

MINISTRY OF NATIONAL DEFENCE
OF THE REPUBLIC OF LITHUANIA



The World 2030

UPDATED AND EXPANDED EDITION

Table of Contents

Foreword	4
Introduction.....	6
1. General World Trends up to 2030.....	9
1.1. Social dimension	10
1.2. Economic dimension.....	16
1.3. Political dimension	25
1.4. Military dimension.....	35
2. Analysis of Future State and Regional Trends	45
2.1. Key Actors of the International System.....	46
2.1.1. The United States of America	46
2.1.2. The European Union.....	49
2.1.3. Russia.....	54
2.1.4. China.....	59
2.1.5. India	63
2.2. Former USSR Countries.....	67
2.2.1. Western CIS countries: Belarus, Ukraine and Moldova	68
2.2.2. The South Caucasus: Armenia, Azerbaijan and Georgia	71
2.2.3. Central Asia: Kazakhstan, Kirgizstan, Turkmenistan and Uzbekistan	74
2.3. Countries of the “Arc of Instability”	76
2.3.1. The Middle East	76
2.3.2. Pakistan.....	80
2.3.3. Korean Peninsula.....	81
3. Extraordinary circumstances (shocks) and their potential consequences.....	84
References	



Foreword

The greatest achievements in political life are often determined by the ability to think ahead and act proactively. It is not enough to blindly follow the political course which has once been set – on the contrary, it is necessary to try to anticipate the future and to be ready for the changes before they actually happen. This is particularly true when talking about defence policy, which is formulated and implemented in the ever-changing environment consisting of a variety of dynamic political, military, social, economic, technological developments.

Strategic foresight, as an element of defence policy and planning, has been gaining more and more visibility both in individual NATO countries and in the Alliance as a whole. NATO-led initiative, Strategic Foresight Analysis, aims to establish a shared perspective of the long-term future and develop a concept for how NATO should operate in that future. NATO has welcomed strategic foresight efforts of individual allies as an important contribution to this initiative.

Against this background, the study *The World 2030* represents the first national attempt to systematically assess future security environment in the upcoming two decades. Following the example of other small countries, we have relied heavily on the work done by the countries most experienced in this field. However, even though it was a perfect starting point, our main goal was to present the vision of the world's evolution from Lithuania's point of view and to put an emphasis on the trends which may have the greatest impact on our country.

It is important to stress that the highest added value of *The World 2030* lies not in its ability to “correctly” predict the future. Rather, this document should be seen as a step in helping Lithuania to join international strategic foresight community and should serve as a basis for future efforts in this area.

*Minister of National Defence
Juozas Olekas*



'The future is unpredictable'. It is the most common conclusion supported by almost all representatives of social sciences, who use a number of forecasting methods and try to describe prospects of the coming period. In fact, it is impossible to make precise assessments of the future condition yet, and the further the future horizon is, the more abstract scenario of the future is possible. And still, the interest in forecasting has been increasing in the recent decades. It has been employed in a number of studies, strategies and planning documents.

The importance of the forecasting process and its outcomes lies not necessarily within a specific description of the future, but rather within the analytical approach to what is important at the moment and may be more or less important in the future. In a world of many intertwined and mutually reinforcing or inhibiting processes, it is crucial to identify the main trends. Among different variables and solutions, there are those that are critical and those that are only a part of the general inert direction. Such analytical grouping into what is important and what is not makes it easier to recognise threats or opportunities, prepare for them, or expediently seek to use emerging strengths.

It is not a coincidence that forecasting efforts have become more active in academic security studies, strategic planning and threat assessment. Foreseeing possible threats and preparing for them properly is both a natural challenge and a necessity for all institutions responsible for the security of their country and people. This is why military and civil establishments around the world, which work with threat assessment and management, have been integrating threat assessment methods into planning processes. One of the key tasks of this process is to measure changes in the environment, which may pose a threat to the object under protection, and identify the main priorities to which funds should be allocated in attempt to mitigate the potential damage.

Forecasts and scenarios of the global politics and security are already becoming a common instrument for analysts who want to offer rational and effective solutions to political decision-makers and prepare adequate responses to emerging problems and threats. In many cases, we can already notice weaker or stronger signals or signs of future prospects which will show their full force only in the future. It is essential to identify them now and see whether initial forecasting hypotheses are eventually proved or not. Academicians' role in this process is significant, too. Scholars, being used to test hypotheses, analyse impacts of various variables on the outcome, may offer analysts and politicians appropriate instruments and methodologies how to use the available data more effectively and manage large flows of information. As a result, such complex studies covering future scenarios of the world or individual regions are often made by professional 'practitioners' as well as representatives of the academic world, allowing the higher level of abstractiveness and the employment of academic methods.

In Lithuania, it is still neither common to forecast the world's development in the remote period nor to use assumptions of such analysis for short-term strategies. It is a must though. Prospective thinking requires seeing beyond your backyard. For a long time, Lithuanian strategies and analyses were somewhat dissociated from the outer world. This is why the study of the Ministry of Defence of the Republic of Lithuania *The World 2030* is a highly welcome attempt to forecast Lithuania's role in global changes, and the major threats and challenges awaiting for us. And even though the predicted scenario will be far from the future situation, it is still a good starting point for discussions, improvements and searches for more precise forecasts.

Dr. Tomas Janeliūnas
Associate Professor
Institute of International Relations and Political Science
Vilnius University

Introduction

Purpose of the document. *The World 2030* is a study prepared by the Ministry of National Defence presenting forecasts of international security trends in the coming two decades. It is a strictly analytical document which will not be used as a foundation for the Lithuanian defence policy or military capability planning. The document is primarily designated to politicians and to the general public, interested in the security and defence policy to expand their knowledge and understanding of the possible future changes in the security and defence environment.

Similar studies with forecasts or scenarios are common among many countries (the United States, the United Kingdom, and Finland) and international organisations (NATO, the EU). Usually, these are continuous projects initiated by defence ministries or intelligence services and carried out by units of these institutions or independent strategic analysis centres. Lithuania is not as experienced as the aforementioned countries and does not have as strong analytical capacities. This is why the first document of this kind has been mainly built on the practice of other countries.

Structure of the document and scope of the analysis. Analysis presented in this document covers the period up to the year 2030. It is carried out in two sections – dimensions and regions. The first part of the document deals with the evaluation of the development of the world in social, economic, political and military dimensions. The second part presents forecasts of individual regions and countries. The main focus is on countries, regions and international organisations which, in the opinion of the authors, have or may have the greatest impact on Lithuanian security and defence policy. The analysis of dimensions and regions is supplemented by shocks (situations and circumstances diverging from the forecasted trends) which are described in the third part of the document.

Why 2030? A period covering two decades is optimal to avoid too much speculation and at the same time to have a rather ‘distant’ look at the future.

Why four dimensions? In the modern world, security and defence issues are not strictly limited to the military field. Political and military fields are obviously connected (the principle of democratic control of the armed forces), but social and economic fields also play an important role in defence. Demographic trends (population trends, population pyramids, sex ratio of the population, etc.) directly affect armed forces’ recruitment as citizens’ values determine their will and determination to defend their country. Economic and military dimensions are interconnected. On the one hand, sustainable economic development can guarantee sufficient defence financing, which in turn allows countries to create and maintain the necessary military capabilities. On the other hand, secure environment (the absence of external threats) is one of the preconditions for economic development of countries.



Why regions? Globalisation process and increasing interdependence of countries not only opens new opportunities, but also implies growing vulnerability of countries. To seize the opportunities and protect ourselves from possible challenges, it is crucial to have a good understanding of processes in the Euro-Atlantic area (a part of which Lithuania is), neighbouring countries as well as more remote regions of the world.

Why shocks? Forecasting the evolution of individual dimensions and regions requires taking into account the shock factor, i.e. certain unexpected events that may disturb the continuity of the world development.

Methodology and sources. Having no experience in this field and only limited analytical capacities, it would be very difficult for Lithuania to conduct a high-quality, methodologically rigorous study. Nevertheless, a thorough analysis of other similar documents has showed that they do not seek originality at any cost, i.e. they rely heavily on the material of existing studies (use similar terminology, analytical dimensions, statistical data, etc.). Thus, the results world trends presented in such documents — are rather similar, except for some cases. This insight was of high importance when drafting *The World 2030*. Its main sources include documents drawn up by other countries, organisations and independent research centres. When analysing and selecting trends, however, the emphasis was put on their relevance for Lithuania.

The document applies the probability assessment method. It should be noted that this is a qualitative assessment, and the phrases used ('will be', 'definitely', 'likely', 'probably', 'possible', 'very unlikely', 'will not', etc.) define only the relative level of probability and not the precise percentage. Also worth noting that even though it is possible to foresee the future to some extent, there are too many variables and their possible combinations to talk about the 'single future'. Therefore, the document frequently presents several alternative scenarios.

Foreign practice shows that forecast documents are regularly (every several years) updated by revising and modifying previous forecasts. It has been the first time such a document is prepared in Lithuania, but the analysis of future world trends should become a continuous project.



General World Trends
up to 2030

1. GENERAL WORLD TRENDS UP TO 2030

1.1. Social dimension

Social dimension is a starting point for understating economic, political and military processes. The forecast of the social development in the coming two decades encompasses the analysis of basic demographic indicators, migration and urbanisation processes, changes in health care, as well as cultural and value changes.

Population

In the coming 20 years, demographic patterns in different regions of the world will be contradictory. The population of more developed countries¹ will keep decreasing; they will be characterized by long life expectancy, low fertility and low mortality rates. Population growth rates may also slow down in less developed countries² which will manage to improve their economic situation and implement birth-rate control measures. Meanwhile in other developing regions such as sub-Saharan Africa, North Africa, parts of the Middle East and Asia, due to limited economic development and persisting cultural norms, fertility rates will remain high.³ The population growth in these regions will be the main factor contributing to the overall population growth from 6.9 billion (in 2010) to 8.3 billion (in 2030)⁴. Twenty years from now, 9 out of 10 people will live in the developing world, as opposed to 8 out of 10 today.⁵ Half of the world's population will account for six countries: India, China, Pakistan, Nigeria, Bangladesh and Indonesia.⁶

¹ For the purpose of this document, a division presented by the United Nations is used, where more developed regions are Europe, North America, Australia, New Zealand and Japan. See <<http://esa.un.org/unpd/wpp/Excel-Data/definition-of-regions.htm>>

² Less developed regions include Africa, Asia (except for Japan), Latin America, Caribbean, also Micronesia and Polynesia.

³ United Kingdom Ministry of Defence (UK MOD), Development, Concepts and Doctrine Centre, *Global Strategic Trends – Out to 2040*, 4th Edition, 12 January 2010, p. 27

⁴ Unless another source is indicated, demographic projections presented in this document are taken from/calculated based on the data of the United Nations. See United Nations, Department of Economic and Social Affairs, Population Division, Population Estimates and Projections Section, Division, *World Population Prospects, the 2010 Revision* <<http://esa.un.org/unpd/wpp/index.htm>>

⁵ European Union Institute for Security Studies (EU ISS), *The New Global Puzzle: What World for the EU in 2025?* ISS, Paris, 2006, 15. <<http://www.iss-eu.org/books/NGP.pdf>>

⁶ NATO, *Future Security Environment Study (FSE 2025)*, 1st Edition, 13 June 2007, p. 56.

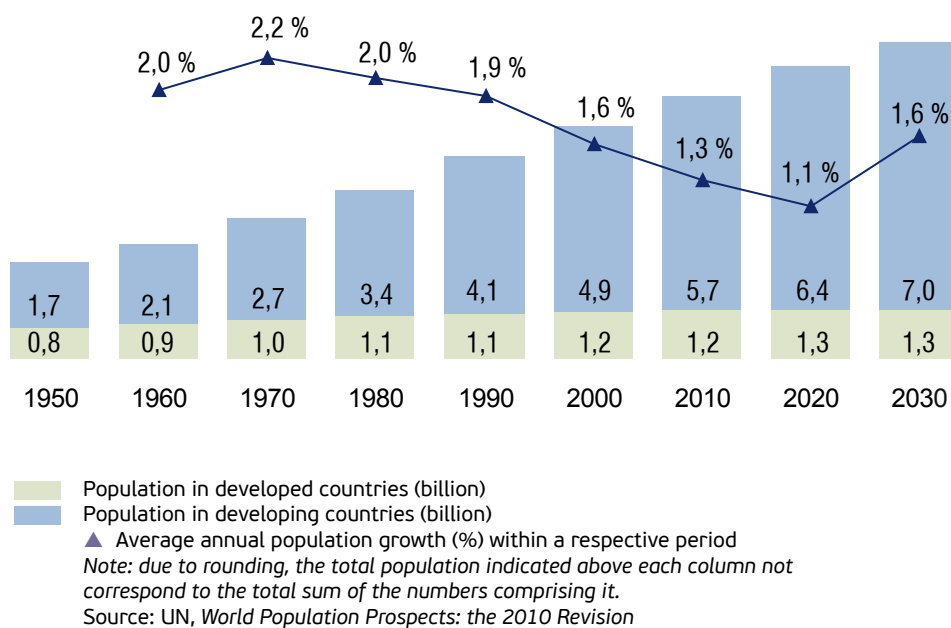


Fig. 1. World population growth prospects up to 2030

Population's age structure

The most significant change in the population's age structure will be a relative decrease in the population under 14 years old and the increase in the population over 65. By 2030, the population older than 65 may account for almost 1 billion, which is around 12 percent of the total population, as opposed to 7.6 percent today. This phenomenon of 'pensioner boom' will emerge in both developed and developing countries, but its effects on the population age structure will be different. In absolute terms, the majority of world's elderly population will live in developing countries, however, their relative percentage will be much higher in developed countries. In developing countries, it may expand from 6 percent (in 2010) to 10 percent (in 2030), in developed countries – from 16 percent to 22 percent.

In many developed countries ageing of the population will have a significant effect on the composition of the labour force. Today, there is one senior for every four working-age people in the developed world.

By 2030, this ratio may have climbed to one to three, and possibly higher.⁷ By 2030, countries may have successfully neutralised the decrease in working-age population by the technological progress, promotion of employment and migration. In the long-term, ageing will inevitably lead to a labour force deficit.⁸

Developing countries where the population will remain relatively young may face an opposite problem in the future. Rapidly expanding working-age population will put additional strains on their labour markets.⁹ Dissatisfaction with limited economic prospects may increase emigration, lead some of the population to radicalism, cause political and social unrest.¹⁰

Migration

On the whole, international migration rate has slowed down in the past years. The highest numbers of immigrants are recorded in Asia. Europe (except for Belarus, Russia and Ukraine) and the United States share the 2nd–3rd places. This situation is not likely to change significantly; changes in the existing migration patterns or mass migration are also not expected. However, immigration from developing to developed countries is increasing and is likely to continue to rise, amounting to roughly 2 million people per year.¹¹ Some developing countries with high emigration rates are likely to continue to face the brain-drain problem.¹² Emigration from Russia and other Eurasian countries will continue to be influenced by unstable economic development, ethnic conflicts and discrimination against minorities.¹³

It is almost certain that countries which encourage both temporary and long-term immigration as a means to address labour force shortages, will eventually become ‘super-diverse’ and may face threats to social cohesion and economic stability.¹⁴

In some countries an opposite trend – limitation of immigration – is likely to occur. Migration laws, which have been adopted or tightened as a part of the broader efforts to combat terrorism, already have an effect on migration. In turn, restrictive migration regimes may increase illegal migration flows – they may become equal to or exceed legal migration rates.¹⁵

Even though it is difficult to forecast the scale of forced migration, conflicts, crises and natural disasters

⁷ National Intelligence Council (NIC), *Global Trends 2025: A Transformed World*, November 2008, p. 21.

⁸ EU ISS, *The New Global Puzzle...*, p. 15.

⁹ EU ISS, *The New Global Puzzle...*, p. 15. NATO, *FSE 2025*, p. 66.

¹⁰ UK MOD, *Global Strategic Trends – Out to 2040*, p. 12.

¹¹ NIC, *Global Trends 2025: A Transformed World*, p. 16.

¹² UK MOD, *Global Strategic Trends Programme 2007–2036*, 3rd Edition, 23 January 2007, p. 36.

¹³ NATO, *FSE 2025*, p. 66.

¹⁴ UK MOD, *Global Strategic Trends Programme 2007–2036*, p. 36.

¹⁵ NATO, *FSE 2025*, p. 66–67.



will continue to trigger the displacement of large numbers of people. This in turn may destabilise the situation in host countries.¹⁶ Refugees will remain a source of instability and political polarisation in the Middle East and sub-Saharan Africa.¹⁷ The numbers of refugees looking for asylum in other countries have been declining in the recent years (in 2005 it reached the lowest rate since 1980), however, the number of internally displaced people has been consistently growing. It is likely that internal displacement will continue to be a huge challenge, especially in Africa.¹⁸

Urbanisation

The ratio of urban to rural dwellers is steadily increasing. Already by 2015, more than a half of the world's population will be urban¹⁹, by 2030 – over 60 percent. Developed countries will still be in the lead in terms of urbanisation (here urbanisation may reach over 80 percent, compared to 57 percent in developing countries), but cities in developing Asian and African countries will demonstrate the fastest growth rates. Transition from rural to urban society will be a big challenge for developing countries. An unbalanced and poorly controlled urbanisation process may lead to the formation of large slums or ghettos controlled by criminal groups. Unsatisfying humanitarian and security conditions may lead to the spread of extremist ideologies among urban population and to an increased probability of social insurgency.²⁰ An additional challenge may become the combination of urbanisation and climate change factors (possible flooding of cities on the sea or ocean).²¹

Health condition

Many countries, understanding that serious public health problems may damage both national and regional stability, will try to invest more into the improvement of health protection. However, demographic and urban explosion, combined with environmental degradation and global warming, may lead to the emergence of new diseases (new strains of viruses or newly identified endemic viruses) or the re-emergence of old ones. Migration and increased mobility of the population will facilitate the spreading of epidemic diseases and diseases that are typical for certain regions (e.g. malaria and dengue fever may spread from Africa, tuberculosis and respiratory infections from Asia).²²

Malaria and HIV/AIDS are likely to remain the deadliest diseases. HIV/AIDS, combined with tuberculosis,

¹⁶ UK MOD, *Global Strategic Trends Programme 2007–2036*, p. 36.

¹⁷ NATO, *FSE 2025*, p. 66.

¹⁸ Ibid, p. 68.

¹⁹ Ibid, p. 67.

²⁰ UK MOD, *Global Strategic Trends – Out to 2040*, p. 12.

²¹ NATO, *FSE 2025*, p. 67.

