innovation of this document transpires from the fact that rights of the first, second and third generations meet within one act. Such a placement of solidarity rights with personal rights and freedoms within one document has been subject to criticism due to the absence of cohesion and a risk of including rights that might be mutually exclusive within a single document, since the group rights may in fact serve the individual rights limitation.³⁹ Nonetheless, such a formulation of the Charter might be assumed to militate for a complex and comprehensive approach to human rights and to manifest a strong drive towards the enhancement of their indivisibility, primarily, exhibiting the extent to which said rights are interrelated and interdependent.⁴⁰ Looking at the Charter from

³⁶ J. Vignon, *Solidarity and Responsibility in the European Union*, Policy Brief, Notre Europe 2011, vol. 26, http://www.institutdelors.eu/media/bref27_jvignon_en.pdf?pdf (access: 25.09.2017), p. 5.

³⁷ D.K. Anton, D.L. Shelton, *Environmental Protection...*, s. 520. Also: R. Lord et al., *Overview of Legal Issues Relevant to Climate Change* (in:) *idem* (eds.), *Climate Change Liability. Transnational Law and Practice*, Cambridge 2012, p. 23.

³⁸ D. Augenstein, *The Human Rights Dimension of Environmental Protection in EU External Relations after Lisbon* (in:) E. Morgera (ed.), *The External Environmental Policy of the European Union*, Cambridge 2012, p. 267.

³⁹ W. Osiatyński, *Prawa człowieka i ich granice*, Kraków 2011, p. 151.

⁴⁰ E. Morawska, *Zasada solidarności w Karacie Praw Podstawowych Unii Europejskiej* (in:) C. Mik (ed.), *Solidarność jako zasada...*, p. 177.

that perspective, one may determinedly admit that it is a modern document characterized not only by a holistic approach to a man, but also by the solidarity with future generations.⁴¹

Source literature distinguishes two forms of an individual's subjective right to environment. The first is a right to live in a friendly environment, namely in an environment of an adequate quality, with a discernible correlation between the quality of a natural environment and that of a human life. Environment quality and conditions are thus assessed from the perspective of human life and health protection.⁴² The second type is the right to exploit the environment. From an economic perspective, it comprises both the right to satisfy one's needs and the needs flowing from an economic activity and the natural resources exploitation. As B. Rakoczy notices, such distinct differences notwithstanding, scopes of such rights do partially overlap.⁴³

Proclaimed in the Stockholm Declaration (1972), human right to environment was perceived as a right to live in a healthy environment. Under the first principle of Declaration, "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations (...)". It is necessary, however, to remember that the Stockholm Declaration is not legally binding and it may therefore be viewed from the perspective of political intentions. Noteworthy is also the fact that it has proven much easier in practice to afford some rights of procedural nature to individuals, e.g. the right to information on the environment quality or to participate in decision-making processes, rather than to sanction general subjective right to environment.⁴⁴

The doctrine seems to be permeated by the view that there is no expressly proclaimed substantive right to environment in EU law. There is a number

⁴¹ M. Nyka, *Future Generation Rights to natural resources, The post Rio 20+ Perspective* (in:) *Enacting Environmental Justice through Global Citizenship*, Oxford 2014, pp. 39–51.

⁴² S. Giorgetta, *The Right to a Healthy Environment, Human Rights and Sustainable Development*, „International Environmental Agreements: Politics, Law and Economics” 2002, vol. 2, pp. 178–179.

⁴³ B. Rakoczy, *Prawo do środowiska jako prawo trzeciej generacji* (in:) J. Ciechanowicz-McLean (ed.), *Leksykon ochrony środowiska*, Warszawa 2009, p. 277.

⁴⁴ D.R. Boyd, *The Constitutional Right to a Healthy Environment, Environment, Science and Policy for Sustainable Development*, July–August 2012, www.environmentmagazine.org/se/util/display (access: 12.01.2016).

of legislative acts on procedural rights in force instead, which does not necessarily mean that the EU fails to tackle environmental protection issues. Projects, principles, objectives of the union environmental protection policy were determined as early as in the 1970's to be subsequently incorporated into the union public policy under the Single European Act (1986). The amending treaties that followed introduced changes that consisted *inter alia* in the recognition of the contribution to ensuring a high level of security and raising natural environment quality as one of the union objectives. Currently, the acquis on environmental protection also includes binding and non-binding secondary law acts, as well as rich union case law.

Under the art. 191 (TFEU) in force: „Union policy on the environment shall contribute to the pursuit of the following objectives: preserving, protecting and improving the quality of the environment; protecting human health; prudent and rational utilisation of natural resources; promoting measures at the international level to deal with regional or worldwide environmental problems, and in particular combating climate change. Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that ‘the polluter should pay’”. Art. 37 of the Charter of Fundamental Rights received another wording to the effect as follows: „A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development”.

The analysis of art. 37 of the Charter of Fundamental Rights brings the following elements to the fore: a high level of environmental protection and the improvement of its quality, the principle of integration into the policies of the Union, and the principle of sustainable development. The doctrine abounds in a variety of views on how to treat the first foregoing element – as a principle of environmental protection or exclusively as the objective of Union activities.⁴⁵ The form adopted in the Charter's art. 37 appears to point

⁴⁵ J.H. Jans, H.B. Vedder, *European Environmental Law. After Lisbon*, 4th ed., Groningen 2012, p. 31.

at the status quo that should be maintained. Concurrently, it shows the pursuit of improving the quality of the environment as the aim of the undertaken actions. Such interpretation also transpires from the art. 191 (TFEU). There is a question arising in the context of the above considerations: whether a replacement of an „adopted wording with a right to environment” would be plausible and serve any purpose, which might further lead to the question about the right to water, the right to food, the right to climate.

First of all, it must be made clear that improving environmental protection is both an objective and a measure to reach or drive towards a global aim of a social and economic advancement. In this respect, the environmental protection was assimilated or integrated to other policies of industry, energy, transport, aviation, tourist sectors through so-called principle of integration of environmental protection. Said principle denotes that the decision-making process should factor in a high level of environmental protection and changes based on scientific facts. The same principle aims at preventing ignorance and ensuring the inclusion of environmental aspects in other Union policies, which is visible, in particular, with reference to EU external policy, energy and cohesion policies.⁴⁶

Its wording adopted in the Charter, environmental protection is to be perceived against the backdrop of the system of fundamental rights protection devised under the European Convention on Human Rights Protection and Fundamental Freedoms (hereinafter: Convention). Admittedly, no separate article was devoted to environmental protection within the Convention. Notwithstanding, it is for many years that human-rights-specific cases on environmental protection have been heard by the European Court of Human Rights. Furthermore, many years have also witnessed several attempts made in the form of an additional protocol to introduce rights to life in the environment of an appropriate quality.

It is likewise with the right to water, not proclaimed under EU law, but still recognised in the international law and domestic regulations. There are numerous EU legislative acts on ensuring good quality water, none of them contains an express concept of the right to water notwithstanding. The right to water

⁴⁶ M. Adamczak-Retecka, O. Śniadach, *Prawo do wody jako element prawa do środowiska? Rozważania na gruncie art. 37 Karty Praw Podstawowych UE* (in:) D. Kornobis-Romanowska (ed.), *Unia Europejska w roli gwaranta praw podstawowych*, Sopot 2016, pp. 232–233.

may be inferred from the art. 6 (TEU) pertinent to the Convention on Human Rights and Fundamental Freedoms, as well as to the traditions of constitutional Member States. While the substance of art. 37 of the Charter fails to provide a clear reference to „the right to water”, it does raise, however, the need to ensure a high level of environmental protection, water definitely being one of the environmental components. There is no clear-cut stance in the source literature as to the binding force of this provision, namely, its enforceability and justiciability. The case law analysis suggests that the Court of Justice has not taken any stand in this respect so far, in contrast to the courts in certain Member States and the European Court of Human Rights in Strasburg.

3.2.3. Climate change and human rights

In the context of climate change, there is an enormous power imbalance between the affairs that stand to gain from climate change regulation and those that stand to lose from it. As A. Sinden observes, in the first group there are people who are inundated by climate change impacts such as rising seas, severe storms or droughts. They are usually poor and their interest is often hard to measure in economic terms. On the other hand, those who profit from the extraction of fossil fuels are against the climate change regulations. These, like car manufacturers and oil companies, are some of the wealthiest and most powerful corporations in the world.⁴⁷

The debates on climate change have traditionally focused on scientific, environmental and economic aspects. In the meantime, the scientific understanding of the causes and impacts of climate change has evolved and the negative consequences for human lives and living conditions have become evident. At present, increasing attention is given to human and social dimensions of climate change, which is well illustrated by the IPCC assessments. IPCC outline impacts in six main areas: ecosystems; food; water; health; coasts; and industry, settlement and society.⁴⁸ In March 2008, in its resolution 7/23, the Human Rights Council decided to request the Office of the United Nations High Commissioner for

⁴⁷ A. Sinden, *An Emerging Human Right to Security from Climate Change* (in:) W.C.G. Burns, H.M. Osofsky (eds.), *Adjudicating Climate Change. State, National, and International Approaches*, Cambridge 2009, p. 184; D.K. Anton, D.L. Shelton, *Environmental Protection....*, p. 522.

⁴⁸ See IPCC AR4 Synthesis Report, pp. 48–53.

Human Rights to conduct, within existing resources, a detailed analytical study of the relationship between climate change and human rights. Consultation with the States, other relevant international organizations and intergovernmental bodies, including the Intergovernmental Panel on Climate Change, the secretariat of the United Nations Framework Convention on Climate Change and other stakeholders, was recommended.

In the annual report,⁴⁹ the United Nations High Commissioner for Human Rights observed that industrialized countries have historically contributed most to anthropogenic greenhouse gas emissions. Moreover, the impacts of climate change are distributed disproportionately, most affecting poorer regions and countries, that is those who have least contributed to climate change. The unequal burden of the climate change effects is reflected in article 3 of the UNFCCC. It stipulates that parties should protect the climate system „on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities”; that developed countries „should take the lead in combating climate change and the adverse effects thereof” and that full consideration should be given to the needs of developing countries, especially „those that are particularly vulnerable to the adverse effects of climate change” and „that would have to bear a disproportionate or abnormal burden under the Convention”.⁵⁰

Principle 1 of the 1972 Declaration of the United Nations Conference on the Human Environment (the Stockholm Declaration) states that there is „a fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being”. The Stockholm Declaration reflects a general recognition of the interdependence and interrelatedness of human rights and the environment. While the universal human rights treaties do not refer to a specific right to a safe and healthy environment, the United Nations human rights treaty bodies all recognize the intrinsic link between the environment and the realization of a range of human rights,

⁴⁹ Annual report of the United Nations High Commissioner for Human Rights and Reports of the Office of the Office of the High Commissioner and the Secretary-General, Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights, A/HRC/10/61.

⁵⁰ UNFCCC, art. 3, paras. 1 and 2.

such as the right to life, the right to health, the right to food,⁵¹ the right to water, the right to adequate housing and the right to self-determination. According to the report presented by the United Nations High Commissioner for Human Rights, the negative impacts of climate change will in the nearest future be felt most acutely by vulnerable segments of the population who are already in difficult situations due to such factors as: poverty, gender, age, minority status, and disability.

The United Nations High Commissioner for Human Rights noticed that a number of observed and projected effects of climate change will pose direct and indirect threats to human lives. IPCC projects an increase in people suffering from death, disease and injury from heatwaves, floods, storms, fires and droughts. Equally, climate change will affect the right to life through an increase in hunger and malnutrition and related disorders impacting on child growth and development; cardiorespiratory morbidity and mortality related to ground-level ozone. Climate change will exacerbate weather-related disasters which already have devastating effects on people and their enjoyment of the right to life, particularly in the developing world.⁵²

Moreover, climate change is going to affect the health of millions of people, mainly through increases in malnutrition, escalated infectious diseases and injury due to extreme weather events. Global warming may also affect the spread of malaria and other vector borne diseases in some parts of the world. Observed and projected climate change will also affect the right to adequate housing. Sea level rise and storm surges already have a direct impact on many coastal settlements.⁵³ For instance, in the Arctic region and in low-lying island states such impacts have led to relocation of whole communities. In the recent years, also the settlements in low-lying mega-deltas were affected by flooding. Equally, climate change threatens to deprive indigenous peoples of their traditional territories and sources of livelihood. Either of these impacts has

⁵¹ As discussed in chapter 3 of this book in detail.

⁵² Annual report of the United Nations High Commissioner for Human Rights and Reports of the Office of the High Commissioner and the Secretary-General, Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights, A/HRC/10/61.

⁵³ D.K. Anton, D.L. Shelton, *Environmental Protection...*, pp. 286, 766–767.

implications for the right to self-determination.⁵⁴ The First Assessment Report of the IPCC (1990) noted that the greatest single impact of climate change might be on human migration. The report estimated that by 2050, 150 million people could be displaced by climate change-related phenomena such as desertification, increasing water scarcity, and floods and storms.⁵⁵ It is estimated that climate change-related displacement will primarily occur within countries and that it will affect primarily poorer regions and countries.⁵⁶

3.3. Good governance

The definition of 'good governance' comprises such elements as effectiveness, democratisation and economic development. Such governance components were also recommended by the European Commission which consequently led it to the conclusion that: „governance is defined by principles, processes and behaviour that shape the exercise of competences on a European level, in particular in respect of openness, participation, responsibility, effectiveness and coherence”. What also seems necessary to underline is that „governance is not a synonym of government, but rather a category that mirrors processes taking place between EU actors, i.e. EU institutions and Member States, on local, regional, domestic and EU levels. Some authors draw a distinction between governance and good governance, highlighting that the latter puts more weight on the human rights protection and principles of democracy”.⁵⁷ Discussion on the issue of 'governance' is still very up-to-date since it has been raising a number of reservations, primarily due to the departure from traditional instruments in favour of the softer forms.

⁵⁴ For example, the disappearance of small island states would have implications for the right to self-determination, as well as for the full range of human rights for which individuals depend on the state for their protection.

⁵⁵ More recent studies refer to estimates for the same period of 200 million (Stern Review on the Economics of Climate Change, 2006, available at http://www.hm-treasury.gov.uk/sternreview_index.htm) and 250 million (*Human tide: the real migration crisis*, Christian Aid 2007). See also IPCC AR4 WGII Report, p. 365 and the Norwegian Refugee Council, *Future floods of refugees: A comment on climate change, conflict and forced migration*, 2008.

⁵⁶ See e.g. contributions to „Forced Migration Review” 2008, vol. 1, no. 31. Also: D.K. Anton, D.L. Shelton, *Environmental Protection...*, pp. 766–767.

⁵⁷ I.P. Karolewski, *Approaches to (good) governance in the European Union* (in:) R. Grzeszczak (ed.), *Challenges of Good Governance in the European Union*, Baden-Baden 2016, p. 26.

Governance is also often associated with a 'good governance' which places major emphasis on the effectiveness of the executive power. It also entails a 'multi-layer governance', or even 'new governance' devised in the EU to determine the processes that develop in the area of distribution and discharge of competences. Undoubtedly, those who see the source of this term in postmodernist theories of governance in the current globalised world that forces and imposes change upon the prior understanding of 'government', 'state', or 'administration' are right⁵⁸ Governance is more about networks, contracts, and information technology. Governance becomes more and more global and diverse.

The EU 'new governance' comprises one of the elements – the so-called network administration – deemed as a tie-up between the European Commission and other institutions on EU-level (i.e. EU agencies) and member-state-level (i.e. domestic regulators). The 'network' term has recently become very popular, since it is this very concept that helps define the organisation of social mechanisms that other traditional analysis methods cannot capture.⁵⁹ Networking is a natural consequence of the multi-layer nature of governance and (presumably) an avenue to take to integrate new areas of cooperation. Governance multidimensionality is exhibited by the administration through the committees (so called comitology), governance by agencies and governance by administrative network.⁶⁰ On the grounds of the White Paper on 'Good Governance' adopted in 2002,⁶¹ 'governance' is understood as an exercise of power or management, or in short – it might be deduced that it is a cooperation in a bid to pursue certain objectives.⁶²

The Open Method of Coordination (OMC) has often been presented as the prime example of new governance in the EU.⁶³ The Open Method of Coordination

⁵⁸ P. Dąbrowska, *Nowe rządy w Unii Europejskiej* (in:) J. Barcz (ed.), *Ustrój Unii Europejskiej*, Warszawa 2010, pp. 1–213.

⁵⁹ K. Krzysztofek, „Czy sieci uratują sferę publiczną?” (in:) J.P. Hudzik, W. Woźniak (eds.), *Sfera publiczna, kondycja, przejawy, przemiany*, Lublin 2006, p. 247.

⁶⁰ H.C.H. Hofmann, *Konstytucjonalizacja sieci w prawie publicznym UE* (in:) *Quo vadis Europa III?*, Warszawa 2009, p. 99.

⁶¹ European Governance – A White Paper, COM(2001)428.

⁶² R. Grzeszczak, *Władza wykonawcza w systemie Unii Europejskiej*, Warszawa 2011, p. 107.

⁶³ K.A. Armstrong, *New Governance and the European Union: An Empirical and Conceptual Critique* (in:) G. de Burca, C. Kilpatrick, J. Scott (eds.), *Critical Legal Perspective on Global Governance*, Oxford 2014, p. 258.

dination was adopted in March 2000 at the Lisbon summit. Said method has become an alternative to the so-called union method, concurrently (as it might seem) jeopardising the Commission's position. With OMC taking stronger ground, the Commission gradually lost its sole right to initiate legislation. There is no one official definition of OMC. In one of the European documents (glossary), the definition offered reads: „intergovernmental method providing framework for cooperation between EU nations, whose domestic policies can thus be directed towards certain common objectives”.⁶⁴

Paramount significance for the OMC legitimisation is attached to and reflected by the art.2(5) TFEU which expressly stipulates that „the Union shall have competence to carry out actions to support, coordinate or supplement the actions of the Member States, without thereby superseding their competence in these areas”. The fundamental OMC idea is primarily to determine short-, middle-, and long-term objectives to be pursued in the Member States. Subsequently, it is to establish guidelines and comparative criteria so as to detect the best practices that will consequently become a point of reference in running periodic surveillance and assessment.⁶⁵ The open method of coordination was presumed to bring a new quality to EU policy which manifests itself in mutual learning and experience sharing. Flexibility, absence of formality, decentralisation and social partners participation are pivotal in the foregoing method.⁶⁶ It is to help Member States implement Union law and further common policy objectives, with no reliance on ‘hard’ Union law instruments.

The foregoing method requires the involvement of numerous entities on different governance layers with application of diverse measures, common goal being the element that links all such operations. Undoubtedly, the absence of a shared responsibility for any failure or setback proves to be a weak side to such link. The European Social Committee, assessing the open method of coordination, indicated that insufficient informing of the citizens and most of all its inefficacy in the domestic area are undeniably its Achilles’ heel. In the Committee’s view, OMC currently shows too wishful thinking instead

⁶⁴ The Commission Programme: Youth in Action, <http://ec.europa.eu/youth-in-action> (access: 10.05.2018).

⁶⁵ See: Art. 181(2) TFEU.

⁶⁶ P. Dąbrowska, *Nowe rządy w Unii Europejskiej...*, p. 213.

of a more concrete one.⁶⁷ Grzeszczak even goes as far as to say that OMC „is an innovation that does not rise to be seen as a new value; with no sanctions at hand, OMC seems to aspire to promote, motivate, and reach agreements. Thus, as a new governance model, it is founded and operates on the principles of voluntary participation, subsidiarity, flexibility, commitment, contribution, and multi-layer integrity”.⁶⁸ Alternatively, the underlying method allows for and triggers dialogue and discussion that involves entities beyond government sector such as social partners and non-governmental agencies, with said method flexibility perceived as a genuinely strong asset.⁶⁹ It is thanks to this very method that setting an appropriate route to be taken by the policy of ensuring food security stands a much greater chance of reaching a broader circle of addressees as it is OMC's hallmark to encourage, facilitate mutual learning and promote massive and collective commitment of all the entities.

4. The legal framework

4.1. The international law

The main sources of international law, described in the article 38 of the Statute of the International Court of Justice, are: the treaties, customs and general principles of law. Treaties are agreements governed by international law and concluded between states or between states and international organizations. Nowadays, the majority of multilateral treaties are drafted and adopted within the framework of an international organization such as the United Nations. In general, treaties are legally binding only for the states and organizations which accept them through adoption, ratification or accession.⁷⁰ Some environmental treaties are framework agreements (like UNFCCC) requiring completion by additional international protocols (like the Kyoto Protocol in case of UNFCCC).

⁶⁷ See: The post-2010 (Lisbon) Strategy: Proposals from organised civil society, Integrated Report to the European Council, January 2010, EESC1885/2009.

⁶⁸ R. Grzeszczak, *Władza wykonawcza...*, p. 255.

⁶⁹ A. Knade-Plaskacz, *Otwarta metoda Koordynacji* (in:) J. Galster, A. Szczerba-Zawada (eds.), *Procedury Decyzyjne Unii Europejskiej*, EuroPrawo 2015, p. 170.

⁷⁰ M.N. Shaw, *International law*, 6th ed., Cambridge, p. 80.

International law is also created by unwritten custom, understood as the consistent behaviour of states over time, creating evidence of general practice accepted as law.⁷¹ Customary rules are often included in the treaties and transformed into the written law. The Statute also mentions the general principles of law „recognized by civilized nations”. In other words, those are the principles generally accepted by national legal systems throughout the world such as human dignity, freedom, solidarity, justice and the protection of environment. The catalogue of the principles is open and evolving with changing times. Finally, international law may also be identified through judicial decisions and the teachings of the most highly qualified publicists of the various nations „as subsidiary means for the determination of rules of law”. Nowadays, some authors postulate that also other sources of law should be regarded as international law, such as: programmes of action, resolutions and declarations (like the Stockholm Declaration).

4.2. EU hard law

The three major sources of European Union law are the founding Treaties,⁷² legislation adopted by the EU institutions and the general principles of law which have been shaped by the Court of Justice of the EU.⁷³ The Treaties, as primary law, allow the Council, the Commission and the Parliament to adopt EU secondary law. According to art. 289 TFEU, the „ordinary legislative procedure” is the main though not exclusive method of legislation. Secondary EU legislation can be interpreted in the light of the environmental objectives of the Treaty.⁷⁴ The sources of secondary law are set in art. 288 TFEU. According to the Treaty, it encompasses directives, regulations, decisions, recommendations and opinions. Alongside the foregoing, there are also atypical sources of law subsumed under the Union’s soft law.⁷⁵

⁷¹ Art. 38 (1)(b) of the Statute of the International Court of Justice.

⁷² The Treaty Establishing the European Coal and Steel Community (ECSC), the Treaty Establishing the European Atomic Energy Community (EURATOM), the Treaty Establishing the European Economic Community (EEC) and the Treaty on European Union (TEU).

⁷³ S. Weatherill, *Cases & Materials on EU Law*, 12th ed., Oxford 2016, p. 24.

⁷⁴ J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 27.

⁷⁵ J. Steiner, L. Woods, *Textbook on EC Law*, 8th ed., Oxford 2003, p. 54.

A brief overview of selected EU secondary law sources seems indispensable for the sake of better understanding their current and future role in creating reality in the field of climate change and food security. Nevertheless, it must be stressed that directives are the main instrument in the field of environmental protection. The first source to be presented is a regulation. Regulation is an instrument that most strongly integrates EU law with the law of the Member States. Pursuant to its Treaty definition, regulation has general application, it is binding in its entirety and is directly applicable in all Member States. Not only does it address Member States, but also individuals. Regulations are binding in their entirety, *a contrario*, Member States cannot apply regulation provisions incompletely and selectively so as to limit its effects. Direct application of regulations translates into their automatic use in the Member States' legal systems, without any necessity for transposition. The direct application of a regulation means that its entry into force and its application are independent of any measure of reception into national law. Member States are under a duty not to obstruct the direct applicability of a regulation. In no way may a legislative act of domestic law limit direct application and enforceability of a regulation.⁷⁶ Regulation affords rights and duties irrespective of domestic implementing rules. If a regulation meets the so-called Van Gend en Loos test for direct effect than it can be directly effective, too. That means that an individual can rely upon the provisions of a regulation before a national court.

Regulations are assumed to rely on substitution – a method of integration through law, whereby a norm enshrined in a regulation substitutes for the domestic law norm. In the areas subject to control through regulation, the Member States' legislative bodies are obliged not to issue provisions incompatible with the substance of a regulation, or to repeal previous regulations in a given field, provided that such regulations do exist. Regulations are applicable in common trade policy, transport, common agricultural and fisheries policy, and competition law.

Directives, in contrast to regulations, are clearly dependent on action taken by a Member State. Therefore, they are described as a rather peculiar act – a source of EU law but implemented at the national level.⁷⁷ According to art. 288

⁷⁶ Case 34/73 Variola, ECLI:EU:C:1973:101.

⁷⁷ S. Weatherill, *Cases & Materials on EU Law*, 12th ed., Oxford 2016, p. 115.

TFEU, a directive is binding upon each Member State to which it is addressed, but it leaves the choice of form and methods of transposition to the discretion of the national authorities. Directives may address all Member States or only the States specifically indicated. Freedom in the choice of measures is not absolute, and the Member State to which a directive is addressed is compelled to adopt all necessary measures in its system of law so as to ensure directive's full effectiveness. Directives are not designed to confer rights directly upon individuals.⁷⁸ However, the Court of Justice makes it clear that it would be incompatible with the binding effect that the Treaty ascribes to directives to exclude on principle the possibility of the obligations imposed by them being relied on by individuals concerned. A Member State that failed to implement a directive cannot rely against individuals on its own failure to perform the Treaty obligations. Therefore, after the expiration of the time given for implementing a directive, a Member State may not apply its national law to an individual that complies with the requirements of a directive.⁷⁹ However, it must be stated that directives are capable only of a horizontal direct effect, what means that they can be relied on only against the state.⁸⁰ A directive produces legal effects for a Member State to which it is addressed and, therefore, for all the national authorities, following its publication or from the date of its notification, as the case may be. During the period set for transposition of a directive, the Member States to which it is addressed must refrain from taking any measures liable seriously to compromise the attainment of the result prescribed by it.⁸¹

The Court has consistently held that a directive cannot in and of itself impose obligations on an individual and cannot therefore be relied on as such against an individual.⁸² However, it should also be recalled that where a person is able to rely on a directive not as against an individual but as against the state, he may do so regardless of the capacity in which the latter is acting, whether

⁷⁸ See inter alia: Case 41/74 Van Duyn, ECLI:EU:C:1974:133; Case 148/78 Ratti, ECLI:EU:C:1979:110; Case 8/81 Becker, ECLI:EU:C:1982:7.

⁷⁹ Case 148/78 Ratti, ECLI:EU:C:1979:110.

⁸⁰ Case 152/84 Marshall, ECLI:EU:C:1986:84.

⁸¹ Case C-212/04 Adeneler, paras. 119 and 121, ECLI:EU:C:2006:443.

⁸² See, inter alia: Case C-91/92 Faccini Dori, para. 20, ECLI:EU:C:1994:292; Case C-192/94 El Corte Inglés, para. 15, ECLI:EU:C:1996:88; Case C-397/01 Pfeiffer and Others, para. 108, ECLI:EU:C:2004:584 and C-555/07 Küçükdeveci, para. 46, ECLI:EU:C:2010:21.

as an employer or as a public authority.⁸³ In either case, it is necessary to prevent the state from taking advantage of its own failure to comply with European Union law.⁸⁴ Directives are commonly recognized as the EU law harmonization vehicle. They play a major role in elaborating the details of the EU policy making where the Treaties provide merely a framework. The absence of directive's timely transposition or its wrong transposition engenders specific legal consequences both in international law and in relations between individuals and a given Member State.

The third binding source of law described in art. 288 TFEU is a decision. It is an individual act designed to be addressed to a specified person or persons. An addressee of the decision might be a Member State, a group of Member States or individuals. A decision shall be binding in its entirety and doesn't need any implementation into national legal order. A decision which specifies those to whom it is addressed shall be binding only on them. However, if a regulation meets the so-called Van Gend en Loos test for direct effect, then it can be directly effective, too.⁸⁵

4.3. EU soft law

In the European law, the multiplicity and heterogeneity of soft law acts do not get limited to the opinions and recommendations defined under art.288 TFEU. What they do embrace is a much more comprehensive group of acts. The spectrum of those acts is very broad, but the definition proposed by Snyder is very concise. He says that soft law concerns „rules of conduct which, in principle, have no legally binding force but which nevertheless may have practical effects”.⁸⁶ The soft law acts are not intended to have legal effects, however, they may have indirect legal effect recognized in the case law. The Court has adhered to a broader concept of legal effect than legally binding force alone.

⁸³ Case C-282/10 Dominguez, paras. 37 and 38, ECLI:EU:C:2012:33.

⁸⁴ See, inter alia, Case 152/84 Marshall, para. 49, ECLI:EU:C:1986:84, Case C-188/89 Foster and Others, para. 17, ECLI:EU:C: 1990: 313 and Case C-343/98 Collino and Chiappero, para. 22, ECLI:EU:C:2000:441.

⁸⁵ Case 9/70 Franz Grad, ECLI:EU:C:1970:78.

⁸⁶ F. Snyder, *Soft Law and Institutional Practice in the European Community* (in:) S. Martin (ed.), *The Construction of Europe: Essays in honor of Emile Noël*, Dordrecht 1994, p. 198.

In the Grimaldi case, the Court explained that the fact that an act does not have legal effects does not mean that it has no legal effect at all. Such indirect legal effects can occur as a result of interpretation made by national court but also as a result of general principles of law, such as the principle of legal certainty and legitimate expectations.⁸⁷ In particular, in Grimaldi case the Court stated that, though not legally binding, a recommendation may carry significance in the interpretation of law.⁸⁸

Taxonomy of such acts has been proposed by *inter alia* L. Senden,⁸⁹ who classified soft law acts according to the role they play in a system of law. In her view, there are: pre-law guidance instruments, post-law administrative instruments and para-law policy steering instruments. The first group encompasses preparatory acts such as Green and White Papers that seek to trigger and develop debate on a given initiative. Their adoption does not amount to the acceptance of any concrete norms of conduct. The role they play is rather to identify a problem and define viable steps to be taken in a concrete area in the future. At least, such was the nature of the already mentioned White Paper on food safety,⁹⁰ or Green Paper on obesity.⁹¹ The same group also comprises documents devised by the European Food Safety Authority which take the shape of scientific opinions or scientific and technical assistance that provide specialist or expert information at a certain stage of legislation. An obligation to take the latest scientific achievements into account flows from art. 114 (3) TFEU which underlines having regard to scientific facts and data in health, security, environment and consumer protection sectors. EFSA's outputs cover: scientific opinions, statements, guidance, reasoned opinions. All said acts certainly vary, albeit their common feature is the fact that they are soft law acts and as such they do not carry any binding legal effects. The Court has emphasised their non-binding nature, pointing at their role at a pre-law stage, and as such they cannot be

⁸⁷ L. Senden, *Soft Law in European Community Law*, Oxford 2004, p. 240.

⁸⁸ Judgment of 13 December 1989, Grimaldi, C 322/88, EU:C:1989:646, paras. 12–16.

⁸⁹ L. Senden, *Changes in the Relative Importance of Sources of Law – The Case of EU Soft Law* (in:) U. Neergaard, R. Nielsen (eds.), *European Legal Method – in a Multi-Level EU Legal Order*, København 2012, pp. 230–236.

⁹⁰ White Paper on Food Safety, COM (1999)719 final.

⁹¹ Green Paper on obesity, COM (2005) 637.

subject to a plea of illegality.⁹² They are necessary for the decision-making process but cannot as such have direct effects on third parties.⁹³

Article 114 TFEU (ex Article 95 TEC)⁹⁴

1. Save where otherwise provided in the Treaties, the following provisions shall apply for the achievement of the objectives set out in Article 26. The European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market.

2. Paragraph 1 shall not apply to fiscal provisions, to those relating to the free movement of persons nor to those relating to the rights and interests of employed persons.

3. The Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and consumer protection, will take as a base a high level of protection, taking account in particular of any new development based on scientific facts. Within their respective powers, the European Parliament and the Council will also seek to achieve this objective.

4. If, after the adoption of a harmonisation measure by the European Parliament and the Council, by the Council or by the Commission, a Member State deems it necessary to maintain national provisions on grounds of major needs referred to in Article 36, or relating to the protection of the environment or the working environment, it shall notify the Commission of these provisions as well as the grounds for maintaining them.

5. Moreover, without prejudice to paragraph 4, if, after the adoption of a harmonisation measure by the European Parliament and the Council, by the Council or by the Commission, a Member State deems it necessary to introduce national provisions based on new scientific evidence relating to the protection of the environment or the working environment on grounds of a problem specific to that Member State arising after the adoption of the harmonisation measure, it shall notify the Commission of the envisaged provisions as well as the grounds for introducing them.

6. The Commission shall, within six months of the notifications as referred to in paragraphs 4 and 5, approve or reject the national provisions involved after having verified whether or not they are a means of arbitrary discrimination or a disguised restriction

⁹² Case T-311/06 *FMC Chemical and Arysta Lifesciences v EFSA* ECLI:EU:T:2008:205.

⁹³ V. Silano, *EFSA's Science Strategy: Taking Stock and Looking Ahead* (in: A. Alemnno, S. Gabi (eds.), *Foundations of EU Food Law and Policy*, Farnham 2014, p. 42.

⁹⁴ We refer to the consolidated versions of the Treaties [OJC 202 (2016)].

on trade between Member States and whether or not they shall constitute an obstacle to the functioning of the internal market.

In the absence of a decision by the Commission within this period the national provisions referred to in paragraphs 4 and 5 shall be deemed to have been approved.

When justified by the complexity of the matter and in the absence of danger for human health, the Commission may notify the Member State concerned that the period referred to in this paragraph may be extended for a further period of up to six months.

7. When, pursuant to paragraph 6, a Member State is authorised to maintain or introduce national provisions derogating from a harmonisation measure, the Commission shall immediately examine whether to propose an adaptation to that measure.

8. When a Member State raises a specific problem on public health in a field which has been the subject of prior harmonisation measures, it shall bring it to the attention of the Commission which shall immediately examine whether to propose appropriate measures to the Council.

9. By way of derogation from the procedure laid down in Articles 258 and 259, the Commission and any Member State may bring the matter directly before the Court of Justice of the European Union if it considers that another Member State is making improper use of the powers provided for in this Article.

10. The harmonisation measures referred to above shall, in appropriate cases, include a safeguard clause authorising the Member States to take, for one or more of the non-economic reasons referred to in Article 36, provisional measures subject to a Union control procedure.

The second group of acts pertains to the so-called shared administration. The term 'shared administration' was adopted by the Committee of Independent Experts attached to European Parliament in January 1997,⁹⁵ with the Committee taking view that such administration is in operation when European Commission and Member States are assigned separate administrative tasks which are inter-dependent, have foundations in EU law, and thus rendering both Commission and Member-State administrations committed to performing such tasks to effectively implement EU law. Difficulty in understanding the concept of shared administration emerges from the fact that powers conferred upon diverse entities may diverge from one policy area to another.⁹⁶ One common

⁹⁵ Committee of Independent Experts, First report on allegations regarding fraud, mismanagement and nepotism in the European Commission, 15 March 1999.

⁹⁶ P. Craig, *Shared Administration and Networks: Global and EU Perspectives* (in: G. Anthony et al. (eds.), *Values in Global Administrative Law*, Oxford 2011, p. 81.

feature the soft law acts exhibit is undoubtedly the need to ensure a comprehensive implementation of EU laws. To this end, the Commission relies on a number of different acts like: communications, guidelines, notices, codes and circulars. The issuance and publication of such documents is designed to facilitate accurate EU law interpretation, transposition and enforcement.⁹⁷ The foregoing acts are issued primarily by the European Commission and they closely correspond to hard law in force. They are designed to inform everybody, namely other institutions, agencies and citizens how the EU administration will interpret EU law provisions.

The third group of soft law acts is made up by an array of conclusions, declarations, resolutions, recommendations passed in order to exert an influence on certain attitudes and actions. The foregoing acts address Member States which are expected to step up cooperation, commitment and contribution in and to a concrete field. Here, not only are the soft law acts to define a problem, but also to encourage specific initiatives. Notably, said instruments prove truly useful in canvassing global and multi-tier dilemmas such as the absence of food security, food waste or adaptation to climate changes. Very good illustration is provided here by the European Parliament Resolution of 23 June 2011 on the CAP towards 2020: meeting the food, natural resources and territorial challenges of the future.⁹⁸ The assessment of said acts efficacy shall be tackled later on.

While we are still on the subject of the implementation process of the EU environmental protection policy, it is worth emphasising a particular significance of the multi-annual action schemes that set out general conditions and manner of realisation of objectives that the founding treaties laid down. The seventh successive EU Environment Action Programme was adopted by the European Parliament and the Council in November 2013 for the term till 2020.⁹⁹ It aims at the enhancement of efforts to protect EU natural capital, citizens' health and well-being, as well as to stimulate development and innovations

⁹⁷ C.J. Scott, *In legal limbo: post-legislative guidance as a challenge for European administrative law*, CMLRev 2011, vol. 48, p. 330.

⁹⁸ P7_TA (2011)0297.

⁹⁹ Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet' Text with EEA relevance, OJ L 354, 28.12.2013, pp. 171–200.

based on sustainable and low-carbon economy, within the limits of our planet. The programme sets forth three priority areas, within which more action should be ventured to protect the environment, raise natural resilience, step up sustainable, low-carbon development and reduce risk to man's health and well-being posed by pollution with chemicals and climate change. The second area of action pertains to conditions which will facilitate the transformation of the European Union into a sustainable and low-carbon economy. The foregoing area calls for, *inter alia*, full implementation of the climate and energy package and agreement on successive stages in climate policy development after the year 2020.

5. Institutions and agencies

5.1. International level

There are various international organizations and commissions, both governmental and non-governmental, that are engaged in the protection of human rights in many ways throughout the world. Some of them – like the United Nations – are global, the others work in a specific region. In Europe, the most important one is the Council of Europe which was established after the Second World War in order to protect human rights. However, it must be stressed that also the European Union is more and more active in that field. The amended article 6 of the Treaty on European Union allows the EU to accede to the European Convention of Human Rights. According to this provision, The Charter of Fundamental Rights acquired the same legal value as the Treaties.

Article 6 TEU

The Union recognises the rights, freedoms and principles set out in the Charter of Fundamental Rights of the European Union of 7 December 2000, as adapted at Strasbourg, on 12 December 2007, which shall have the same legal value as the Treaties.

The provisions of the Charter shall not extend in any way the competences of the Union as defined in the Treaties.

The rights, freedoms and principles in the Charter shall be interpreted in accordance with the general provisions in Title VII of the Charter governing its interpretation and application and with due regard to the explanations referred to in the Charter, that set out the sources of those provisions.

2. The Union shall accede to the European Convention for the Protection of Human Rights and Fundamental Freedoms. Such accession shall not affect the Union's competences as defined in the Treaties.

3. Fundamental rights, as guaranteed by the European Convention for the Protection of Human Rights and Fundamental Freedoms and as they result from the constitutional traditions common to the Member States, shall constitute general principles of the Union's law.

In the context of the on-going considerations, at least some of the organizations should be mentioned. The United Nations, the Conference of the Parties and the Food Agriculture Organization were chosen as the most involved in both climate change and food security problems.

5.1.1. United Nations

The United Nations is an international organization founded in 1945. It is currently made up of 193 Member States. The mission and work of the United Nations are guided by the purposes and principles contained in its founding Charter.¹⁰⁰ Due to the powers vested in the Charter and its unique international character, the United Nations can take action on the issues confronting humanity in the 21st century, such as peace and security, climate change, sustainable development, human rights, disarmament, terrorism, humanitarian and health emergencies, gender equality, governance, food production, and more. The UN also provides a forum for its members to express their views in the General Assembly, the Security Council, the Economic and Social Council, and other bodies and committees. By enabling dialogue between its members, and by hosting negotiations, the Organization has become a mechanism for governments to find areas of agreement and solve problems together. The UN's Chief Administrative Officer is the Secretary-General.¹⁰¹

¹⁰⁰ The Charter of the United Nations was signed on 26 June 1945, in San Francisco, at the conclusion of the United Nations Conference on International Organization, and came into force on 24 October 1945. The Statute of the International Court of Justice is an integral part of the Charter. See: <http://www.un.org/en/sections/un-charter/un-charter-full-text/> (access: 10.05.2018).

¹⁰¹ <http://www.un.org/en/sections/about-un/overview/index.html> (access: 10.05.2018).

5.1.2. COP

The Conference of the Parties (COP) is the supreme decision-making body of the Convention. All States that are Parties to the Convention are represented at the COP. At the Conference, they review the implementation of the Convention and any other legal instruments that the COP adopts and take decisions necessary to promote the effective implementation of the Convention, including institutional and administrative arrangements. The COP is entitled to carry out an overhaul of the realization of decisions and convention-related legal instruments.¹⁰² The ordinary sessions of the Conference of the Parties are held cyclically at the beginning of December of a given year, and are termed „climate summits”. The institutions and bodies are also called into being to adopt legal instruments and undertake action that would stall climate changes and facilitate adaptation processes.¹⁰³

5.1.3. FAO

The Food Agriculture Organization (FAO) was founded in 1945 and now is the intergovernmental organization with 194 Member Nations. FAO has identified key priorities on which it is best placed to intervene: help eliminate hunger, food insecurity and malnutrition; make agriculture, forestry and fisheries more productive and sustainable; reduce rural poverty, enable inclusive and efficient agricultural and food system; increase the resilience of livelihoods to threat and crises.¹⁰⁴ FAO creates and shares critical information about food, agriculture and natural resources in the form of global public goods. It also facilitates a dialogue between those who have the knowledge and those who need it, building partnerships for food and nutrition security, agriculture and rural development between governments, development partners, civil society and the private sector. In order to reach its objectives, FAO acts as an impartial international body, it is autonomous from its Members both for what concerns its organization and what relates to its activity, and it exercises a proactive role by

¹⁰² A. Vihma, *Climate of Consensus: Managing Decision Making in the UN Climate Change Negotiations*, RECIEL 2015, vol. 24 (1), pp. 58–67.

¹⁰³ <http://unfccc.int/bodies/body/6383.php> (access: 10.05.2018).

¹⁰⁴ www.fao.org (access: 25.06.2017).

enhancing information and knowledge sharing and encouraging harmonization and cooperative policy directed to tackle food insecurity.¹⁰⁵

In year 2004, the Council of FAO adopted Voluntary Guidelines to Support Progressive Realization of the Right to Adequate Food in the Context of National Food security. The preface of that document points up the following aims: „These Voluntary Guidelines are a human rights-based practical tool addressed to all States. They do not establish legally binding obligations for States or international organizations, nor is any provision in them to be interpreted as amending, modifying or otherwise impairing rights and obligations under national and international law. States are encouraged to apply these Voluntary Guidelines in developing their strategies, policies, programmes and activities”.¹⁰⁶ In the ambit of achieving food security, FAO’s efforts should be specifically highlighted, however, different institutions like WHO,¹⁰⁷ UNICEF,¹⁰⁸ IFAD¹⁰⁹ or The World Food Programme¹¹⁰ have also certainly contributed to the development of the human right to food.

5.2. European level

The composition of powers of the EU institutions and the relationship between them is designed to provide the ‘checks and balances’, within the EU legal order. This institutional balance is not only about limiting the power of institutions, but has also a positive side as the institutions must at least cooperate to achieve anything at all.¹¹¹ This is commonly known that different institutions represent various interests. The Commission, as a supranational institution, is independent

¹⁰⁵ D. Bevilacqua, *Introduction to Global Food-Safety Law and Regulation*, Amsterdam 2015, p. 139.

¹⁰⁶ Voluntary Guidelines to Support Progressive Realization of the Right to Adequate Food, Adopted by 127 Session of FAO Council, November 2004, FAO Roma 2005, p. 2.

¹⁰⁷ The World Health Organization founded in 1948- its primary task is to promote highest standard of health.

¹⁰⁸ The United Nations Children’s Fund- in that institutions nutrition programmes are of fundamental importance.

¹⁰⁹ The International Fund for Agricultural Development- supports third world countries with rural poverty.

¹¹⁰ This program was installed on the advice of the FAO and its purpose is to provide food in emergency situation.

¹¹¹ L. Woods, P. Watson, M. Costa, *EU Law*, Oxford 2014, p. 26.

of the governments of the Member States and its most important task is to submit proposals of EU law and to prevent Member States and companies from violating the provisions in the legal basis of EU law. The Council is an intergovernmental institution, representing the individual state interests. The European Parliament creates a direct link between the national electorates and the Union political institutions. It must be underlined that the EU institutional schema is much more complex. There are various sorts of actors which do not fall within the definition of ‘institution’ for the purpose of the Treaty, however, they do play a role in policymaking, implementation and enforcement. The good example for that are the EU agencies which are engaged in supporting EU-level executives. Strong and relatively effective institutions in the EU have been a goal of EU cooperation from the beginning. As P. Nedergaard has observed, this idea of strong institutions has contributed to the creation of the basis for many spill-over effects, leading to both positive and negative integration with new policies and institutions as a result.¹¹² As the European integration process has become a highly political exercise¹¹³, EU institutions have evolved and their role in designing and launching strategies in the new areas such as climate change or food security has become significant.

5.2.1. European institutions

Out of all EU institutions, the European Commission is most committed to the climate change fight.¹¹⁴ It is within the European Commission that the Directorate-General for Climate Action (DG Clima) has been called into being.¹¹⁵ The Directorate’s remit embraces the oversight of Commission’s actions to fight climate changes on domestic and international levels, in particular presiding over the Commission’s working groups that handle international negotiations on climate change and on substances depleting ozone layer, and coordinating bi- and multilateral partnerships with the countries beyond EU. It has also

¹¹² P. Nedergaard, *European Union Administration: Legitimacy and Efficiency*, Lejda 2007, p. 184.

¹¹³ J. Peterson, M. Shackleton, *The Institutions of the European Union*, Oxford 2006, p. 14.

¹¹⁴ P.M. Barnes, *The role of the Commission of the European Union: creating external coherence from internal diversity* (in:) R.K.W. Wurzel, J. Connelly (eds.), *The European Union as a Leader in International Climate Change Politics*, London 2010, p. 41.

¹¹⁵ Established in 2010.

been tasked with formulating and implementing climate policies and strategies, launching the EU Emissions Trading System (EU ETS), monitoring EU Member States emissions in the sectors that do not fall within the EU Emissions Trading System, promoting low-emission technologies and adaptation measures. Notably, DG Clima shapes and introduces cost-effective strategies for the EU to achieve climate objectives determined for 2020 and 2030 with regard to greenhouse gases emission and ozone layer protection. Moreover, DG Clima ensures the inclusion of climate protection questions in all other EU policies and EU's limited exposure to climate change consequences thanks to adaptation actions. It also encourages low-emission technologies and adaptation actions, *inter alia*, within the scope of carbon capture and storage, lowering fluorinated greenhouse gases emission, reduction of the application of substances that deplete the ozone layer, standards of environmental performance of vehicles and fuel quality. To these ends, it has been producing regulatory frameworks that further the implementation of such technologies and providing financial support.¹¹⁶

Other institutions have also played a significant role in designing and launching strategies of fight with climate changes and in adaptation to the inevitable changes. Within the European Parliament, it is necessary to point at the Environmental Committee (ENVI)¹¹⁷ which is one of the central legislative committees of the European Parliament. The ENVI Committee's objective is to search for European solutions in the field of public health. Its members have been undertaking actions to enhance information forwarded to consumers on food, in particular through regulations on labelling and launching goods to market. The foregoing Committee is also responsible for a variety of policies on, e.g., *inter alia*, air and water pollution, waste management, fight with climate change and protection of biodiversity.¹¹⁸

One of the panels of the Council of the European Union is the Environment Council, which is in charge of the EU environmental policy, including environmental protection, reasonable exploitation of resources and human health protection. It also oversees international environmental issues, especially climate change ones. The Environment Council meeting is attended by

¹¹⁶ eea.europa.eu (access: 10.05.2018).

¹¹⁷ Ch. Burns, N. Carter, *The European Parliament and climate change: from symbolism to heroism and back again* (in:) R.K.W. Wurzel, J. Connelly (eds.), *The European Union....*, p. 58.

¹¹⁸ europarl.europa.eu (access: 10.05.2018).

the Ministers responsible for the environment-related questions. On the international level, the EU and the Member States strive to ensure that EU environmental standards find their reflection in international agreements in the field of environment and climate change. In this respect, it is for the Council to devise stances to be assumed by the EU in international conferences and negotiations on climate change.¹¹⁹

Additionally, the advisory bodies – European Economic and Social Committee and Committee of the Regions – play a significant role with regard to climate protection. The European Economic and Social Committee is made up of six specialist sections, inter alia, Agriculture, Rural Development and Environment, NAT. The NAT section works on policies related to agriculture and environment protection. Its remit includes the reform of the Common Agricultural Policy, the review of the Sustainable Development Policy and climate change policies.¹²⁰ The Committee of the Regions comprises, inter alia, the Commission for Environment, Climate Change and Energy, ENVE, which coordinates the works of the Committee of the Regions in the following fields: climate change (climate change mitigation and adaptation); renewable energy, environment protection policy, trans-European networks in energy sector, space policy promoting territorial development.¹²¹

In the context of promoting widely understood food security, the main involved institutions within the European Union are: the European Parliament, the European Commission and the EU agencies. The European Parliament's role is not only noticeable in resolutions proclaimed or debates carried out but is also observed in different fields. It is in the remit of the Parliament to cooperate with the Member States. The Committee on Agriculture and Rural Development (AGRI) is responsible for scrutinising the European Commission's work related to agricultural policy. The powers and responsibilities of the Committee include not only Common Agricultural Policy but also animal health and welfare, plant health and food security. In this respect, it closely cooperates with other EU institutions, especially with the European Commission and the Council.

¹¹⁹ S. Oberthur, C. Dupont, *The Council, the European Council and international climate policy: from symbolic leadership to leadership by example* (in:) R.K.W. Wurzel, J. Connelly (eds.), *The European Union...*, p. 74; see as well: consilium.europa.eu (access: 10.05.2018).

¹²⁰ eesc.europa.eu (access: 10.05.2018).

¹²¹ cor.europa.eu (access: 10.05.2018).

So to speak, the role of the European Commission is now to ensure the inclusion of the concept of food security in EU policies. In respect of that, the EC cooperates by the network system with the EU agencies.

5.2.2. European agencies

Ahrendt¹²² has divided the agencies into five groups: supervising agencies; market promoting agencies; agencies promoting and monitoring politics through the provision of information; agencies providing impulses to politics, and agencies facilitating administration. They certainly differ in terms of the roles they play. Still, their common features are also to be underlined. What all the agencies introduce to EU system are operation decentralisation and dispersion; assigned tasks value enhancement; satisfaction of the growing need for scientific and technical knowledge; miscellaneous interest groups integration and the promotion of a dialogue between social partners.

The EU agencies do not hold such competences as their counterparts in the American system enjoy, which means that they primarily play an advisory role. The absence of decision-making powers and co-sharing responsibility with the European Commission are the main allegations and challenges they face.¹²³ Agencies should not work in isolation. What they should do is to develop a network that would embrace both domestic and union layers. More importantly, along with the Commission, they need to be equipped with much broader discretion and share specific-policy-driven responsibility. Agencies are engaged to support EU-level executive responsibilities but with more functional expertise channelled through the creation of European level bodies.¹²⁴

To pursue the entrusted objectives, the European institutions avail themselves of the assistance of the European Environment Agency (EEA). The Agency's work consists in supplying reliable and objective information on environment protection to the public and the entities in charge of devising,

¹²² N. Ahrendt, *An Administrative Perspective from the Commission* (in:) *The New European Agencies*, RSC Working Paper 96/46.