²² EU ISS, *The New Global Puzzle...*, p. 17–18.

could kill up to 6 million people per year. In addition, these and other diseases, such as dengue, fevers, respiratory infections, will be hindering the economic development of entire regions. One or two new viruses are identified each year and their potential mutations are still unpredictable (e.g. avian influenza and SARS). These new viruses may have direct economic impact on agriculture, trade and migration.²³ In certain regions, diseases are expected to have a massive impact on the demographic composition of the population (age structure). In general, however, they are unlikely to alter population growth fundamentally.²⁴

Cultural and value changes

Globalisation shows only signs of continuing, or even speeding up. So far, an internal part of the globalisation process has been the emergence of anti-global movements. This trend is likely to continue. More specifically, westernisation caused by globalisation may increase tensions from anti-western movements (particularly in Islamic countries).²⁵ The pervasiveness of information and communications technology will enable more people of less developed countries to access information on disparities in the economic growth, development and standard of living between them and wealthier countries. It may raise unfounded material expectations.²⁶

Secularism and materialism are likely to grow in developed countries. The trend towards moral relativism and pragmatism will also increase. Western capitalism will remain not only the dominating economic paradigm, but also a cultural model for the majority of the world's population. It may encourage societies that foster traditional values to keep their beliefs much stricter.²⁷

In ethnically homogenous and ideologically nationalistic states, national and ethnical origin will continue to be an important part of personal identity, exert a powerful emotional influence and have impact on the behaviour of individuals and international relations. Civic values are expected to decline in wealthier countries making loyalty to the state and its institutions more conditional, based on personal interests. People will increasingly regard their relationship with the state in consumerist rather than civic terms. It is likely to result in citizens becoming more self-reliant and expecting reduced civic duties to the state in return. There is almost no doubt that the role of diaspora and expatriate communities will increase, creating persistent links with their countries of origin. This will tend to reduce incentives for integration and assimilation and allow the emergence of self-contained 'virtual' communities, that are not dependent on state borders.²⁸

The role of religion is also likely to change. Two trends prevailing today – secularisation and neo-

²³ Ibid, p. 8–19.

²⁴ Ibid, p. 16.

²⁵ NATO, *FSE 2025*, p. 20.

²⁶ UK MOD, *Global Strategic Trends Programme 2007–2036*, p. 13.

²⁷ Ibid, p. 12–13, 35.

²⁸ Ibid, p. 10–13, 36.



orthodoxy are expected to remain in future. As a consequence of cultural globalisation, the growing secularisation in the West is also spreading to the rest of the world. Currently in the developed world, 0.9 billion people are estimated to be atheists or non-believers. Estimates suggest that the proportion of non-believers worldwide has increased from 0.2 percent to 16 percent over the last 100 years. As materialism becomes more pervasive and moral values fade, secularism and atheism are likely to grow; meanwhile the role of religion will narrow, even in the lives of those people who remain believers.²⁹ In Europe, secularism will grow, but the Christianity can gain a lot of followers in Africa, Asia and South America, therefore, traditionally Western-based Christian institutions will become increasingly non-European.³⁰ The number of followers of all main world religions will remain fairly stable, only the proportion of the world's population that is Islamic will increase.³¹ The spread of Islam is likely to bring about further instances of religious extremist terrorism against targets of Western countries both in Western and Islamic countries.³²

A certain part of the population is likely to turn to religion as a guarantee of comfort and certainty in a changing world.³³ However, it will not be a return to religious orthodoxy but more likely a wave of neo-orthodox movements (Evangelical Protestantism in the USA, Hindutva in India, Salafist and Wahhabi Islam in the Middle East, etc.). They will share some common features – adamant opposition to many of the values commonly accepted by the modern secular society and the goal of regulating the society on the basis of scriptural provisions.³⁴

The attitude towards radicalism and political extremism is likely to change. These are not new phenomena, but their manifestations have turned to be more violent in the last decade, and this trend is likely to continue. The so-called 'CNN effect' (recording actions of radical groups and disseminating them via media) and the Internet that helps their sympathisers remain connected allow to spread views of radical groups.³⁵ So far most of the terrorist acts have been attributed to Islamic radical groups. It is likely that the majority of terrorist groups will continue to identify themselves with political or radical Islam striving for the so-called 'Muslim support' for their actions.³⁶ However, it is likely that in time acts of other radical groups (racist, religious fundamentalists, ethno nationalists and other minorities) will also be possible.³⁷

The middle class will be more vulnerable to economic and political instability. This may encourage higher political participation – either through politically engaged groups or political extremism. Though the risk

²⁹ NATO, *FSE 2025*, p. 39–40.

³⁰ UK MOD, *Global Strategic Trends Programme 2007–2036*, p. 35.

³¹ NATO, *FSE 2025*, p. 40.

³² Ibid.

³³ UK MOD, *Global Strategic Trends Programme 2007–2036*, p. 35.

³⁴ NATO, *FSE 2025*, p. 40.

³⁵ Ibid, p. 40–41.

³⁶ National Intelligence Council (NIC), *Mapping the Global Future. Report of the National Intelligence Council's 2020 Project, Based on Consultations with Nongovernmental Experts around the World*. United States, December 2004, p. 93.

³⁷ NATO, *FSE 2025*, p. 40–41.

of political extremism will primarily exist at the national level, exposure to negative global economic forces may cause a hostility/opposition to globalisation and tension at the international level as well.³⁸

The development of the family institute is likely to be inconsistent in future. Cultural factors, interests of people and their material situation will cause the rise of economically and socially different family models. Traditional family models (including formal marriage) will most certainly persist, but their particular character will be determined by economic conditions and cultural assumptions. Due to globalisation and growing instability of living conditions, networks based on family, clan or tribe structures and extended kinship groups are likely to proliferate, especially in economically declining areas.³⁹

Differentiation based on gender in employment sphere will diminish in many developed and developing countries, except in those, where economic circumstances or customs will limit these changes. However, divisions between more feminised and male-dominated societies will definitely remain and may become a source of various tensions.⁴⁰

The influence of media on society will definitely increase. Media will, in turn, be influenced by new technologies and the public sphere within which perceptions, expectations and opinions are shaped will become more complex. States and non-state actors, different opportunists will seek to influence media for political, commercial and personal reasons. Non-democratic political regimes are likely to attempt to control media content (limit the freedom of speech of opposing political groups) or use technical means to limit the availability of information to citizens. Such actions may be reinforced during elections, conflicts and crises. Nevertheless, the pervasiveness of information technology and social networks will make it increasingly difficult to control public opinion.⁴¹

1.2. Economic dimension

Economic security has been considered one of the national security elements for quite a long time. Rapidly growing economy, provision of raw materials and products of strategic importance, diversification of foreign trade, protection from economic espionage are not only the foundation of welfare of citizens in every country, but also one of the international power expansion measures. Countries can use available economic advantages to increase their influence in the international system and affect other countries, in particularly where the use of military power is not possible or beneficial.⁴²

³⁸ UK MOD, *Global Strategic Trends Programme 2007–2036*, p. 37.

³⁹ Ibid, p. 38.

⁴⁰ Ibid, p. 39.

⁴¹ Ibid, p. 40. UK MOD, *Global Strategic Trends – Out to 2040*, p. 34.

⁴² Remigijus Šimašius, Ramūnas Vilpišauskas, *Ekonominio saugumo samprata ir politikos principai Lietuvoje*. Lithuanian Annual Strategic Review 2004, p. 251–252.



The main indicators examined in this section describe the state of the world's economy and its possible changes in the future. They include: economic globalisation, economic growth, regulation of economic relations, resources and their provision, development of science and technology.

Economic globalisation

Economic globalisation is described as interdependence of countries, displayed in the growing movement of goods, services, capital and persons. These processes are not new, but they have especially intensified in the past several decades. During the period from 1870 to the World War One, which can be considered as the first globalisation phase in the Modern Ages, growth in world trade averaged 4 percent per year; since the oil crisis in 1973 it reached 11 percent per year. The difference is even more evident when we compare growth of capital flows – from 5 percent of world GDP in the first period to already 21 percent in the second period.⁴³

The pace and scope of globalisation are difficult to forecast since state and non-state actors will try to shift these processes in the direction favourable to them. Benefits of globalisation will distribute among countries unevenly, too. For a long time, one of the main arguments of criticism against globalisation was the fact that globalisation increases disparities in the development of countries, i.e. the greatest benefits are received by the wealthiest countries. With certain exceptions, this trend is likely to continue in the future. The greatest benefits from economic globalisation should accrue to countries where high-tech industries will be dominating in the economy. Country's capacity to apply new technologies will depend on its investments into new technologies – it is not important whether the country will develop its own research or will acquire new technologies from the front-runners in a particular field. The ability of countries to use new technologies for sustainable economic and social development will also depend on other factors, such as public administration, market, education system reforms, etc.⁴⁴

More and more companies will transfer their activities to the global arena and will become more oriented towards Asian rather than Western markets. Overall, in the coming two decades globalisation will gradually lose its 'Western face' and will be increasingly associated with rising Asian countries.⁴⁵

Economic growth

Since 1980, the actual world's economic growth rate averaged to 3–4 percent per year, while the global GDP has increased 4 times in this period. As countries recover from the global economic crisis, the

⁴³ Jagadeesh Gokhale, "Globalization: Curse or Cure? Policies to Harness Global Economic Integration to Solve Our Economic Challenge". *Policy Analysis*, February 1, 2010, No 659, CATO Institute.

⁴⁴ NIC, *Global Trends 2025: A Transformed World*, p. 13–14.

⁴⁵ Ibid.

world's economy is likely to return to normal growth indicators in the coming several years. In the long term, the global economic growth may reach 2–3 percent per year on average. In absolute terms, the GDP created by the world may increase up to 80 percent by 2020, and average per capita income will be roughly 50 percent higher. It should be noted that the world's economy will continue to develop in cycles. The duration of cycles and other economic parameters will remain difficult to forecast.⁴⁶

Economic growth will be uneven in different world regions and over time. Sub-Saharan Africa is likely to remain the slowest growing region as the weak political governance and corruption will be the main obstacles for the economic development in the region. The most rapid growth will be in the developing economies having a so-called 'demographic dividend' – a big percentage of workforce in the population.⁴⁷

Disparities in the economic level of developed and developing countries are expected to remain: even though GDP of the developing countries will be rapidly approaching the level of the developed Western countries, a large gap will remain between the least and the most developed countries in terms of GDP per capita. Today, the poorest world population is concentrated in Asia and Africa, whilst by 2030 the majority of them will live in Africa.

Regulation of economic relations

Even though the importance of rising markets is growing, their influence in important economic global organisations (World Bank, International Monetary Fund, World Trade Organisation) does not change substantially. Majority of these countries also are not represented in informal groups such as G8. Regulation of the world's economy is likely to become more complicated as China, India and also resource-rich countries such as Russia, Iran or Saudi Arabia will seek for greater influence in world economic organisations.

Three trade and financial blocs are likely to form by 2030: North America, Europe and Eastern Asia. Complex decision-making in world economic organisations will possibly encourage countries to make bilateral and multilateral agreements⁴⁸ which, in turn, will have considerable influence on the activity of the WTO and determine the regional competition in establishing legal standards for products, high-tech and intellectual property. Regional cooperation in Asia would likely reduce competition among China, India, and Japan over resources.⁴⁹ On the other hand, economic success of many emerging powers, particularly China and India, has been based on an economic model different from the West, therefore, it is doubtful whether these countries can be incorporated into the integrated system based on Western standards.⁵⁰

⁴⁶ NIC, *Mapping the Global Future...*, p. 11.

⁴⁷ UK MOD, *Global Strategic Trends – Out to 2040*, p. 121.

⁴⁸ EU ISS, *The New Global Puzzle...*, p. 36–37.

⁴⁹ NIC, *Global Trends 2025: A Transformed World*, xi.

⁵⁰ Ibid, p. 82.

Demand for energy resources, their import and export trends

With the growing global economy, population and consumption, the demand for energy resources will also grow (forecasted increase – around 40–50 percent).⁵¹ The distribution of the consumption of energy resources is likely to be uneven, i.e. more resources will be consumed in the emerging economies.⁵² Due to the importance of energy resources for national economies, the links between the private and public sectors will definitely remain in the field of extraction and production of secondary resources. This cooperation may vary in nature: from control and regulation of the public sector to close interaction in dealing with resource provision issues (extraction, transportation, processing).

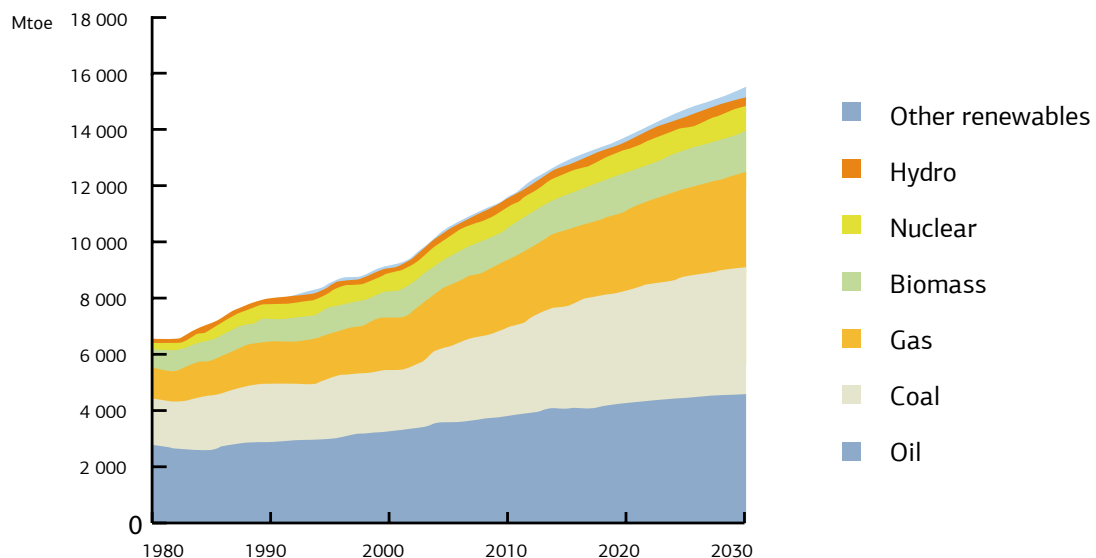


Fig. 2. Trends in shares of primary energy resources⁵³

⁵¹ U.S. Department of Energy, *International Energy Outlook*, July 2010, p. 11.

⁵² EU ISS, *The New Global Puzzle...*, p. 55.

⁵³ World Energy Outlook 2008, presentation.

Fossil fuels, namely oil, gas and coal, will further remain the predominant energy resources. Global demand and consumption of fossil fuels are expected to grow by 60 percent over the next twenty years. To the large extent, this rise will be caused by growing needs of Asian countries, especially China and India.⁵⁴ Demand will also grow in the developed Western economies, but at a lower rate.⁵⁵

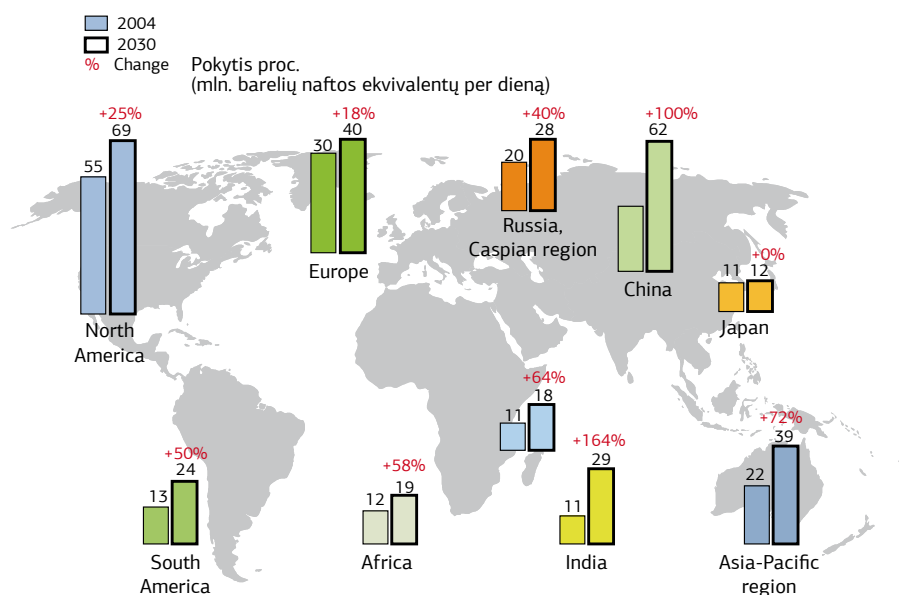


Fig. 3. **Oil demand growth** (source: Exxon Energy Outlook 2004)

Among the fossil fuels, the demand for gas will increase the most by 2030 (by as much as 87 percent)⁵⁶, therefore, the production and consumption of unconventional gas extracted from non-traditional sources may be spreading increasingly. Unconventional gas is natural gas extracted from relatively impermeable rock

⁵⁴ European Ideas Network, *The World in 2025: How the European Union will Need to Respond*, Discussion Document. November 2007, p. 32–33.

⁵⁵ EU ISS, *The New Global Puzzle...*, p. 53–54.

⁵⁶ Ibid, p. 32–33.



formations, using horizontal drilling and modern fracturing technologies. The main types of unconventional gas are shale gas, tight gas and coalbed methane.⁵⁷

Global resources of unconventional gas have not been sufficiently explored and assessed yet. However, they are found in over 30 countries. This type of gas is the most widely used in North America, where the largest reserves of unconventional gas are found (it is estimated that unconventional gas resources in North America are 7 times larger than in Europe).⁵⁸ Other countries, that may find unconventional gas important in the future, can be divided into two groups. The first group consists of countries that are currently highly dependent upon natural gas import, but have some gas production infrastructure, and their estimated unconventional gas basins are substantial. For these countries, development of unconventional gas industry could help to significantly alter the balance of energy resources. Examples of such countries include France, Poland, Turkey, South Africa, Morocco, and Chile. The second group consists of countries that produce natural gas for internal use or for export and have large unconventional gas resources. In addition to the United States, Canada and Mexico, this group includes Australia, China, Libya, Algeria, Argentina, and Brazil.⁵⁹

Although the extraction of unconventional gas requires more complex and expensive technologies and there is a relatively high risk for environmental pollution, countries dependent on natural gas import may still tend to invest into this field to reduce the extent of gas import.⁶⁰

The shortage of energy resources should not be evident before 2025. However, in order to ensure adequate supply of energy resources, additional investments into the extraction, transportation and refinement infrastructure may be required.⁶¹ The extraction of energy resources should increase in the Middle East, Russia, South America and Africa. OPEC (the Organisation of the Petroleum Exporting Countries) members will remain the main oil suppliers, but extraction and export of energy resources are likely to grow in Russia, the Caspian Sea region and sub-Saharan Africa as well.⁶²

Both developed and emerging economies will be increasingly dependent on import of energy resources. Both exporting and importing countries are likely to try to diversify flows of energy resources. The processing of used raw materials will likely play an important role in the creation of additional resources.

The key factor determining the price of energy resources will continue to be competition among their suppliers. It will be influenced by the development of transportation options (pipelines, tankers, infrastructure), which will allow the diversification of supply sources in a particular resource sector (oil, electricity), and the possibility to diversify types of resources.

⁵⁷ Andreas Korn, "Prospects for Unconventional Gas in Europe", 5 February 2010, p. 3–4. <http://www.eon.com/de/downloads/ir/20100205_Unconventional_gas_in_Europe.pdf>

⁵⁸ Ibid, p. 6.