¹²³ J. Peterson, M. Shackleton, *The Institutions of the European Union*, Oxford 2006, p. 206.

¹²⁴ K. Armstrong, *New Governance and the European Union: An Empirical and Conceptual Critique* (in:) G. de Burca, C. Kilpatrick, J. Scott (eds.), *Critical Legal Perspective on Global Governance*, Oxford 2014, p. 256.

adopting, implementing and assessing the environment protection policy. One of the fields of cooperation is agriculture, which is nowadays linked with energy, climate change and food security. The role of the agency as the advisory body is to help in finding the platform for coherent and integrated policy in EU, but also at the international level. As we speak here about issues of transboundary nature, instrument like Eionet – European environment information and observation network linked with EEA must be given weight to. The complex problem requires a coherent and integrated policy approach to climate change, energy and food security. Coordination of the works of the European Environment Information and Observation Network also lies within the remit of the European Environment Agency. The Agency's operations have been of service to business and academic communities, as well as non-governmental organisations. Currently, the Agency brings together 33 Member States. The Regulation establishing European Environment Agency, adopted by the European Union in 1990, came into force at the end of 1993, following the decision on the Agency's seat in Copenhagen, with the Agency starting its works in 1994. The same Regulation also established the European Environment Information and Observation Network (Eionet).

The European Food Safety Agency was founded on the principles of scientific excellence and independence, transparency and openness. IT was set up in 2002, following a series of food crises in the late 1990s to early 2000s. The agency was legally established by the EU under the safety system based on separation of risk assessment and risk management. EFSA is responsible for the: food and feed safety, nutrition, animal health and welfare, plant protection and plant health. EFSA not only produces scientific opinions but was also given the remit of independent communication to the public. EFSA uses a variety of mechanisms to ensure that its scientific decision-making process is accessible to all beneficiaries.¹²⁵ EFSA has worked very intensively by producing scientific opinions and advice as well as risk assessments, thanks to which European consumers are among the best protected and the best informed in the world as regards risks in the food chain. Admittedly, the core dimension of EFSA's mandate concern food safety, however, the food safety system is closely linked

¹²⁵ C.G. Laneelle, *Foreword* (in: A. Alemanno, S. Gabbi (eds.), *Foundations of EU Food Law and Policy, Ten Years of the European Food Safety Authority*, London 2012, p. XVIII.

to food security. Over the years, EFSA has put a number of initiatives in place, such as the Strategy for Cooperation and Networking between EU Member States and EFSA or discussions with similar agencies in other parts of the world. These kind of developments are very important as they improve the public understanding of the coherence of scientific evaluation and thereby enhance consumer confidence.¹²⁶

¹²⁶ D. Byrne, *The Genesis of EFSA and First 10 Years of EU Food Law* (in:) *Foundations of EU Food Law...*, p. 21.

Chapter II

CLIMATE LAW

1. General remarks

Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen. Evidence of observed climate change impacts is strongest and most comprehensive for natural systems. In many regions, changing precipitation or melting snow and ice are altering hydrological systems, affecting water resources in terms of quantity and quality. Many terrestrial, freshwater and marine species have shifted their geographic ranges, seasonal activities, migration patterns, abundances and species interactions in response to ongoing climate change. According to the IPCC Report, it is very likely that human influence has contributed to the global climate change. Impacts from recent climate-related extremes, such as heat waves, droughts, floods, and hurricanes, reveal significant vulnerability and exposure of some ecosystems and many human systems to current climate variability. Global scale changes in the frequency and intensity of daily temperature extremes have been observed since the mid-20th century. The probability of occurrence of heat waves in some locations has more than doubled. Heavy precipitation events have increased in many land regions. Recent detection of increasing trends in extreme precipitation and discharge in some catchments implies

greater risks of flooding at regional scale. It is likely that extreme sea levels have increased since 1970, being mainly a result of rising mean sea level.¹²⁷

The climate change impacts that have been experienced by other continents might soon strongly affect Europe. The European Commission established that Europe is warming faster than many other parts of the world. The European land temperature over the past decade has been on average 1.3°C higher than in the pre-industrial era, compared with a global average rise of 0.8°C. Impacts vary across the EU, but all Member States are already somehow exposed to climate change. According to the Commission, the Mediterranean basin, mountain areas, densely populated plains, coastal zones, outermost regions and the Arctic are particularly vulnerable to negative climate change impacts. Some extreme weather events have increased, with southern and central Europe seeing more frequent heat waves, forest fires and droughts. Heavier precipitation and flooding is projected in northern and north-eastern Europe, with a heightened risk of coastal flooding and erosion. An increase in such events is likely to enlarge the magnitude of disasters, leading to significant economic losses, public health problems and increased death rate.¹²⁸

The above phenomena have led to the development of new area of law. Climate law in statu nascendi exhibits multicentric and interdisciplinary nature. It entails both international law provisions and regulations on the EU and domestic level. This is an area on the periphery of the environmental protection, economy, administrative and financial law. It enshrines the norms that further prevention of anthropogenic climate changes, and combines environmental protection law with economy law through numerous common considerations by means of legal and economic instruments, inter alia, the EU trading emission scheme.¹²⁹ Theoretically, the legal bases for the identification of a set of climate norms emerge from the ideas of justice and solidarity.¹³⁰ While justice seen as a foundation of a broadly understood environment policy

¹²⁷ IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, pp. 2–8.

¹²⁸ Communication: An EU Strategy on Adaptation to Climate Change, COM (2013) 216. See also: http://ec.europa.eu/clima/policies/adaptation/what/documentation_en.htm (access: 10.05.2018).

¹²⁹ J. Ciechanowicz-McLean, *Prawo ochrony klimatu*, Warszawa 2016, p. 99.

¹³⁰ A. Williams, *Solidarity, justice and climate change law*, Melb. J. Int'l L. 2009, vol. 10, p. 504.

is an object of an in-depth analysis in a number of studies,¹³¹ climate justice is a new concept that has not received any definition in either international or EU law.¹³² In the doctrine, climate justice is presented descriptively as a tool that enables the pursuit of justice and attribution of liability for damage resultant from actions causing climate changes. E.A. Posner points out corrective justice which is reflected in the statement that rich countries are responsible for greenhouse gases emission, and they therefore should incur the highest costs related to the fight with climate changes.¹³³

Justice and solidarity are not the only principles that constitute climate law. The public international law is a rich source of general principles which serve as the base and starting point for further discussion for the solutions on European level.¹³⁴ For instance, the principle of sustainable development is a corner stone for the policies, actions and strategies of the European Union in the field of environment. The practice of sustainable development sets the highest standards for the local, regional and national actions taken up in the spheres of i.e. providing for the basic needs of the citizens, rational exploitation of natural resources and increasing the participation of individuals.¹³⁵ The principle of sustainable development, though of universal dimension, is not the only principle of international environmental law influencing the climate law. Climate law comprises, among other principles, precautionary principle, principle of economic differentiation, ‘polluter should pay’ principle, principle of intergenerational responsibility, principle of justice, principle of climate change uncertainty, and a principle of good neighbourhood. Some

¹³¹ S. Vaderheiden, *International justice. Rights and obligations of state* (in: P.G. Harris (ed.), *Rutledge Handbook of Global Environmental Politics*, London 2014, p. 296 ff.; M. Paterson, *Principles of Justice in the Context of Global Climate Change* (in: U. Luterbacher, D.F. Sprinz, *International Relations and Global Climate Change*, Cambridge (MA) 2001, p. 120.

¹³² M. Adamczak-Retecka, *Climate justice: feasible and desirable?* (in: M. Nyka, E. Schneider (eds.), *Enacting environmental justice through global citizenship*, Inter-Disciplinary Press 2014, pp. 59–64.

¹³³ E.A. Posner, D. Weisbach, *Climate Change Justice*, Princeton 2010, p. 99.

¹³⁴ T. Montorsi, *The Enforcement of Environmental Law in EU: the Strength of the Principles*, Cheltenham 2016, p. 315; D. Anton, D.L. Shelton, *Environmental Protection...*, p. 80 ff.; J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 41 ff.

¹³⁵ D. Pyć, *Zrównoważony rozwój* (in: A. Przyborowska-Klimczak, D. Pyć (eds.), *Leksykon prawa międzynarodowego publicznego. 100 podstawowych pojęć*, Warszawa 2012, pp. 579–582.

authors also underline the significance of the principles of cooperation and care for common human heritage (in sovereignty for resources), and, in the context of EU law, a principle of greenhouse gas emission reduction.¹³⁶

The above principles will be discussed in this chapter as a background for further analysis of the international and European sources of climate law. Undoubtedly, preventing dangerous climate change is one of the key strategic priorities for the European Union. Europe is working hard to cut its greenhouse gas emissions substantially while encouraging other nations and regions to do likewise. At the European level, a comprehensive package of policy measures to reduce greenhouse gas emissions has been initiated through the European Climate Change Programme (ECCP). Each of the EU Member States has also put in place its own domestic actions that build on the ECCP measures or complement them. In parallel to the mitigation efforts, the European Commission and a number of Member States have developed adaptation strategies to help strengthen Europe's resilience to the inevitable impacts of climate change. It also has to be stressed that the EU has long been a driving force in international negotiations on climate change and was instrumental in the development of the UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the new agreement that was adopted at the UN climate conference in Paris in December 2015.

Currently, the European Union is implementing binding objectives related to climate and energy set out for the term till 2020.¹³⁷ One of the objectives is the reduction of greenhouse gas emission within the EU of at least 20 per cent in comparison with the level in 1990, a 20 per cent increase in the use of renewable energy in general EU energy market, achieving a 20 per cent primary energy saving – through a reasonable energy consumption – against the projected level. Moreover, within the framework of joint efforts pursued by developed countries – to avert dangerous climate changes. The European Council has endorsed EU objective to reduce greenhouse gas emissions till 2050 by 80–95% in comparison with the level in 1990 in the context of reductions indispensable on the part of developed countries recommended by the Intergovernmental Panel

¹³⁶ M.N. Shaw, *Prawo międzynarodowe*, Warszawa 2006, p. 460.

¹³⁷ J. Holder, M. Lee, *Environmental Protection Law and Policy. Text & Materials*, 2nd ed., Cambridge 2007, p. 147 and 150.

on Climate Change (IPPC).¹³⁸ Such an objective corresponds to the approach promoted by world leaders and expressed in the Paris Agreement.

Notwithstanding the efforts pursued to stall climate changes through the reduction of gas emissions level, climate changes have already adversely affected and will, in the next years, affect many countries, primarily and sadly the poorest ones. From the developing countries perspective, adaptation to the inevitable changes has proven most essential. Climate change impact is felt even now, hence the European Commission has devised the Union adaptation strategy aiming at the enhancement of the European community resilience to climate change effects. In this context, adaptation amounts to anticipating adverse effects of climate changes and undertaking appropriate measures to avert or mitigate resultant damage.¹³⁹ By virtue of varied intensity and nature of the climate change impact in different parts of Europe, initiatives should be taken both on local and regional level. The European Union has a number of strategies at its disposal, serving gas emission reduction, clean energy promotion, energy efficiency, and stimulating Europe changeover to low-carbon economy. Nonetheless, the foregoing are the soft law instruments devoid of binding force and sanctions.

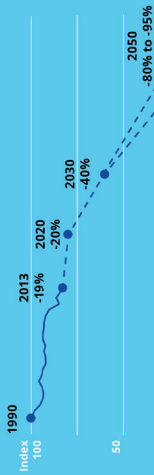
¹³⁸ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions a policy framework for climate and energy in the period from 2020 to 2030, COM (2014) 015 fin.

¹³⁹ M. Munasinghe, *Sustainable Development in Practice. Sustainomics Methodology and Applications*, Cambridge 2009, p. 151.

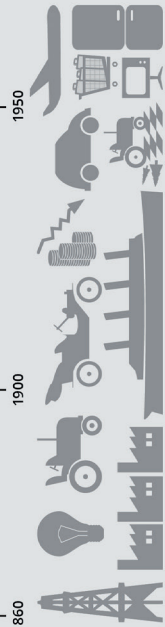
Mitigating climate change

The European Union's efforts to reduce greenhouse-gas emissions are working. In fact, the EU is expected to meet its unilateral 20% reduction target (compared to 1990) ahead of the agreed 2020 deadline. Moreover, the EU intends to reduce domestic emissions by at least 40% by 2030 and further decarbonise its economy by 2050. The EU currently emits around 10% of global greenhouse-gas emissions.

EU greenhouse-gas emissions and reduction targets, excluding land use, land-use change and forestry (LULUCF)



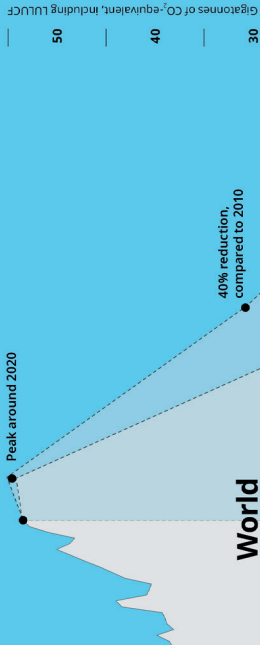
EU greenhouse-gas emissions by sector, excluding LULUCF



Notes: (1) World GHG emissions 1860–1970 are estimated based on EDGAR data and Global CO₂ emissions. (2) GHG emissions 1990–2012 are based on the European Commission's annual greenhouse gas inventory. (3) GHG emissions 2013–2050 are based on the European Commission's annual greenhouse gas inventory. (4) The 2050 pathway on the right (in black) is only indicative as the EU target for 2050 excludes the impact of LULUCF.

The international community has agreed to limit the global average temperature increase to 2°C above pre-industrial times. Scientific studies show that, to increase our chances of limiting the average temperature increase to 2°C, global emissions have to peak in 2020, and then start declining. Global emissions in 2050 have to be 40 to 70% lower than in 2010 and they have to fall to near zero — or below — by 2100.

Peak around 2020



World greenhouse-gas emissions

40% reduction, compared to 2010

70% reduction, compared to 2010

EU

COP21



Sources: EEA, 2014. Annual EU greenhouse gas inventory 1990–2012 and inventory report 2014; EEA, 2010. Mitigating climate change – SGER 2010. The European Commission's annual greenhouse gas inventory for the period 1990–2012. (1) The 2050 pathway on the right (in black) is only indicative as the EU target for 2050 excludes the impact of LULUCF. Read more: EEA Report 'Trends and projections in Europe'.

2. The EU & Environment

2.1. The development of European Environmental Law

The development of European environmental law can be divided into several phases. The first phase began with the entry into force of the EEC Treaty in 1958 and continued up to 1972. In that period, no specific attention was paid to the environment matters. At a European Council Summit in 1972, the value of European environment policy was stressed and that was the starting point for adopting numerous directives and regulations. The third phase is associated with entering into force of the Single European Act in 1987, because for the first time the objectives of the environment policy and powers aimed at environmental protection were enshrined in the Treaty. Another breakthrough is the entry into force of the Treaty on European Union in 1993, which incorporated an environmental objective. Also, special status was given to the action programmes on the environment and the role of the European Parliament in their adoption was increased. The Treaty of Amsterdam introduced the aim of promoting „a high level of protection and improvement of the quality of the environment”. The current phase was opened by the Treaty of Lisbon. In the context of this book, it is worth mentioning that the Treaty of Lisbon included climate change as an example of a regional or worldwide environmental problem that falls within the ambit of EU environmental policy. Also, the institutional „innovation” of citizens’ initiative which enables no less than one million citizens of the EU from a significant number of Member States to invite the Commission to come up with a proposal, might have an impact on environmental policy.¹⁴⁰

2.2. The objectives of European Environmental Law

The objectives of European Environmental Policy are defined in the first paragraph of article 191 TFEU.

¹⁴⁰ J.H. Jans, H.H.B. Vedder, *European Environmental Law. After Lisbon....*, p. 12.

TITLE XX ENVIRONMENT

Article 191 (ex Article 174 TEC)

1. Union policy on the environment shall contribute to pursuit of the following objectives:

- preserving, protecting and improving the quality of the environment,
- protecting human health,
- prudent and rational utilisation of natural resources,
- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

2. Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. In this context, harmonisation measures answering environmental protection requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a procedure of inspection by the Union.

3. In preparing its policy on the environment, the Union shall take account of:

- available scientific and technical data,
- environmental conditions in the various regions of the Union,
- the potential benefits and costs of action or lack of action,
- the economic and social development of the Union as a whole and the balanced development of its regions.

4. Within their respective spheres of competence, the Union and the Member States shall cooperate with third countries and with the competent international organisations. The arrangements for Union cooperation may be the subject of agreements between the Union and the third parties concerned. The previous subparagraph shall be without prejudice to Member States' competence to negotiate in international bodies and to conclude international agreements.

The first objective of „preventing, protecting and improving the quality of environment” is rather general and indeterminate.¹⁴¹ That is considered to be an advantage of being flexible to the new developments and new needs for protection.¹⁴² On the other hand, the provision is criticised for leaving

¹⁴¹ See also the deliberations on the concept of the right to environment as a human right.

¹⁴² L. Kramer, *EC Environmental Law*, London 2007, p. 2.

too much discretion for interpretation.¹⁴³ The second objective is the one of protecting human health. Leaving aside the issue of definition of „human health”, it should be noted that it is considered to be a wider concept than protecting public health, understood as collective health interests of society. Another objective, prudent and rational utilization of natural resources, has been acknowledged as a condition for sustainable development.¹⁴⁴ It is also a condition incorporated in the Rio Declaration and the Stockholm Declaration.¹⁴⁵ According to the Stockholm Declaration, natural resources of the Earth include: air, water, land, flora, fauna and especially representative samples of natural ecosystems.¹⁴⁶ The management of natural resources embraces inter alia: nature conservation, soil protection, waste disposal policy on particular areas, disaster policy, water management but also „environmentally friendly” agricultural policy and energy-saving.¹⁴⁷ Clearly, the scope of that objective is as well very wide.

Finally, EU policy on the environment shall contribute to pursuit promoting measures at the international level to deal with regional or worldwide environmental problems. As mentioned earlier, combating climate change was included in this provision as global environmental problem by the Treaty of Lisbon. The European Union is a party to several international conventions aimed at the combat with climate change and it was a driving force in drawing the Paris Agreement of December 2015.¹⁴⁸

According to the article 210f the TEU:¹⁴⁹

1. The Union’s action on the international scene shall be guided by the principles which have inspired its own creation, development and enlargement, and which it seeks to advance in the wider world: democracy, the rule of law, the universality and indivisibility of human rights and fundamental freedoms, respect for human dignity, the principles

¹⁴³ J.H. Jans, H.H.B. Vedder, *European Environmental law. After Lisbon....*, p. 32.

¹⁴⁴ Decision 1600/2002, Sixth Environment Action Programme, OJ 2002, L 242/1.

¹⁴⁵ See: Principle 9 of the Rio Declaration and Principle 2 of the Stockholm Declaration.

¹⁴⁶ The Stockholm Declaration, ILM 1972, p. 14.

¹⁴⁷ L. Kramer, *EC Environmental Law*, London 2007, p. 14.

¹⁴⁸ Discussed further in this chapter.

¹⁴⁹ Title V, General Provisions on the Union’s External Action and Specific provisions on the Common Foreign and Security Policy. Chapter one, General provisions on the Union’s External Action.

of equality and solidarity, and respect for the principles of the United Nations Charter and international law.

The Union shall seek to develop relations and build partnerships with third countries, and international, regional or global organisations which share the principles referred to in the first subparagraph. It shall promote multilateral solutions to common problems, in particular in the framework of the United Nations.

2. The Union shall define and pursue common policies and actions, and shall work for a high degree of cooperation in all fields of international relations, in order to:

- (a) safeguard its values, fundamental interests, security, independence and integrity;
- (b) consolidate and support democracy, the rule of law, human rights and the principles of international law;
- (c) preserve peace, prevent conflicts and strengthen international security, in accordance with the purposes and principles of the United Nations Charter, with the principles of the Helsinki Final Act and with the aims of the Charter of Paris, including those relating to external borders;
- (d) foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty;
- (e) encourage the integration of all countries into the world economy, including through the progressive abolition of restrictions on international trade;
- (f) help develop international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development;
- (g) assist populations, countries and regions confronting natural or man-made disasters; and
- (h) promote an international system based on stronger multilateral cooperation and good global governance.

3. The Union shall respect the principles and pursue the objectives set out in paragraphs 1 and 2 in the development and implementation of the different areas of the Union's external action covered by this Title and by Part Five of the Treaty on the Functioning of the European Union, and of the external aspects of its other policies.

The Union shall ensure consistency between the different areas of its external action and between these and its other policies. The Council and the Commission, assisted by the High Representative of the Union for Foreign Affairs and Security Policy, shall ensure that consistency and shall cooperate to that effect.

2.3. The principles of European Environmental Law in relation to Climate Law

2.3.1. Principle of sustainable development

The principle of sustainable development derives from, and is one of general principles of international law. Its origin is seen in the Stockholm Declaration (1972), notwithstanding the fact that it failed to provide the principle's express formulation.¹⁵⁰ Brundtland Report „Our Common Future” (1987) enshrined a statement to the effect that sustainable development requires deference to the needs of future generations. Further continued and elaborated, the underlying concept was to be found in the UN Conference Declaration (1992) on environment and development in Rio de Janeiro. The principle of sustainable development was adopted in final documents where it found its elaboration in Global Action Programme (Agenda 21). It was acknowledged that an international liability and responsibility for the introduction of a sustainable development rests on the states themselves.¹⁵¹ In the context of undertaken considerations, it is worth underlining that a separate chapter in Agenda 21 was devoted to air protection issues. The broadest reference to the principle of sustainable development with regard to climate protection was made on the UN Convention on climate changes and in the Kyoto Protocol. The Climate Convention stipulates, inter alia, that a sustainable development should be conducive to economic growth that would enable the parties to handle climate change problems more effectively.¹⁵²

Sustainable development is a complex and multidimensional systemic mechanism that defines strategic directions for the international, integration and domestic law to take. Literature in this field enumerates such constitutive elements that the sustainable development principle, inter alia, relies on, as: precautionary principle and the principles of intergenerational justice (equity), preventive action, cooperation, or differentiated responsibility. A number of definitions functioning within the doctrine notwithstanding, sustainable development might be assumed to reflect a process that consists

¹⁵⁰ J.H. Jans, H. B. Vedder, *European Environmental Law...*, p. 27.

¹⁵¹ D. Pyć, *Zrównoważony rozwój...*, p. 577.

¹⁵² Z. Bukowski, *Prawo międzynarodowe a ochrona środowiska*, Gdańsk 2005, p. 94.

in reaching consecutive stages in the development of mankind through ensuring and entrenching safety and security for present and future generations.¹⁵³ Since the Rio de Janeiro Conference, the same concept has become an essential element in the environmental policy and, unsurprisingly, many documents and legislative acts have revolved around it. The underlying principle most often serves to determine the goal of international community actions, or it assumes a form of recommendation for the states.¹⁵⁴

At EU law, sustainable development attaches to the whole system of law and not only to the question of the environment protection.¹⁵⁵ In primary law, the term ‘sustainable development’ appears for the first time in the Maastricht Treaty on European Union. Currently, it is one of the EU objectives laid down in art.3 TEU, under which the EU works for a lasting sustainable development of Europe based on balanced economic growth and price stability, highly competitive social market economy, aiming at full employment, social progress and a high level of protection and improvement of the quality of the environment. It is also highlighted in the doctrine that a sustainable development is an objective of an overriding nature that underpins all the EU actions. For instance, the EU sustainable development strategy [COM 2001 (264)] calls for highly cohesive strategies on both Union and domestic levels. It is not so much about denoting sustainable development as the aim in itself, as it is rather about underlining the very process that allows for a compromise between diverse economic, social and environmental considerations.¹⁵⁶

Article 7 TEU

According to the article 3 of the TEU, one of the Union’s aims „(...) is to promote peace, its values and the well-being of its peoples. The Union shall offer its citizens an area of freedom, security and justice without internal frontiers, in which the free movement of persons is ensured in conjunction with appropriate measures with respect to external border controls, asylum, immigration and the prevention and combating of crime”. Furthermore, „(...) the Union shall work for the sustainable development of Europe based

¹⁵³ D. Pyć, *Zrównoważony rozwój...*, pp. 575–585.

¹⁵⁴ M. Munasinghe, *Sustainable Development in Practice. Sustainomics Methodology and Applications*, Cambridge 2009, pp. 137–138.

¹⁵⁵ J. Ciecchanowicz-McLean, *Moja filozofia i wykładnia prawa ochrony środowiska*, „Gdańskie Studia Prawnicze” 2007, vol. 18, p. 197.

¹⁵⁶ D. Pyć, *Redefinicja strategii lizbońskiej*, „Studia Europejskie” 2005, vol. 19, p. 127.

on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment”.

2.3.2. Precautionary principle

Precautionary principle refers to any activity whose detrimental effect on the environment has not been recognised yet, and it denotes an obligation to undertake precautions. Pursuant to the wording adopted in the Rio de Janeiro Declaration, where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.¹⁵⁷ What it means is that the precautionary principle may in some circumstances provide a justification for operations undertaken to avert damage, even if a causation presumption has not been satisfied in reliance upon accessible scientific evidence, which may be denoted as in dubio pro natura and be an answer to scientific uncertainty.¹⁵⁸

Precautionary principle is also present in the Climate Convention and art.191 TFEU. In accordance with art. 3 of the Convention „the Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures (...)”, while in accordance with art. 191 TFEU, precautionary principle constitutes – alongside with the preventive action and ‘the polluter pays’ principles – the foundation of Union policy in the field of environment, since „Union policy on the environment shall aim at a high level of protection taking into account diversity of situations in various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and the polluter should pay”.¹⁵⁹

¹⁵⁷ E. Fisher, *Is the precautionary principle justiciable?*, „Oxford Journal of Environmental Law” 2001, vol. 13, s. 316; D.K. Anton, D.L. Shelton, *Environmental Protection...*, p. 81; J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 43; J. De Cendra de Larragan, *Distributional Choices in EU Climate change Law and Policy. Towards a Principled Approach?*, Walters Kluwer 2011, p. 132 ff.