⁵⁹ US Energy Information Administration, *World Shale Gas Resources: An Initial Assessment of 14 Regions Outside the United States*, US Department of Energy, Washington, April 2011, p. 5.

⁶⁰ Andreas Korn, "Prospects for Unconventional Gas in Europe", p. 6–9.

⁶¹ European Ideas Network, *The World in 2025: How the European Union will Need to Respond*, p. 33.

⁶² EU ISS, *The New Global Puzzle...*, p. 57–63.

Nuclear energy will further remain one of the key guarantees of energy independence. The use of renewable energy sources (sun, wind) and their growing share in the energy balance may become another guarantee. Due to environmental requirements, diversification of resources and pursuing other objectives, intensive research is likely to be carried out to find and improve new sources of energy.⁶³ As the majority of the technologies required for the use of alternative or renewable energy sources are rather expensive, only rich energy importing countries with developed economies will likely take this way. At the same time OPEC and other the most influential suppliers of energy resources are expected to try to preserve the monopoly of traditional energy.⁶⁴

Provision of food and water resources

The global population growth will increase the demand not only for energy, but also for vital resources – water and food. Given that around 70 percent of the global fresh water is used in agriculture (for producing food products), the trends of demand and supply of food and water will be closely related. A disparity that already exists between population size and availability of land for food production in different regions will probably increase. The biggest population growth is predicted in regions, such as sub-Saharan Africa and the Middle East, that already suffer from stresses to food and water supplies.⁶⁵

Climate change may substantially increase the shortage of food and water resources. One of the most serious challenges caused by climate change will be the rising level of seas and oceans. Living land and farmland may be completely flooded in some regions, while in others – irreversibly turned into deserts. This will lead to changing farming, animal breeding and fertility patterns. Changing precipitation levels may result in water shortages. Although the global precipitation level will increase, more precipitation will fall only in equatorial regions and regions that are closer to the poles. Consequently, precipitation levels are going to decrease in mid-latitudes, leading to water shortages in the countries of these regions. Unpredictable events, such as droughts, floods, water pollution, etc., may also aggravate the situation.⁶⁶

Growing demand for food and water and decreasing supply may have clear negative economic outcomes: prices for these vital resources may increase, their export and import flows may fall into disarray. The likelihood of tensions and disagreements among countries may considerably increase.⁶⁷

⁶³ UK MOD, *Global Strategic Trends Programme 2007–2036*, p. 21.

⁶⁴ EU ISS, *The New Global Puzzle...*, p. 53.

⁶⁵ UK MOD, *Global Strategic Trends – Out to 2040*, p. 110.

⁶⁶ *Ibid.*, p. 111.

⁶⁷ *Ibid.*, p. 112–113.



Science and technology development

The science and technology progress is gaining its pace. At the same time, the quantity and complexity of knowledge available to the mankind, as well as sophistication of knowledge-based technologies, are increasing. Breakthroughs of technological development become more frequent and likely (including the creation of destructive or hazardous technologies), therefore, it is getting increasingly difficult to predict their nature as well as political, social, economic and military outcomes. However, several major trends of future science and technology developments may be identified:

- *growing multi- and inter-disciplinarity of science and technology.* Many important achievements and innovations are already taking place in those fields which combine knowledge, instruments or principles of several scientific disciplines. The trend of integrating different disciplines is likely to remain in the future; at the same time, the holistic approach to science and technology development, including social, economic, political and legal aspects, will play an increasingly important role;⁶⁸

- *increasing availability of knowledge and spread of open innovation.* Online technologies provide conditions for a more rapid spread and better accessibility of knowledge, as well as for openness of innovation, when science and technology problems are addressed by networks of volunteering individual scientists, engineers, laboratories or firms. Companies that have created new technological platforms are increasingly allowing to improve these platforms by the input of such volunteers. The ‘democratisation’ of science and technology development and circulation of knowledge are becoming a rule. On the other hand, an easy access to new knowledge and its decreasing application costs in certain fields enable individuals and groups to create and use new destructive technologies against public security and order;

- *new ethical and moral challenges.* Availability of the results of human genetic tests for health insurance companies, the use of stem cells in medicine, geo-engineering, robotics in warfare, biometrics in security systems, the use of genetically modified organisms (GMO) in agriculture, synthetic biology and other issues are raising more and more fundamental questions about the value of human life, privacy of personal life, relation between civilisation and nature, as well as between human beings and autonomous intellectual systems. Much of the new knowledge and its application in technologies will continue to raise philosophical, ethical and moral dilemmas and challenges.

Science and technology achievements are likely to be used in order to solve various future problems: cutting greenhouse gas emissions and moving to economy based on renewables; stopping the loss of biodiversity; improving efficiency and resistance of agricultural cultures, developing water treatment and storage technologies in order to ensure sufficient quantity of vital resources; creating disease treatment and prevention measures and methods.

In terms of significant breakthroughs and rise of revolutionary technologies before 2030, the greatest potential lies in biotechnology, nanotechnology, communication and information technology, robotics and energy.

⁶⁸ NATO, FSE 2025, p. 73–74.

Biotechnology. The progress of bioengineering is speeding up in all fields – genetic and cell engineering, bioprocess engineering, biomedicine, etc. Thus, for instance, reducing costs of DNA encoding and synthesis technology means that it is getting much easier to access and apply knowledge on the genome of organisms and functions of particular genes. It has already enabled not only a more rapid application of gene therapy in medicine or the use of GMO in agricultural development, but also synthetic biology – creation of completely new organisms that have not existed in the nature before under laboratory conditions. First steps are made towards the use of new biotechnologies for the purposes of regeneration and personalised (customised for the organism of a particular individual) medicine and production of renewable energy (e.g. production of synthetic fuel using micro-organisms).⁶⁹ By 2030, development and application of biotechnologies in medicine, industry, energy and agriculture are expected to gather better pace and extent.

Nanotechnology. Technologies based on knowledge about characteristics and behaviours of nano-particles are becoming one of the most popular areas of investment into science and technology. They are already used for providing materials with new qualities or creating new materials, as well as applied in medicine and electronics. By 2030, experimental trends such as nano-robotics and the creation of ‘smart’ materials (combining knowledge on materials science and informatics) are likely to have opened new opportunities in medicine, aviation and space industry, energy and other fields.⁷⁰

Communication and information technology. Although mass application of communication and information technology has already become an integral part of modern society, this field still has a great potential: application of new knowledge and technology for data collection (e.g. micro-sensor networks), transmission (e.g. via laser technologies), processing (e.g. with help of network computing) and protection will multiply the amount of data accumulated by the mankind several times. However, it will also mean that the development, accessibility and effectiveness of new data analysis methods will require increasingly more attention.⁷¹

Quantum computing is likely to achieve a substantial progress or even a breakthrough by 2030, offering great opportunities for rapid data processing, solution of highly complex problems and simulation of processes. Another important area where some advancement is likely is creation of artificial intelligence. Much has been already achieved in the development of reasoning and learning logical systems and understanding the functional processes of the human brain, which principles can be applied when creating artificial intelligence.

Human interaction with devices will also change. By 2030, the progress in direct connection of human nervous system to devices and control of such devices by thoughts will bring new opportunities for medicine, communications and education.

Robotics. The use of robots in industry or defence is nothing new. However, combined with mechanic and energy supply functions, further rapid advance in the development of systems that improve their capabilities

⁶⁹ RAND, Prepared for the National Intelligence Council, RAND Corporation, 2006, p. 9–10.

⁷⁰ UK MOD, Global Strategic Trends – Out to 2040, p. 145.

⁷¹ RAND, The Global Technology Revolution 2020..., p. 14.



to collect and process information, make autonomous decisions and intercommunicate will lead to their growing use in such fields as transport and logistics, infrastructure service and protection, health care and disaster relief. Development of highly specialised robots the mechanics of which will be based on imitation of qualities of natural organisms will be one of the most rapidly expanding areas.⁷²

Energy. Investments into research, experimental development and innovation in the fields of energy generation, transmission, storage and conservation are constantly increasing. Much is expected to be achieved by 2030, for example, in replacing biomass sources with those that do not pose any threat to the preservation of biodiversity or food production. The effectiveness of solar energy technologies will also improve. The same is applied to technologies using renewable sources of energy (e.g. waves, flood). More rapid implementation of new smart grid technology which will improve the effectiveness of energy infrastructure, flexibility and resistance is also likely.⁷³

Regarding conventional technologies, progress is also expected in the creation of very small nuclear reactors.

In the transport field new battery technologies enabling the storage of more energy will accelerate mass transition to electric cars, which is likely to gather pace in 2030.

1.3. Political dimension

International political environment in the early 21st century is characterised by the following features: the most important actors in the international system remain national countries despite the fact that globalisation has considerably increased the importance of international organisations and other non-governmental actors; the dominant position in the world is still occupied by the US; the ratio between democratic and non-democratic countries is very similar.⁷⁴ Development of the political dimension will depend on the direction to which these parameters will change.

Decline in the role of a nation state?

The 20th century may be called the triumph of the nation state as a political organisation: there were 59 countries on the threshold of the World War One, 89 in 1950, and almost 200 today. In the coming 20

⁷² UK MOD, Global Strategic Trends – Out to 2040, p. 148.

⁷³ Ibid, p. 146.

⁷⁴ According to the democracy index calculated by the Economist Intelligence Unit, out of the 167 countries examined in 2008 30 were “full democracies”, 50 “flawed democracies”, 36 “hybrid regimes” and 51 “authoritarian regimes”.

years nation state will definitely remain the central, although not the sole, actor in the international system. As globalisation processes are increasingly intervening with state activities and the interdependence of countries is growing, the declining role of a nation state as an international actor may become more evident.⁷⁵

Impact of globalisation on the three basic elements of a state — defined territory, permanent residents and sovereignty — will be uneven:

- *territory*. Although economic globalisation will enable an easier cross-border movement of goods, services and individuals among the countries, territory as a defining feature of a state is not going to lose its importance. Any attempt to occupy the territory of a state will be deemed as an attack against that state, and to be countered by all possible means. Establishment of international borders will remain relevant. Most border disputes are going to be settled peacefully through international treaties. However, the probability of tensions and conflicts should not be ruled out in some cases (especially, where territorial disputes are protracted);⁷⁶

- *residents*. The mobility of population and migration flows are not expected to decline in the future. However, people not residing in their country of origin will maintain their ties with it through citizenship. The concept of 'citizen of the world' will continue to characterise a lifestyle, but it will not be an established concept;

- *sovereignty*. Globalisation will have the greatest impact on sovereignty, i.e. the ability of national authorities to make and implement independent decisions on internal and foreign policies. National sovereignty has been limited by a number of means (international agreements, creation of international organisations) for a few decades now. This process is likely to continue in the future. National sovereignty will continue to be limited by formal membership in international organisations, meaning that decision-making on certain issues will be fully or partially transferred to the competence of international institutions. Many problems faced by countries in the future will be transnational in their very nature (financial crises, illegal migration, climate change, epidemics, spreading of infectious diseases, terrorism, organised crime, trade in weapons, drugs, etc.); therefore, countries will not be able to address them individually. Frustrated by the inability of governments to act, citizens may well look for other agencies in order to represent their interests, thus hastening the decline of state sovereignty.⁷⁷

Another recent phenomenon associated with the weakening state sovereignty, to be more precise, with the inability of national authorities to perform their key function — distribution of public goods — is the growing number of weak, failed or the so-called rogue states. In the future, the most immediate threats to the interests and security of the international community will come from countries that are suffering from economic and social problems and have become havens for terrorists, religious extremists, and drug lords.⁷⁸


Although the fragmentation of the world's political map will not be as rapid in the future as it was in the 20th century, new states may emerge. Most new states are likely to be small both geographically and demographically (former cities in some cases) and will seek alliances in order to gain independence and

⁷⁵ NIC, *Mapping the Global Future...*, p. 81. FSE 2025, p. 95.

⁷⁶ UK MOD, *Trends – Out to 2040*, p. 66.

⁷⁷ NATO, *FSE 2025*, p. 96.

⁷⁸ *Ibid*, p. 50.



international recognition. In some cases the emergence of new states will be a result of ethnic disputes, therefore, the likelihood of armed conflicts should not be ruled out.⁷⁹

International organisations

Intensified creation of international (intergovernmental) organisations in the second half of the 20th century has resulted in a network currently consisting of:

- global organisations open for all countries in the world (United Nations (UN), World Trade Organisation (WTO), International Monetary Fund (IMF), etc.);
- regional organisations, i.e. organisations consisting of countries from one continent or region that are brought together usually by political and/or economic cooperation (African Union, Organisation of American States, ASEAN⁸⁰, the EU, Council of Europe, the Organisation for Security and Cooperation in Europe (OSCE), NAFTA⁸¹, Commonwealth of Independent States (CIS), Union of South American Nations (UNASUR), etc.);
- organisations focused on a specific area of cooperation (but often maintaining a regional dimension) (OPEC, TATENA, Organisation for Economic Cooperation and Development, etc.).

It is also worth mentioning a few international organisations for military cooperation: the Collective Security Treaty Organisation (CSTO) with 7 CIS countries, the Shanghai Cooperation Organisation (SCO) with 4 countries from Central Asia, Russia and China, and NATO which is currently the largest military bloc.

Considering the current geographical coverage of international organisations and the diversity of areas for state cooperation, it may be stated that there are not many niches for new intergovernmental organisations to emerge. Even though the number of international organisations may grow in the future, new international structures are very unlikely to develop in a short time insomuch that they could compete with already well-established international organisations. Furthermore, certain weaknesses of international organisations as structures uniting sovereign countries may come into light. Broad membership (usually meaning a large fragmentation of interests), inflexible decision-making mechanisms, inability to reform and adapt will make it harder to tackle emerging challenges (large and further expanding organisations, including the UN, NATO, the EU, OSCE, may find these challenges to be particularly demanding). Therefore, certain organisations that have lost their relevance are likely to remain incapable.⁸²

Asia is the sole region, which may face greater regional cooperation and integration processes within

⁷⁹ UK MOD, Global Strategic Trends – Out to 2040, p. 41.

⁸⁰ ASEAN – Association of South-East Asian Nations, consisting of the Philippines, Indonesia, Malaysia, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, and Cambodia. In addition to economic cooperation, this association also covers political and cultural cooperation.

⁸¹ NAFTA – North American Free Trade Agreement, on the basis of which the USA, Canada and Mexico comprise a tripartite trade bloc.

⁸² NIC, Global Trends 2025: A Transformed World, p. 81–82.


the next 20 years. The ASEAN+3 group established in 1997 and uniting 10 ASEAN countries plus Japan, China and South Korea may become the core of integration. Asia is unlikely to reach the level of European integration within the period analysed. However, the movement towards an Asian basket of currencies — if not a common currency — is more than a theoretical possibility. Integration in the security and defence fields is very unlikely in Asia. It is not clear if the protracted disputes (Taiwan, relations between China and Japan and between South Korea and North Korea) will be solved. Moreover competition for natural resources may become a new source of tension. The success of integration will determine the Asian states' attitude towards the US as a balancing power in the region.⁸³

Table 1. **Future development trends of the main international organisations**

■ **NATO** will remain a political–military alliance aimed at ensuring the protection of territories and interests of its member states in the transatlantic area. The attention (active role) of the US in NATO will depend on concrete actions of European countries: whether they will demonstrate their support to the principle of burden sharing among allies, and whether they will properly contribute to NATO operations and the development of collective capabilities of the Alliance. Europe is very unlikely to become a single unit in the transatlantic relations (possible cleavages include Atlantism vs. Europeism, attitude towards Russia, etc.). The Central and Eastern European countries will preserve or even reinforce their attempts to maintain close bilateral relations with the US. There is almost no doubt that the Alliance will keep expanding: some European non-NATO countries are likely to join it. NATO is likely to strengthen its cooperation with partners: countries from the Euro-Atlantic Partnership Council, countries of the Mediterranean Dialogue (North Africa) and the Istanbul Cooperation Initiative, also the global partners Australia, Japan, New Zealand and South Korea. NATO will maintain individual cooperation agendas with Russia and Ukraine, but due to different reasons (remaining Russia's hostility toward NATO, Ukraine's geopolitical indecisiveness) these partnership relations may not avoid tensions. Except for countries from the Euro-Atlantic Partnership Council, the question of membership of other NATO partners is unlikely to be considered. Even though collective defence commitments established by the Article 5 of the North Atlantic Treaty will remain the unifying principal of the members of the Alliance, NATO's practical activities will be mostly oriented to crisis management. Other international actors such as China or Russia are likely to show increasing interest in competition with the Alliance for leadership in international operations.

■ The **EU** will remain the most integrated international organisation. However, despite ambitious goals, its further political integration may slow down because of many factors, including the prolonged Eurozone crisis. Disparities in the development of member states as well as different interests may strengthen the division of the EU into internal blocs (multi-speed integration). The EU common foreign, security and defence policy will continue to be built on the principles of intergovernmentalism and consensus and oriented primarily to the use of political, diplomatic and crisis management measures. The main obstacles to the stronger EU's 'hard power' will remain the unwillingness of member states to relinquish their sovereignty in the defence policy even to

⁸³ Ibid, p. 83–84.



some extent, insufficient defence financing and general lack of political will. The cuts of defence budgets of EU member states may be caused by social problems, including population ageing, social fragmentation, etc. Even though the EU's position as an organisation in the international system may weaken, the standard of living in individual member states will remain one of the highest in the world.

- The **UN** will remain the only global forum offering states the opportunity to discuss important international security issues. The UN as an organisation is likely to sustain its universally accepted right to authorise the use of military force in international relations. However, practical capability and influence of the UN may further diminish in the future because of absence of political will among its members to trust this organisation with serious problems as well as internal organizational shortcomings, which are likely to remain.

- The **OSCE** will continue to operate as an international security organisation, but it will not manage to get more influence. Areas for future activities of the OSCE will depend on the development of relations between Russia and Western European countries. Alongside its regular activity areas (cooperation in political, military, economic fields, protection of human rights), the OSCE is likely to engage in other activities in new areas.

- International organisations operating in the former territory of the USSR (CIS, CSTO and SCO) and a new project of V. Putin the so-called **Eurasian Union** will compete for influence. CIS and CSTO are expected to get weaker. Russia's attempts to make the new Eurasian Union the central international actor recognised by all countries in the region may prove to be successful. China may help to strengthen the influence of the SCO.

Strengthening of other (non-state) actors in the international system

Weakening of the state as an international actor as well as stagnation of certain international organisations will create favourable conditions for growing influence of other entities, including non-governmental organisations, international business corporations, private military companies, international media, and armed non-state actors. Alongside with collective actors, certain individuals may emerge, who would influence the outcomes of international decision-making by using large financial resources and important connections (with government and business representatives, representatives of international and non-governmental organisations).⁸⁴

Ineffectiveness of formal (institutionalised) mechanisms of international cooperation in addressing international issues may lead to the formation of *ad hoc* networks among countries, international organisations and non-state actors. A pre-condition for the formation of such networks will be concurring interests of different actors on a certain issue, while incentives for cooperation may vary: unselfish interest in tackling problems, striving for financial or any other benefits, desire of actors to demonstrate 'how much they are needed', etc. One of the possible cooperation formats is expert groups. A consensus reached through informal cooperation channels may later become a foundation for inter-state agreements.