¹⁵⁸ Backes & Verschuuren (1998) at 43, as cited in: J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 43.

¹⁵⁹ Art. 191 para. 2 TFEU.

In the European Commission's view, the precautionary principle entitles the EU to ensure an adequate level of environment protection, health of people, plants and animals.¹⁶⁰ The precautionary principle allows to react swiftly in the face of risks to the health of people, plants and animals, or for the purpose of environment protection. When a comprehensive risk assessment is unfeasible in reliance on scientific or research data, the reference to said principle allows i.e. to prevent a distribution of goods that may pose danger to health. The Commission's communication provides Union's guidelines on the precautionary principle application. Said principle may be invoked when an occurrence, product or activity may be a potential risk identified through a scientific and objective assessment if the same assessment disallows a sufficiently certain definition of such a risk. The application of the foregoing principle underlies general ramifications of risk analysis (which, besides the assessment, includes risk management and communication), and more specifically – risk management framework that pertains to the decision-making stage.

The Commission emphasises that the precautionary principle is applicable only in the event of potential risk, and under no circumstances can it justify an arbitrary decision. Hence, the application of such principle is justifiable when three preconditions have been met: potential adverse effects have been identified, accessible scientific data assessment has been carried out, and scientific uncertainty has been asserted.

Authorities responsible for risk management may decide on mounting operations contingent upon a risk level. If the risk level is high, several categories of measures may be taken into account. The foregoing may include proportionate legislative acts, acts on research programmes financing, informing the public.¹⁶¹

2.3.3. The principle of inter- and intragenerational justice

The principle of inter- and intragenerational justice has stood in the centre of doctrine focus, which manifests itself in a number of publications in this

¹⁶⁰ Communication from the Commission on the precautionary principle, COM (2000)1, final version as of 2 February 2000.

¹⁶¹ M. Harritz, *An Inconvenient Deliberation. The Precautionary Principle's Contribution to the Uncertainties Surrounding Climate Change Liability*, Wolters Kluwer 2011, p. 270.

field.¹⁶² It is a principle directly invoked in the Climate Convention, together with a principle of differentiated responsibility. The intergenerational justice derives from the Rio de Janeiro Declaration and pertains to the necessity of an equitable meeting of the needs of present and future generations.¹⁶³ It determines that one generation should exploit and develop natural and cultural heritage in such a way so as to leave it to future generations in a condition at least not worse than the status quo ante. Intragenerational justice, on the other hand, pertains to a current status quo on the Earth and pivots on a postulate of ensuring equal access of specific countries to environmental goods.

2.3.4. The principle of common but differentiated responsibilities

In light of the Climate Convention provisions, climate protection should be predicated on common but differentiated responsibilities. The scope of responsibility for climate changes flows from a development degree of given countries. Countries which have been exploiting fossil fuels since the industrial revolution times have contributed to a global temperature growth to much greater extent than the developing countries. It is on the developed countries that an obligation to counteract adverse effects of climate changes and to combat the existing effects has been imposed, with the developing countries, most exposed to climate change effects, holding a special status. The principle of common but differentiated responsibilities was included in the Preamble to the Paris Agreement.

¹⁶² B. Barry, *Sustainability and intergenerational justice*, „Theoria: A Journal of Social and Political Theory” 1997, vol. 89, pp. 43–64; A. Gosseries, L. Meyer, *Intergenerational justice*, Oxford 2009; R.B. Howarth, *Intergenerational justice and the chain of obligation*, „Environmental Values” 1992, vol. 1.2, pp. 133–140; J. Tremmel (ed.), *Handbook of intergenerational justice*, Cheltenham 2006; M. Paterson, *Principles of Justice in the Context of Global Climate Change* (in:) U. Luterbacher, D.F. Sprinz, *International Relations...*, p. 121 ff.

¹⁶³ E. Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity*, Tokyo 1989, pp. 17–47.

2.3.5. The principle of preventive action

The principle of preventive action is a subsequent principle applied in climate law. Within the meaning of said principle, there is a necessity to avert rather than combat adverse effects on the natural environment. Similar mechanisms are administered for the protection of air, soil, climate or other environment elements, with the aim being to prevent or reduce pollution. By virtue of the foregoing principle, the Climate Convention requires undertaking any measures in domestic law to anticipate, prevent and minimise the consequences of climate changes. This very principle provides a foundation for resolutions adopted in the Kyoto Protocol, and it was given effect under art. 191 TFEU alongside the precautionary and polluter pays principles.

2.3.6. The polluter pays principle

The polluter pays principle is one of the oldest principles in the field of environment protection. It was proclaimed in the 1970s by the Organisation for Economic Co-operation and Development (OECD). It stipulates that whosoever causes pollution is charged with the costs of such damage removal. The foregoing principle thereby realises central premises of a corrective justice.¹⁶⁴ The 3P principle has found its application in the situation of a damage to environment and has played a key role in the creation of instruments of environment protection policy. In practice, however, its employment has been difficult to enforce in respect of the climate change consequences.

In the Climate Convention, the polluter pays principle did not have its direct application. Nonetheless, several instruments have been prescribed for its indirect administration. The countries have been compelled to undertake precautions to anticipate, prevent and minimise the causes of climate change and to mitigate its adverse effects. One of the instruments provided for by the Convention was financial liability for the observance of climate protection standards. In the European Union law, the polluter pays principle was included in the art.191 TFEU along with the precautionary and preventive action principles as the foundation of EU policy in the field of environment protection.

¹⁶⁴ E.A. Posner, D. Weisbach, *Climate Change Justice*, Princeton 2010, p. 101.

In the secondary law, it is the Directive 2004/35/EC that provides a good illustration of the principle application.¹⁶⁵ The directive stipulates that environmental liability with regard to prevention and remedying of environmental damage should hinge on a primary principle, according to which an economic entity, bringing damage to the environment through its activity or causing a direct danger through the occurrence of such damage, remains financially liable, the aim here being to persuade the economic entities to adopt measures and devise practices that would mitigate the risk of damage to environment, and thereby reduce the consequence of incurring financial liability. Under 'the polluter pays' principle an economic entity causing damage to environment or posing a direct risk by such damage, should in principle incur costs of necessary preventive, contingency and remedying measures. Should competent authorities act alone or through a third party in place of an economic entity, they have to guarantee that the costs they have incurred shall be reimbursed by that economic entity. It is also appropriate and expedient for the economic entities to be ultimately liable for the costs of appraisal of damage done to the environment, and as the case may be, for the costs of appraisal of posing direct risk by such damage.

2.3.7. The principle of good neighbourliness

The principle of good neighbourliness also called *sic utere tuo ut alienum non laedas maxim* was enunciated in a ruling rendered in Trail Smelter case, affirmed and further applied by the International Court of Justice, *inter alia*, in the Corfu Channel and Gabcikowo-Nagymaros cases. The principle of good neighbourliness has been entered in the Stockholm Declaration, under which the countries hold responsibility to ensure that none of the activities within their jurisdiction shall cause damage beyond the limits of national jurisdiction. When damage done to environment affects or may affect several Member States, such Member States should cooperate to ensure adequate and effective preventive and remedying actions with regard to any damage caused to environment. Member States may request reimbursement of costs for such preventive and remedying actions. Apart from the *sic utere* obligation, the principle of good

¹⁶⁵ Directive 2004/35/EC EP and Council of 21 April 2004 on environmental liability with regard to prevention and remedying of environmental damage, Official Journal 143, 30/04/2004.

neighbourliness also carries a positive aspect reflected in an obligation of consultation, information on risks and broadly understood cooperation imposed on the countries.

3. Governing climate change

3.1. The international perspective

3.1.1. The Climate Convention

The United Nations Framework Convention on Climate Change (UNFCCC), called also a Climate Convention, was adopted in 1992 and entered into force on 21 March 1994. The UNFCCC is a Rio Convention, one of the three adopted at the Rio Earth Summit in 1992. Its sister – Rio Conventions – are the UN Convention on Biological Diversity and the Convention to Combat Desertification. The three are intrinsically linked. It is in this context that the Joint Liaison Group was set up to boost cooperation among the three Conventions, with the ultimate aim of developing synergies in their activities on issues of mutual concern. It now also incorporates the Ramsar Convention on Wetlands.¹⁶⁶

Climate Convention set an overall framework for an intergovernmental efforts to tackle the challenge posed by climate change. The UNFCCC recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and different greenhouse gases. Under the Convention, the governments share information, launch strategies for addressing the greenhouse gas emissions and cooperate in preparing for adaptation to the unavoidable impacts of climate change. The ultimate decision-making body of the Convention is the Conference of the Parties (COP) which meets every year to review the implementation of the Convention. The long-term objective of the UNFCCC is to „stabilize atmospheric greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed

¹⁶⁶ http://unfccc.int/essential_background/convention/items/6036.php (access: 10.05.2018).

in a sustainable manner”. The Convention is supplemented and strengthened by the Kyoto Protocol.

3.1.2. The Kyoto Protocol

The Kyoto Protocol was adopted in 1997 by countries participating in the UNFCCC. It is an international agreement linked to the UNFCCC which commits the participating developed countries by setting internationally binding emission reduction targets. The Kyoto Protocol entered into force in 2005. Under Kyoto’s first commitment period, from 2008 to 2012, the developed countries had to reduce their emissions by an average of 5% below 1990 levels by 2012.¹⁶⁷ A number of countries, as well as the EU, agreed to take on mitigation commitments until 2020 for a second commitment period running from 2013 to 2020. The Kyoto Protocol provides a further framework for action. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of „common but differentiated responsibilities”. During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020. Under the Protocol, countries must meet their targets primarily through national measures. However, the Protocol also offers them some additional means to meet their targets by way of three market-based mechanisms which are: International Emissions Trading, Clean Development Mechanism (CDM) and Joint Implementation (JI). These mechanisms help to stimulate green investment and help Parties meet their emission targets in a cost-effective way.

In particular, emissions trading, as set out in Article 17 of the Kyoto Protocol, allows countries that have emission units to spare – emissions permitted them

¹⁶⁷ The 15 countries that were EU Member States at the time that Kyoto was agreed, committed to an 8% cut and are on track to achieve this by a comfortable margin. Besides not requiring action from developing countries, the Protocol’s impact is further limited because it was never ratified by the United States and Canada withdrew in 2012.

but not „used” – to sell this excess capacity to countries that are over their targets. The Clean Development Mechanism (CDM), defined in Article 12 of the Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol to implement an emission-reduction project in developing countries. Such projects can earn saleable certified emission reduction credits which can be counted towards meeting Kyoto targets.¹⁶⁸ The third mechanism, known as „joint implementation”,¹⁶⁹ allows a country with an emission reduction or limitation commitment under the Kyoto Protocol to earn emission reduction units from an emission-reduction or emission removal project, which can be counted towards meeting its Kyoto target. Joint implementation offers the Parties a flexible and cost-efficient means of fulfilling a part of their Kyoto commitments, while the host Party benefits from foreign investment and technology transfer. According to the Protocol, countries’ actual emissions have to be monitored and precise records have to be kept of the trades carried out. Registry systems track and record transactions by the Parties under the mechanisms. Reporting is done by the Parties by submitting annual emission inventories and national reports under the Protocol at regular intervals.

The Kyoto Protocol was the world’s first legally binding treaty to reduce greenhouse gas emissions, but it required action only by developed countries. It now covers only about 14% of global emissions. By 2020, nearly two-thirds of the world’s emissions will come from developing countries. The EU has long argued that Kyoto should be succeeded by a global legal framework that requires action not only from all developed countries – which must, however, continue to lead – but also from the major emerging economies in the developing world.

¹⁶⁸ The mechanism is seen by many as a trailblazer. It is the first global, environmental investment and credit scheme of its kind, providing a standardized emissions offset instrument, CERs. A CDM project activity might involve, for example, a rural electrification project using solar panels or the installation of more energy-efficient boilers. The mechanism stimulates sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction or limitation targets.

¹⁶⁹ Defined in Article 6 of the Kyoto Protocol.

3.1.3. The Paris Agreement

In 2015, at the Paris climate conference COP 21, 197 countries finally adopted a universal climate change agreement.¹⁷⁰ The main objective of the Paris agreement was to bind nations together into an effective global effort to reduce emissions rapidly enough to chart humanity's longer-term path out of the danger zone of climate change, while building adaptation capacity. The Parties agreed a long-term goal of keeping the increase in global average temperature to well below 2°C above the pre-industrial levels. To achieve this goal, they should come together every five years to set more ambitious targets as required by science and to report to each other and the public on how well they are doing to implement their targets.

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist the developing countries to do so. As such, it charts a new course in the global climate effort. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise in this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by the developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework. The Paris Agreement entered into force on 4th November 2016. Unfortunately, on the 1st June 2017, the United States President Donald Trump announced that the U.S. would cease all participation in the 2015 Paris Agreement.¹⁷¹

¹⁷⁰ See: Framework Convention on Climate Change, FCCC/CP/2015/L.9/Rev.1. Comment by M. Adamczak-Retecka, *Unia Europejska na paryskim szczycie klimatycznym*, 01/2016, www.csm.org.pl (access: 10.05.2018).

¹⁷¹ In accordance with art. 28 of the Agreement, the earliest possible effective withdrawal date by the United States cannot be before 4th November 2020. The White House later clarified that the U.S. will abide by the four-year exit process. In the meantime, the United States may be

Paris A., preamble: „Affirming the importance of education, training, public awareness, public participation, public access to information and cooperation at all levels on the matters addressed in this Agreement”,

and art. 12: „Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement”.

3.2. The EU perspective

3.2.1. Legal basis

Pointing at the Treaty bases for resolutions adopted by the European Union within the ambit of climate law, it is vital to invoke art. 11 (TFEU), in compliance with which the requisites of environmental protection need to be taken into account in designing and implementing EU policies and action, in particular with a view to promoting sustainable development.

Article 11 TFEU (ex Article 6 TEC)

Environmental protection requirements must be integrated into the definition and implementation of the Union’s policies and activities, in particular with a view to promoting sustainable development.

The principle of environmental protection integration has been recognised as a general Union law principle. Under said principle, the environmental protection policy will not per se improve the environment condition, with such improvement envisaged within the scope of sustainable development. In pursuit of sustainable development, amendments designed to reduce serious environment-related pressures coming from such areas as: fisheries, agriculture, transport, energy and other fields, may solely be implemented through the process of integrating the questions of environmental protection into the foregoing sectors.¹⁷² Furthermore, due account should be taken of art. 37 of the Charter of the Fundamental Rights of the European Union, which is of the same binding force as the Treaties. Under art. 37 of the Charter, a high level of environmental

obligated to maintain its commitments under the Agreement, such as the requirement to continue reporting its emissions to the United Nations.

¹⁷² J.H. Jans, H.H.B. Vedder, *European Environmental Law...*, pp. 9–11 and 22.

protection and the improvement of the environment quality must be integrated into EU policies and ensured in accordance with the principle of sustainable development.

Regulations under art. 191–193 (TFEU) are *lex specialis* provisions relative to a general norm stipulated in art. 11 (TFEU). As mentioned earlier, pursuant to art. 191 (TFEU), one of the objectives in EU policy on environment is an international promotion of measures applicable in the resolution of regional or global, environment-related problems, notably in combating climate changes. Adding climate changes as one of global problems to the substance of the foregoing provision has been perceived as a signal of political nature from the European Union highly committed to the fight with climate changes. In devising its policy in this field, the Union has had regard to: available scientific and technical data; environment conditions in different EU regions; potential costs and benefits that may result from acting or omission to act; economic and social development of the Union as a whole and a sustainable development of its regions. Adopted by the EU institutions, in relevant cases harmonising measures comprise an indemnifying clause that allows the Member States to take interim measures which are under the Union's control procedure, for non-economic, environment-related reasons. Within its remit, the EU and its Member States cooperate with third countries and international organisations. The conditions of such cooperation may constitute a subject-matter of agreements between the Union and third concerned parties, which does not infringe the Member States' competence to negotiate in international institutions and to conclude international agreements. Subsequent foregoing provisions pertain to decision-making and measures taken in the field of environment.¹⁷³

Article 192 TFEU (ex Article 175 TEC)

1. The European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions, shall decide what action is to be taken by the Union in order to achieve the objectives referred to in Article 191.

2. By way of derogation from the decision-making procedure provided for in paragraph 1 and without prejudice to Article 114, the Council acting unanimously in accordance with

¹⁷³ For a comment on the Treaty provisions see: J.H. Jans, H.B Vedder, *European Environmental Law...*, pp. 32 and 59–70.

a special legislative procedure and after consulting the European Parliament, the Economic and Social Committee and the Committee of the Regions, shall adopt:

- (a) provisions primarily of a fiscal nature;
- (b) measures affecting:
 - town and country planning,
 - quantitative management of water resources or affecting, directly or indirectly, the availability of those resources,
 - land use, with the exception of waste management;
- (c) measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply.

The Council, acting unanimously on a proposal from the Commission and after consulting the European Parliament, the Economic and Social Committee and the Committee of the Regions, may make the ordinary legislative procedure applicable to the matters referred to in the first subparagraph.

3. General action programmes setting out priority objectives to be attained shall be adopted by the European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions.

The measures necessary for the implementation of these programmes shall be adopted under the terms of paragraph 1 or 2, as the case may be.

4. Without prejudice to certain measures adopted by the Union, the Member States shall finance and implement the environment policy.

5. Without prejudice to the principle that the polluter should pay, if a measure based on the provisions of paragraph 1 involves costs deemed disproportionate for the public authorities of a Member State, such measure shall lay down appropriate provisions in the form of:

- temporary derogations, and/or
- financial support from the Cohesion Fund set up pursuant to Article 177.

Article 193 (ex Article 176 TEC)

The protective measures adopted pursuant to Article 192 shall not prevent any Member State from maintaining or introducing more stringent protective measures. Such measures must be compatible with the Treaties. They shall be notified to the Commission.

3.2.2. Implementing the Kyoto Protocol

The European Union and its Member States are the parties to the Kyoto Protocol.¹⁷⁴ This means that the EU has to reduce emissions of the greenhouse gases as agreed in the Kyoto Protocol. This obligation has led to the so-called burden sharing, according to which the states have to contribute to a European-wide emissions reduction target of 8%. In addition to legislation directed at the emissions reductions, the EU has also adopted legislation on energy efficiency.¹⁷⁵ The set of binding legislation to ensure the EU meets its climate and energy targets for the year 2020 is often called „The 2020 package”. It sets three key targets: 20% cut in greenhouse gas emissions (from 1990 levels), 20% of EU energy from renewables and 20% improvement in energy efficiency.¹⁷⁶ The EU is taking action in several areas to meet these targets.

The Kyoto Protocol recognizes that emissions of greenhouse gases contribute to a global environmental problem. This means that the actual place where the reductions of the emissions happen is not relevant and therefore it is possible to achieve reductions where the costs of reduction are lower.¹⁷⁷ The EU uses two major instruments to abate the greenhouse gas emissions: the emissions trading scheme and the effort sharing decision. The EU emissions trading system¹⁷⁸ is the EU’s key tool for cutting greenhouse gas emissions from large-scale facilities in the power and industry sectors, as well as in the aviation sector.¹⁷⁹ The ETS covers around 45% of the EU greenhouse gas emissions. In 2020, the target is for the emissions from these sectors to be 21% lower than in 2005. The EU ETS establishes a scheme for greenhouse gas emission allowance trading within the Community (hereinafter referred to as the ‘Community scheme’) in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner.¹⁸⁰

¹⁷⁴ Decision 2002/358, OJ 2002 L 130/1.

¹⁷⁵ J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 431.

¹⁷⁶ They are also headline targets of the Europe 2020 strategy for smart, sustainable and inclusive growth.

¹⁷⁷ J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 432.

¹⁷⁸ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (Text with EEA relevance), OJ L 275, 25.10.2003, p. 32.

¹⁷⁹ M. Faure, M. Peeters, *Climate Change and EU Emissions Trading*, Cheltenham 2008.

¹⁸⁰ J.H. Jans, H.B. Vedder, *European Environmental Law...*, pp. 434–440.

The Effort Sharing Decision¹⁸¹ forms part of a set of policies and measures on climate change and energy, known as the climate and energy package, that will help move Europe towards a low-carbon economy and increase its energy security. The Effort Sharing Decision sets national emission targets for 2020 expressed as percentage changes from 2005 levels. It also lays down how the annual emission allocations in tonnes for each year from 2013 to 2020 are to be calculated. The national emission targets for 2020 have been agreed unanimously. They have been set on the basis of Member States relative wealth.¹⁸² Less wealthy countries are allowed to have emission increases in these sectors because their relatively higher economic growth is likely to be accompanied by higher emissions. Nevertheless, their targets represent a limit on their emissions compared with projected business as usual growth rates. A reduction effort is thus required by all Member States. By 2020, the national targets are supposed to collectively deliver a reduction of around 10% in total EU emissions from the sectors covered compared with 2005 levels. Together with a 21% cut in emissions covered by the EU ETS, this will accomplish the overall emission reduction goal of the climate and energy package, namely a 20% cut below 1990 levels by 2020. This covers the sectors outside the ETS – accounting for some 55% of total EU emissions – such as: housing, agriculture, waste and transport (excluding aviation).¹⁸³

Another part of the EU climate change policy is aimed at using more renewable energy and is based upon the Renewable Energy Sources Directive.¹⁸⁴ The Renewable Energy Sources Directive establishes a common framework for the promotion of energy from renewable sources. It sets mandatory national targets for the overall share of energy from renewable sources in gross final

¹⁸¹ Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, OJ L 140, 5.6.2009, pp. 136–148.

¹⁸² They range from a 20% emissions reduction by 2020 (from 2005 levels) for the richest Member States to a 20% increase for the least wealthy one, Bulgaria. Croatia, which joined the EU on 1 July 2013, is allowed to increase emissions by 11%.

¹⁸³ J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 433.

¹⁸⁴ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (Text with EEA relevance), OJ L 140, 5.6.2009, pp. 16–62.

consumption of energy and for the share of energy from renewable sources in transport. It lays down the rules relating to statistical transfers between Member States, joint projects between Member States and with third countries, guarantees of origin, administrative procedures, information and training, as well as access to the electricity grid for energy from renewable sources. It establishes sustainability criteria for biofuels and bio liquids.¹⁸⁵

The above mentioned directives are the main EU instruments used to combat climate change. However, there are also various other measures of mitigation. For instance, the 2012 Energy Efficiency Directive¹⁸⁶ establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the EU 2020 20% headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date. It lays down the rules designed to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets for 2020. However, it must be stressed that the requirements laid down in this Directive are minimum requirements and shall not prevent any Member State from maintaining or introducing more stringent measures. Such measures shall be compatible with EU law. Where national legislation provides for more stringent measures, the Member State shall notify such legislation to the Commission.¹⁸⁷

In order to meet EU and global climate change objectives by 2050, new and innovative low carbon technologies need to be developed. The main issue here concerns carbon capture and storage (CCS) which along with energy efficiency and renewable energy technologies, is expected to make an important contribution to meet the global greenhouse gas emission targets. The EU has therefore established a legal framework for the environmentally safe geological storage of carbon dioxide, so as to ensure that where this important technology is deployed, the environmental and human health impacts are minimised, and the climate integrity of the technology is assured.

¹⁸⁵ J.H. Jans, H.B. Vedder, *European Environmental Law...*, p. 440.

¹⁸⁶ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC Text with EEA relevance, OJ L 315, 14.11.2012, pp. 1–56.

¹⁸⁷ Art. 1 of the Directive 2012/27.

The Emissions Trading System is the principal driver of the new technology deployment by putting a price on carbon emissions, and so stimulating the development of technologies which avoid them. However, in order to get technologies from pilot to commercial scale (where the ETS incentive takes over), bridging finance is sometimes needed. DG CLIMA's demonstration support initiative, the NER 300 funding programme provides substantial funding for the large-scale demonstration of low carbon energy technologies in Europe and is the world's largest programme in this area.

As well as taking a leading global role in the development of low-carbon technology, the EU also supports the uptake of low-carbon technology internationally, in the places where it is most needed. The EU initiated the Global Energy Efficiency and the Renewable Energy Fund (GEEREF) which is an innovative global risk capital fund that will use limited public money to mobilise private investment in small-scale energy efficiency and renewable energy projects in developing countries and economies in transition. It is both a development tool and a contribution to global efforts to fight climate change. It is concrete proof of Europe's commitment to transfer clean technologies to developing countries.

EU targets to reduce greenhouse gas emissions

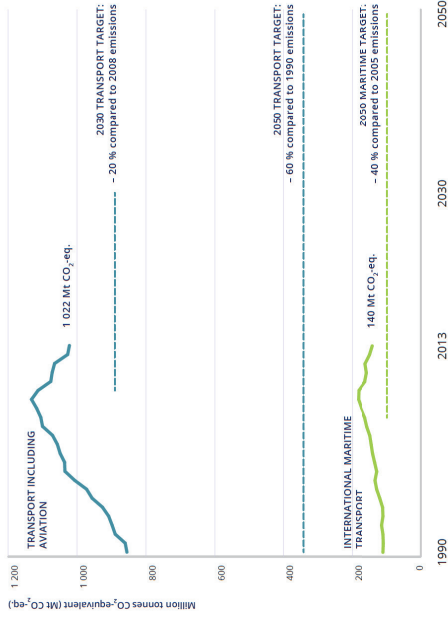
Several EU targets have been set to reduce the environmental impacts of transport in Europe, including its greenhouse gas. The transport sector's targets are part of the EU's overall goal to reduce greenhouse gas emissions by 80-95 % by 2050.