⁸⁴ NATO, FSE 2025, p. 79.

International security will be threatened by armed non-state actors, especially terrorist organisations and criminal associations. Terrorism will continue to be one of the key asymmetric warfare strategies. It is likely to spread and become more radical. There will be only a marginal change in organisational logic and operational methods of terrorist groups. Pressure from global counter-terrorism efforts, composed with advances in information technology, may encourage further decentralization of terrorist activities. Terrorist organisations are likely to consist of small, dispersed groups which communicate, coordinate, and conduct their campaigns in a networked manner, without a precise central command. Terrorists will not need a stationary headquarters to plan and carry out operations; training materials, technologic know-how, and fund-raising activities will become virtual.⁸⁵

Organised crime that is already a major threat to national and international security will spread further in the future. By using global financial, communication and information channels, organised crime groups will further carry out financial machinations and engage in trafficking in narcotics, toxic materials, arms, military technologies, humans, etc. Globalisation will create favourable conditions for international organised crime. Noncommittal and opportunistic networks of international organized crime groups, including small criminals and insurgent movements will be formed. Looking for economic benefits, criminal groups will often cooperate with terrorist groups, making the line between organised crime and terrorism increasingly blurred.⁸⁶

In unstable, economically weak or failing states, armed groups may often be backed up by national political authorities. Such cases of state 'criminalisation' are extremely dangerous as elements of the state authority, e.g. border control, may be used for criminal purposes.

The balance of power

Current unipolar structure of the international system set in after the Cold War, when the confrontation of two adversarial countries came to an end and the US became the sole superpower. Such situation is likely to remain at least until 2020, but thereafter the US will evolve from a homogenous (clearly dominating) country to a leading country, and the international system will become multipolar. This system will be different from other historical cases of multipolarity — e.g. the Concert of Europe in the 19th century — because of its global scope, heterogeneity of actors (both state and non-state actors that will compete for influence), and instability (groups/unions of cooperating actors will change constantly).⁸⁷

The balance of power is expected to shift towards Asia in the future. Although China and India are likely to be more focused on domestic matters for a while, their influence will be evident from the single fact that other emerging countries, instead of taking over the Western political and economic development model, may take these two countries as an example.

⁸⁵ Ibid, p. 42.

⁸⁶ Ibid, p. 45–46.

⁸⁷ NIC, Global Trends 2025: A Transformed World, x.

Traditional interstate power competition, including territorial expansion or arms race, will not be frequent in the future, but should not be completely ruled out. Trade, investment, technological innovation, etc. will become important sources of strategic competition among countries. It means that soft power will be increasingly important in striving for political goals.⁸⁸

Competition for resources may also cause tensions and instability among states. It will be promoted by two motives, namely survival or power expansion. Energy, fresh water and food resources should be sufficient for the entire world's population, but their distribution and accessibility will be highly uneven. The shortage of vital resources in developing regions and states may lead to conflicts for 'survival'. The second — power expansion — motive will stimulate competition in resource-rich regions (Middle East, Arctic, etc.).⁸⁹

Table 2. **The Arctic**



“The Arctic” refers to the region embracing the land and sea area north of the Arctic Circle, which is a circle of latitude at about 66.34° North.⁹⁰ As a result of this definition, eight countries are considered to have territories in the Arctic: the United States (Alaska), Canada, Russia, Norway, Denmark (Greenland), Finland, Sweden, and Iceland.⁹¹ However, only 5 of them, namely Canada, Denmark, Norway, Russia, and the United States have the status of Arctic coastal states.⁹² Because of annual reduction in Arctic ice coverage – a process, which is caused by the global warming – huge previously isolated areas in the Arctic become accessible, thus opening the possibilities for the above-mentioned Arctic coastal states to claim over the expansion of their territories towards the North Pole. However, because of strategic importance of the Arctic not only those countries, which already possess over territories there, but also other national as well as international actors demonstrate increasing interest in expanding their influence in the region.

⁸⁸ Ibid, p. 82.

⁸⁹ Ibid, p. 11, 16.

⁹⁰ Ronald O'Rourke, “Changes in the Arctic: Background and Issues for Congress.” Congressional Research Service, *CRS Report for Congress*, January 2, 2013, p. 1.

⁹¹ Ibid, p. 2.

⁹² Heather A. Conley, „A New Security Architecture for the Arctic. An American Perspective.“ Center for Strategic & International Studies, January 2012, p. 1.

Even though the Arctic is considered to be a region of low tension by now⁹³, the following passages indicate several major factors that will possibly lead to the reshaping of the Arctic security architecture by 2030. The main actors, which are considered to be involved in this process, are also indicated below.

Factors of change

Energy resources. It is estimated that around 30% of the world's undiscovered gas and 13% of the world's undiscovered oil reserves may be located in the Arctic.⁹⁴ Although by now these reserves are hardly accessible because of unfavourable climate conditions, the annual reduction in the Arctic ice coverage gradually improves oil and gas extraction possibilities. Moreover, it is forecasted that the melting of the Arctic ice is going to gather its pace in the forthcoming years resulting in the ice-free Arctic by 2030.⁹⁵ As a result of these developments, the Arctic is likely to become a significant global source of fossil fuels⁹⁶, at the same time possibly becoming an arena for future international competition and even confrontation.

New sea routes. As a result of melting Arctic ice two trans-Arctic sea routes – the Northern Sea Route going along Russia's northern border and the Northwest Passage running through the Canadian Arctic Islands – are likely to be opened up in the near future.⁹⁷ It is forecasted that these shipping routes are going to become strategically important since they will create new trade links between North America, Europe and Asia.⁹⁸ The new routes will be shorter and presumably more reliable than the old ones, which link the above-mentioned continents via the unstable Middle East region (the Straits of Hormuz and the Suez Canal). In addition, it is estimated that the opening of the new shipping routes will offer a cost-effective solution for the transportation of the Arctic natural resources to southern markets.⁹⁹

Increasing military presence. Changing physical environment and intensifying human activities in the Arctic will motivate the Arctic coastal states to review their military posture toward the region. To some extent this process has already begun: some militaries (mostly Russian, Canadian and Norwegian) are already acquiring submarines, ice breakers and other specific military technologies in order to prepare for conducting Arctic

⁹³ Ibid, p. 33.

⁹⁴ Rob Huebert, Heather Exner-Pirot et al. "Climate Change & International Security: the Arctic as a Bellwether." Center for Climate and Energy Solutions, May 2012, p. 5.


⁹⁵ The Telegraph, "Arctic ice could be gone by 2030." www.telegraph.co.uk/earth/earthnews/8005620/Arctic-ice-could-be-gone-by-2030.html, accessed 14.03.2013.

⁹⁶ Development, Concepts, and Doctrine Centre (DCDC), Ministry of Defence, "Strategic Trends Programme. Global Strategic Trends – Out to 2040." Fourth edition, p. 63.

⁹⁷ Ronald O'Rourke, "Changes in the Arctic: Background and Issues for Congress", p. 15.

⁹⁸ Development, Concepts, and Doctrine Centre (DCDC), Ministry of Defence, "The DCDC Global Strategic Trends Programme 2007-2036." Third edition, p. 25.

⁹⁹ Rob Huebert, Heather Exner-Pirot et al., p. 5.



operations.¹⁰⁰ It is estimated that the remilitarization of the Arctic (it was heavily militarized during the Cold War) will intensify in the future because the Arctic coastal states will face a broad scope of security challenges, which will include search and rescue, counter-piracy, counter-terrorism, natural and man-made disaster response, border protection.¹⁰¹ Moreover, the need to defend core national interests in the emerging strategically important Arctic region as well as possible inter-state confrontations and conflicts will be important drivers encouraging the Arctic coastal states to develop Arctic military capabilities.¹⁰²

Severe operating environment. The future security architecture of the Arctic will also depend on extreme climate conditions, which will negatively impact the functioning of satellite communication and will limit the results of hydrographical mapping, ice forecasting, and manoeuvring of ice-strengthened equipment.¹⁰³ However, considering the strategic importance of the Arctic region, the Arctic coastal states may make additional investments in order to overcome the technical shortcomings and to make their Arctic civil and military capabilities fully operational in the nearest future.

Main actors

Sovereignty claims of the Arctic coastal states. The Arctic coastal states are already taking concrete actions in order to extend their national continental shelves towards the North Pole. **Russia** is the most active country in this process: it has identified that the right to the Arctic Ocean's Lomonosov Ridge, which would open access to the potentially vast oil and gas reserves, is one of Russia's top strategic priorities.¹⁰⁴ Russia has already submitted its claim to the UN stating that the Lomonosov Ridge is an extension of its sovereign territory; the same has been done by **Canada, Denmark, and Norway**.¹⁰⁵ However, as long as the **United States** remains the only Arctic coastal state, which has not yet ratified the UN Convention on the Law of the Sea (UNCLOS), the process of "distributing" the Arctic by giving legal status to the Arctic coastal states' claims to the territorial, energy and military domination in the Arctic continental shelf cannot proceed.¹⁰⁶ Despite these legal constraints, there are some predictions that if Russian claim fails at the UN, the Russian Duma could unilaterally approve their claim over the Lomonosov Ridge as an extension of the country's continental shelf.¹⁰⁷ Since there are clashing interests regarding the Lomonosov Ridge, unilateral claim over this territory would possibly endanger the security situation in the Arctic region and lead to inter-state confrontation.

¹⁰⁰ Ibid, pp. 5-6.

¹⁰¹ Heather A. Conley, p. 1.

¹⁰² Rob Huebert, Heather Exner-Pirot et al., p. 18.

¹⁰³ Heather A. Conley, p. 12.

¹⁰⁴ Ibid, pp. 10-11.

¹⁰⁵ Ibid, p. 11.

¹⁰⁶ Vytautas Sirijos Gira, "The significance of the Arctic in Russia's foreign policy: why Arctic policy issues are of topical interest to the Baltic States." *Eastern Pulse*, 2010 No. 1 (29), Eastern Europe Studies Centre, p. 6.

¹⁰⁷ Heather A. Conley, p. 11.

Other actors developing Arctic policies. Since 50% of the circumpolar region belongs to the **NATO** member states and 4 out of 5 Arctic coastal states are NATO members¹⁰⁸, the Alliance will be increasingly interested in shaping the regions` future security architecture. However, Russia covering the other 50% of the circumpolar area is extremely skeptical about the NATO`s role in the Arctic.¹⁰⁹ There have already been some security incidents between Russia and the Alliance, when Russian warplanes infringed the NATO airspace.¹¹⁰ It can be estimated that with growing strategic importance of the Arctic security incidents between these actors may become more frequent resulting in new tensions, which would negatively impact overall NATO-Russia relations.

The EU has developed the Northern Dimension policy, expressing its interest in working on Arctic issues.¹¹¹ The main interest of the EU in the area of Arctic security is to ensure that the Arctic remains open to non-Arctic states and that the region is governed by mechanisms, which would include the interests of all European states.¹¹² However, the Arctic coastal states, especially Russia and Canada, are pessimistic about the willingness of the EU to deal more actively with the Arctic issues.¹¹³ It is therefore estimated that Europe will be faced with assertive Russian stance towards future EU`s role in the region.¹¹⁴

Several non-arctic nations – e.g. **China, India, Singapore, South Korea, Japan** – have expressed their interest in gaining permanent observer status in the Arctic Council.¹¹⁵ China being the world`s largest shipping nation and one of the biggest energy consumers is extremely active in projecting its financial, scientific, and political capital in the Arctic.¹¹⁶ Moreover, China, Japan and South Korea are constantly stressing the “international nature” of the Arctic, stating that the region should have the status of common heritage of mankind. Since this view conflicts with the position of the Arctic coastal states, which aim to limit the participation of non-arctic states in the decision-making processes concerning Arctic-specific issues¹¹⁷, confrontation and conflicts among these states may arise in the future.

Prospects for democratisation

Democratisation trends may be contradictory in the future. Internal and external factors may put pressures on authoritarian regimes to democratise; on the other hand, new democratic countries may not

¹⁰⁸ Ibid, p. 30.

¹⁰⁹ Ibid, p. 33.

¹¹⁰ Ibid, p. 32.

¹¹¹ Rob Huebert, Heather Exner-Pirot et al., p. 36.

¹¹² Ibid, p. 21.

¹¹³ Ibid, p. 36.

¹¹⁴ DCDC, Fourth Edition, p. 47.

¹¹⁵ Arctic Council, www.arctic-council.org/index.php/en/about-us/partners-links, accessed 11.4.2013.

¹¹⁶ Heather A. Conley, p. 40.

¹¹⁷ Ibid, p. 41.



manage to preserve and consolidate democracy. However, the general trend should be further spread of democracy, albeit without large democratisation waves so typical for the 19th and 20th centuries.¹¹⁸

Some countries that are considered to be a part of the third democratisation wave but that still have not managed to establish operating rather than façade democratic institutions are likely to face the entrenchment of authoritarian trends in the coming 10–20 years. Among such countries it is worth mentioning Russia, former USSR republics in Central Asia, also some South-East Asian countries.

The main factors that will promote or impede democratisation will be economic ones. The legitimacy of many authoritarian regimes will depend on their ability to ensure material welfare of the population (it is especially the case in Russia and China). Authoritarian governments in economically disadvantaged countries may easier submit to liberalisation and democratisation processes. And vice versa, successful economic development under authoritarian conditions may raise serious doubts about democracy as the best form of governance. It should be noted that such doubts may arise even in countries of consolidated democracy, even though their turn to authoritarianism is very unlikely. The main reason for the failure of ‘young’ democracies will be the inability of democratic governments to cope with social and economic challenges brought by globalisation.

1.4. Military dimension

As mentioned above, soft power resources will play an increasing role in interstate competition for power and influence in tackling security challenges. However, military power will continue to be an essential, even though not sufficient element of the state power and instrument in striving for political objectives.

Forecasts of developments in military dimension in the coming two decades are mostly focused on the analysis of likelihood, pervasiveness and key characteristics of conflicts in the future, also on examination of the role of weapons and technologies of mass destruction.

Trends in military conflicts

In the aftermath of the 9/11, the incidence of armed conflicts has increased following a period of decline since the end of the Cold War. The incidence of armed conflicts is unlikely to resume its downward

¹¹⁸ American political scientist S. P. Huntington distinguishes three waves of democratisation: 1) democratisation of Western Europe and North America (USA) in the 19th century until the interwar when most of the previously democratic Western countries became authoritarian; 2) democratisation after the World War Two; 3) the third wave of democratisation started in the Latin America in the middle of the 1970s; in the late 1980s it also reached communist Central and East European countries.

trend for several reasons. First of all, conflicts may be indirectly encouraged by the inefficiency of traditional conflict regulation mechanisms – the stagnation of international security organisations and their inability to make timely decisions, the weakening role of the US as the ‘world’s policeman’, etc. In the absence of external limitations, long standing disagreements or ‘frozen’ conflicts between some countries may easily turn into armed confrontations. Secondly, the source of trans-national tensions and possible conflicts may be a dangerous combination of several factors, including the dissatisfaction with political regimes, population growth, economic stagnation, shortage of vital resources and climate change. Political/social conflicts arising between the ‘government’ and ‘citizens’ may be even harder to localise: news transmitted via modern information technology on events (unrest) in one country may spur analogous processes elsewhere. Thirdly, the rebirth of ideologies is predicted. Even though strict ideological dichotomy that existed during the Cold War is unlikely, various political and religious ideologies that trigger ethnical and national conflicts may start spreading.¹¹⁹ The use of military power may be provoked by a greater access to weapons (cheap old weaponry) by poor, unstable and especially authoritarian or non-democratic countries.

Today, most of the military conflicts are concentrated in Africa and Asia. Such trend is likely to remain in the future (see Figure 4).

Characteristics of future conflicts

Key characteristics of future military conflicts will be the complexity of participants, operational environment and warfare methods.

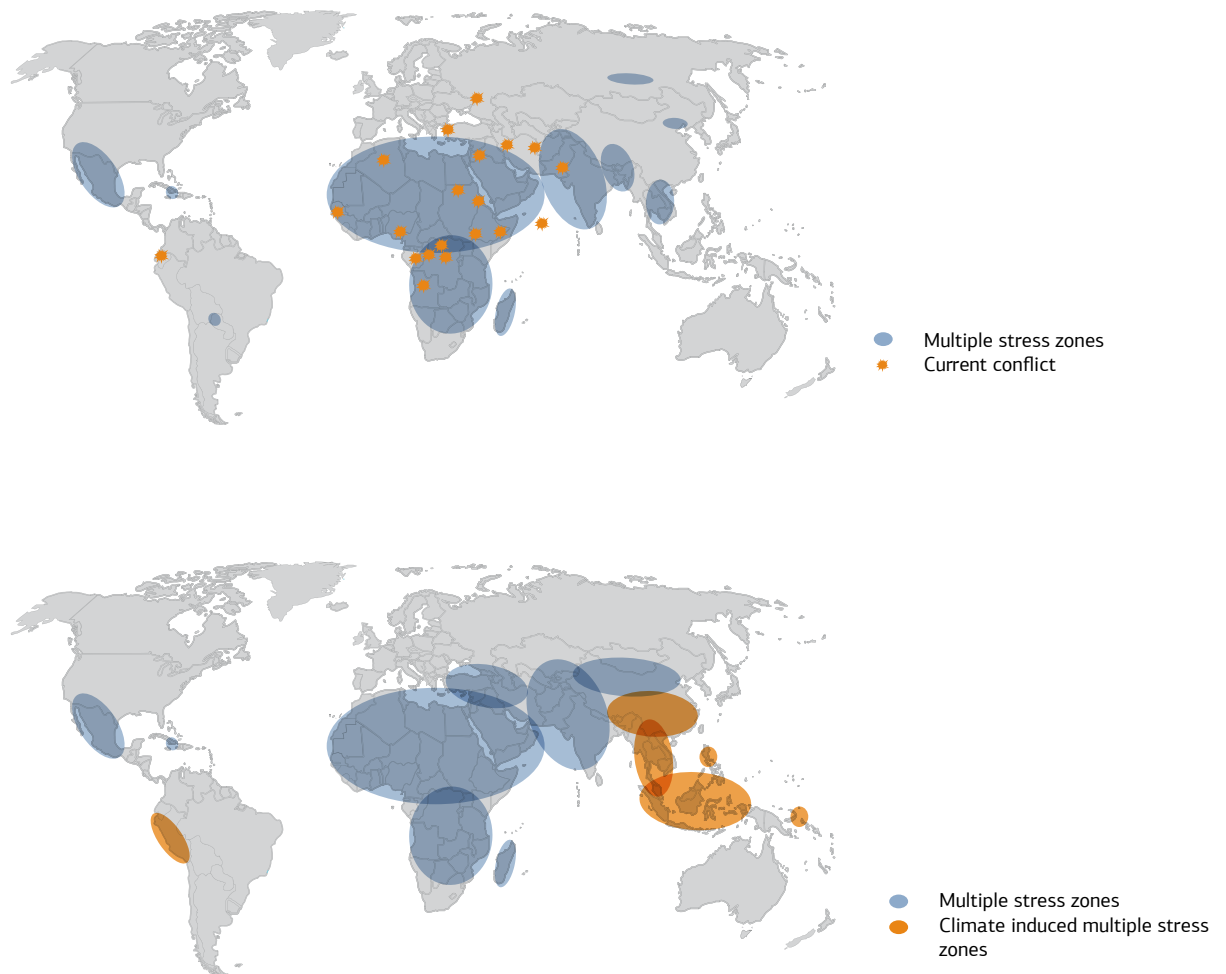
Participants. The growing number of actors in the international system (see the political dimension) will directly reflect in the variety of conflict participants. Future opposing sides may be national military forces as well as non-state actors, including rebels, terrorists, organised crime, etc. Several different actors are likely to act on the same confrontation side.

In many cases, interest zones of international criminal groups will coincide with tension and conflict zones, therefore, these groups will try to take advantage of the instable situation in order to expand their activities and will be increasingly prone to engage directly or indirectly in conflicts. The sheer presence of such groups in conflict zones will have major impact on the tactics of military actions, chosen targets, etc. Criminal groups may illegally provide weapons to conflicting parties, involve, independently or by fulfilling orders, in the contraband and proliferation of chemical, biological and other weapons of mass destruction. Eventually, international organised crime syndicates are likely to increasingly intertwine with other non-state conflict participants — terrorists, ethnic separatists — or even become a n instrument in the hands of political forces of weaker, failing countries in their fight against adversaries.¹²⁰

¹¹⁹ UK MOD, Global Strategic Trends – Out to 2040, p. 73.

¹²⁰ NIC, Mapping the Global Future..., p. 96.

Fig. 4. **Maps of current and future conflicts**¹²¹



¹²¹ Ibid, p. 69.

An increasing role in future conflicts may be also played by non-state military actors — private military companies, security companies, etc. — created and supported by states, even though officially not being a part of their armed forces.¹²² Contracted troops are not restrained by the international law and may use hard investigative techniques. It may be one of the key motives for countries to avoid moral, political or legal responsibility for incidents occurring during a military conflict. Countries are very likely to contract private military companies in order to fight in asymmetric wars, in which the opposing party does not follow any standards of the international humanitarian law and seek for civilian casualties. In the future, private military companies may offer a wide range of activities from information collection, intelligence and logistics to direct military actions or special operations.

Environment. Future conflicts will take place in both physical and virtual domains: land, air, sea, space, and cyberspace. By using technological achievements, conflict participants will try to move conflict actions to the environment where they have the superior advantage. As a result, future conflict environment as well as weapons and operational tactics of belligerent parties will be dynamic and constantly changing.¹²³

With rapidly advancing modern information and communication technology, the cyberspace will be increasingly activated in future conflicts. Actions in the cyberspace, such as intelligence, disinformation, cyber attacks against highly important civil and military facilities, communication networks, etc., are likely to be combined with other types of military actions in other domains.¹²⁴

An increasing number of military conflicts will arise in or be transferred on purpose to densely populated regions. Such conflicts will involve an increasing number of people not belonging to military capabilities directly.¹²⁵

Warfare methods and capabilities. For a long time, many countries focused on the expansion of military capabilities in order to defeat their enemies' conventional forces by greater military-technological advantage and the number of soldiers. Such capabilities will certainly be developed, but asymmetric warfare and international operations will play an increasing role. State-led armies are likely to considerably improve the use of unconventional warfare methods, while some non-state actors are likely to employ a broad range of capabilities, some of which have traditionally been associated with states. Thus, conventional and unconventional warfare methods will be flexibly used.¹²⁶

¹²² NATO, FSE 2025, p. 79–80.

¹²³ NIC, Mapping the Global Future..., p. 94.

¹²⁴ UK MOD, Global Strategic Trends – Out to 2040, p. 11–13.

¹²⁵ Ibid, p. 88.

¹²⁶ Ibid, p. 84.



As the dependence of military and civil environments on modern information and communication technology is growing, state and non-state actors will try to use the gaps in the cyber security of military and civil systems of their potential enemies, intensively develop not only defensive, but also offensive cyber capabilities to infiltrate into and attack information systems, communications and data transmission networks, vital infrastructure. Such cyber attacks are likely to be impossible to foresee in advance. It will also be difficult to detect and identify responsible actors. Cyber attacks are a rather fast and, compared to conventional warfare actions, cheap way to make a lot of damage to adversaries.¹²⁷

Due to the possibility to ensure anonymity in the cyberspace, a relative cheapness compared to conventional warfare actions, unpredictability and asymmetric effect (even a small group will be able to cause great damage), cyber attacks will maintain its appeal and be increasingly used in the future.

Types of conflict. A complex nature of future military conflicts means that it will be increasingly difficult to identify different conflict types (e.g. to distinguish between an inter-state and an intra-state conflict, a conventional and an unconventional war). Two types of conflict may prevail:

- an open war. It is a military conflict where adversarial states face each other directly. Open conflicts are most likely among adversarial neighbouring countries in unstable regions (e.g. among countries in the Middle East, Pakistan and India). Such non-democratic countries as North Korea or Iran may engage in an open conflict against the US or Western countries in general¹²⁸ (a military conflict between the US and China is very unlikely, despite possible tensions in their relations)¹²⁹. Acts of large-scale riots and civil disobedience stretching over the boundaries of different states should also be attributed to open wars. An open war against states may also be fought by ideological–religious groups or movements.

- a hidden war. It is a conflict in which confronting states participate not directly, but by supporting or escalating disagreements between other, weaker states. The number of hidden wars may grow in the future. They may be fought by the most powerful states which avoid open wars because of possible negative political–economic outcomes.

¹²⁷ Ibid, p. 150.

¹²⁸ John B. Alexander “The Evolution of Conflict through 2020: Demands on Personnel, Machines, and Missions”, 2009.

¹²⁹ UK MOD, Global Strategic Trends – Out to 2040, p. 80.

Weapons of mass destruction

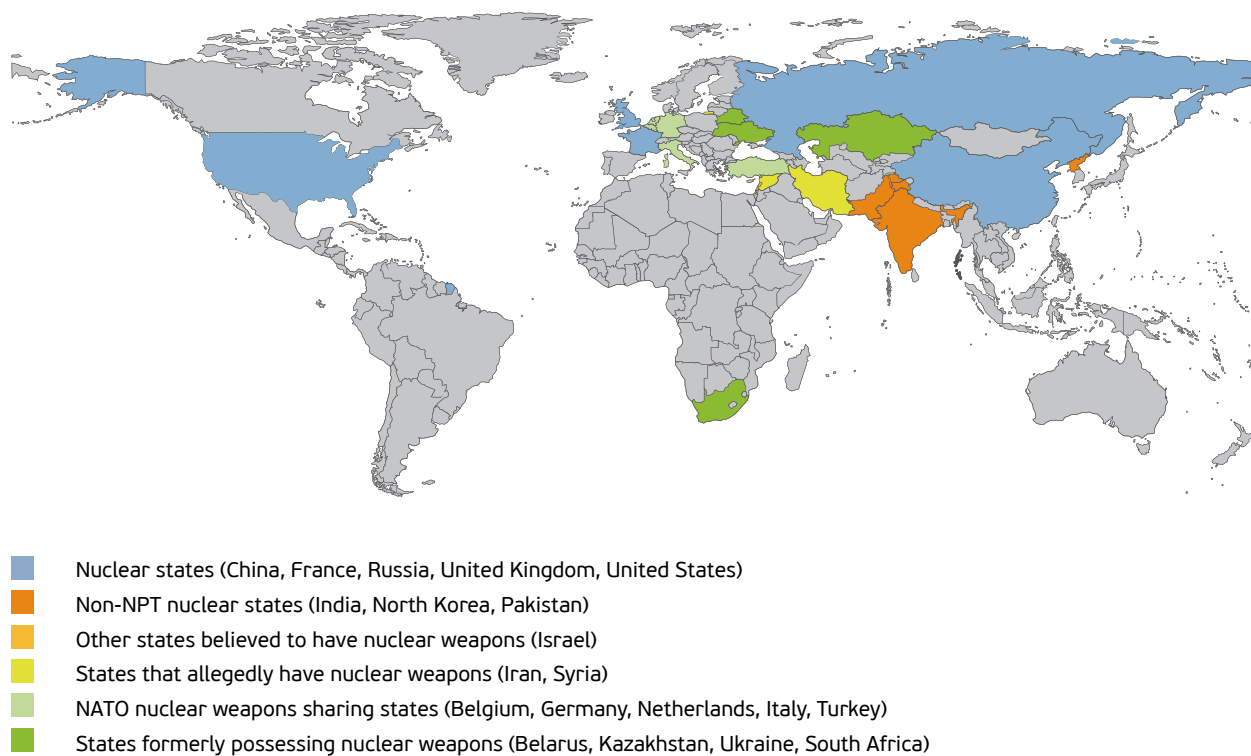



Fig. 5. **Map of nuclear states**

The emergence of nuclear weapons and measures of its intercontinental transportation to the target during the Cold War has become an important guarantee of international stability, which prevented the World War Three among nuclear states and their alliances. Nuclear weapons will definitely remain one of the fundamental factors influencing the balance of global security.

In relations of current nuclear states (see Figure 5), nuclear weapons will continue to have a symbolic meaning of maintaining the balance. To states that are seeking to get nuclear weapons – Pakistan, Iran, India,



North Korea — they will be both a security guarantee and a source of national prestige, also a way to ensure a certain level of non-intervention of the international community in their home affairs. Further proliferation of nuclear weapons will depend, to a large extent, on the response of the countries neighbouring the new nuclear states (Japan, Saudi Arabia, South Korea, etc.) to the changed security situation. They can try to create deterrent military capabilities or decide to develop nuclear capabilities themselves. Regional nuclear arms races should not be ruled out, too.¹³⁰

The existing international treaties and commitments which are aimed at preventing the sale or transfer of nuclear weapons, their parts or fuel to terrorist organisations or failing states will remain in the future and are likely to increasingly limit the proliferation of any materials related to the use of the nuclear weapon. Despite this, extremist groups lacking the technical ability to develop nuclear weapons and appropriate delivery systems may seek to purchase the nuclear weapon in parts or gain the necessary knowledge, materials and technology via illicit channels. However, it should be noted that these groups are unlikely to acquire reliable (applicable) nuclear weapons without state sponsorship.¹³¹

Although at the time less than 10 states have active offensive chemical and/or biological weapon programmes, the number is likely to increase in the future. Unlike nuclear weapons, it will be much easier for states as well as extremist groups to purchase these weapons of mass destruction, the likelihood of the use of such weapons will therefore be much greater in the future.¹³²

Future military technologies

The development of military technologies is one of the most important factors in the changing nature of war and warfare. The introduction and employment of new technologies or the innovative use of the existing ones often lead to radical changes in the military doctrine, organisation and strategy, and become a source of unexpected tactical, operational, strategic or even political outcomes or possibilities. An emphasis should be put on the mixed role of science and technology in the field of warfare: they can facilitate the military response to certain challenges as well as become a source of new threats by giving new tools and means for destruction.

It has become difficult to predict the introduction and impact of certain technologies, in particularly knowing that technological innovations have been growing in number and have been developed in the dynamic civil sector and only then adapted to military purposes in the recent decades (unlike before, when investing into military technologies drove the advancement in the civil sector). Nevertheless, several fundamental technological trends may be identified together with their rising secondary outcomes which may radically change the nature of war and warfare by 2030.

¹³⁰ UK MOD, *Global Strategic Trends – Out to 2040*, p. 82.

¹³¹ Ibid.

¹³² Ibid.

Robotisation. The use of robotic armament platforms in warfare is a growing phenomenon often called the ‘robotic revolution’. By 2030, the number and effectiveness of such platforms and their systems are expected to reach the level where direct or constant involvement of people in many battle dimensions will not be necessary anymore. Self-propelled machines will perform an increasing amount of tasks (from intelligence and logistics to combat actions and rescue operations), where participation of people will be difficult due to political restrictions, limited abilities of the man, high risks or simply the staff shortage and costs. Moreover, by this time autonomous combat systems may be already in use. They will independently decide about the use of force by pre-programmed parameters and will be able to learn and improve their decision-making in different situations. Superiority in developing and elaborating programme algorithms for autonomous artificial intellect military systems will become an important element of military superiority. Warfare robotisation will also highlight and promote the following secondary, derivative technological trends:

- *employment of new energy sources.* Implementation of progressive energy conservation and storage technologies will play an increasingly important role in the defence sector in order to ensure autonomous functioning of robotic platforms and systems, to increase their operational distance and duration in the battlefield, and to reduce the dependence on complex and vulnerable energy infrastructure;
- *information security.* When implementing concepts of network centric warfare and network-enabled capabilities, platforms and systems are connected by increasingly rapid data transmission channels which ensure their inter-coordination as well as coordination with control centres and individual soldiers. This will considerably increase the need to protect the operation of such data channels, information transmitted and programme algorithms of robotic systems against intelligence and destructive actions of the enemy;
- *improvement of the resistance to electromagnetic weapons.* Even now, the existing munition platforms and systems are often not resistant to electromagnetic impacts. The problem will be even more pressing as robotic systems with complex electromagnetic subsystems will proliferate in the battlefield. It will impel adversaries to invest into the creation of new electromagnetic weapons. Increasing warfare robotisation will require the advancement in enhancing the electronics` resistance to electromagnetic impacts;
- *miniaturisation.* The progress in electronic, mechanics and materials science will lead to proliferation of self-propelled and remote-controlled devices adapted to operation under specific circumstances or intended to accomplish narrowly specialised tasks in a battlefield/ conflict zone. Most of these devices will be extremely small and advantageous because of their small costs, little energy expenditure, ability to operate secretly or in areas that cannot be accessed by humans and bigger robots.

Integration of systems. Network centric warfare and network-enabled capabilities have been developed for over a decade. By 2030, advances in information technology, behavioural sciences and system engineering will result in extraordinary achievements in integrating military platforms and systems — from surveillance and intelligence to combat, combat support and logistics capabilities and even individual soldiers — into an integral organisational–technological system or the ‘system of systems’. In this process, an increasing role will be played by technologies that help to solve problems related to the compatibility of different systems.



The architecture of the ‘system of systems’ it will be aimed to automate and accelerate processes as much as possible, thus reducing impacts of the human factor and enhancing the speed of reaction to situations and threats. The employment of innovative social network technologies in military organisations will gain rapid pace, which will open new opportunities to receive and share knowledge on tactical and operational challenges in the zone of military actions. Military organisations will operate in increasingly information-filled environment, therefore the importance of new technologies strengthening incoming data storage, analysis, synthesis and dissemination capacities will further grow.

Strengthening the power of an individual soldier. Despite robotisation trends, the man —soldier, operator, planner, decision-maker — will remain the central figure in wars and armed conflicts. The man’s role in different situations and the relation with armament and its system will dramatically change though. The number of soldiers in the battlefield or conflict environment will reduce, and soldiers are likely to operate as an integral part of the technological system (‘the network’ or ‘the system of systems’). The implementation of technologies allowing such integration and reinforcing individual capacities of a soldier (combat, survival, maintenance, operation, situational awareness and other capacities) will be crucial to the strengthening of the power of an individual soldier. By 2030, new technologies will be introduced to improve physical, mental and cognitive capacities of soldiers, to expand their combat power, to enhance their battlefield seeing, operational planning and coordination capacities, to reinforce security, physical and psychological condition and ability to survive under hard conditions or in a battle, to facilitate the interaction with foreign cultures in the war zone. In most cases, these military technologies will be built on the progress in civil and commercial sectors (e.g. when creating nanotechnologies and new materials, in biomedicine, electronics and information technology), often simply by adapting new commercial products to military purposes.

Militarisation of cyberspace and space. Growing dependence on cyber and space technological systems means that an increasing role is played by the use of cyberspace and space in conflicts and wars. It will inevitably mean an increasing role and involvement of armies and growing investments into technological solutions which will both reinforce the protection and resistance of cyber and space systems and allow exploiting their vulnerability. Despite international attempts to limit the militarisation of cyberspace and space, offensive combat capabilities are likely to be further developed, thus allowing the destruction, paralysis or other neutralisation of adversaries’ critical information infrastructure (both civil and military). Moreover, new technological means (e.g. rocket, laser technologies) will be elaborated and created in order to neutralise satellite communications, navigation or tracking systems; experimental technologies will be developed to use cosmic platforms and systems for the destruction of targets on the land or in the airspace.

Strengthening technological asymmetries. The trend of growing technological asymmetry in conflicts between state and non-state actors (guerrilla groups, terrorist organisations, etc.) as well as in inter-state conflicts will remain until 2030. Investments of Western countries, especially the United States, into defence research and development and the creation of new military technologies and capabilities still ensure their domination in most of the war dimensions, at the same time encouraging existing and potential adversaries to look for technological solutions to neutralise or reduce such domination. Seeking for maximum psychological and political impacts, non-state actors will continue to look for and find innovate low-cost

technological solutions, especially by taking advantage of new commercial technologies and combining them with more traditional means (light weapons, explosives, radioactive and chemical materials). A number of countries will seek to improve their capabilities to neutralise the conventional superiority of Western countries, by putting a special emphasis on the development of new generation anti-aircraft, anti-missile, anti-submarine, anti-armoured vehicles weapons and in certain cases on the development of programmes for weapons of mass destruction.

It will encourage Western countries to pay more attention on the creation of complex technologies capable to detect and deactivate or avoid asymmetric threats. In conflicts with non-state actors, such technologies will often have double application– civil (protection) and military one. In preparation for inter-state armed conflicts, investments will be targeted at technologies the implementation of which will increase the precision and operational distance of weapons, ‘invisibility’ of military platforms and effectiveness of active self-defence/protection means even more.



Analysis of Future State and Regional Trends

2. Analysis of Future State and Regional Trends

The analysis of future trends of individual states and regions presented in this chapter does not cover all the states and regions. Taking into account the place of a specific state or region in the current Lithuania's foreign and defence policy agenda and considering whether and what significance the development of that particular state or region may have for Lithuania in the future, several groups of states and(or) regions have been selected for analysis:

1. key actors of the international system whose actions will inevitably have influence on Lithuania;
2. former USSR states whose development is important to Lithuania owing to both their geographic proximity and the shared historical experience;
3. states of the 'arc of instability' witnessing the processes that may have a negative impact on the international level and demand the response from the international community, Lithuania being one of its members.

2.1. Key Actors of the International System

Over the next two decades, multipolarity should gradually establish itself in the international system, reflecting the shift of power towards the East. Apart from the US, which will maintain its leading positions, the EU, fostering the ambitions of a single actor in the international system,¹³³ and Russia, making every endeavour not to lose the status of one of the major world powers, China and India will definitely pave their way to the list of the most powerful states in the world.