Key targets to be reached by 2050:

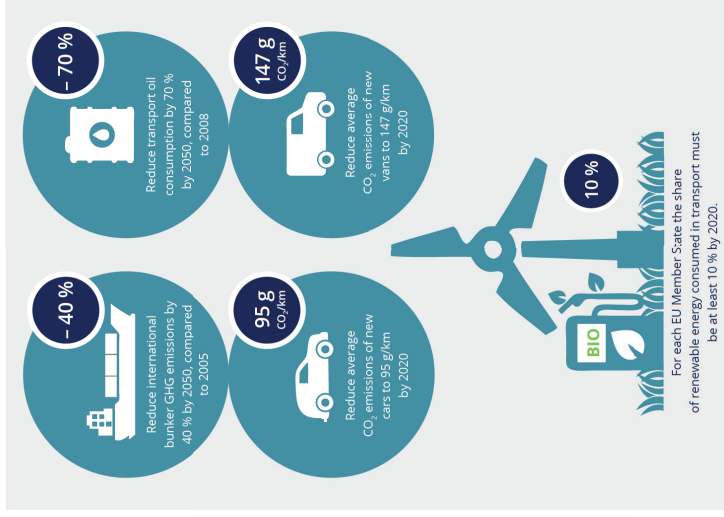
Reduce transport (excluding international maritime) greenhouse gas (GHG) emissions by 60 % compared to 1990 levels and reduce international maritime transport emissions by 40 %, compared to 2005.



Transport's total share of EU GHG emissions in 2014



The EU's transport sector depends on oil for 94 % of its fuel, 90 % of which is imported. This makes it particularly vulnerable to instability and changes in the global energy market. A disruption in the energy supply could severely undermine the economy and hamper the quality of life in the EU.



3.2.3. Adaptation strategy

In the context of climate law, adaptation means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause, or taking advantage of opportunities that may arise in order to create a „climate resilient society”. It is well known that well planned, early adaptation action saves money and lives later. Adaptation and the financing of adaptation measures are also central in international climate change negotiations. Examples of adaptation measures include: using scarce water resources more efficiently; adapting building codes to future climate conditions and extreme weather events; building flood defences and raising the levels of dykes; developing drought-tolerant crops; choosing tree species and forestry practices less vulnerable to storms and fires and setting aside land corridors to help species migrate. The ability to cope and adapt with climate change differs across populations, economic sectors and regions within Europe. The adaptation will rarely be straightforward because of the combination of the climatic and geographical diversity with the inherent complexity of the effects of climate change.¹⁸⁸

In April 2013, the European Commission adopted an EU strategy on adaptation to climate change which has been welcomed by the EU Member States. Complementing the activities of the Member States, the strategy supports action by promoting greater coordination and information-sharing between Member States, and by ensuring that adaptation considerations are addressed in all relevant EU policies. The strategy aims to make Europe more climate-resilient. By taking a coherent approach and providing for improved coordination, it will enhance the preparedness and capacity of all governance levels to respond to the impacts of climate change. EU adaptation actions include mainstreaming of climate change such as mitigation and adaptation into EU sector policies and funds, including marine and inland water issues, forestry, agriculture, biodiversity, infrastructure and buildings, but also migration and social issues. The EU is providing guidelines on integrating climate into policies and investments and on how to use the instruments and funds provided by the Commission for climate change adaptation.

¹⁸⁸ A. Giddens, *The politics of climate change*, Cambridge 2009, p. 167.

The strategy sets three objectives: promoting action by the MS, promoting better informed decision-making and promoting adaptation in key vulnerable sectors through agriculture, fisheries and cohesion policy, ensuring that Europe's infrastructure is made more resilient, and encouraging the use of insurance against natural and man-made disasters. Implementation of the Adaptation Strategy is based on eight actions. The Commission has provided guidelines to help Member States formulate adaptation strategies and considers proposing a legally binding instrument. A climate-action sub-programme will be created under the 2014–2020 LIFE funding programme for the environment. This will substantially increase the LIFE funds available to combat climate change. The Commission will support adaptation in cities. It will do this in particular by launching an initiative based on the model of the Covenant of Mayors, through which local authorities can make a voluntary commitment to adopt local adaptation strategies and awareness-raising activities. Action four is bridging the knowledge gap. In that field, the Commission will work further with Member States and stakeholders to identify adaptation knowledge gaps and the relevant tools and methodologies to address them. The findings will be fed into the programming of Horizon 2020, the EU's 2014–2020 framework programme for research and innovation, and will address the need for better interfaces between science, policy making and business.

As part of the Adaptation Strategy package, the Commission has provided guidance on how to further integrate adaptation into the CAP, the Cohesion Policy and the CFP. This guidance aims to help managing authorities and other stakeholders involved in programme design, development and implementation during the 2014–2020 budget period. The Adaptation Strategy package provides guidelines to help project developers working on infrastructure and physical assets to climate-proof vulnerable investments. Finally, it has been launched to increase involvement of the insurance and financial sector.

Chapter III

FOOD SECURITY

1. General remarks

Any deliberations on food security in EU in the context of global challenges should be preceded with a definition of fundamental concepts. First, it is necessary to define what food safety and food security are. Secondly, it needs to be specified what global challenges our today's world faces – it will lie at the centre of our study. Undeniably, food insecurity is one of them. Global challenges, which shall become the point of reference for our deliberations, relate to problems of irreversible climate changes that influence every one of us to a lesser or greater degree. Said changes bring about famine and poverty in the world, which in turn induce an increase in tensions, migration and, in consequence, may bring or wage conflicts. The starting point for further study lies in determining what is understood by the food security. The concept of food security is an inherent part of a broader concept of 'human security'. Food security translated into legal provisions at the international level, as a legal concept, generated a set of specific rights derived from other human rights. The concept of 'food security' is a dynamic concept which has constantly extended its scope from security to agriculture to social and environmental policies, but in the condition of economic globalization, it cannot be limited to the field of national measures to ensure its content.¹⁸⁹

¹⁸⁹ M.V. Antonescu, *Food security within the framework of human rights development at international level*, „Contemporary Legal Institutions” 2014, vol. 6, p. 108.

Assuring food security in the European Union has become a challenge because it depends on climatic conditions. The world's population is growing and global demand for food is expected to increase, meaning that food supply must increase sustainably to meet this demand, and it is hampered by climate change. Food security is directly linked with agriculture, fisheries, forestry and natural resources; all highly sensitive to climate variability and change. The EU approach to food security aims at ensuring the high level of food safety, plant and animal health. In the area of food safety, EU's policy and legislation plays a significant role in ensuring the access to high quality food, embracing the entire man's and animal's food chain. It flows from so-called food law – one of more developed areas of EU's law – that has established a framework for a comprehensive and cohesive approach. The European food model is very diversified. The most important goal is to assure the supply of food that is at the same time safe, healthy, balanced, of high quality and accessible to all.

The EU's role can be particularly appropriate when climate change impacts transcend the borders of individual states – such as it is with river basins – and when impacts vary considerably across regions. The role of the EU can be especially useful to enhance solidarity among Member States and ensure that disadvantaged regions and those most affected by climate change are capable of taking the necessary measures to adapt. The EU has already taken actions; in the 7th EAP – The new general Union Environment Action Programme to 2020, called „Living well, within the limits of our planet”, the EU has agreed to step up its efforts to protect natural capital, stimulate resource-efficient, low-carbon growth and innovation, and safeguard people's health and wellbeing – while respecting the Earth's natural limits. The programme identifies three priority areas where more action is needed to protect the nature and strengthen ecological resilience, boost resource-efficient, low-carbon growth, and reduce threats to human health and wellbeing linked to pollution, chemical substances, and the impacts of climate change. As the EU is the part of global community, it is now facing major problems concerning global food security. M. Kaiser pointed out five of them.¹⁹⁰ First of all, this is the growth of the world population which is expected to reach roughly 9–10 billion people by 2050. The second issue

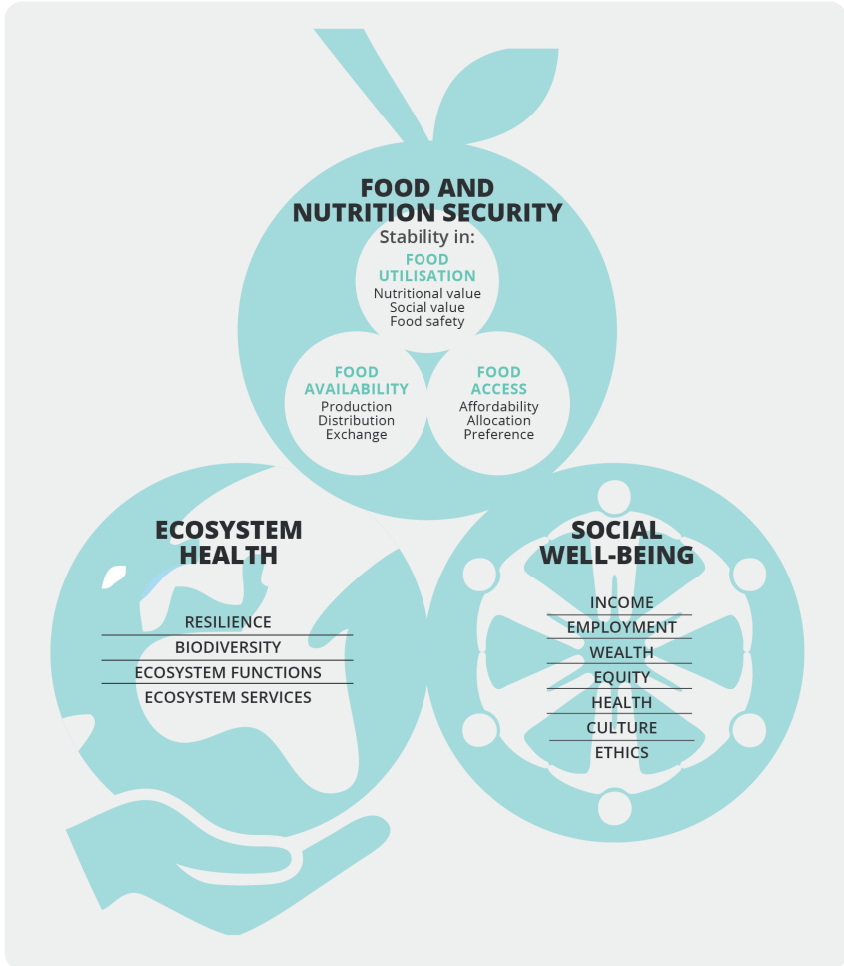
¹⁹⁰ M. Kaiser, *Designing ethical strategies for global food security* (in:) C.M.R. Casabona, L.E. San Epifanio, A.E. Cirion (eds.), *Global food security, ethical and legal challenges*, Wageningen 2010, p. 31.

1. GENERAL REMARKS

is the impact of food production on climate change and the impact of climate change on food production. The third problem is the physical limits of arable land, together with the limits of natural resources. Also the health issues like malnutrition, obesity and heart diseases are connected with food security. The last major problem is the imperfections of the global food markets. The complexity of the issue makes it very hard to identify global action.

Food system outcomes

The complexity of the food system requires a framework to better understand where and how to act. This framework interprets the European Union 2050 vision of 'living well, within the limits of our planet' in terms of three overarching outcomes: food and nutrition security, ecosystem health and social well-being.



2. Agriculture

2.1. The future of food and agriculture

Agriculture is one of the key sectors that will contribute to a new economic, social and ecological paradigm. Agriculture production more than tripled between 1960 and 2015, owing in part to productivity-enhancing Green Revolution technologies and a significant expansion in the use of land, water and other natural resources for agriculture purposes.¹⁹¹ Expanding food production and economic growth have often come to at a heavy price to the natural environment. Environmental effects are expected to affect biodiversity, water quality, and aggravate the risk of forest fires, soil degradation and desertification. Climate change and climate variability are also projected to have a substantial effect on agricultural production, both in terms of crop yields and the location where different crops can be grown. The crop season has lengthened and is projected to increase further due to earlier onset of growth in spring and longer growing season in autumn. This would allow a northward expansion of warm-season crops to areas that were not previously suitable. The southern regions will be hit hardest, expecting an overall negative impact on agriculture. High temperatures, water shortage and extreme weather events may cause lower yields, higher yield variability and, in the long term, a reduction in suitable areas for cultivation. Although the full implications of climate change on agriculture, forestry and fisheries are difficult to predict, it is expected that the impacts will be of different levels and of different nature in each region.

The agriculture both contributes to climate change and is affected by climate change. The international community has recognized challenges of that nature. The 2030 Agenda for Sustainable Development in its second Sustainable Development Goal (SDG 2) explicitly points the aim of ending hunger, achieving food security and improving nutrition, and at the same time promoting sustainable agriculture.¹⁹² Also in the IPCC's Fifth Assessment Report a whole chapter was dedicated to food security and food production systems which may be concerned as the clear indication of the growing recognition of the importance

¹⁹¹ The future of food and agriculture. Trends and Challenges, FAO 2017, p. 4.

¹⁹² The 2030 Agenda for Sustainable Development.

of agriculture to global efforts to address climate change.¹⁹³ The process of promoting sustainability is taking place on many fields.

One of the institutions deeply involved in this process is FAO. For many years, FAO was engaged in creating the common vision of sustainable agriculture. The effect of its work was the report from the year 2014 in which the new concept of sustainable food and agriculture was presented: „sustainable food and agriculture is therefore that of a world in which food is nutritious and accessible for everyone and natural resources are managed in a way that maintain ecosystem functions to support current as well as future human needs. In our vision, farmers, pastoralists, fisher-folks, foresters and other rural dwellers have the opportunity to actively participate in, and benefit from, economic development, have decent employment condition and work in a fair price environment. Rural women, men, and communities live in security, and have control over their livelihoods and equitable access to resources which they use in an efficient way”.¹⁹⁴

In the report, five key principles were formulated: improving efficiency in the use of resources; conserving, protecting and enhancing natural ecosystems; protecting and improving rural livelihoods and social well-being; enhancing the resilience of people, communities and ecosystems, and promoting good governance of both natural and human systems. These five interconnected principles are aimed to balance the social, economic and environmental dimensions of sustainability.

That goals are also present in EU policy. In view of the fact there are about 11 million farms in the European Union and 44 million people are employed in the entire EU food supply chain, farmers are the first link in this food production chain. They are at the heart of a stable and safe food supply for more than 500 million citizens who are the ultimate beneficiaries of the CAP – Common Agricultural Policy. Having said that agriculture is more dependent on the weather and the climate than many other sectors and having define problems of water and soil pollution, deforestation, urbanization, the EU had to propose a reform of the CAP to address environmental challenges. In historical context, the CAP has undergone five major reforms, the most recent of which

¹⁹³ IPCC 2013, Climate Change 2013: The physical science basis. Contribution of Working Group I to the Fifth Assessment Report of Intergovernmental Panel on Climate Change.

¹⁹⁴ Building a common vision for sustainable food and agriculture. Principles and Approaches. FAO 2014, p. S14.

were in 2003 (mid-term review), in 2009 (the ‘Health Check’) and in 2013 (for the 2014–2020 financial period).¹⁹⁵

The latest reform of the CAP was decided in 2013 and implemented in 2015. Since then, the context in which that reform was conducted has changed. International commitments concerning climate change mitigation have been signed, UN’s sustainable Development Goals were adopted, the new trade negotiations have been started. All these new circumstances trigger the debate whether the 2013 reform goes far enough to meet broad ongoing challenges related to balance of support, the economic and social prospects for agriculture and rural areas, care for the environment (e.g. greening), action over climate change, sustainable and safe food production. The conclusion was that the CAP must be modernised to meet all new challenges and to be coherent with other EU policies. The bottom line is that the new CAP must consider the approach outlined in the related Commission Communication „European Action for Sustainability”¹⁹⁶ and other relevant targets and indicators related to other policy areas, such as human health.

The current reform is still in progress. The public consultations with the European Commission on the future of the Common Agricultural Policy were held until May 2017. On the basis of such consultations and other debates (including in the EU Council for Agriculture and Fisheries), the European Commission will develop a Communication on the future of the CAP by the end of 2017. The next stage of the work will be publication of legislative proposals scheduled for 2018 by the Commission. Ultimately, the new shape of the CAP will be decided by the governments of the Member States. The discussion on the future of the CAP with further development of a centrally controlled system are expected to ensure better compliance for meeting climate change objectives. Further, linking the green component with direct payment system will help achieving future objectives, with respect for environmental and climate benefits.¹⁹⁷ So far, we can only look at the objectives of the new CAP which provide a coherent set of interventions that address two challenges simultaneously: ‘greening the agriculture sector’ and ensuring food security.¹⁹⁸

¹⁹⁵ www.europa.eu (access: 10.05.2018).

¹⁹⁶ COM (2016) 739 final.

¹⁹⁷ A. Froggatt, E. Rouhaud, T. Svacinova, *The Importance of Coherent and Integrated Energy and Agriculture Policies in Meeting EU Climate Change Objectives* (in:) Ch. Bakker, F. Francioni (eds.), *The EU, the US and Global Climate Governance*, Farnham 2014, p. 108.

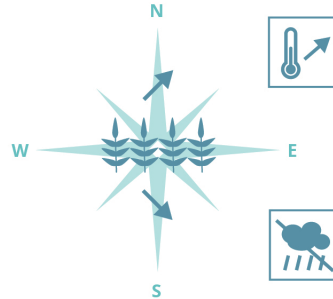
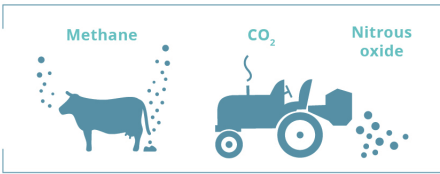
¹⁹⁸ Greening Europe’s agriculture, European Environment Agency, Copenhagen 2012.

Climate change and agriculture

Agriculture both contributes to climate change and is affected by climate change. The EU needs to reduce its greenhouse-gas emissions from agriculture and adapt its food-production system to cope with climate change. Faced with growing global demand and competition for resources, the EU's food production and consumption need to be seen in a broader context, linking agriculture, energy, and food security.



Agriculture accounts for 10% of the EU's greenhouse-gas emissions.



-24% From 1990 to 2012, greenhouse-gas emissions from agriculture in the EU decreased by 24%.

In southern Europe extreme heat events and reduced precipitation and water availability are expected to reduce crop yields, while the suitability for growing crops may improve in northern Europe.

Greenhouse-gas emissions from agriculture can be reduced further by:



Better integration of innovative techniques



Greater efficiency in meat and dairy production



Capturing methane from manure



Reducing food waste



More efficient use of fertilisers



Consuming less meat and other products with high carbon footprint

Globally

+14%

Between 2001 and 2011, greenhouse-gas emissions from crop and livestock production grew by 14%.

+70%

The demand for food is expected to grow by up to 70% in coming decades.



Did you know?



Meat and dairy products have the highest global footprint of carbon, raw materials and water per kilogramme of any food.



Post-farm transport and processing account for only a tiny fraction of the emissions linked to food.

2.2. New objectives of the CAP

New objectives of the CAP are formulated in Article 110(2) of Regulation (EU) No 1306/2013,¹⁹⁹ obviously, they are grounded in art 39 TFEU, but the primary law sources are not so familiar with the latest trends concerning sustainable agriculture. This is also one of the reasons this reform is so needed. The new objectives are divided into 3 main groups: economic (ensuring food security by means of stable agricultural production, increasing competitiveness and the distribution of value across the food chain); environmental (sustainable use of natural resources and the fight against climate change); and territorial (ensuring economic and social diversity in rural areas).²⁰⁰ Right now, EU is at the moment of adjusting the regulatory framework to the new CAP. As a result of the foregoing, Regulations Nos 1303 to 1308/2013 come up together with soft law acts from the European Parliament or the Commission. Notably, from the perspective of food security, those documents are particularly important, as they refer to the food security.

Article 39(1) TFEU lays down the CAP objectives:

- a) to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular labour;
- b) thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;
- c) to stabilise markets;
- d) to assure the availability of supplies;
- e) to ensure that supplies reach consumers at reasonable prices.

Discussions on the future of the post-2013 CAP had begun in 2010, when new priorities for the new CAP for the 21st Century were established: food security, fair trade, maintaining farming activity across whole Europe, food quality, preserving biodiversity and protecting the environment, fair remuneration for the public goods supplied by farmers and, finally, rural development based

¹⁹⁹ Regulation (EU) No 1306/2013 of 17 December 2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/200.

²⁰⁰ The CAP instruments and reform www.europa.eu (access: 5.05.2017).

on the creation of green jobs. Consequently, these priorities were confirmed in a Resolution of 23 June 2011 on the Commission's communication on the CAP towards 2020.²⁰¹ Meanwhile EP also adopted the resolution on Recognition of agriculture as a strategic sector in the context of food security.²⁰²

Taking a closer look at what EP was aiming to tell us, we might be positively astonished by the institution's awareness of that global issue – food security. The stance of European Parliament is very important from that perspective, in as much as we look closer at the reform of a CAP. The CAP is based on sustained market orientation, integration of environmental protection requirements, action to combat climate change and viable rural areas, the modernisation and simplification. The new CAP will put emphasis on sustainability, promoting a resilient agriculture, cooperating with other policies and improving governance by better reflecting the diversity that exists within EU agriculture. The ongoing reform of the CAP shows that the subject of food security is at the European level mainly related to economics. According to the Commission's view of the problem proposed in the impact assessment, the new CAP will impact on economic, environmental, social and cross-cutting issues, such as stimulating innovation, but will have no impact on human rights.²⁰³

In this respect, we should have given credit to the European Parliament's resolution which goes further. Although we speak here only about soft laws, it must be underlined that by said acts EP triggered the discussion on food security in European public sphere. Whereas in its Resolution of 8 July 2010 on the future of the CAP after 2013, the European Parliament laid the foundations for a sustainable agriculture, the Resolution of July 2011 connected the agricultural sector with climate change. European Parliament has pointed out that the agricultural sector has a crucial role to play in the fight against climate change, in particular by reducing its own greenhouse gas emissions. In the resolution concerning agriculture and food security European Parliament explicitly declare that: „ensuring food security for Europe's citizens,

²⁰¹ European Parliament resolution of 23 June 2011 on the CAP towards 2020: meeting the food, natural resources and territorial challenges of the future, OJ C 390 E, 18.12.2012, p. 49.

²⁰² European Parliament resolution of 18 January 2011 on recognition of agriculture as a strategic sector in the context of food security [2010/2112(INI)].

²⁰³ Communication on Modernising and Simplifying the Common Agricultural Policy DG AGRI AGRI.DDG1.C.1 Agricultural policy analysis and perspectives 2017/AGRI/001.

providing consumers with healthy and high-quality food at reasonable prices, and safeguarding farm incomes have been the core objectives of the Common Agricultural Policy (CAP) since its inception and remain key objectives of the EU at present”.

The European Parliament’s resolutions are seminal in this respect since they define problems we as human beings stand for. According to that, food security is correlated with climatic events such as droughts, floods, fire but also with genetic resources for food and agriculture. Moreover, there is an increasing problem with land available for agriculture production due to climate change and urbanization. In the foregoing resolutions, it was also noted that the total global food supply is not insufficient but rather inaccessible and in the above respects European Parliament endorsed the Amartya Sen’s theory. This Nobel Prize laureate claimed that food insecurity is not a problem of food production and availability, but of people’s limited ability to mobilize resources, relationships and rules to access food.

2.3. Aquaculture

The fishing sector faces a number of food and human security challenges, including climate change threats in sensitive regions. Climate change will alter fishing production through changes in winds, water temperature, dissolved oxygen and increasing ocean acidity. One of the questions is how to build adaptive capacity for food security by the fisheries policy. The answer might be aquaculture developments, which are frequently claimed to increase food security and reduce poverty.²⁰⁴ Pursuant to FAO’s definition, aquaculture involves the reproduction, breeding, cultivation and marketing of aquatic plants and animals in controlled or semi-controlled environment. It is the fastest growing segment of animal production.²⁰⁵ Today, a quarter of fish and seafood produced in the EU already comes from fish farms and other forms of aquaculture. European aquaculture maintains exceptionally high standards of environmental

²⁰⁴ T. Mcclanhan, E.H. Allison, J.E. Cinner, *Managing Marine Resources for Food and Human Security* (in:) Ch. Barrett (ed.), *Food Security and Sociopolitical Stability*, Oxford 2012, p. 148.

²⁰⁵ M.W. Rosegrant, S.A. Cline, R.A. Valmonte-Santos, *Global Water and Food Security: Megatrends and Emerging Issues* (in:) C. Ringler, A. Biswas, S.A. Cline (eds.), *Global Change: Impacts on Water and Food Security*, Berlin 2010, p. 30.

protection, animal health and consumer safety. In the Commission's view and in reliance upon agricultural sector's data, a demand for sustainable high quality food has been currently on the rise across the EU states. According to FAO, organic production in the aquaculture sector in Europe climbed by approx. 30% annually in the years 1998–2007.²⁰⁶ The crux of the matter is how to remain competitive for other markets by observing all the environmental protection, social, health, phytosanitary standards. The Union, as it transpires from the Commission's communications on trade agreements with third countries, has been promoting the underlying values, with the question remaining still open – how far the same values are effectively incorporated in other regions of the world.

In the area of aquaculture, Commission's activity, expressed at the beginning through communications, has shown that there is an immense need to regulate said scope with other instruments than soft law and to form a legal definition of the foregoing concept. There were voices that Commission's work on the reform of aquaculture was driven primarily by an economic goal to reduce fish import from the third countries.²⁰⁷ In the aftermath of the ongoing work, the Regulation 1380/2013²⁰⁸ on the Common Fisheries Policy was adopted. Under this act, common fisheries policy comprises: protection, management and exploitation of living aquatic resources, aquaculture, processing and trade in fisheries and aquaculture products. Apart from the definition on aquaculture itself, the Regulation focuses on the promotion of sustainable aquaculture. An inference that might be made on the analysis of the foregoing provisions is that a variety of objectives are to be attained to ensure the promotion of sustainable development and to contribute to food safety and supply, as well as growth in employment.