2.1.1. The United States of America

In a multipolar international system the US will be 'the first among equals': it will remain one of the most important and powerful actors in the global politics and economy and the strongest military power, though its advantages over other states will not be as evident as they have been to date. Several factors which will most likely determine such changes in the US power can be singled out. First, global leadership is a serious financial burden. The US may simply be not able to financially afford all of its multi-vector foreign policy actions necessary to maintain its positions as a global leader. Second, as some instances have demonstrated, certain US actions can be subject to criticism, even from its closest allies. The possible weakening of international authority would imply that the US may have increasingly less room for unilateral actions. Third, the US foreign policy will be significantly influenced by the actions of other key international actors, primarily China and Russia.¹³⁴

¹³³ Even though the EU, as opposed to other international actors addressed in this chapter, is not a state, a number of analytical documents of similar type refer to the EU as a single entity.

¹³⁴ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, 2007, p. 14.



Demography

The US population is expected to grow from 318 million in 2010 to 370 million in 2030, i.e. by over 16 percent. Compared to other developed countries, the US birth rate will be rather high – 4.4 million babies per year on the average. Immigration will also be an important source of population growth (1 million per year on the average), in particular from Mexico, China and India. The said factors will contribute to the US demographic growth and guarantee sufficient labour force.¹³⁵

Economy

Though China will replace the US in the top position in terms of the GDP size in the next 20 years, the US will remain the most powerful world's economy. In absolute numbers China's lead should only be marginal; thus, the share of each of the two countries in the global economy will constitute around 20 percent. The US will substantially outrun both China and the EU in terms of GDP per capita. The US will stay the biggest world's consumer and exporter, while the US dollar will remain the international reserve currency.¹³⁶

In the future the US economy will grow at an average rate of nearly 3 percent per year and will outpace other developed economies. The principal driving forces of the US economy will be the increasing work efficiency, investment in research and high-tech development, as well as the flexibility of social and economic system. In contrast to other developed economies, there will be no labour force shortage in the US, which will also contribute to the economic growth. The growing public debt may probably be the only obstacle to the stable development of the US economy.¹³⁷

The US dependence on the import of energy resources is likely to reduce after 2020. This will be greatly influenced by the revival of nuclear energy and the development of hydrogen energy and fuel cells¹³⁸. Further expansion of unconventional gas extraction will also play a special role in strengthening energy independence. For instance, shale gas currently accounts for 34% of the overall US gas reserves; in the next 20 years this share is likely to grow and exceed 40%.¹³⁹

A more extensive use of new energy sources will contribute to meeting the US commitments in the sphere of reduction of climate change.¹⁴⁰

¹³⁵ EU ISS, *The New Global Puzzle...*, p. 16.

¹³⁶ Economist Intelligence Unit, *Foresight 2020: Economic, Industry and Corporate Trends*, The Economist, 2006, p. 9.

¹³⁷ *Ibid.*

¹³⁸ Fuel cells directly convert chemical energy to electricity as opposed to traditional electricity generators using an intermediate mechanical link (e.g. steam turbine) between the initial energy source and the final product. The efficiency of fuel cells may be up to 70–80% compared to the 30–40% efficiency of traditional generators.

¹³⁹ US Energy Information Administration, *World Shale Gas Resources...*, p. 4

¹⁴⁰ Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, p. 15.

Politics

The promotion of democratic values and the support to democratic movements and institutions in various countries worldwide have mostly characterised the US foreign and security policy in the two recent decades. It is likely that the US will not refuse its aspirations to strengthen the community of democratic states in the world but it may nevertheless give priority to a more moderate and diversified foreign policy and abstain from making international commitments which are not consistent with political and economic capacities of the country and from risky actions that rely on unilateral decisions.¹⁴¹ It does not mean that the US will 'resign' as a global leader; rather, it means that it will rely on collaboration and multilateralism to a greater extent when bringing those ambitions to reality.

With the strategic shift towards Asia-Pacific region, the US foreign policy will become increasingly multifaceted. However, this will not necessarily lead to the diminished Europe's role in the US foreign policy. The future of transatlantic relations will be most likely determined by the ability of European countries to properly respond to the changes in the US strategic posture. First and foremost this demands concrete and robust actions from European countries aimed at reducing current burden falling upon the US in NATO and taking greater responsibility for ensuring security and stability in Europe's neighbourhood.

It should be noted that the US will not only strive to maintain its leadership in the world on its own initiative but will also occasionally be driven to it by other countries. The US is likely to maintain its role as an important third party in securing the balance of power in the Middle East and East Asian regions (as a protection against unpredictable actions of Iran in the Middle East and as a counterbalance to the growing China's power in Asia). The US participation and leadership will also be seen as an important factor in solving international issues of proliferation of weapons of mass destruction, environment, climate change, cloning, biotechnology, human rights, etc.¹⁴²

Even though international terrorism will continue to pose a serious threat to the US, as well as to other Western countries, it will not be the dominant issue on the multi-layered US foreign policy agenda. The progress and aftermath of military operations in Iraq and Afghanistan will most likely reduce the US disposition to combat international terrorism by military force alone.¹⁴³

Military Dimension

The US will maintain its leading positions in the defence financing and will also lead in the trade in weapons.¹⁴⁴ Even though nuclear weapons will remain the primary strategic capability in the US defence policy, the development of new military technologies may lead to the emergence of a completely new strategic weapon. An asymmetric type of future conflicts will determine an increasing US attention to the expansion of unconventional capabilities. Contribution of the US conventional capabilities to the operations carried out in collaboration with the allies will be most likely reduced.

¹⁴¹ Ibid, p. 19.

¹⁴² NIC, *Global Trends 2025: A Transformed World*, p. 17.

¹⁴³ Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, p. 16.

¹⁴⁴ UK MOD, *Global Strategic Trends Programme 2007–2036*



2.1.2. The European Union

Though the EU will remain the most integrated and one of the most ambitious international organizations, its positions as a single international actor may weaken in the future. Such processes will be determined by both internal reasons (political fragmentation, obscure prospects of the economic and monetary union, demographic problems) and external factors (rapid growth of China and other Asian countries). It should be noted that the economic development level of individual EU member states will remain one of the highest in the world – they will only be outranked by the US and Japan.¹⁴⁵ The growing competition from Asian countries as well as Russia's efforts to strengthen its military power will drive the EU member states to join their forces with the US as their traditional ally.¹⁴⁶

Demography

The overall EU population (bearing in mind the current 27 member states) should slightly grow: from 497 million in 2010 to 506 million in 2030 (around 1.7 percent). However, the analysis of the annual population growth leads to the forecast that the EU annual population growth will most likely become negative from roughly 2015. The biggest population increase until 2030 is forecasted for Luxembourg (25%), Cyprus (20%), also Ireland (22%), also Spain (10%) and the United Kingdom (10%). The most dramatic population decline is expected in Bulgaria (14%), Lithuania (11%) and Latvia (9%). One of the key reasons behind the decrease in population numbers is an especially low birth rate in the EU member states.

In addition to the population decline, the EU member states will be facing another – population ageing – problem. Population ageing will make a significant influence on the structure of labour force: certain estimates show that the working age (15–64 years) population in the EU may decrease by 43 million, while the elderly population aged 65 years old and over will increase by 58 million by 2050. With the present demographic tendencies, a labour shortage of roughly 20 million may strike Europe by 2030.¹⁴⁷ Population ageing will not only have a negative impact on the labour markets of the EU member states but also on their social policy – increasingly more resources will be required for social benefits to support elderly population. Social problems may in turn have a negative impact on the EU economic growth indicators. To avoid the deficit of labour force, a number of EU member states will put various flexicurity measures into practice: increasing retirement age, integrating young people into the labour market at the earliest possible age and encouraging younger elderly people (50–65 years old) to work longer, motivating young women to take a maternity leave in return for guarantees of re-entry, paying more attention to the integration of immigrants in to the labour market, etc.¹⁴⁸

Immigration volumes to the EU will not be as high as the US immigration flows but the immigrant number in the EU will show a stable upward trend. In the next 20 years the number of immigrants already

¹⁴⁵ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 104.

¹⁴⁶ Ibid.

¹⁴⁷ European Ideas Network, The World in 2025: How the European Union will Need to Respond, p. 21–22.

¹⁴⁸ NIC, Mapping the Global Future 2020..., p. 61.

established in the EU member states should grow by some 12–14 million of new arrivals, including second-generation immigrants. The current Muslim population in Europe is estimated at 15–18 million. France, the Netherlands and Germany have the most numerous Muslim communities. It is most likely that Europe will continue to witness the main new immigration flows from Islamic countries, which can result in Islam becoming one of the major EU religions. It is forecasted that by 2025 the general Muslim population in the EU may reach 25–30 million. Islam may become the main religion in certain EU member states by the number of religious followers.¹⁴⁹ To prevent social unrests driven by religious and cultural differences, the EU member states will have to lay more stress on social and cultural integration programmes.¹⁵⁰

Economy

The EU should remain one of the major global economic blocs (along with the US and China) and sustain its technological and industrial competitiveness; however, in terms of the main economic indicators, it will still be lagging behind the US and the growing Asian countries in certain sectors.

The EU economic integration will stimulate the free movement of goods, services and people and harmonisation of national legal norms; however, differences of economic growth and development level among the member states will remain significant.¹⁵¹ The countries that joined the EU with the EU enlargement wave of 2004 demonstrated an impressive pace of economic growth (10% and more); however, it was already estimated back then that several decades would be required to catch up with the old EU member states. It is little likely that the 2004 scenario will repeat itself in the further stages of the EU expansion. The EU general economic growth recovering after the recession may reach approximately 2%. The economy of the would-be EU member states (Balkan countries) should grow at a similar pace as that of the countries that joined the EU in the period of 2004–2007 – roughly 3.5%. Only Turkey is expected to reach a slightly larger growth – around 5%.¹⁵²

The differences in economic growth and general economic development will not only be evident within the EU. The gap between the EU and the US will also increase. For instance, in 2003 the GDP per capita in the EU (15 member states) made up 73% of the US level (2003); in 2009 (27 member states) this indicator slumped to 69%. It is estimated that the GDP per capita in the EU with over 30 member states may be slightly higher than a half of the US level.¹⁵³

Not only the development differences among the member states but also the incapacity to solve the issues of energy dependence will have a negative effect on the EU economic growth. Even though positive changes can be seen in this field – first steps have been made towards the creation of a single EU energy

¹⁴⁹ NIC, *Global Trends 2025: A Transformed World*, p. 25.

¹⁵⁰ NATO, *FSE 2025*, p. 116.

¹⁵¹ Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, p. 106.

¹⁵² Economist Intelligence Unit, *Foresight 2020: Economic, Industry and Corporate Trends*, 2006, p. 8–9.

¹⁵³ *Ibid.*



policy – it is likely that the EU will remain the biggest energy importer: the share of imported energy will rise from 50% to 70% by 2030. An even greater dependence is expected in respect of the import of two major energy resources – oil and gas (up to 90% of oil and 80% of gas are likely to be imported).¹⁵⁴

Today, nuclear energy is the main source of energy generation in Europe – 35% of all energy comes from nuclear energy; coal makes up 27%, gas accounts for 16%, 15% of energy is generated from renewable energy resources and 8% from oil. Oil is expected to become the primary energy source in the future – it will account for 38% of all energy; gas will make up 29%, 19% of energy will be generated from solid fuel (coal). Irrespective of the EU ambitions of consistent increase in the use of renewable energy resources, they should make up barely 8% in 2030. Though the reliance on nuclear energy will witness a significant decline and will account for barely 8% in 2025, the support of the EU citizens to nuclear energy may grow in the future, bearing in mind the instability of oil market and price fluctuations. The OPEC domination in oil supply to the EU is set to grow – the oil supplied from the OPEC member countries should account for over 80% (today – 45%). Gas will mostly be supplied from Russia.¹⁵⁵

The expansion of unconventional gas production will play an important role in solving the EU energy dependence problem. Until now the largest unconventional gas fields in Europe have been detected in Poland, Northern Germany, France (though at the end of 2011 the latter country voted to outlaw hydraulic fracturing method used for shale gas extraction) and the southern part of the North Sea. It is expected that the mentioned countries will mostly benefit from unconventional gas in securing supply for their energy needs.

Politics¹⁵⁶

EU expansion. In the period under analysis the physical expansion of the EU to the East will slow down or even stop altogether, with the Balkans becoming its major course of expansion. By 2025 Albania, FYROM, Croatia, as well as Turkey, which will become the largest EU member state with a population of 90 million people, can be expected to have already joined the EU. The integration of Serbia, Montenegro and Kosovo in the EU can be anticipated around 2030. Switzerland will most likely remain outside the EU, whereas Iceland and Norway may have already joined the EU by the end of the period concerned. Even though Norway will remain one of the richest European countries in the future, its membership will not make a significant contribution to the increase in the EU average standard of living. On the contrary, the EU expansion to less developed Balkan countries will reduce the share of GDP per capita in the EU. The issue of the EU expansion eastwards may be revived after 2030 – in that case the prospect of membership of the Balkan states should be the first issue on the agenda.

¹⁵⁴ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 108.

¹⁵⁵ NATO, FSE 2025, p. 117–118.

¹⁵⁶ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 104–106.

If the EU accession criteria remain the same,¹⁵⁷ one of the most delicate issues accompanying the EU expansion – the issue of geographical and political boundaries of the EU – will not lose its relevance. It may become one of the top issues in the potential negotiations with Georgia, Turkey or Ukraine over the membership in the EU.

Prospects of deepening the integration in the EU. The efforts of the member states in strengthening the internal integration in terms of both the expansion of the EU competence to new areas (from economy to foreign and security policy) and deepening of the EU competence in a certain area (e.g. a shift from the customs union to the economic and monetary union) have been a distinctive feature of the European integration process since the establishment of the European Communities in the 1950s. In practice, diverging views among the EU member states have always been the key obstacle in the integration strengthening process. Significant changes of this tendency in the future are not likely. Though in principle the processes of deepening of the EU integration and the EU expansion are not contradictory, the increase in the EU member states always carries additional challenges to the political and economic integration of the EU (it especially applies to the largest enlargement wave of 2004, when 10 new members simultaneously acceded to the EU). The growing number of member states minimizes the chances for consensus in decision-making, including decisions on further course of the European integration. An evident example is a several year-long constitutional crisis, which could only be solved in 2009. The impact of the Treaty of Lisbon on the deepening of the EU integration is seen as a rather controversial issue: even though a number of provisions presume the deepening of integration, the analysis of their practical application nevertheless testifies to the incremental changes only. The Treaty of Lisbon eliminates the three pillar system, i.e. all policy areas are treated as part of the single EU institutional system; however, differences remain between decision-making procedures and institutions' roles in different policy areas. It means that in foreign, security and defence policy areas, which are of critical importance to the status of the EU as a global actor, the unanimity principle will be continuously applied, meaning that active EU actions in the afore-mentioned fields will be limited by diverging opinions, positions and interests of the member states.

The success in tackling the economic and eurozone crisis will also play an important role in the political cohesion and the deepening of integration of the EU. Considering that the crisis only deepened the existing fragmentation among the EU member states (e.g. Southern European countries found themselves in periphery; the United Kingdom resumed its actions as a “disobedient” member state), there is a chance that the model of a multi-speed Europe, currently applied in the area of economic and monetary union, may also find its way to politics.

External relations of the EU. The foreign policy pursued by the EU will cover a broad range of issues and vary in different regions across the globe. The relations with Russia will remain close, primarily due to the remaining energy dependence of the EU member states. However, a single EU strategy in respect of Russia may be difficult to develop as a result of diverging views of the EU member states. The EU influence in the Persian

¹⁵⁷ The Copenhagen criteria: political: stability of institutions guaranteeing democracy, the rule of law, human rights and respect for minorities; economic: existence of a functioning market economy and the capacity to cope with competitive pressure within the Union; acceptance of *acquis communautaire*: the candidate's ability to take on the obligations of membership established within the EU.



Gulf region will remain minimal. In the Middle East the EU will continue to lay more stress on the strengthening of its role as an economic actor. In the political domain, most efforts will be targeted at the solution of the Middle East (Israel and Palestine) conflict. The EU will support the establishment of the independent state of Palestine and will strive to improve its relations with Syria, Lebanon, Jordan, Israel. In the next few decades the interest in Northern Africa will significantly increase; the relations with the countries of this region will strengthen; a large share of EU investments will be dedicated to them.¹⁵⁸

The EU will have to decide on its objectives in respect of the Eastern partnership initiative, which covers Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine: the actual transformation and changes in the mentioned countries or the promotion of the so called engagement policy only. To achieve concrete results, the EU will have to stay consistent in its partnership policy, to encourage partners and to “punish” them by applying the conditionality principle (more for more, less for less) to create and apply the step-by-step policy. Though in the majority of cases the EU will not be able to offer the membership to its partners, the economic benefit (free trade, visa simplification and liberalisation, etc.) depending on the merits of partners and the progress achieved by them will remain important motivating factors.

Military Dimension

Extremism and radical terrorism will remain the most obvious threat to the EU member states over the next two decades. The threat posed by information operations and cyber attacks will increase. The role of energy security challenges will also grow because such domination-driven countries as Russia will seek to ensure a complete control over energy resources in the EU. The chances of a mass military attack against the EU will remain low; however, the possibility of local instability cases in the would-be new member states or near the EU borders (especially the eastern ones) may increase.¹⁵⁹

It is likely that the attention of the EU member states to security and defence, with the financing of defence being one of its key indicators, will not grow. On the contrary, maintenance of the welfare state will require more funds owing to the slow economic growth and ageing of societies, whereas in case of the clash between national security and social interests, priority will most likely be given to the latter. Defence financing will remain a tiny piece in the overall EU budget; defence expenditures of individual member states (including the United Kingdom, France, Germany allocating most resources to this area) will be significantly outpaced by the US, China or Russia. Several EU member states will have the required capacities to develop and/or apply advanced weapon manufacturing technologies (e.g. long distance, precision weapons); however, compared to the US, the manufactured amount of weaponry will remain insignificant.¹⁶⁰ Population ageing and general population decrease will have a negative impact on the formation of armed forces in the EU member states.¹⁶¹

It is likely that by 2030 only the biggest EU member states – the United Kingdom, France, Germany –

¹⁵⁸ NIC, *Global Trends 2025: A Transformed World*, p. 94.

¹⁵⁹ NATO, *FSE 2025*, p. 107, 116.

¹⁶⁰ Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, p. 99-100.

¹⁶¹ NATO, *FSE 2025*, 115.

will have properly prepared their armed forces to withstand any arising threats. The armed forces of these countries will have larger or smaller capabilities of strategic transportation, long-distance precision weapons and will be capable to act effectively in NATO's joint operations beyond the borders of Europe. Other EU member states will most likely not be capable of allocating sufficient funds for advanced armed forces. On the other hand, the EU civil crisis management capabilities should continue to be strengthened over the next two decades.¹⁶²

2.1.3. Russia

Over the next two decades Russia will not lack ambitions to compete with the US, the EU and China over the status of a “superpower”. However, in pursuit of this goal, it will be facing a number of demographic, economic, social, political and military challenges. Therefore it is doubtful whether Russia will remain the biggest power player in the post-Soviet space. Russia will be increasingly trying to employ new, “softer” ways – soft power influence – of preserving what it has. Slowing of a post-imperial state is already beginning at the economic level, and its exhausted political system is heading towards stagnation. In general, Russia is likely to be holding but not advancing. In economics and in managing its foreign relations “divide and rule” will remain both a goal and a tactic for Russia. This will remain true whether Russia will be dealing with alliances or with individual states.