The Union's work on aquaculture stands a good chance of establishing viable mechanisms promoting and ensuring food security.²⁰⁹ Undeniably, there is a risk that in the final profit and loss account, as it was with the green revolution (which introduced to agriculture high-yield wheat, rice, corn and new cultivation

²⁰⁶ COM (2013) 229, p. 10.

²⁰⁷ R. Churchil, D. Owen, *The EC Common Fishers Policy*, Oxford 2010, p. 556.

²⁰⁸ Regulation 1380/2013 on the Common Fisheries Policy, 28.12.2013, OJ 354.

²⁰⁹ O. Śniadach, *Akwakultura morska a bezpieczeństwo żywnościowe w Unii Europejskiej* (in: M. Adamowicz, J. Nawrot (eds.), *Europeizacja prawa morskiego*, Gdańsk 2016, p. 92.

technologies based on an increased use of fertilizers and pesticides), the adverse effects will, unfortunately, prevail. On the one hand, modern aquaculture provides an opportunity to meet demand for seafood. In the view of a number of specialists, such demand cannot be satisfied in full with fish from natural environment, which justifies pursuing action to support sustainable aquaculture. On the other hand, numerous concerns have arisen as to the impact such action may exert on the environment. Particular concerns derive from sourcing fish from areas beyond the EU where environmental protection norms are much less restrictive.²¹⁰

Obviously, it feels tempting to conclude that if fish, as no other breeding animals, is a rich source of an easily digestible protein, then it means nothing else but the fact that such type of action should be strongly promoted as conducive to effective fight with poverty and hunger. Yet, it might seem an oversimplification, since one must not forget about the questions of an impact on environment, climate changes, safety of the food produced, or the fish welfare.²¹¹ Nonetheless, it may also mean that it is imperative to encourage and promote a sustainable aquaculture that factors in current know-how and technology and is compliant with the concept of food sovereignty.

3. Food security and human rights

3.1. Food security

The concept of food security shows a close correlation with the concept of the right to adequate food. What it emphasises is that taking a look at food security through the prism of the right to adequate food allows to include in the efforts to combat hunger additional frequently overlooked factors such as human rights and human dignity. Furthermore, it underscores a strongly beneficial influence of the right to adequate food – a human right that every nation is bound to respect.²¹² Food

²¹⁰ A. Aitrona, A. Carter, *Integrating 'Sustainable Development' in the European Government of Industry: Sea Fisheries and Aquaculture Compared* (in:) N.N. Shuibhne, L.W. Gormley (eds.), *From Single Market to Economic Union, Essays in Memory of John A Usher*, Oxford 2012, p. 307.

²¹¹ H. Röcklinsberg, *Fish Consumption: Choices in the Intersection of Public Concern, Fish Welfare, Food Security, Human Health and Climate Change*, „Agric Environ Ethics” 2015, vol. 28, p. 543.

²¹² M. Korzycka, P. Wojciechowski, *System prawa żywnościowego*, Warszawa 2017, p. 497.

security, on the other hand, is associated with a physical access to food and such definition was for the first time advanced during the World Food Conference by FAO in 1975. The conference keynote read „for everyone any time”. It was in Rome 1996 during the World Food Summit that another step was taken forward for an appropriate level of food safety to receive its due consideration. The same summit also witnessed a commitment to reduce the number of starving people by half till 2015. That objective, unfortunately, was finally not attained. The establishment of FAO strategic framework for the years 2000–2015 involves linking food safety with the rights of future generations (FAO 2000–2015). Studies show that there may exist almost 200 definitions of this term. Yet, FAO’s definition is assumed to be the one currently shaping narration in this field.²¹³ By the 1990s, food security was reframed in political and socio-economic terms. Until the old production paradigm, there was a little room for right to food, as the solution to world hunger.²¹⁴ In theory, food security could be achieved without the adoption of legal measures, but thanks to the fact that the right to food translates into obligations, the discussion on food security also has changed.

Pursuant to the foregoing, food security builds up on three dimensions: disposability, availability, adequacy. Disposability means having appropriate amount of food for the entire population at any time. It is thus to be understood as an unlimited supply of food, and adequacy as a balanced feed. The latter dimension is to a large extent realised in the initiatives adopted to ensure food safety, the concept being of a narrower scope. The food crisis of 2008 made everyone aware how unstable the sense of food security is. The crisis began with a rise in the prices of grain, rice, corn and soya in international markets, which resulted in an upsurge in the costs of food products import. Numerous analyses and expert opinions have been published on the reasons for such phenomenon. In his article of 2008, Ch. Goley,²¹⁵ Legal Advisor to the United Nations Special Rapporteur on the Right to Food, points at a number of factors

²¹³ S. Henneberry, C. Carrasco, *Food Security Issues: Concepts and the Role of Emerging Markets* (in:) A. Schmitz, P.L. Kennedy, T.G. Schmitz (eds.), *Food Security in an Uncertain World*, Bingley 2015, p. 65.

²¹⁴ M. Cohen, *The Right to food* (in:) *Max Planck Encyclopedia of Comparative Law*, Oxford 2003, p. 216.

²¹⁵ Ch. Goley, *Światowy kryzys żywności a prawo wyżywienia*, www.cetiim.ch/fr/publications (access: 10.05.2018).

that led to such a state of affairs. First was the increase in the demand for meat and dairy products. Secondly, climate changes brought about long-term droughts. The third determinative factor was a rise in the production of agro fuels and speculation on grain markets. What might be alarming, the year that preceded the crisis had been very good for grains. Crisis has given rise to integrated actions and initiatives carried out by international community with a view to structuring programmes premised on the concept of sustainable development.

Literature on this subject shows attempts to define the term of food security by depicting its reverse nature, or for that matter, the absence of such security – food insecurity. Natural disasters, improper political systems and internal conflicts are to be blamed for the absence of food security. All said phenomena may lead to a situation when almost a billion of people suffer from no access to food – famine. Yet, it needs to be expressly emphasised here that famine does not result from an insufficient production of food as there is an adequate amount of food produced to secure food for the whole world community.²¹⁶ Globally and domestically, there is enough food to feed the world, yet that food does not reach all the people who need it. One of the problems is food access.²¹⁷

Famine is in fact a consequence of poverty and natural disasters that affect people, specifically from the poor countries of the south. Famine is said to be close-coupled with poverty, in fact poverty is regarded as the root cause of hunger and malnutrition but also hunger and malnutrition can, in turn, be major causes of poverty.²¹⁸ The struggle to ensure food security is nothing else but a struggle against poverty and underdevelopment.²¹⁹ Progress made towards the 1996 World Food Summit targets fell far short of the original ambition. As M. Caparros put it: „reaching a zero level of hunger, building the world without undernourished people would mean a giant leap forward in civilization. We have not known or felt it yet. It is important what shape such actions might take, who might conduct them and by which criterion”. The thesis posed by the author

²¹⁶ R. Robbins, *Globalne problemy a kultura kapitalizmu*, Poznań 2006, p. 223.

²¹⁷ D. Heather, *Vermont Food Access and the 'Right to food'. Using the Human Rights to food to address hunger in Vermont*, „Vermont Law Review” 2016, vol. 4, p. 178.

²¹⁸ D.J. Shaw, *World Food Security. A History since 1945*, Basingstoke 2007, p. 387.

²¹⁹ M. Schulz, *Food and Nutrition Security in the Process of Globalization and Urbanization*, Munster 2004, p. 14.

in his book has imbued the world over, however, with no answers found so far. Conclusions Caparros arrives at come down to a sad fact that an introduction of global changes seems unfeasible due to the absence of a global, unwavering and homogeneous volition or commitment to such cause.

Moreover, in his view, we have been suffering from a lack of any ideas to reform current reality and introduce indispensable changes. Working over the years on the phenomenon of hunger, the author came up with a conclusion that hunger in the world cannot disappear as long as the current social model does exist.²²⁰ It is true that the Earth has always evolved at different speeds, nonetheless, the economic and technological acceleration have markedly deepened the differences in needs and objectives. Expectations that variety of nations have are diverse. While the western communities are looking through the lens of human rights at the right to various freedoms, the communities of the poor south are thinking of having something to eat. Does this model epitomise one global community where different expectations meet or cut across? Our attitude to our planet Earth, what we tend to do to and for it, and how responsible we are for it seem to form a desirable common ground. It is the fight with climate change and its effects that might make up the idea that humanity needs to get united in joint action.

3.2. Right to food

There are approximately 900 m. people who suffer from hunger in the world, majority of them living in Asia and Africa. The overwhelming figures and statistics in this respect may be viewed from a variety of perspectives, with human rights being one of them, if not the central perspective. Hunger is a global problem and it should be treated as such. It has also become an interdisciplinary issue with a common platform of hot discussion driven towards the creation of a food security concept that does not only embrace human existence, but it also corresponds to and correlates with economic, energy or ecological security categories.

The right was proclaimed in the acts of international law as well as in the constitutions of a number of countries. Discussion should thus open up with

²²⁰ M. Caparros, *Głód*, Kraków 2016, p. 699.

the Universal Declaration of Human Rights, which under art. 25 provides that „everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food (...)”. From the normative perspective, the Covenant on Economic, Social and Cultural Rights²²¹ which under art. 11 defines the right to food, carries a fundamental significance. It is also worth noting that a closer study shows that the same provision does apparently determine two rights.²²² On the one hand, it stipulates the right to an adequate standard of living, including food, while on the other hand, para 2 of this Article recognises the right of everyone to be free from hunger. In fact, this Covenant creates a connection among the right to life, the right to physical integrity, the right to be protected against genocide and the right of any person to be protected against hunger. In addition, food security translated into fundamental human rights is also included in provisions of other international covenants, in various acts of international and regional documents. The human right to nutrition, the human right to be protected from hunger all are the examples of how food security might be translated into legal provisions.²²³

Since the right to food is a very complex term, we might lean towards the determination that both elements in fact make up one right, with the right to be free from hunger seen here as a minimum standard and the right to adequate food seen as an elementary standard.²²⁴ In this very context, we may speak of a single complete right to food. art. 11 of the Covenant sets forth a duty of such steps to be taken by the states so as to ensure the realisation of the right to food.²²⁵ At this juncture, a problem seems to arise as to the nature of the rights expressed in the Covenant, since this particular group of rights has been considered to form merely the programme norms or standards that should

²²¹ International Covenant on Economic, Social and Cultural Rights. Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966 entry into force 3 January 1976, in accordance with article 27, www.ohchr.org/EN/PublicationsResources/ (access: 10.05.2018).

²²² Ying Chen, *Trade, Food Security, and Human Rights*, Farnham 2014, p. 17.

²²³ L. Knuth, M. Vidar, *Food and Agriculture Organization of the UN. Constitutional and Legal Protection of the Right to food around the World*, Rome 2011, p. 32.

²²⁴ D.E. Buckingham, *A Recipe for Change. Towards an Integrated Approach to Food Under International Law*, 6 Pace INT'L. REV 1994, p. 285.

²²⁵ Committee on Economic, social and Cultural Rights 1999: General Comment 12: Right to adequate food UN doc. EC12/1999/5.

gradually take shape and come into effect. It is rightly to believe that every right, including the right of a programme nature, carries its essence and substance that should be ensured by the state. The bottom line is that states and governments that represent them have obligations to ensure that rights as the parties of international agreements. The focus on the dignity of human beings is what distinguishes a right to food. One important argument in favour of the human rights approach is that policy objectives come and go with changing governments, and the numerous declarations of intend to end world hunger and poverty are not legally binding, but the imperative of human rights based on human dignity would remain of constant value beyond the volatility politics.²²⁶

The Convent's introduction underlines that its central premise is to establish certain elementary interpretative mechanics pertaining to the right to food. One of the first opinions in the comment carries fundamental meaning for the correct and adequate assessment of the right to food, as it draws attention to a close interconnection between the right to food, human dignity and other human rights. The idea of looking at hunger through the prism of human rights was initiated and crystallised upon the publication by Amartya Sen of *Poverty and Famines*. She has noted that markets are interconnected with human rights in terms of economy, social and cultural rights.

References to or definitions of the right to food also appear in other international documents. FAO terms the right to food as an individual, fundamental right of access to adequate food. In compliance with FAO's interpretation, state governments cannot deprive anybody of such right. They are compelled to protect everyone from its infringement and to support everyone in exercising this right.²²⁷ For the UN Special Rapporteur for the right to food, this right is the right to have a regular, permanent access to food corresponding to the cultural traditions, which ensures a physical and mental, individual and collective life free of fear.²²⁸

Realisation of the right to food entails two essential considerations: adequacy i.e. factoring in current social, economic, cultural and climate conditions with

²²⁶ D.J. Shaw, *World Food Security...*, p. 461.

²²⁷ FAO, *What is Right to Food?*, http://www.fao.org/righttofood/wfd/pdf2007/what_is_rtf_en.pdf (access: 10.05.2018).

²²⁸ FAO, *Guide on Legislating for the Right to Food*, Roma 2009, www.fao.org/righttofood (access: 10.05.2018).

a concurrent regard for the welfare of future generations. As it transpires from the General Comment to art. 11, it is the dual function of the food accessibility that lies at the heart of the right to food. On the one hand, what we mean here is the accessibility or adequacy of food free from toxic substances; food that is to meet man's dietary needs in a given specific culture. On the other hand, said realisation should in no way infringe other human rights. Nonetheless, as with other human rights, the underlying right compels the state to act in respect, deference to, protection and realisation of said right. Deference stands for the state's behaviour that does not hinder access to food. Protection on the part of state is to guarantee that it shall take appropriate measures to ensure that the entities are not deprived of access to food.

The role of states is respecting, protecting and fulfilling economic, social and cultural rights like the right to food as well.²²⁹ An infringement of such right by the party occurs when the state's acts or omission are in contravention of the right to food. In such case, it is paramount to determine to what extent the resultant situation is a consequence of the state's incapacity, and to what extent it is its conscious act. To defend its position, the state has to show that it has taken all indispensable steps to discharge its obligations and has sought international assistance. Additionally, any public authority's act tainted with the elements of result discrimination, where an entity or a group of entities is deprived of the right to food, amounts to a breach of the Covenant. In the same vein, the state's acts in respect of law-making may also be deemed as the infringement of the right to food.

In the Comment it was emphasized that, even though the states are the members of the Covenant, the other community members, including non-governmental organizations, business representatives, or small local communities cannot feel released from assuming responsibility for the realisation of the underlying right. Undeniably, such obligation for the most part rests on the states which should ensure conditions for the cooperation of all the interested entities within the framework of developed so-called national policies. Said policies need to be devised in reliance upon the principles of transparency, social participation, decentralisation and judiciary independence; pertain

²²⁹ T. Feunteun, *Cartels and Right to Food. An Analysis for States' Duties and Options*, „Journal of international Economic Law” 2015, p. 341.

to food production, distribution and consumption; and take into account health, social and educational aspects. Undoubtedly, it is the states that should develop mechanisms aiming at overseeing and monitoring progress in the implementation of the right to food. The obligations of states in relation to the human right to adequate food might be distinguished into three main categories: respect, protect and fulfil. All those categories apply not only to the external obligations of states but also their internal obligations.²³⁰

The real problem with the right to food lies in its enforcement. Every person whose right to food has been infringed should enjoy the right to have recourse or to appeal to national and international courts. The foregoing instrument was reinforced by the adoption of the Optional Protocol to the International Covenant on the Economic, Social and Cultural Rights in 2008, which has introduced a procedure of bringing individual complaints before the Committee that oversees the implementation of the Covenant by its signatories. Passing such Protocol was recognized as the most significant stage in the realization of social and economic rights and acknowledgement of human rights integrity.

In accordance with the report by FAO on the implementation of the right to food²³¹ in the world, 23 states recognise the right to food as the human right, including nine states that recognise it as an autonomous right (e.g. art. 27 of the Constitution of the Republic of South Africa), ten states guarantee in their constitutions the right to food solely to certain categories of people, such as children (art. 44 of Colombia's Constitution), with five states in this group pointing at this right as a component of another human right (e.g. art. 21 of the Constitution of the Republic of Belarus).²³² Notwithstanding the fact that constitutional standards do not correspond directly to the right to food in a number of states, the right in question derives from other human right, inter alia, the right to life. Thus it seems rather indisputable that the absence of a direct reference to the right to food in the domestic law does not amount to the absence of safety and security in this range. It is common practice, for that matter, that the foregoing right is treated as a constitutive element of the right

²³⁰ G. Kent, *Global Obligation* (in:) *idem* (ed.), *Global Obligation for the Right to food*, Lanham 2008, p. 18.

²³¹ L. Knuth, M. Vidar, *Constitutional and Legal Protection of the Right to Food around the World*, FAO, Rome 2011.

²³² *Ibidem*, pp. 33–35.

to life and as such it is safeguarded by the state. In conclusion, as it transpires from the FAO report, the right to food, whatever shape it assumes, is currently present in the constitutional systems of 56 states.

Undoubtedly, the right to food is protected legally at the national and international level. Yet, the implementation of such right is another issue. The role law plays in this respect is deemed paramount insofar as the law itself provides the tool not only for the authorities responsible for devising policy and law, but most importantly, for the judges and civic community representatives. At this juncture, it is worth bringing up and juxtaposing the adoption of initiatives by the European Union, boasting fundamental rights protection on its standards, with the fact that the Charter of Fundamental Rights, proclaimed the most modern and progressive document on human rights, does not even contain the right to food. The authors have overlooked said right, which does not necessarily mean that it may not be read into and out by the tribunal from the right to life. The right to life in the Charter of Fundamental Rights does not guarantee human existence as such, but what it does is to protect against deprivation of life due to states' actions. A state is obliged to observe the right – to inviolability (adverse/negative obligation) and active protection (active/positive obligation).²³³ Under art.2 of the Charter of Fundamental Rights, the obligation to ensure life protection rests upon the states and EU, which means designing such legal standards so as to avert or prevent from life violation.

As shown hereinabove, the right to food has been classified and placed on a par with social, economic and cultural rights, so-called second generation (second-order) human rights. Traditionally, the first generation (first-order) human rights have been viewed as the ones to be unconditionally implemented by a state that is primarily to refrain from any action and to delimit legal framework for an individual's freedom, whereas the so-called second generation rights are implemented through a state's active operation that ensures the rights realisation in alignment with the state's needs and the concept of equality.

²³³ S.C. Kamiński, A. Wróbel, *Comment to art. 37 KPP* (in:) A. Wróbel (ed.), *Karta Praw Podstawowych*, Warszawa 2013, p. 55.

4. Governing food security

4.1. The international perspective

To achieve the goal of food security, the international community is acting by using many different tools. As it was indicated above, from the legal perspective the implementing the right to food is the most meaningful, however, all other softer instruments have played very crucial role in this respect. It was The World Food Summit organized by FAO in 1996 that adopted the Rome Declaration of the World Food Security. In 2004, the FAO Council adopted also „voluntary guidelines to support progressive realization of the right to adequate food”.²³⁴ During subsequent summit in 2009, in the context of a deteriorating food situation in the world brought about inter alia by noticeable climate changes, FAO Member States once again made a decision to eradicate hunger, specifically by stepping up and increasing assistance to the agriculture of developing countries.²³⁵ Had the states' declarations themselves carried causative force and effect, nobody would have heard of the hunger problem in the world.

The right to food is recognized and reaffirmed in number of binding and non-binding international documents. In this respect, the International Covenant on Economic and Social and Cultural Rights was mentioned above. Also other international legislative acts are relevant. The conventions worth mentioning in this respect are the Convention on the Rights of the Child (i.e. art. 27)²³⁶ and art. 12 of the Convention on the Elimination of All Forms of Discrimination against Women,²³⁷ as well as such soft law acts as the Resolution 57/227 of the UN General Assembly²³⁸ and Resolution 2003/25 adopted by the Commission of Human Rights.²³⁹ Said resolutions placed express emphasis on the commitment of the states to cooperation aiming at the reduction of food insecurity. While such instruments, for one thing, enable the states

²³⁴ www.fao.org/rihttofood (access: 10.05.2018).

²³⁵ J. Michalczyk, *Bezpieczeństwo żywnościowe w obliczu globalizacji*, „Ekonomia” 2012, vol. 1 (18), p. 14.

²³⁶ Convention on the Rights of the Child, available at: <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx> (access: 10.06.2017).

²³⁷ <http://www.un.org/womenwatch/daw/cedaw/text/econvention.htm> (access: 10.06.2017).

²³⁸ The Right to Food resolution A/RES/57/226 (2003).

²³⁹ The Right to Food E/CN.4/RES/2003/25.

to act and adopt new initiatives where there is still a degree of deficiency in the readiness to be bound by hard law norms, for another, they themselves contribute to the reinforcement of the emerging new hard law. The overall perspective has produced an image of law to be respected, protected and followed by the states.²⁴⁰

There are a lot of international institutions which have contributed to the development of human right to adequate food. It is worth mentioning here: The General Assembly, The Security Council, The Economic and Social Council, The Committee on Economic, Social and Cultural Rights, The Human Rights Council, The Advisory Council, The Special Rapporteur on the Right to Adequate Food, The High Commissioner for Human Rights, The Food and Agricultural Organization, The World Health Organization, The United Nations Children's Fund, The International Fund for Agriculture Development, The World Food Programme, The United Nations System Standing Committee on Nutrition. Unfortunately, a multitude concept of what is the content of the right to food makes it blurred.

The other document at the international level which is aimed to improve governance and adequacy of food assistance is Food Assistance convention, signed on April 2012.²⁴¹ The Food Assistance Convention is the latest in a long series of multilateral cooperation instruments, and was preceded by the Food Aid Convention from 1999.²⁴² At it is stated in the preamble of this document, the States confirm their commitment to contribute to world food security and to improve the ability of the international community to respond to emergency food situation. The objectives of the Convention are to save lives and improve food security by reducing hunger. This Convention may play an important role on the global food security debate and has the chance to improve food assistance governance, as the long term development tool.²⁴³ It is incontrovertible that this act is also crucial for the human rights discourse on how States fulfil their obligation concerning the right to food.

²⁴⁰ Ying Chen, *Trade, Food Security*..., p. 29.

²⁴¹ Food Assistance Convection, London, 25 April 2012, United Nations, Treaty series, vol. 2884.

²⁴² www.foodassistanceconvention.org (access: 10.05.2018).

²⁴³ A. La Chimia, *Food Security and The Right to Food: Finding Balance in the 2012 Food Assistance Convention*, ICLQ 2016, vol. 65, p. 104.

All listed documents provide legal grounds for food security and express foundations for survey to be carried out in this field also through the prism of law. The common denominator is likely to be found in one of the objectives of a sustainable development proposed by the United Nations during the Sustainable Development Summit 2015 in New York. The underlying goal is: „to end hunger and malnutrition till the year 2030, in particular through boosting the efficiency of small-scale food producers, developing the capacity of sustainable climate-change-resilient agriculture and nutrition systems that may secure food for the world population which is expected to reach 8,5bn, concurrently striving for and ensuring environment and biodiversity protection”.²⁴⁴

4.2. The EU perspective

From a historical perspective, the shape of EU policy on food has been undergoing several landmark transformations. The 1950s and 1960s of the twentieth century marked themselves as the period when ensuring sufficient amount of food was the principal premise. The White Paper of 2000 became an essential document on the way to establish common food security standards. It was in this very Paper that the directions of further actions aiming at an effective implementation of a ‘from farm to fork’ formula were adopted. Moreover, it was also then that a need for the creation of a food safety control institution and an introduction of a uniform control for all the countries, and information access system for consumers was articulated.

In respect of food security, EU’s commitment consists in the issuance of soft law acts by its institutions. Singling out the most paramount ones for the purposes of the present subject, it is necessary to point at the White Paper on „Adapting to climate change: Towards a European framework for action”,²⁴⁵ the Communication from the Commission to the Council and the European Parliament on „EU policy framework to assist developing countries in addressing food security challenges”,²⁴⁶ European Parliament Resolution of 27 September 2011 on „EU policy framework to assist developing countries in addressing food

²⁴⁴ Sustainable Development Goals.17 goals to transform our world, www.un.org (access: 10.06.2017).

²⁴⁵ COM (2009) 147.

²⁴⁶ COM (2010) 127.

security challenges”,²⁴⁷ the European Parliament Resolution of 30 April 2015 on „Milano Expo 2015: Feeding the Planet, Energy for Life”,²⁴⁸ the European Parliament Draft Resolution of 4 May 2016 on the next steps towards attaining global goals and EU commitments on nutrition and food security in the world.²⁴⁹

Passing the Regulation 178/2002,²⁵⁰ known as the General Food Law, that enshrined general food safety principles has proved to be another critical and meaningful decision. It is also noteworthy that said principles were introduced under regulation which is an instrument that serves law harmonisation and addresses everybody, i.e. countries, entities and the EU itself. The subject-matter of the regulation is very broad in the sense that it applies to food production, processing and distribution pursuant to the ‘farm to fork’ formula. Under that regulation, the European Food Safety Agency was legally established. The Agency was founded on the principles of scientific excellence and independence, transparency and openness. EFSA was established as an expert body whose opinions provide scientific grounds for the preparation and implementation of initiatives that fall under the scope of food safety (art. 22, Reg.178/2002). The General Food Law created a European food safety system based on separation of risk assessment and risk management. EFSA not only produces scientific opinions but also was given the remit of independent communication to the public. EFSA uses a variety of mechanisms to ensure that its scientific decision-making process is accessible to all beneficiaries.²⁵¹ EFSA has worked very intensively by producing scientific opinions, advice and risk assessments, thanks to which European consumers are among the best protected and best informed in the world as regards risks in the food chain. However, at the EU level also other steps are taken to promote not only food safety but also food security.

²⁴⁷ 2010/2100 INI.

²⁴⁸ 2015/2574 (RSP).

²⁴⁹ 2016/00 (RSP).

²⁵⁰ Regulation No 178/2002 of the European Parliament and the Council of 28 January 2002, laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, OJEC L31/1.