Demography

Russia's demographic situation is among some of the world's worst, having declined steadily since World War I, and will further deteriorate: it is forecasted that by 2030 Russia's population may reduce from 140 million to 130 million (around 9 percent). Apart from a low birth rate, other factors will also contribute to the population decline: the after-war baby-boom generation will gradually die off; dangerous diseases (AIDS in particular) will spread and Russia's health care system due to its ineffectiveness will not be capable of tackling them successfully. The population decline will be especially sensed in peripheral regions of Northern Russia; the effects of the population decline will be more significant in rural rather than urban localities. All today available social-political measures will at best mitigate the situation but they will not essentially reverse the negative tendencies.¹⁶³

Similarly to the EU, Russia will be facing the problem of population ageing. The number of residents who are over 65 years old will grow from 13 percent (in 2010) to nearly 20 percent (in 2030). In the meantime, the number of 15–64 years old people will decrease from 72 percent (in 2010) to 65 percent (in 2030).

¹⁶² Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 104, 109.

¹⁶³ Ibid, p. 32.



Immigration will be one of the means of compensating the loss of Russian population. The largest immigration flows will be from China and Central Asian countries. Lacking the experience of immigrant integration into the society, Russia is likely to witness the strengthening of nationalism, social unrests or the rise of political parties promoting nationalist ideas.¹⁶⁴ The Russian Far East regions gradually abandoned by Russians and replaced with large flows of Chinese arrivals (both legally and illegally) may become a separate problem. It is likely that in the period concerned the sinification of the Russian Far East may strengthen and the Chinese may become the dominant nation in Russia's Far East region.¹⁶⁵

Economy

Though Russia's economy can be expected to grow at the pace similar to that of the US – roughly 3% – it will remain weak and relatively small compared to the strongest world's economies – China, the US and the EU. The latter countries will each generate 20% of GDP in the global pie, with Russia's share accounting for barely 2.5%.¹⁶⁶ The absence of a strong economic foundation may become a serious obstacle to Russia's global power ambitions.

The main reasons behind the economic weakness will be the afore-mentioned demographic problems (lack of labour force), floundering economic diversification and dependence on a single major economic sector – production and export of raw materials (*petro-state* phenomenon). As illustrated by historical examples, the countries basing their economy on natural resources cannot ensure a long-term growth. High prices of resources may generate profit in a short-term but the focus on a single economic sector encourages corruption, interferes with the development of other sectors and undermines the integration of the country's economy into the global economic system.¹⁶⁷ Therefore, economic restructuring and diversification should become one of the major goals of Russia's economic policy. It would promote the general economic growth, international trade, attract foreign direct investment and raise the standard of living.¹⁶⁸ The ability of the Russian government to create a favourable business environment (stable, predictable, evenly applied rules) would play a crucial role in pursuit of this goal.

Whereas the export of natural resources will generate a significant financial benefit in the future, it is likely that state consolidation of the sectors of oil, gas and other energy resources will continue. This will harm competitiveness of energy industry and will make it harder to counter its endemic corruption. Moreover, the growth of shale gas production in the US and the falling costs of LNG (liquefied natural gas) technology will change the entire assumption on which Russian policy was based. Pipelines must now compete with tankers.

¹⁶⁴ NIC, Mapping the Global Future 2020..., p. 74.

¹⁶⁵ Klaus Naumann et al., Towards a Grand Strategy for an Uncertain World: Renewing Transatlantic Partnership. Noaber Foundation, 2007, p. 54.

¹⁶⁶ Economist Intelligence Unit, Foresight 2020: Economic, Industry and Corporate Trends, p. 9.

¹⁶⁷ Ibid, p. 12.

¹⁶⁸ NATO, FSE 2025, p. 29.

Another important profit-generating area – military industrial complex – will also remain under the state control and capable of competing in the world.¹⁶⁹ Russia may even assume measures to increase the scope of military industry. The country will remain one of the main world's weaponry suppliers. It will be striving to sell more weaponry to the countries in the Middle East, Latin America, North Africa regions.¹⁷⁰

Russia will retain its position as the developer of technologies in the areas of outer space, nuclear energy, military aviation, computer programming and certain areas of information technology. However, it will not have the capacity to take advantage of these achievements in mass production.¹⁷¹

If Russia seeks to become a global power it needs to reinvent itself as a soft power. Globalisation of Russia's economy should be moving to broader openness, making the country more lucrative and more attractive.

Politics

The tendencies of democratization in Russia's domestic politics are not likely. On the contrary, persistence of authoritarian practises characterised by strengthening power vertical of the political regime, destructing public institutions, downgrading legal institutes by strengthening power structures, ignoring human rights and freedoms is likely to continue. The promotion of Russia's exceptionality and the ideology of its imperial ambitions may lead to further growth of nationalism. Russia will most likely continue to implement the 'weak regions – strong centre' policy aimed at strengthening its territorial administrative centralisation and reducing the number of federal units. Though such reforms will be presented as the measures to improve the structure of government and labour efficiency, ethnic tensions may be difficult to avoid. The North Caucasus region (Chechnya, Dagestan and Ingushetia), Tatarstan and Yakutia may be particularly susceptible to such reforms.¹⁷²

It is not yet fully clear how Russia's citizens will react to the pursued policies. As of now, the protesters dissatisfied with the regime seek evolutionary not revolutionary changes, opposition forces remain divided, disorganized, still lacking a common idea and a leader to mobilize them. It is possible that Russia's society will continue to grow its political consciousness and demand for changes. An important step in this direction would be the politicization of the urban middle class.

The possible changes in societal attitudes will greatly affect the survivability of the political regime. There may be more signs of desperation from the regime, if its unlimited power and legitimacy will continue being challenged. However, serious political reforms are hardly possible. The more likely measures to ensure continuity of authoritarian rule may be the empty promises of liberalization, accompanied with suppression and intimidation.

¹⁶⁹ NATO, FSE 2025.

¹⁷⁰ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030.

¹⁷¹ NIC, Mapping the Global Future 2020..., p. 7.

¹⁷² NATO, FSE 2025, 28–29.



The main goals of Russia's foreign policy will remain to perpetuate state power and avoid exclusion from international decision-making, which in turn would mean loss of influence. Russia will aim to promote a global system of multi-polarity in which no actor has hegemony and where Russia itself plays a key role. No foreign interference in its internal affairs will remain in the default principle in Russia's foreign policy. It is likely that in pursuance of its foreign policy goals Russia will continue to use its privileged position as oil and gas exporter as major political leverage. To increase its international influence, Russia will seek to act as a mediator in solving various international conflicts and managing crises, as well as to participate in various international initiatives searching for allies and trying to put the burden of actual activities on their shoulders.¹⁷³

The divide and conquer strategy will remain an important element of Russia's relations with the countries in the Euro-Atlantic area, with the objective to weaken their interrelations and cooperation and to balance the US power. Russia may try to fuel the following oppositions: the US vs. Western Europe, the US and Western Europe vs. Central and Eastern Europe. To that end, Russia will mostly rely on bilateral relations with the major powers, and will also focus on international organizations, primarily the UN as well as NATO and the EU. In relations with NATO and the EU, Russia will most likely maintain the position of "uncooperative cooperation", i.e. it will seek a privileged status and try to exert influence on the decisions taken by these organizations, undermine their structural power, etc.

In respect to NATO, Russia will continue policy of limited engagement on mutually beneficial projects but, at the same time, maintain a cautious position by qualifying the Alliance as its evident opponent, if not an enemy. Respectively, Russia's approach towards NATO's enlargement will not change – it will be seen as a threat to the national security interests.¹⁷⁴

Despite the persisting ideological cleavage between Russia and the EU, Russia will try to uphold tight relations with the EU. Although European countries are increasingly diversifying their energy supply and therefore becoming less dependent on Russia's resources, Russia will continue to make all possible efforts to maintain and increase this dependence. One of the ways will be the takeover of potential alternative suppliers to Europe; therefore, a stronger cooperation between Russia and the Central Asian, Caspian Sea and North African countries in the areas of extraction and transportation of energy resources can be expected.¹⁷⁵

To benefit from cooperation with the US or the EU, Russia may be prone to certain concessions in the economic area but it is hardly likely that it will surrender to the requirements of Western countries which will not meet its strategic interests.

Russia will not give up its ambitions to maintain or even strengthen its influence in the sphere of 'privileged interests' – post-Soviet area. It will continue to implement the concealed post-imperialist policy by perceiving the development of democratic institutions in its neighbourhood as a zero-sum game. Therefore, increasing Western attention to these regions will not pass unnoticed.

¹⁷³ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 31-33.

¹⁷⁴ Ibid, p. 10.

¹⁷⁵ NATO, FSE 2025, p. 30, 63.

Central Asia will be among the key regions of enhanced Russian interest, largely due to its economic appeal (gas, oil armaments trade). In case the political situation in Central Asia deteriorates, Russia will actively use this as an opportunity to increase its presence in the region. It is not unlikely that international community may view Russia as a positive stabilising factor which may protect the region from turmoil and from turning into the second Middle East.¹⁷⁶

Russia will seek to maintain its authority in the Western part of the CIS and in the South Caucasus. At this point Russia will try to diminish political influence and financial investments of the US and the EU. Russia will still try to exert influence over Central and Eastern European countries.

The Eurasian Union formed on the basis of the Single Economic Space and consisting of Russia, Belarus and Kazakhstan (became operational from January 2012), may become an important instrument for the consolidation of Russia's influence in the CIS area. The Eurasian Union may eventually replace the CIS. With the Eurasian Union Russia seeks to acquire an instrument for balancing the US and the EU influence in the West and China's economic power in the East. By binding former Soviet countries economically and politically Russia expects to impede them joining alternative alliances.

In the future Russian-Chinese relations may deteriorate on account of several reasons. First, even though the two countries will be the promoters of multi-polarity in international relations and will often join their efforts in order to counter-balance the US power, China will most likely disagree with more open Russia's attempts to provoke the US. For the first time in its history Russia will have to deal with China which is stronger and more dynamic than Russia. Second, the growing emigration of Chinese residents to Russia's Far-East may become the source of disagreements. Third, the interests of the countries may clash in Central Asia.¹⁷⁷

Russia's collaboration with India, especially in the military sphere, will remain stable; with India getting involved in the manufacture of Russian weaponry for export, the cooperation may get even stronger at the end of the period concerned.¹⁷⁸

Military Dimension

Irrespective of the efforts made to strengthen the conventional forces, the nuclear weapons will remain the basis of Russia's military power and a response to any potential large-scale conventional attack. Even though maintaining the present-day number of nuclear weapons would be difficult, the country will attempt to compensate the reduction by increasing the number of warheads per one missile.¹⁷⁹ Also, taking into account the development of NATO and US missile defence systems, Russia will continue to strengthen its own missile defence capabilities.

¹⁷⁶ NIC, Mapping the Global Future 2020..., p. 74.

¹⁷⁷ Ibid, p. 27. Naumann et al, Towards a Grand Strategy for an Uncertain World..., p. 33.

¹⁷⁸ UK MOD, Global Strategic Trends Programme 2007–2036, p. 53. Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 43, 57.

¹⁷⁹ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 34–35.



Russia's military reform will be further carried on. Taking into account the new division of military districts (6 former military districts were reorganised into 4 districts with strategic-operational commands), attempts will be made to turn each military district into independent (self-sustained) unit with a permanent command and required military capabilities. Due to economic problems, Russia may fail to secure sufficient financing of all military reform programs in the period concerned; therefore, it will selectively finance separate programs (in particular those related to the weapons of mass destruction). It will be the way to counterbalance the advantage of other countries in conventional or high-tech areas (e.g. missile defence). Rearmament is considered to be a core concern, and Russia is planning to start a huge arms modernisation programme. The nuclear submarine programme will most likely be one of the priorities in the period concerned. Special attention should be continuously paid to the modernisation of the Western Military District and the deployment of forces in the direction of the North-West.¹⁸⁰

Russia will proceed with orienting its conventional armed forces towards the defence of the country but will not have the required capabilities to carry out large-scale operations at strategic distances. Most of the armed forces will be of a permanent readiness, especially in the Western direction, and capable of effective operations in the Russian border area. Russia will continue to maintain a substantial reserve.¹⁸¹ The navy will have only very limited capabilities to operate in the ocean worldwide;¹⁸² hence its potential areas of activity will be Russia's coastal waters. This suggests that Russia will be able to project power only within its immediate sphere of influence to defend the homeland, while relying heavily on its nuclear arsenal to discourage superior militaries and coalitions from encroaching upon its region.

It is likely that in pursuit of the political domination goals in Europe, Russia will dedicate large capabilities to information and cyber operations.

2.1.4. China

A rapid China's economic growth of twenty recent years and the growing military power have dramatically changed the balance of power in both the East Asian region and the entire Asia. Today China is a regional power with its still obscure ambitions of global policy. When forecasting the tendencies for China's future development, we should focus on two questions. First, will China succeed in maintaining the current pace of economic growth and for how long it will be able to do it bearing in mind that the economic growth is the fundamental factor behind China's social and political stability? Second, what priorities of foreign policy China will have – will it try to change “the rules of the game” or will it prefer to act according to the established norms?¹⁸³

¹⁸⁰ Ibid.

¹⁸¹ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, .

¹⁸² NATO, FSE 2025.

¹⁸³ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 23.

Demography

The Chinese population will grow from 1.4 billion (2010) to 1.5 billion (2030), i.e. by over 7%, during the analysed period. The success of keeping the population growth under control will most likely be the outcome of one-child policy. Simultaneously, it will mean that China, like Western countries, will be facing the problem of population ageing. The number of residents of 65 years old and more will double in the discussed period; in 2030 they will account for 16% of the total population. It will become a special challenge to both Chinese economy and the social and health policy implemented by the state.

Despite the economic growth, the social structure of Chinese population will change only marginally – though the number of well-off residents will grow, the gap between different social groups may increase. Economic expectations, deteriorating environmental situation, shortage of water and other problems will trigger the domestic migration from rural areas to urbanised regions of Southern China. In turn, it will lead to equal rural and urban population numbers in China as early as around 2020. The Chinese emigration to the US, the EU, Russia and other developed countries will not decrease.¹⁸⁴

Due to environmental pollution and poor economic living conditions of a part of the population, the number of the cases of tuberculosis, hepatitis and other diseases may increase in China. There is also a risk of an epidemic outbreak, similar to that of 2004. In around 2020 China may face the mass consequences of HIV/AIDS as the number of infected individuals may exceed the limit of 20 million.¹⁸⁵

Economy

It is not possible to give one future scenario for China's economic development. A number of experts predict that even if the Chinese economic growth indicators will not be as impressive as they have been in the two recent decades, they will remain higher than the world's average (around 5.5%). The openness of economy to foreign investments, the flexible labour market, the increase in work efficiency and the growth of qualified labour force may become the key factors of economic growth. It should help China outpace the US by the share of GDP and become the biggest economy in the world. China will consider its foreign currency reserves as one of the instruments for strengthening its economic power and will try to increase them.¹⁸⁶

On the other hand, there is a considerable number of additional factors which will determine whether this optimistic scenario of China's economic development will be brought to reality. First, the integration of China's economy into the global economic system is rather strong; therefore, it will greatly depend on the state of the global economy in the future and will not be resistant to possible crises or other shocks. The growing dependence on the import of energy resources may become the second serious challenge to China. China has been struggling to diversify its energy sources and to secure their long-term and reliable supply for a number of

¹⁸⁴ NATO, FSE 2025, p. 23.

¹⁸⁵ UK MOD, Global Strategic Trends Programme 2007–2036, p. 28.

¹⁸⁶ Economist Intelligence Unit, Foresight 2020: Economic, Industry and Corporate Trends, p. 13.



years. In this area Beijing succeeded in establishing partnership relations with Angola, Central Asia, Indonesia, Russia, Sudan, Venezuela, Zimbabwe, countries of the Middle East region. However, the growing population will boost the demand for energy resources and China will either have to significantly increase the funds for the import of energy resources (which will deprive funds from other areas) or the country's economy will face the shortage of energy. The supply of electricity, with its demand forecasted to grow as many as four times, may become especially complicated. Third, the deteriorating environmental situation may have a negative impact on China's economic development. As a result of environmental pollution, China already loses about 10% of GDP per annum. Finally, population ageing may be the fourth obstacle to a smooth growth of China's economy.¹⁸⁷

Politics

The prospects of the country's democratization are definitely one of the key issues in the analysis of the potential future tendencies for China's political development. Based on the assumption that the legitimacy of authoritarian regime depends on the ability to ensure the material wellbeing of residents¹⁸⁸ and taking into account the forecasts for China's economic development, it is likely that the domestic pressure for the political liberalization of China will get stronger in the future, though a complete transition to democracy cannot yet be expected in the next twenty years.¹⁸⁹

Next to the maintenance of social stability, the strengthening of nationalist moods in individual regions of the country and the escalation of ethnic conflicts (in particular in the western regions of China) may become another challenge to the authoritarian regime in China. Though the government will have to put much effort to maintain peace and order, the chance of China's territorial disintegration will remain little at least until 2030.¹⁹⁰

The Chinese influence in international relations will continue to grow if it succeeds in maintaining the economic growth and the expansion of military capabilities. China will most likely proceed with the peaceful-rise foreign policy line; i.e. in international relations it will first and foremost follow the pragmatic interests of economic benefit and seek not to involve in international conflicts without a prior careful consideration. The maintenance of *status quo* in international relations will be another China's foreign policy feature. Only the issues of strategic importance – maintaining of territorial integrity or ensuring supply of energy resources – may become an exception. In order to establish its positions as a regional and (possibly) global leader, China will most likely intensify its activities in regional and global organizations. It will especially focus on the forums where China can dominate, e.g. Association of South East Asian Nations (ASEAN).¹⁹¹

As opposed to India, which will seek to increase its political influence in the alliances with the US by

¹⁸⁷ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 24-25.

¹⁸⁸ NIC, Global Trends 2025: A Transformed World, p. 66.

¹⁸⁹ NATO, FSE 2025, p. 23.