²⁵¹ C.G. Laneelle, *Foreword* (in: A. Alemanno, S. Gabbi (eds.), *Foundations of EU Food Law and Policy, Ten Years...*, p. XVIII.

The initiative which may have an impact on food security and has been substantially promoted in the European Union, is the concept of sustainable production and consumption. These concepts are of major significance in the process of promoting sustainability in agriculture, one of the FAO's flagship programs indicated above. Pursuant to the Union's policy presented inter alia in Europe 2020 Strategy, the underlying challenge for contemporary people is to 'gain more, using less'. The goal the Commission set itself was an introduction of thinking in categories of a product life cycle, from raw material to utilisation. Actions undertaken so far resulted in the adoption of several solutions, inclusive of eco-labelling. The fourth report on the programme effects assessment provided profiles of general food consumption trends that exhibit an increasing food market globalisation and conversion from local to imported products demand, which is unfortunately conducive to a rise in outlays on transport and cooling.²⁵² At the same time, the EU states have seen a stable increase in the demand for eco-friendly food, with this trend, however, being of no global range.

According to the working definition proposed in the Oslo Roundtable, the sustainable consumption means the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations.²⁵³ The British Sustainable Development Commission proposed even broader concept of 'sustainable lives': „within the limits of the planet capacity, while providing health, well-being and quality of life for this generation (...) and for future generations". Sustainable living can be achieved by energy efficiency, sustainable travel, sustainable food, waste reduction and sustainable supply chains.²⁵⁴ The EU's approach for sustainable food consumption is fragmented in different fields of the law: agriculture law, environmental law, consumer law, tax law, and because of that, it is not effective in terms of changing consumption patterns. The adoption of legally binding instruments might fill the gaps of the current legal framework and – what is most important – this

²⁵² Environmental of Europa, IV report, p. 270.

²⁵³ Oslo Roundtable on Sustainable Production and Consumption.

²⁵⁴ G. Scholl, *What is Sustainable Consumption?*, „Institute for Ecological Economy Research" 2011, www.scp-responder.eu (access: 15.06.2017).

is one of the steps to provide sustainable food security. Ensuring availability and access to sufficient, safe food is a key priority that impacts all EU citizens and needs to be ensured today and in the future.

In this respect, it seems that the sustainable consumption and production initiative²⁵⁵ within the framework of the General Union Environment Action Programme would incentivize all interested parties to act for the benefit of food security. The foregoing initiative, despite appearing in EU documents, has so far not acquired any single legal definition. There is even no mention in the Regulation 178/2002 which, in general, does not refer to or even scratch the environmental considerations. Nevertheless, the elements of the same concept may be traced to a variety of EU programmes or legislative acts from different sectors, notably related to the natural environment protection. Yet, law in this field is fragmentary and incoherent.²⁵⁶ Sustainable food consumption is to have regard to environmental considerations, the more so as the food production cycle is largely to blame for the emission of greenhouse gases as well as soil and air pollutants.

As it transpires from the Commission's communication on sustainable consumption action plan,²⁵⁷ the sustainable consumption aims at increasing environmental efficacy of a product, raising consumer awareness and boosting demand for sustainable products. Sustainable consumption is believed to maximize product effectiveness and efficiency so as to satisfy current needs without compromising future generations' capacity. As such, it clearly exhibits a holistic approach oriented towards minimizing the impact that social systems of production and consumption have on the environment. Having said that, the underlying communication does not mention a sustainable food consumption. It does, however, look at an integrated approach in the promotion of ecological and energy-efficient products. Thus, we may assume that the instruments recommended in the communication, such as a system of incentives, procurement and simplified labelling methods, might successfully be applied in the area of food products.

Currently, the sustainable food consumption idea is promoted primarily through product labelling and voluntary agreements. A good case in point here

²⁵⁵ Dec. 1386/2013/EU.

²⁵⁶ M. Zidianaki, *Sustainable Food Consumption in the EU: Filling the Gaps of the Legal Framework*, EFFL 2/2013, p. 114.

²⁵⁷ COM (2008)397.

is the Regulation 834/2007²⁵⁸ on organic production and labelling of organic products. In accordance with the definition adopted in this Regulation, an organic production should perform two fundamental functions: social – as they are to meet the demand for such a type of products, and public – as they will contribute to environment protection, animal welfare and rural area development. Products labelled as organic are to mirror the fact that during their production, processing, packing and transportation all the actions were taken with due and full respect for the environment. What is also worth emphasising is the fact that the foregoing regulation pertains only to the question of the use of fertilisers and agrochemicals. What it fails to guarantee, however, is that due care has been undertaken to reduce gas emissions to atmosphere. A distinct example of such type of labelling is Carbon Reduction Label introduced in the United Kingdom.

Voluntary agreements may be concluded by private or public entities or non-governmental agencies. All such agreements hinge on mutual trust. Special attention needs to be drawn here to The Retail Forum which was established in 2009 as a platform for the exchange of best practices in the range of sustainable consumption and production. Unfortunately, also in this case, it is a solution adopted for all products, thereby harming food products. Another initiative worth recalling is the European Round Table, dedicated to sustainable consumption and production, which brings together a variety of entities related to the chain of food delivery, and provides a place for mutual dialogue where guidelines acquire shape and crystallise. Said that, its voluntary nature neither necessarily brings nor assists any anticipated impact.

²⁵⁸ Council Regulation No 834/2007 of June 2007 on organic production and labelling of organic products and repealing Regulation No 2092/91.

Chapter IV

CLIMATE CHANGE AND FOOD (IN)SECURITY GO IN PAIR

1. General remarks

„Climate change is a global problem with grave implications: environmental, social, economic, political and for the distribution of goods. It represents one of the principal challenges facing humanity in our days. Its worst impacts will probably be felt by developing countries in coming decades”.²⁵⁹ It seems that food (in)security is going to be one of them. As UN Secretary – General, Ban Ki Moon, stated: „There can be no food security without climate security”.²⁶⁰ The tragedy of humans is that we are facing a moral problem which we are responsible for. Therefore, it is urgent to consider also the ethical dimension of the problem in order to contribute to a better and holistic understanding of the concepts, to critical thinking and to responsible guidance of personal and social action.²⁶¹ The search for the responsible response to climate change and its impact on food insecurity should include the participation of citizens,

²⁵⁹ *Laudato Si*, Encyclical letter...

²⁶⁰ Speech in FAO, Rome, November 2009, www.fao.org (access: 10.05.2018).

²⁶¹ M. Nari lloveras, *Climate change and food insecurity: an ethical problem that cannot be postponed* (in:) *Global food security...*, p. 79.

organizations, social movements, governments worldwide, as solving that problem is already an urgent moral duty of humanity.

Global issues such as climate change and food security are the issues that hit and rock nowhere else but the world community, and it is only the world community itself that may stand up to find viable solutions. The role of global community is not only about what global community may do but also about what it must do.²⁶² Globalisation is termed as the „world shrinking” process with a concurrent growth of awareness that the world embraces the entire existence.²⁶³ Originally, globalisation was identified only as an economic process. Now, we know that it is a multi-layered and multi-dimensional mechanism that exhibits the world interdependence, also in the area of law. Social influence of law proposed by W. Lange means that law or its elements affect the entity’s attitude and behaviour as well as shape social and economic relations.²⁶⁴ In this chapter, we will focus on the role of law as a tool for solving global problems and the role of civil society in using it properly.

The aim here is also to formulate an answer to the question on the way the EU – an organisation of a supranational nature, characterised by high integration of law – faces up to the major challenges of a global world, which are combating climate change and ensuring food security, through the application of law instruments. The food security administration calls for not only agility in and understanding of a broad array of legal regimes, but also for a multidisciplinary approach that encompasses legislative initiatives adopted in a broad array of the fields of law.²⁶⁵ The EU ‘new governance’ comprises one of the elements – so-called network administration – deemed as a tie-up between the European Commission and other institutions on EU-tier (i.e. EU agencies) and member-state-tier (i.e. domestic regulators). The ‘network’ term has recently become very popular, since it is this very concept that helps define the organisation of social mechanisms that other traditional analysis methods cannot capture.²⁶⁶ Networking is a natural consequence of the multi-layer nature

²⁶² G. Kent, *Global Obligation...*, p. 13.

²⁶³ W. Gromski (in:) J. Stelmach (ed.), *Filozofia prawa wobec globalizmu*, Kraków 2003, p. 13.

²⁶⁴ W. Lang, J. Wróblewski, S. Zawidzka, *Teoria państwa i prawa*, Warszawa 1986, p. 490.

²⁶⁵ O. Hospes, *Governing food security*, Wageningen 2010, p. 31.

²⁶⁶ K. Krzysztofek, *Czy sieci uratują sferę publiczną* (in:) J.P. Hudzik, W. Woźniak (eds.), *Sfera publiczna, kondycja, przejawy, przemiany*, Lublin 2006, p. 247.

of governance and (presumably) an avenue to take to integrate new areas of cooperation. Governance multidimensionality is exhibited by the administration through the committees (so called comitology), governance by agencies and governance by administrative network.²⁶⁷

In European climate change governance, institutions and principles seem to be equally important and they form a unique combination of structure and procedural contexts, the values and belief systems that underpin them. Another important element of that combination are substantive issues that frame the patterns of governance.²⁶⁸ The concept of public participation in environmental matters, with special issue on the NGOs is analysed in the first part of the chapter. In the second part, the focus is on instruments that could be used to build a knowledge-based and scientific-based society.

European nomenclature since the Convention of the Future of European Union is regarded as a breakthrough in the construction of this space. The father of the concept of the public sphere is believed to be J. Habermas, who also started a new direction of research on the European integration, defined as 'deliberative supranationalism'. In principle, the concept assumes that the prerequisite for taking a good decision is not adopting it through vote, but as a result of a pressure-free debate. In his view, only democratic procedures may guarantee that citizens of democratic political community do not subject themselves to the law simply as the matter of fact because of the threat of sanctions by the state, they can also accept the law in principle as 'right' because it was enacted through a democratic procedure.²⁶⁹ Habermas's solution rests on the model of a society harassing political institutions. Strong civil society is indispensable to debate matters that must be taken into consideration by decision-makers. According to Habermas, in a society we have in the EU, i.e. a society that is not homogenous in terms of culture and language, the only common ground is the law. In his opinion, only a discourse regulated by the law, based on openness of all discussion subjects and objects, assuming equality of rights of all participants and free of compulsion guarantees appropriate civil legitimization. World politics is no longer about the states interacting

²⁶⁷ H.C.H. Hofmann, *Konstytucjonalizacja sieci w prawie publicznym UE* (in:) E. Piontek (ed.), *Quo vadis Europa III?*, Warszawa 2009, p. 99.

²⁶⁸ R.K.W. Wurzel, A.R. Zito, A.J. Jordan, *Environmental Governance in Europe...*, p. 189.

²⁶⁹ J. Habermas, *The crisis of the European Union. A Response*, Cambridge 2012, p. 23.

alone but entails a complexity of interactions between states and a myriad of actors collectively referred to as non-state actors, like multinational corporations, intergovernmental organizations and non-governmental organizations (NGOs).²⁷⁰ Participation of society also helps to mobilize and empower stakeholders, build consensus and improve the knowledge base. It is essential for identifying expectations and perceptions, improving problem formulation and finding solutions, reducing social and economic risk, increasing equity and transparency, and facilitating conflict resolution. Because of that, different tools of participation are created at the international and regional level. The role of civil society and the abundance of new instruments will be illustrated in this chapter by only some examples from international and European level.

2. Climate change and food security as global problems

2.1. Global problems

The food insecurity, as well as climate change, in the modern world is no longer a regional problem but becomes a global issue. The close links between both issues are acknowledged and are both described as some of the most important issues of our century. We are now facing a major problems like: the growth of world population, the impact of food production on climate change and the impact of climate change on food production, the physical limits of natural resources and transforms of traditional food production areas for other uses. We face complexity so that no optimal leverage point for global action can be identified.²⁷¹

In the year 2011, Eurobarometer has published the report aiming to show what are the biggest threats in the modern world. Those threats are also known as the global issues, as they affect everyone and are inter-related. According to the report,²⁷² EU citizens are most concerned about poverty, hunger and lack

²⁷⁰ B. Maragia, *Almost there: Another way of conceptualizing and explaining NGOs' quest for legitimacy in global politics, Non-State Actors and International Law*, Kluwer Law International 2002, p. 301.

²⁷¹ M. Kaiser, *Designing ethical strategies for global food security* (in: *Global Food security. Ethical...*, p. 31.

²⁷² Global threats and challenges for the Union European, Report 12/10, EB72.4.

of drinking water.²⁷³ The number two at the above mentioned list is climate change.²⁷⁴ Those global problems around many others require global solutions, as well as global governance structures, that work together. For many years, those global problems have been neglected, partly because of an unspoken premise that national governments are the only legitimate actors to solve them. This is due to the principle of state sovereignty. As a result, there is still not enough capacity for decision making and action at the global level. However, global warming or nutrition problems do not fit neatly into national boundaries, they are clearly global problems which will not be solved on a nation-by-nation basis.

This also means that the role of the global community in relation to that problems is more and more significant. Although the global community is not precisely defined, some studies point that it should be recognized as something more than an international organization. It encompasses all actors that act globally, including international governmental organizations, international nongovernmental organizations, transitional business enterprises, and nation-states in their external relation. It has no recognized representative with the authority to speak for it, and does not enter into agreements.²⁷⁵ We may look at the global community as the agent of the collective of all people, acting through their states and other agencies. As such, the global community is not explicitly subject of international law, but it does have implied obligations under that law, and that obligations could be spelled more clearly.

First of all, the community must be well educated in this manner. What we need is also a deeper reflection on the ethical dimension of many aspects involved in the changes in climate.²⁷⁶ Globalization has changed the face of the Earth and also law cannot remain immune to these new facts. The term 'globalization' is generally used to describe the fact that an increasing number of social or economic problems have a global dimension. Globalization in the present contexts is defined as increased integration of economies, societies, and culture systems across national boundaries- and reflects the economic

²⁷³ That number was 28%. The most caring were people from France, the least caring – the citizens of UK.

²⁷⁴ 20% of Europe think that climate change is the biggest problem.

²⁷⁵ G. Kent, *Global Obligations...*, p. 13.

²⁷⁶ M. Nari Lloveras, *Climate change and food insecurity: an ethical problem that cannot be postponed* (in:) *Global Food security...*, p. 79.

face of global change. The globalization process made the national borders likely to be less important than in the past, not only because of the freer trade, higher access to knowledge and information or migration of people but also because global crises. Globalization has changed the face of the Earth, due to that phenomenon also the legal system has to find fresh ideas.

2.2. Global concepts

Global law is a new concept which is very inquiring and may be useful in solving global problems. Still, it must be clarified that global law is not law for or about globalization.²⁷⁷ As R. Domingo, the author of one of the first monographies published on global law, indicates, this is the law which flows from the need to order human relations on a global scale. That way Rafael Domingo explains the concept in his book ‘The new global law’. The global law might be also known as common law of humanity, cosmopolitan law or world law. The normative core of that law, which must be underlined here, are human rights. N. Walker has described global law as the idea that extends the globe.²⁷⁸ According to him, global law is a post-national way of thinking which conduces to think about law on a global level. It might be realized by general principles of international law or by the institutional system.

The global law is different from international law, this law is called the common law of humanity or the law of the global community. The concept of global law might be only seen as a modern term, however, on the ground of global challenges like climate change and food security. we must be aware of the fact that states can no longer be expected to provide effective and legitimate solutions to global problems of today. The easiest way to define the global law is to show what this law is not. First of all, it is different that supranational law, which is used on the strong regional legal regimes that stand above the state and have a kind of constitutional structure. The European Union is the best example of such integration. The global law has other dimension that the international law, which in classical view is the law between states. It is neither transnational law. As the international law is law between independent states, the global law

²⁷⁷ R. Domingo, *The New Global Law*, Cambridge 2010, p. 98.

²⁷⁸ S. Musa, E. Volder, *Reflection on Global Law*, Leiden 2013, p. 7.

is a system called to order a complex and interdependent *comunitas*-humanity, and humanity requires its own conceptual status.²⁷⁹

The starting point for defining the global law is a human dignity. According to R. Domingo, the law becomes global when it recognizes not a state as its main subject but gives primacy to the person. This is very close to the conception of human rights and bring us to the question: can we speak about the right to food or right to climate? Traditional human rights, which were designed in reliance upon a state's authority, carry for the most part the obligation of the right to food implementation. Yet, currently, more and more is also being said on the duties and commitments of the international communities in this respect. In situations, when a state is incapable of securing the right implementation, the duty devolves to an international community.²⁸⁰ Not only does the international community comprises transnational organisations, but also international non-governmental agencies, corporations and the states themselves. What that means is that it is difficult to point here at a single entity representing all such community members. An integrative element is the initiative of drafting a catalogue of global obligations which stands above the states' obligations toward their own nationals.²⁸¹ With regard to the right to food, such obligation might be viewed from a very broad perspective, since it does not only relate to the operations conducive to the enhancement of food production or distribution methods, but it also entails the obligations on the part of individual entities.

Such an approach seems slightly utopian and supports an argument on the right, if not the law dilution. Realists hold the view that if something fails in claim justiciability or pursuing damages, then it certainly cannot be seen as law – but merely an aspiration.²⁸² Their opponents would then argue that it is wrong to look at human rights as common, ordinary rights, since the same rights carry morality charge. Nonetheless, there arises a necessity to take a very broad view on the right to food, since the context, place, time and situation are genuinely of essence here. More often than not this right

²⁷⁹ R. Domingo, *The New Global...*, p. 117.

²⁸⁰ A. Eide, *The international human right...*, p. 160.

²⁸¹ G. Kent (ed.), *Global Obligations for the Right to Food*, Lanham 2008, p. 15.

²⁸² O. O'Neil, *The dark side of human right. In Contemporary debates in political philosophy*, Oxford 2009, pp. 427–439.

is subject to infringement when other fundamental rights get infringed. A classic example might be all regulations on the access to land, patents in agriculture, and access to water. It is the decision-makers' role to take such decisions so as to come up with solutions favourable for either local community or large corporations.²⁸³ Thus it might be openly admitted here that the right to food is as a matter of fact a concept that is not compatible with the familiar free market principles.

The right to food is very frequently referred to as a perfect illustration of a weak human right, since it distinctly portrays a situation where incoherence between entitlements and obligations is clearly detectible. Much as the absence of a concrete entity might indeed dilute responsibility, it certainly does not change the fact that it is due to the rights' nature that we might expect the states or international community to be their addressees. If human rights are meaningful, they must be seen as universal and not merely local. Neither rights nor obligations end at national borders. As G. Kent rightly highlighted: „A child may be born into a poor country, but that child is not born into poor world. That child has rights claims not only against its own country and its people, it has claims against the entire world”²⁸⁴

Such a portrayal of the right to food stems from a traditional approach to human rights. Nowadays, however, it is not that we only recognise social rights as human rights, but we also keep seeking new alternative ways to term such rights, for example, by seeing some opportunities there that provide the potential and pathway to better articulate our needs.²⁸⁵ One of such new concepts has been advanced by M. Sitek,²⁸⁶ who introduces the notion ‘need(s)’ as a new criterion for human right systematisation.²⁸⁷ From the perspective of the right to food analysis, this new concept seems very attractive. The initial point of reference here is the definition of a need as the desire to satisfy

²⁸³ S. Raponi, *A Defense of the Human Right to Adequate Food*, „Res Publica” 2017, p. 106.

²⁸⁴ G. Kent, *Global Obligation for the Right...*, p. 26.

²⁸⁵ B. Wojciechowski, *Prawa człowieka jako element polityki wzajemnego uznania i równości szans* (in: O. Nawrot, S. Sykuna, J. Zajadło (eds.), *Konwergencja czy dywergencja kultur i systemów prawnych*, Warszawa 2012, p. 120.

²⁸⁶ M. Sitek, *Prawa (potrzeby) człowieka w ponowoczesności*, Warszawa 2016, p. 8.

²⁸⁷ R. Cruft, S.M. Liao, M. Renzo, *The Philosophical Foundations of Human Rights*, Oxford 2015, pp. 14–16.

something that is missing.²⁸⁸ The author assumes that incorporating a new term into the area subject to research allows to determine that the entity liable to satisfy claims is a man himself, and the role of a state or an international organisation is to support him in achieving his goal. Such a standpoint may help alleviate tensions between weaker and stronger economic groups in the event of a conflict of claims. The underlying concept, therefore, may provide for a potentially more comprehensive adaptation of human rights to a concrete situation in a given location in the world. The starting point for a new human rights systematisation might be Maslov’s pyramid of needs. In the hierarchy of fundamental needs, the need to satiate hunger and the need for safety and security are the elementary categories that come first to satisfy, with needs of a different nature to be met afterwards. The foregoing idea might undoubtedly prove effective with regard to the right to food – the right of an undeniable significance to an individual’s existence.

3. „Green” participation

3.1. Public Participation in Environmental Matters

EU legislation in the field of the environment aims to contribute inter alia to preserving, protecting and improving the quality of the environment and protecting human health.²⁸⁹ The Sixth Community Environment Action Programme stressed the importance of providing adequate environmental information and effective opportunities for public participation in environmental decision-making, thereby increasing accountability and transparency of decision-making and contributing to public awareness and support for the decisions taken.²⁹⁰ Furthermore, it encouraged more effective implementation and application of Community legislation on environmental protection, including the enforcement of Community rules and taking action against breaches of Community environmental legislation.

²⁸⁸ M. Sitek, *Prawa (potrzeby) człowieka...*, p. 38.

²⁸⁹ Article 191 TFEU, discussed above.

²⁹⁰ Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme (OJ L 242, 10.9.2002, p. 1).

On 25 June 1998, the Community signed the United Nations Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (hereinafter: the Aarhus Convention). The Community approved the Aarhus Convention on 17 February 2005.²⁹¹ The provisions of EU law should be consistent with that Convention. The Aarhus Convention requires Parties to make provisions for the public to participate during the preparation of plans and programmes related to the environment. Such provisions are to include reasonable timeframes for informing the public of the environmental decision-making in question. To be effective, public participation should take place at an early stage, when all options are open. When laying down provisions on public participation, EU institutions and bodies should identify the public which may participate. The Aarhus Convention also requires that, to the appropriate extent, Parties shall endeavour to provide opportunities for public participation in the preparation of policies relating to the environment. Article 9(3) of the Aarhus Convention provides for access to judicial or other review procedures for challenging acts and omissions by private persons and public authorities which contravene provisions of law relating to the environment. Provisions on access to justice should be consistent with the Treaty. It is appropriate in this context that this Regulation addresses only acts and omissions by public authorities. To ensure adequate and effective remedies, including those available before the Court of Justice, it is appropriate that the EU institution or body which issued the act to be challenged, or which omitted to act, be given the opportunity to reconsider its former decision, or, in the case of an omission, to act.

According to the Aarhus Convention, non-governmental organisations (NGO) active in the field of environmental protection which meet certain criteria, in particular in order to ensure that they are independent and accountable organisations that have demonstrated that their primary objective is to promote environmental protection, should be entitled to request internal review at EU level of acts adopted or of omissions under environmental law by a EU institution or body, with a view to their reconsideration by the institution or body in question. Where previous requests for internal review have been unsuccessful, the non-governmental organisation concerned should be able

²⁹¹ Council Decision 2005/370/EC (OJ L 124, 17.5.2005, p. 1). (6) OJ L 145, 31.5.2001, p. 43.

to institute proceedings before the Court of Justice in accordance with the relevant provisions of the Treaty.

EU Regulation 1367/2006 on the application of the provisions of the Aarhus Convention entered into force on 28 September 2006 and into application on 17 July 2007.²⁹² The objective of the Regulation 1367/2006 is the implementation of the obligations arising under the Aarhus Convention by laying down the rules to apply the provisions of the Convention to Community institutions and bodies, in particular by: guaranteeing the right of public access to environmental information received or produced by Community institutions or bodies and held by them, and by setting out the basic terms and conditions of, and practical arrangements for, the exercise of that right; ensuring that environmental information is progressively made available and disseminated to the public in order to achieve its widest possible systematic availability and dissemination. To that end, the use, in particular, of computer telecommunication and/or electronic technology, where available, shall be promoted; providing for public participation concerning plans and programmes relating to the environment; granting access to justice in environmental matters at Community level under the conditions laid down by this Regulation. In applying the provisions of this Regulation, the Community institutions and bodies shall endeavour to assist and provide guidance to the public with regard to access to information, participation in decision-making and access to justice in environmental matters.²⁹³

3.2. The „green” participation of NGOs

The key element of the international agreements in the climate law is the principle of public participation. It has been recognized as paramount for the climate change governance.²⁹⁴ According to the article 6 of the UNFCCC, the states are responsible for promoting and facilitating education and public awareness,

²⁹² Regulation 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies, OJ L 264, 25.9.2006, p. 13.

²⁹³ Article 1 of the Regulation 1367/2006.

²⁹⁴ S. Jodoin, S. Duyck, K. Lofts, *Public Participation and Climate Governance: An Introduction*, „Review of European, Comparative and International Environmental Law” 2015, vol. 24, issue 2, p. 117.

public access to information, public participation, training and international cooperation with respect to addressing climate change and its effects.²⁹⁵ NGOs and other civil society groups and organizations do not enjoy full legal status, but they are becoming indispensable players in the modern world and their role in enforcing the global rules is increasing.²⁹⁶ Environmental non-governmental organisations (ENGO) actively participate not only in the process of climate negotiations, but also in the activities aiming at the revision of legislation and activation of civil society in selected countries. The beginning of 1990s witnessed the establishment of an international coalition of non-governmental organisations carrying out climate protection action – Climate Action Network (CAN). Currently, the coalition brings together over 360 non-governmental organisations from the whole world. Its primary objective is a reduction of man's adverse impact on climate through interaction with governments, authorities, business environment and citizens. The Coalition's activity subsumes both information exchange coordination and joint local and international action.

The principles of non-governmental organisations' activity, as an observer in the Conference of the Parties of Climate Convention, were set forth in art. 7(6) of the Climate Convention. Under para. 6 of this article, „(...) Anybody or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by the Convention, and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties”. The remit of all the non-governmental organisations is similar in nature. Principally, their role consists in preparing and presenting positions on key negotiation issues. Moreover, they devise material for the press, hold press conferences and attendant events.

In respect of climate protection, the environmental non-governmental organisations' activity embraces education and action pursued to raise climate awareness, shape public opinion, strike a dialogue with business and industry representatives, as well as to venture cooperation with local authorities

²⁹⁵ Article 6 of the UNFCCC.

²⁹⁶ B. Maragia, *Almost there: Another...*, p. 306.

on the implementation of joint initiatives. The European environmental organisations increasingly get engaged in legal proceedings, calling for climate policy revision.²⁹⁷ As N. Klein has observed, even if action undertaken by civil society only stalls the implementation of resource-exploitation plans, more time necessary for clean-source energy popularisation is gained.²⁹⁸

At EU law, non-governmental organisations mediate between the EU institutions and Member States’ communities. In the Commission’s view, an empowered civil society has proven an essential constituent of every democratic system, and an asset in itself. Epitomising and promoting pluralism, it may contribute to a more effective, expeditious politics, equitable and sustainable development, and growth furthering social inclusion. It also advocates peace and conflict resolution. Through the expression of citizens’ concerns, civil society organisations actively partake in public life and engage in the initiatives promoting participatory democracy. They are even a tangible effect of a growing need for transparent and responsible governments.²⁹⁹

Legal bases for the cooperation between EU institutions and non-governmental institutions have been enshrined in the art. 11 (TEU) and art. 152 (TFEU). Under art. 11 (TEU), the institutions enable citizens and representative associations to publicly express and exchange their views in all areas of Union action. Furthermore, the institutions are to maintain an open, transparent and regular dialogue with representative associations and civil society. The European Commission shall run broad consultations with parties concerned to ensure the Union’s coherent and transparent actions. Art. 152 (TFEU), in turn, places emphasis on the question of a social dialogue on social policy. Pursuant to the foregoing article, the EU recognises and promotes the role of social partners at its level, taking account of the diversity of national systems. It facilitates dialogue between social partners, respecting their autonomy. The role of non-governmental organisations in the Union is visible in particular within the ambit of the employment, agriculture and environmental protection policies.

²⁹⁷ P. Bombay, *The Role of NGO’s in Shaping Community Positions in International Environmental Fora*, RECIEL 2001, vol. 10(2), p. 163 ff.

²⁹⁸ N. Klein, *To zmienia wszystko. Kapitalizm kontra klimat*, Warszawa 2016, p. 364.

²⁹⁹ Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions on the EU Support for Democratic Governance, with a focus on the Governance initiative, COM (2012) 492 fin.

3.3. Transnational networks

3.3.1. Civil society organisations

Recently, there has been a rise of international activist groups promoting and advocating for multilateral norms and engaging in transnational networks and various worldwide campaigns covering issues such as: trade, global justice, human rights, the environment, climate change, transparency, global health and effective development cooperation. The evolution of information and communications technology has played a key role in the growth and changing role of transnational networks.

M. von Bülow defines transnational collective action as „the process through which individuals, non-state groups, and/or organizations mobilize jointly around issues, goals, and targets that link the domestic and international arenas”. She states that this mobilization is not necessarily continuous through time. On the contrary, most instances of transnational collective action will not breed institutionalized or stable relationships, but will instead be made up of contingent and temporary connections among actors. As much as domestic collective action, transnational collective action is a „dynamic process of configuration and reconfiguration of interactions”.³⁰⁰ According to A. Colás, transnational collective action is a heterogeneous category which includes social movements, NGOs of various types, professional organizations and business associations. Civil society is to be understood as „a space of contested power relations where clashing interests play themselves out through analogous but unequal modes of collective agency”.³⁰¹

When civil society organizations wish to influence international negotiations, some reach out to allies beyond national boundaries, launch joint campaigns, and create common agendas, whereas others prioritize lobbying domestic institutions. Some civil society organizations (CSOs) focus on influencing states’ behaviour, and others target public opinion, officials of international organizations, or other CSOs. More often than not, actors do not choose between a national versus a global level of collective action, but are present intermittently on both

³⁰⁰ M. von Bülow, *Building Transnational Networks – Civil Society and the Politics of Trade in the Americas*, Cambridge 2010, pp. 3–5.

³⁰¹ A. Colás, *International Civil Society. Social Movements in World Politics*, Wiley 2002, p. 23.

scales.³⁰² The EU supports CSOs activity at the European and global levels. Actions taken in cooperation and partnership with local CSOs contribute to the promotion of global citizens’ awareness. At the EU level, particular attention is given to the CSOs dialogue with European institutions. In addition to existing mechanisms for consultations on policies and programmes, the Commission set up a consultative multi-stakeholder group allowing CSOs and relevant development actors to dialogue with the EU institutions on EU development policies.³⁰³

3.3.2. Corporate social responsibility

The Commission has defined corporate social responsibility (CSR) as the responsibility of enterprises for their impact on society.³⁰⁴ CSR should be company led. Public authorities can play a supporting role through a smart mix of voluntary policy measures and, where necessary, complementary regulation. Companies can become socially responsible by: following the law; integrating social, environmental, ethical, consumer, and human rights concerns into their business strategy and operations. CSR at least covers human rights, labour and employment practices (such as training, diversity, gender equality and employee health and well-being), environmental issues (such as biodiversity, climate change, resource efficiency, life-cycle assessment and pollution prevention), and combating bribery and corruption. Community involvement and development, the integration of disabled persons, and consumer interests, including privacy, are also part of the CSR agenda. The promotion of social and environmental responsibility through the supply-chain, and the disclosure of non-financial information, are recognised as important cross-cutting issues.

³⁰² M. von Bülow, *Building Transnational Networks...*, pp. 3–5.

³⁰³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, The roots of democracy and sustainable development: Europe’s engagement with Civil Society in external relations, COM(2012) 492 fin.

³⁰⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A renewed EU strategy 2011–14 for Corporate Social Responsibility, COM/2011/0681 final.

3.3.3. EU Digital society

In the recent years, there have been many issues that have animated the debate on food security and food safety, on climate change and its impact on agriculture. The results are reflected in number of application areas that are within the framework of the relationship between law and science and characterize the ‘Law in the knowledge society’. This may be seen as the part of information society, also known as the digital society.³⁰⁵ One of the fundamental concepts for that idea is to set up an area without internal borders. The idea of information society started with Bangemann Report entitled ‘Europe and the Global Information Society’³⁰⁶ and was continued in the „Digital Agenda for Europe”,³⁰⁷ in which the term ‘digital society’ has been proposed by the Commission. Information society/ digital society, with its potential for improving quality, implies changes in the social, economic and legal fields.³⁰⁸

In order to facilitate access to the database on climate change, the EU Commission created a European Climate Adaptation Platform (CLIMATE-ADAPT). It is a partnership between the European Commission and the European Environment Agency. CLIMATE-ADAPT aims to support Europe in adapting to climate change. It is an initiative of the European Commission and helps users access and share data and information on: expected climate change in Europe; current and future vulnerability of regions and sectors; European, national and transnational adaptation strategies and actions; adaptation case studies and potential adaptation options and tools that support adaptation planning. Moreover, CLIMATE-ADAPT organises information under the following main entry points: adaptation information (observations and scenarios, vulnerabilities and risks, adaptation measures, national adaptation strategies and research projects); EU sector policies (including Agriculture and forestry, Biodiversity, Coastal areas, Disaster risk reduction, Health, Infrastructure, Marine and fisheries, Water management); transnational regions, countries

³⁰⁵ European Parliament resolution of 11 December 2012 on completing the Digital Single Market [2012/2030(INI)], OJ C 434/2.

³⁰⁶ Bangemann Report, Europe and the Global Information Society (1994).

³⁰⁷ Communication from Commission of 19 May 2010- Digital Agenda for Europe, COM (2010) 245 final/2.

³⁰⁸ A. Kańciak, *Development of information society services* (in: R. Grzeszczak (ed.), *Challenges of Good Governance...*, p. 159).

and urban areas. The platform includes a database that contains quality checked information that can be easily searched.³⁰⁹

Another platform worth mentioning is the REFIT Platform. It was set up in 2015 under the Regulatory Fitness and Performance Programme³¹⁰ which is one of the Commission’s instruments to ensure a transparent approach towards implementing its work on better regulation. The role of this platform is to advise the Commission on how to make the existing EU regulation more efficient and effective while reducing burden and without undermining policy objectives. It consists of a Stakeholder group, with 18 members and two representatives from the European Economic and Social Committee and the European Committee of the Regions, and a Government group, with one high-level expert from each of the EU 28 Member States. The Platform should invite, collect and assess suggestions from all available sources, including from members of the Platform, on how to reduce regulatory and administrative burden. The work of the platform is similar to EU’s agencies, as it adopt opinions. The thematic areas covered by the adopted opinions include: agriculture, chemicals, communication networks, competition, environment, horizontal issues, financial services, health and food safety, internal market, regional policy, statistics and taxation and customs union. Among them the suggestion concerning agriculture are the most common one.³¹¹ This is presumably the effect of the CAP reform being in progress.

The debate on new agricultural policy promoted also the Farm Advisory System (FAS), which aim is to help beneficiaries become more aware of the relationship between agriculture practices on the one hand, and standards relating to the environment, climate change, good condition of land, food safety, plants and animal health and public health on the other. FAS is the major component of Common Agricultural Policy, which requires establishing comprehensive form of an advisory system from the Member States. The Commission considers that FAS is an essential tool for successful implementation of the CAP in respect of farmers support in their efforts to comply with the EU’s legal requirements relating the environment, food safety and animal health.

³⁰⁹ http://climate-adapt.eea.europa.eu/data-and-downloads#b_start=0 (access: 10.05.2018).

³¹⁰ Commission Decision C(2015) 3261 establishing the REFIT Platform.

³¹¹ European Commission, Refit Platform, p. 16.

In the wake of new instruments based on new technologies, it is much easier to promote concepts around the addresses. In its Communication on „Next steps for a sustainable European future: European action for sustainability”,³¹² the Commission expressed its full commitment to the delivery of the Agenda 2030, including through mainstreaming the Sustainable Development Goals into EU policies and initiatives by using, inter alia, the Better Regulation tools. The Communication highlighted that the Sustainable Development Goals are already being pursued through many of the Union policies and integrated in all the Commission’s ten priorities. By its decision of 22 May 2017 on setting up the multi-stakeholder platform on the implementation of the Sustainable Development Goals in the EU,³¹³ the Commission has made the next big step to implement the Sustainable Development Goals. The main instrument in this manner is the multi-stakeholder platform on the implementation of the Sustainable Development Goals in the EU. The main tasks for that platform is to support and advise the Commission and all stakeholders involved in the implementation of SDGs, but also to provide a forum for experience exchange and best practice on the implementation of the Sustainable Development Goals across sectors and at local, regional, national and Union level.

³¹² Next steps for a sustainable European future: European action for sustainability, COM(2016)739 final.

³¹³ Commission Decision, on setting up the multi-stakeholder platform on the implementation of the Sustainable Development Goals in the EU, C(2017) 2941 final.

CONCLUSION

Undoubtedly, climate change poses great risks to human health, the natural world and the economic development of the modern societies. More and more regions are vulnerable to climate change and tackle with the problems of food and fresh water scarcity, and what bothers now, the tropical and subtropical countries might soon be noticeable in Europe. The IPCC Reports consolidated the certainty that mankind will have to contend with significant challenges of climate change. In this regard, the reduction of greenhouse gas emissions is of fundamental significance. Mitigation and adaptation are the two main strategies to address climate change. Mitigation aims to minimize the extent of global warming by reducing emission levels and stabilizing greenhouse gas concentrations in the atmosphere. Adaptation aims to strengthen the capacity of societies and ecosystems to cope with and adapt to climate change risks and impacts. Wherever possible, mitigation and adaptation should be combined. The possible adaptation measures in the context of food security are improving water conservation, making changes in crop rotation, changing the dates at which seeds are sown and introducing crops that are able to survive periods of drought.

Unfortunately, the number of countries that consistently try to reduce their greenhouse gas emissions is relatively small. Therefore, the appropriate measures should be taken immediately to adapt the society to unavoidable and to avoid the foreseen impacts of climate change. Equally, adaptation requires strengthening the capacities and coping mechanisms of individuals and communities. The impacts of climate change may contribute in the increase of food-borne diseases, toxins in food and also in appearance of new diseases not traditionally associated with the region. From that perspective, the international

cooperation is needed because food security policy, which cuts across sectors, requires a collaborative approach. In order to create „climate resilient society”, adaptation strategies are needed at all levels of administration: at the local, regional, national, EU and also the international level. Due to the varying severity and nature of climate impacts between regions in Europe, most adaptation initiatives should be taken at the regional or local levels. The direct climate change risks faced by the agricultural sector are also risks to business and food supply chains. It is therefore necessary to support resilience at all levels – from farm to fork.

Global problems, such as climate change and food (in)security, compel states to cooperate within international organizations and through bilateral and multilateral treaties. International environmental agreements do not typically create systems of governance with significant independence from states. Multilateral environmental agreements addressing climate change, ozone depletion, hazardous chemicals or endangered species are still very much state-driven. States generally retain the right of exit, meaning they can withdraw from the treaty.³¹⁴ International environmental law still lacks a general system of governance, such as a world environmental organization, which could provide a common framework for the multiplicity of existing international environmental regimes, and it lacks common rules that organise its different regimes. Significant environmental policy or harm is most likely to have global consequences. Functions that used to be typically governmental, such as guaranteeing security, are in part transferred to ‘higher’ levels.

Moreover, non-state actors, operating within states or even in a transboundary fashion, are increasingly entrusted with the exercise of traditional state functions. This means that state constitutions can no longer regulate governance in a comprehensive way. Nowadays, globalization and global governance puts the state and state constitutions under strain.³¹⁵ In the European Union legal order, unlike in public international law, NGOs have become legitimate actors which is proved by their participation in the creation and enforcement of law, in particular in the field of environment and human rights. Therefore, it might become true, what J. Zielonka predicts, that in the nearest future the most

³¹⁴ N. Dorsen *et al.*, *Comparative Constitutionalism: Cases and Materials*, West Academic 2016, p. 142.

³¹⁵ *Ibidem*, p. 106.

important actors of European integration will no longer be states but this role will be exercised by civil society.³¹⁶

It seems the European Union is fully aware of the global challenges and dangers and is ready to take firm steps to stop and avert detrimental processes, which apparently flows from declarations given by the EU institutions. In the European Union, good governance is associated with the improvement of management methods in all aspects of domestic and EU policies realisation, going beyond the issues of state capacity and the effectiveness of management. The importance of issues related to social participation in the work of administration and the verification of public authorities (and administration) decisions is growing.³¹⁷ The EU's role in the combat with climate change impacts can be particularly appropriate when climate change impacts transcend borders of individual states – such as with river basins – and when impacts vary considerably across regions. The important part of the European climate change governance is to facilitate policy coordination and cooperation with Member States, and in that way to enhance solidarity among Member States and ensure that disadvantaged regions and those most affected by climate change are capable of taking the necessary measures to adapt. The 2015 Paris Climate Agreement – the first universal, legally binding global climate agreement adopted by 195 countries, implies the capacity for governance of wicked problems and a remarkable coordination of different types of governance systems and policy instruments.³¹⁸

The European Union may boast its flagship sustainable development initiative enshrined as a Treaty principle. It was thanks to this principle that subsequent objectives acquire fine shape to promote and reinforce actions that help attune to and with current developments in the world. Ensuring food security might appear not to be the most urgent problem to EU citizens, since it does not impact them as directly as it does the other inhabitants of our planet. It might be nothing but ignorance to say we – the citizens – can feel safe. Blatant, also, would be to say that we do not share a feeling of shortage of safety and security with millions of people. Even if EU food security is not threatened,

³¹⁶ J. Zielonka, *Koniec Unii Europejskiej*, Cambridge 2014, p. 137.

³¹⁷ R. Grzeszczak (ed.), *Challenges of Good Governance...*, s. 23.

³¹⁸ The difficulty to govern „the wicked problems” such as global warming – see: G. Bouckaert, *Taking Stock of „governance” ...*, p. 2.

it is still possible to argue that the EU should massively invest in agricultural production as it has a moral responsibility to help feed the world.³¹⁹ Since 2013, the European Commission has worked together with WFP and FAO at the global level to develop ways to compare and clarify the results of food security analyses across partners and geographical areas to provide a comprehensive overview of the global food security situation. The Joint Research Centre of the European Commission (ECJRC) since 2015 produces annual reports on food insecurity hotspots to inform decisions on food crisis allocations at the global level. In 2016, in order to increase the inclusiveness and transparency of the report, the European Commission invited FAO and WFP to contribute by providing additional food security data and analysis. The latest report from 2017 is aimed at instigating and informing better decision-making to increase resilience for the food security of the world's most vulnerable people and „to ensure that no one is left behind”.³²⁰

It is worth applauding the EU for its actions aiming at promoting sustainable consumption initiative, for its expressly voiced approach on struggle with the climate change, for its commitment and contribution to eradicate hunger in the world. Unfortunately, a number of adopted solutions are merely soft instruments that require much deeper contribution on the part of quite a number of entities for their effectiveness. It seems that EU as an international organization, with its specifically and remarkably integrated law in the underlying field, should take much stronger and more definitive steps in pursuance of the principle of solidarity. It is obvious that soft law instruments have significant influence on the development of law on the international, national and regional level. Looking from the broad perspective of food security at the types of actions EU undertakes, we may notice certain activity. Said activity expresses itself through accepting and passing numerous documents that show most appropriately diagnosed reasons for the existent state of affairs as well as formulated postulates to realise. They are, for the most part, acts of so-called soft law which in principle are not binding, but through which the institution strives to bring about definite effects. Resolutions adopted by EU institutions, in particular European Parliament, enable to take a political

³¹⁹ N. Driouech *et al.*, *Exploring Linkages Between the Common Agricultural Policy and Food Security in the Mediterranean Region*, „Zagadnienia Ekonomiki Rolnej” 2014, vol. 2 (339), p. 84.

³²⁰ Global Report on Food Crisis 2017, p. 8.

stance on an international level. Not binding as they seem to be, they may virtually prove helpful in the interpretation of EU law.

Although soft law instruments may be seen as a troublemaker, their impact on the development of some fields of law, like climate law or food law, is very positive. A good example are the principles that derive from Stockholm Declaration – since 1972, they have been included in numerous instruments, both binding and non-binding, and some of them became international law principles of the environmental law.³²¹ Soft law plays a vital role where action cannot await a protected treaty negotiating process or when for politically controversial issues, adopting a soft law instrument is much easier. Moreover, soft law often paves the way for hard law developments, as it is said – soft law of today may be the hard law of tomorrow.³²² The case study of Copenhagen Accord adopted by a group of states at the UN Summit Climate Change in December 2009 is a very good example of the sentence above. What has started as the soft law is now the part of the Paris Agreement.

This book's rationale has been to analyse the correlations between climate change and food security. Our prime reference – Europe situation – could not have undergone reliable assessment independently of the remaining part of the world. With law lying at the heart of our research, human rights have become an overarching starting point of our deliberations. Interestingly, we – the Europeans, who have invariably taken pride in high human rights standards devised in our continent, do not always look through their prism when feeling concerned about other parts of the world. As M. Caparros observed, the phenomenon of hunger is one of such problems that confirms this very sad truth about ourselves.³²³

In our book, we have attempted to provide an array of solutions aiming at the mitigation of climate change and attendant food accessibility and security problems. The complex problem requires a coherent and integrated policy approach to climate change, energy and food security. Hitherto adopted resolutions in the international and EU law indicate a fairly developed institutional

³²¹ See more: P. Sands, *Principles of International Environmental Law*, Cambridge 2003.

³²² S. Atapattu, *International environmental law and soft law: a new direction or contradiction?* (in:) C.M. Bailliet (ed.), *Non-State Actors, Soft Law and Protective Regimes: from the Margins*, Cambridge 2012, p. 211.

³²³ M. Caparros, *Glód...*, p. 699.

system in this respect. A variety of legislative acts ranging from numerous soft law acts to binding international treaties and EU acts attest to certain activism in this area. Nonetheless, the foregoing actions are too slow. The decisions should be taken and policies applied at the lowest appropriate level and the closest to the citizen, due to the principle of subsidiarity. Since the specificity of adopting international acts rests in the prolongation of the whole process, such solutions are of low effectiveness for the areas where time is of the essence. Having said that, a system of fashioning legal solutions within the ambit of EU law may boast higher efficacy here. Soft law acts have proven problematic. On the one hand, they are not binding; on the other, however, they are flexible and a better instrument to calibrate international obligations or commitments in situations that require swift action.

New ordeal in a globalizing world calls for nothing else but commitment and contribution on every one of the levels: international, national, or household ones. This book sets out to determine selected initiatives or actions performed and to be performed by the EU which due to its supranational nature is most predestined to promote solutions aiming at ensuring food security in pursuance of sustainable development principles. Living in more interconnected world globally, it is necessary to change the approach towards issues like food, climate and agricultural policy, and to understand that actions taken by one state – or its negligence – have transboundary effects and impact on the wellbeing of peoples living in distant parts of the world. As Hilal Elver, the UN Special Rapporteur on Right to Food has underlined: „At the same time, hunger and malnutrition in Africa, Asia or Middle East can have a severe security impact on places that have no immediate food problem by generating the migration of desperate people. It is becoming painfully obvious that is important for the international community to address the root causes of hunger and food insecurity as an urgent matter of shared global interest, reinforced by commitments to uphold and fulfill human rights obligations”.³²⁴ The human right to adequate food means that there is an obligation to reach the goal of ending hunger and assuring food security for all. These obligations fall not only on national governments but they should be shared by global community- by all of us. If we already know what steps are required to reach the goal, then there is an obligation to take those steps, we need to choose some path that can realistically be expected to reach the goal.

³²⁴ H. Elver, *The Lasting Legacy from Milan Expo 2015*, Milan 2015, p. 1.

New legal system requires construction, development and commitment of the information society. Consumer attention to CSR-related issues has grown in recent years, but significant barriers remain, such as insufficient awareness, the need sometimes to pay a price premium, and lack of easy access to the information necessary for making informed choices. Some enterprises play a pioneering role in helping consumers to make more sustainable choices. Information society is meant to be not only committed, which is currently much simpler thanks to the development of new technologies, but above all, better educated and more aware of the processes across the world. Building a society committed to and aware of the question of existent or imminent risks is an essential, if not the most critical driving force that might bring meaningful changes. Certainly, it is thanks to new technologies that we all have a better access to information. Information is thus a paramount, if not a giant tool which in the wrong hands may do much harm, or when properly used, yield substantial profit.

Obviously, the most natural and accessible measure that furthers specific objectives is society education. It is no secret that it is education curricula themselves that shape and impact certain behaviours and awareness of future adults.³²⁵ Conscious society organises itself to form mass social movements perceived by some as the only, and sometimes unique chance to stop the actions of brutal exploitation of our planet. The remit of authorities of every tier – local, national, or union – encompasses emphasising the role and value of social education and awareness. Such type of activities may exhibit the nature of education campaigns, however, in respect of top priority issues, they should stem from or be triggered by the action taken within the ambit of a legislative process. Since law, according to Leon Petrażycki, is hidden in human awareness and plays an extremely significant educational role in society.³²⁶ Nowadays, it is essential to buzz the ecological awareness and aim at education and changing lifestyles of the present consumption society in order to provide for the future generations.³²⁷

³²⁵ H. Brighouse, *Sprawiedliwość*, Cambridge 2004, p. 194.

³²⁶ D. Bunikowski, *Psychologiczne ujęcie prawa: czyli o tym, jak szukamy prawa tam, gdzie go nie ma* (in:) *Konwergencja czy dywergencja kultur...*, p. 172.

³²⁷ E. Brown, *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity*, Tokyo 1989, pp. 17–47.

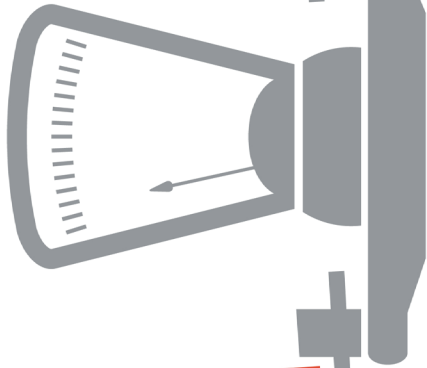
Are we ready for climate change?

Climate change is causing a variety of impacts to our health, ecosystems and economy. These impacts are likely to become more serious in the coming decades. If not addressed, these impacts could prove very costly, in terms of ill health, adverse effects on ecosystems, and damaged property and infrastructure.

Adaptation covers a wide range of activities and policies that seek to prepare societies for a changing climate. An effective combination of adaptation and mitigation measures can help to ensure that future impacts of climate change are limited, and that when they do come, Europe is better prepared and more resilient.



Climate change impacts



Mitigation and adaptation

2100?

Without adaptation and mitigation measures, in Europe, by 2100:

Forest fires could affect an area of roughly 100 million hectares every year.

River flood damages could cost more than EUR 10 billion a year.

The number of people affected would increase to about 150 million per year.

Economic loss due to sea-level rise would amount to about EUR 42 billion a year.

Heat-related deaths could reach about 200 000 per year.



CO₂ ↑ GDP ↓

EU greenhouse gas emissions have fallen by 20% since 2007, despite a 45% increase in GDP.



Domestic material consumption in the EU has increased by 10% since 2007, despite a 16% increase in economic output.



The EU's total resource use has fallen by 10% since 2007 and recycling rates have improved.



Employment in the eco-industries has increased by 10% since 2007, adding 1.4 million new jobs.



Major EU engineering companies have increased their environmental revenues from their environment portfolios



From 1990 to 2012, the share of renewable energy in total EU electricity generation has increased by more than double in the EU.

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