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

all means possible, China may in many cases be inclined to act alone and rely on its economic advantages.¹⁹² The key feature of the Chinese-US relations, which will also play an important role in the future, is a bilateral distrust and uncertainty about the intentions of the other side. Certain US officials already tend to evaluate China as a threat to the US national interests and encourage taking the measures for neutralising China's global ambitions. China is concerned with the potential interference of the US with its modernization. The reaction of the US political government to the growing China's military power will play an important role in the future. Until this question is solved, China will most likely try to maintain non-confrontational relations with the US. The economic cooperation between the countries should also be successful and mutually-rewarding. China will most likely not oppose to the deployment of the US soldiers in East Asia for a while, seeing it as a mean for ensuring stability in the region. Nevertheless, it is likely that by gradually gaining more confidence in its powers as the leader of the region, it may want to control the security situation by itself and urge the US to step back.¹⁹³

China's policy in respect of Taiwan may be another reason for deteriorating relations not only between China and the US, but with the neighbouring countries as well. It is likely that China will seek the incorporation of the Taiwan. In around 2020 the problems of the Taiwan and the Korean Peninsula are likely to come to a head and to cause conflict situations that may have global consequences.¹⁹⁴

China's relations with Japan will be difficult to predict. In around 2025 Japan may attempt to ameliorate its relations with China for the sole reason of getting access to a large China's market. Nevertheless, a more likely scenario is the persisting reserved relations between Japan and China or their possible deterioration in the future.¹⁹⁵

It is likely that the relations between China and the EU will change, with the increasing EU stress on the issue of human rights.¹⁹⁶

Military Dimension

China will continue to allocate vast funds for defence expenditure: in the period concerned it will overtake Russia by this parameter and will become the second state in the world by military expenditure and one of the leading military powers.¹⁹⁷ China is likely to catch up with the US in the areas of military communications, nuclear weapons, outer space programs and some other areas. In the discussed period Chinese maritime capabilities will be especially strengthened. It will be mostly driven by the attempt to protect China's nuclear capabilities and its maritime lines of communication.¹⁹⁸

¹⁹² Klaus Naumann et al., *Towards a Grand Strategy for an Uncertain World: Renewing Transatlantic Partnership*. Noaber Foundation, 2007, p. 54.

¹⁹³ Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, p. 26.

¹⁹⁴ NIC, *Mapping the Global Future 2020...*, p. 55.

¹⁹⁵ NIC, *Global Trends 2025: A Transformed World*, p. 34.

¹⁹⁶ Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*.

¹⁹⁷ NIC, *Mapping the Global Future 2020...*, p. 57.

¹⁹⁸ Naumann, *Towards a Grand Strategy for an Uncertain World...*, p. 54.



China's armed forces will significantly improve its expeditionary capabilities – ability to act on both regional and global scale. China's armed forces will remain one of the biggest armed forces in the world by the number of soldiers; however, the disparity in their development will gradually come to the fore at the end of the discussed period. One part of the armed forces will consist of sufficiently strong nuclear capabilities and a small, yet modern conventional component equivalent to the military forces of the most advanced countries in the world, whereas the remaining (larger) part of the armed forces will stay relatively backward.¹⁹⁹

The growing China's armament will most likely evoke the US response. It is likely that the armament races will intensify in the region including the other countries in the region (India and Pakistan).²⁰⁰

2.1.5. India

Demography

Over the last fifty years fertility rate in India has steadily decreased (in the post-war period it was nearly 5.91 children per woman, in 2010 - only 2.76 children per woman), nevertheless, the population has increased more than 3 times over this period. It was determined by the improving standards of living: reduced infant mortality rate; increased average life expectancy. In the future these demographic tendencies should persist. Indian population should increase from 1.2 billion (in 2010) to 1.5 billion (in 2030), i.e. by 25%. In around 2050 India may surpass China and become the world's most populated country.

The number of people of over 65 years-old will grow twice over the next 20 years; their share in the general population will increase from 5 percent (in 2010) to 8.4 percent (in 2030). The oldest Indian citizens make up one of the most vulnerable social groups; therefore, as this group grows, the government will have to pay special attention to ensuring its social security.²⁰¹

As the population increases, India will become increasingly more urbanised. It is forecasted that 40 percent of the population will be living in cities as early as 2020. India may have 60–70 cities with the population exceeding one million. However, the urbanization process will be chaotic; the country will not manage to develop adequate infrastructure; therefore, living conditions in Indian cities will remain rather poor.²⁰²

Indian society will remain heavily divided. Over half a billion of India's citizens will suffer from severe poverty. The persistence of caste system, religious (Hindu, Muslim) extremism, the gap in the standard of living between the richest and the poorest may cause political instability, social unrests, sporadic domestic conflicts.²⁰³

¹⁹⁹ UK MOD, Global Strategic Trends Programme 2007–2036, p. 76.

²⁰⁰ Ten pat, p. 72.

²⁰¹ NATO, FSE 2025, p. 25.

²⁰² Ibid.

²⁰³ UK MOD, Global Strategic Trends Programme 2007–2036, p. 47.

Owing to its colonial past, India is still a partly English-speaking country; therefore, the US and the United Kingdom will be among the major immigration destinations for India's residents. Substantial flows of people will migrate to Japan and some EU countries. The key reasons of emigration will be chaotic development of the country's infrastructure and health care problems (in particular, the spread of HIV/AIDS). A considerable share of India's population will also leave abroad for educational purposes as the national Indian education system will still not be capable of meeting the rapidly growing needs of the middle class and the growing economy. The country may develop a sufficiently strong education system meeting the national needs at the end of the period only.²⁰⁴

Economy

India's economic growth has been roughly 6 percent per annum over the last ten years. However, not even a rapidly growing economy could eliminate the effect of India's population growth. Therefore, India remains a country of low standard of living (ranked 150th in the world) by the income per capita. To achieve fundamental changes in the situation (i.e. for India to rise to the status of at least a middle-income country), an 8.5–9 percent annual economic growth is required in the next twenty years.²⁰⁵ However, even the most optimistic forecasts limit the annual growth to 6 percent; the process may be even more sluggish after 2020. Thus, in the next twenty years India's economic situation will remain contradictory. On the one hand, it may become the third largest economy in the world strongly integrated into global economic system. On the other hand, economic benefits will not pave their way to the general public easily.²⁰⁶

The factors in favour of India's economic growth will be firmly established democratic institutions, the functioning capital market, IT companies recognised on a global scale and a relatively educated labour force. In the future, the development of high-tech sectors – information, aviation, biotechnologies – may become one of the catalysts of India's economic growth. Until now India's biggest achievements in the IT sphere were related to the 90s Internet revolution in the US. Due to its cheap labour force, India has become an attractive destination for the US offshore companies. However, apart from the Indian city Bangalore boasting the highest concentration of India's IT companies, the largest part of the country remains IT deprived. If India remains attractive to investors in the high-tech sphere (the competition of other developing countries may be on the increase), the situation may be expected to improve.²⁰⁷

Even though India's economic growth will not be adequate to its population growth, India will attain self-sufficiency in food production and even become one of the world's leaders in the export of foods as soon as 2020. However, bearing in mind that a considerable part of India's population will still live below the poverty line, the state will have to stretch a helping hand in order to ensure the food supply to its poorest.²⁰⁸

²⁰⁴ Ibid.

²⁰⁵ NATO, FSE 2025, p. 26.

²⁰⁶ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 40.

²⁰⁷ NATO, FSE 2025, p. 26.

²⁰⁸ Ibid, p. 25.



To ensure a sustainable economic growth, vast investments in infrastructure (in particular energy production and telecommunications) and sufficient supply of energy resources will be required. In order to meet its growing energy needs, India will invest in the development of nuclear energy sector, intensify exploration for oil and natural gas deposits on its territory and seek a closer cooperation with its neighbours and other energy exporters.²⁰⁹

It is likely that the trade relations between the EU and India will improve; thus, the EU is expected to establish a milder customs policy in respect of India.²¹⁰

Policy

India is the largest (by population size) democracy in the world, whose political development, despite certain nationalistic deviations, is mostly based on the rules and principles of consolidated democracy. In the future the democratic rule can still be undermined by corruption (India will remain one of the most corrupt countries in the world) and religious violence.²¹¹ After 2020 the Hindu nationalist party may come to power. It may drive the country into a series of administrative and political crises, with possible divisions within the society; however, these processes will most likely not affect the basic outlines of India's foreign and security policy.²¹²

The further evolution of Indian-Pakistani relations will make a considerable influence on the development of the entire South Asian region. The relations between the two countries will remain complicated, with Kashmir region remaining the key source of disagreements. Pakistan will pursue to drive India from Kashmir, while India will try to maintain the current line of control and seek its international recognition. Should the Kashmir issue remain unsolved in the upcoming two decades, it would encumber the Indian-Pakistani cooperation in other spheres. On the other hand, if a pragmatic solution was reached, for instance, to give Kashmir partial autonomy, it would definitely give rise to unsatisfied groups in both countries fuelling nationalistic moods and causing internal social unrests. It is most likely that the Kashmir issue will remain open; only the level of its escalation will vary depending on the domestic situation in India and Pakistan. The countries may simultaneously try to improve cooperation in other spheres: military, energy, environmental, etc. The project of the gas pipeline planned to run from Iran through Pakistan to India may become a special contribution to the amelioration of relations between India and Pakistan (around 2020). Should the project prove successful, India and Pakistan could expand their cooperation and devise the project of the pipeline from Central Asia, through Pakistan to India.²¹³

Relations with the small nations of the region (Bangladesh, Nepal, Sri Lanka) will mostly rely on the demonstration of India's supremacy and pursuit for economic benefit by often resorting to sanctions and

²⁰⁹ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 40–41.

²¹⁰ Ibid, p. 44.

²¹¹ NATO, FSE 2025, p. 26.

²¹² Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 40.

²¹³ Ibid, p. 41–42.

boycotts as a means of pressure. Indian-Bangladeshi relations may especially flare up in the upcoming 20 years. The difference of opinion will arise over regulation of the flow of the Ganges and other issues of supply of water resources.²¹⁴

Based on the past cooperation experience, India will maintain good relations with Russia (their cooperation in energy sphere will be especially active). However, certain tensions may arise as well: India may be dissatisfied with the working conditions of Indian workers in Russia; Russia may be concerned with India's endeavours to increase its influence in Central Asia.²¹⁵

No essential changes can be expected in the Indian-Chinese relations. The major conflicts over border areas will remain frozen. The countries will compete over influence on both regional and global scale (on attraction of investments, energy sources, domination in Central East, African markets, etc.). To compete with China, India will most likely aim at closer relations with the US and the EU.²¹⁶

Though the actions of India as the regional leader may trigger certain doubts, the approach of the international community towards India will mostly be positive. On a global scale, India will seek to prove its impeccable reputation by taking an active part in international crisis management and peacekeeping. Becoming the permanent member of the UN Security Council may become India's proof of its global power.²¹⁷

Military Dimension

India will continuously increase its military spending. The strengthening of Indian navy will occupy a significant place in India's military strategy. Indian navy will have a more conspicuous presence in the Indian Ocean, including the Persian Gulf and the coast of Africa. The country will possibly take part in joint exercises and maritime military operations together with the US, EU or Russia. An important task of the navy will be the protection of merchant vessels, especially those transporting energy resources. The navy will also perform the functions of nuclear deterrence: submarines will be equipped with nuclear warheads and surface vessels will monitor the activity of naval vessels of Pakistan, China and other countries.²¹⁸

India can be expected to have strong nuclear and ballistic missile components, including a sufficiently noticeable space-based component.²¹⁹

India should significantly improve in the area of military technology development and pose a serious challenge to NATO's current domination in its ability to emulate even the most sophisticated defence

²¹⁴ Ibid, p. 42.

²¹⁵ Ibid, p. 43.

²¹⁶ Ibid.

²¹⁷ Ibid.

²¹⁸ Ibid, p. 44.

²¹⁹ Ibid.



technologies (it will most likely fail in designing qualitatively new technologies).²²⁰

However, the capabilities of India's armed forces, like in the case of China, will remain uneven: one part will consist of a sufficiently strong nuclear component and small modern conventional forces with expeditionary capabilities, while the other far more numerous and unmodernised part will be intended for national defence.²²¹

With a view to preventing a nuclear conflict and avoiding military conflicts arising by accident or on account of misapprehensions, the military relations between India and Pakistan can show a slight improvement (in particular in improving mutual trust in the sphere of nuclear weapons).²²²

2.2. Former USSR Countries

Even though the term “post-Soviet space” is still widely used to describe former Soviet republics of the USSR, two decades after the collapse of the Soviet Union there remain very few traits common to them. The three Baltic States were the only ones successful in breaking away from the Soviet legacy, “returning” into the community of democratic European states²²³ and becoming full-fledged members of the EU and NATO. Meanwhile the remaining states of the former USSR – the Western CIS countries, the Caucasus, and Central Asia - have little in common. – They remain heterogeneous in both their internal political, social and economic situation and in foreign policy directions. To discuss their possible development in the future this paper will focus more on peculiarities of individual states and, where possible, will try to identify certain common trends.

In general, all these states are experiencing nation building freeze. In terms of economic development, they may have improved from the condition of the early 90s, but none are converging with European levels of GDP per capita at the rate of the Eastern EU member states. Although some of these states show interest to pursue a pro-European course, their models of political development still have features either of the autocracies or semi-democracies at best.²²⁴ Among the minor states, the post-Soviet period has brought a persistent disorder and insecurity, a relative isolation from European and global politics, and severe limitations on economic growth (except Azerbaijan).²²⁵ Political liberties in these countries are constrained or suppressed by their political regimes.

The major factor in the future development of these states will remain Russian patrimonial influence, strengthened by the West's inconsistent and confused engagement. Russia will most likely try to maintain and increase its domination, using the window of opportunity created by the lack of attention from other actors (the

²²⁰ NATO, FSE 2025, p. 71.

²²¹ UK MOD, Global Strategic Trends Programme 2007–2036, p. 76.

²²² Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 41.

²²³ Hereinafter in this section the Baltic States will not be separately discussed.

²²⁴ Bruce P. Jackson, “The Post-Soviet Twilight”, in Policy Review (Feb-March 2013), No 177, p. 19, 21–22.

²²⁵ Ibid, p.22.

US engagement in other regions, Europe's focus on its internal problems).²²⁶ Unlike its historical predecessors (the Russian Empire or the Soviet Union), the current Russia's strategy will be to take advantage on a roughly mutual basis without undertaking responsibility for domestic policies of the nations. Russia will continue deploying its limited resources more selectively across the CIS area, focussing on a few strategic priorities, such as gaining control over energy infrastructure and other key economic assets, or retaining military bases, all of which also open avenues for Russia's political influence in this region. Russia will spend more time and attention on some countries than on others, with Belarus, Kazakhstan and Ukraine at the top of the list.

2.2.1. Western CIS countries: Belarus, Ukraine and Moldova

Situated in the north of the CIS area **Belarus** will face the same demographic problems as Russia – population decline and its ageing. In the next 20 years its population will decline from 9.6m (in 2010) to 8.6m (in 2030), i.e. by more than 10 percent. The share of population above 65 years of age will rise from 13 percent (in 2010) to almost 20 per cent, and the number of residents aged between 15 and 64 years will decline from 72 percent (in 2010) to 67 percent (in 2030).

Belarusian economy is likely to be dominated by state capitalism with elements of planned economy. The country will remain dependent on the Russian energy subsidies and cheap loans, supply of raw materials from Russia, and a nuclear power plant will be constructed by Russian investors. Belarus may try to strengthen its own capacities of raw material processing and energy production and maybe even attempt at exporting them independently. If these attempts prove unsuccessful, further Russian subsidies of the Belarusian economy will likely result in increased Russian control of the economy and privatization of strategic assets of Belarus. Continuing selling out of the Belarusian economy to Russia may lead to further loss of national sovereignty.

The project of the Union State of Belarus and Russia will be developed further. Its success will depend on the development of the Customs Union and the Common Economic Space.²²⁷ The Union State secures Russia's political image of an integrator and will remain a perfect framework for advanced relations between the two countries in economic and military spheres.²²⁸

Tense relations with Western countries and institutions (especially the EU) will likely force Belarus to further gravitate towards Russia with the outcome of increasing dependence on Russia in many spheres of domestic development and losing control of economic processes in the country. Having exploited the mechanism of geopolitical balancing between Russia and the West that has been in place for more than a decade, Belarus

²²⁶ Russia's Strategy in Stratfor (Apr 24, 2012).

²²⁷ Ahniya Asanovich, "Russia divides "emotions" and "business" in its geopolitical projects with Belarus", in BelarusInfo Letter (2011), 5(26).

²²⁸ Customs Union between Russia, Belarus and Kazakhstan came into being on January 1, 2010. From January 1, 2012 these states introduced a Common Economic Space. See also *ibid*.



is likely to continue complement its Eastern and Western policy poles by boosting relations with Asian (China), Latin American (Venezuela, Cuba) and the Arab states (Iran, Syria, Libya) which are geographically distant but whose political and economic interests are in various degrees compatible with those of Belarus. In this way Belarus will attempt to become a political and economic player outside its traditional geopolitical zone and to compensate for the costs of problematic dealings with Russia and the EU. Because of reluctant and forced adaptation to the external environment Belarus foreign policy will remain contradictory.²²⁹

Political and military relations with Russia will remain particularly strong. Belarus serving as a buffer state between Russia and the West, Russia will do all it can to ensure the close partnership between the two countries continues. Belarus' autocratic regime and its unwillingness to carry out democratic reforms that the EU requires will be a guarantee that, at least in the mid-term, Russia will remain an important strategic partner. On the other hand, Belarus will not reject the pragmatic cooperation it has with the EU, mainly in the area of economy. Belarusian armed forces will be completely interoperable with Russian forces (key units will be integrated) with the majority of the Belarusian military personnel trained in Russian military academies. It is likely that the defence industry will be maintained and strengthened and arms exports will remain an important source of state revenues. For now, with weak civil society and suppressed and divided opposition, democratization of the Belarusian regime is unlikely. Even though there will be attempts made to approximate cultural identity of the country to that of Russia there is a possibility that younger generations of Belarus's population will be more open to Western values and less tolerant to the authoritarian regime.²³⁰

Ukraine will also be affected by the problem of declining population. It is estimated that by 2030 Ukraine will lose about 11 percent of its population (from 45m in 2010 to 40m in 2030). Emigration to Russia will contribute greatly to this decline.

Lasting dysfunction of the state at the political level, domination of oligarchic clans and widespread corruption will negatively affect Ukraine's economic development and integration into global economic system. Lack of economic resources will be smoothed by slow deterioration of living standards of the population. Ukraine will be no longer able to maintain the socialist-style system of social security.²³¹ The country will remain vulnerable to Russia's economic and, especially, energy pressures. One of the major challenges for Ukraine will be to reduce energy dependence on Russia. Ukraine will be taking measures to diversify sources and routes of its energy supplies, including possible exploitation its own shale gas resources, both for domestic needs and for transit to the rest of Europe. Second major challenge will remain political and linguistic division between Eastern and Western parts. Russia will continue to support pro-Russian Ukrainian population but will not likely escalate ethnic disagreements to an armed conflict. Third challenge will likely be related with Russia's inability to come to terms with Ukraine's sovereignty over the Crimea and Sevastopol. The Crimea

²²⁹ Vyachaslau Pazdnyak, "The Rise and Fall of Belarus' Geopolitical Strategy", in Lithuanian Annual Strategic review (2010-2011), pp. 173-190.

²³⁰ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 35.

²³¹ "Where are you going, Ukraine?" (18 Jan 2013), at <http://www.peoplefirst.com>

therefore will continue to retain the potential to become Europe's flashpoint. Although a conflict between Russian and Ukrainian armies similar to that which took place in Georgia in 2008 is unlikely in the Crimea, small-scale confrontations between Russian nationalist groups and Ukrainian security forces, however, could escalate and lead to Russian intervention, particularly from the Black Sea Fleet which, according to the 2010 treaty extension, will remain based in Sevastopol until 2042.²³² Nevertheless, it is likely that Ukraine will retain its territorial integrity. Political indecision of the country with regard to its pivotal choice between European integration and rapprochement with Russia, as well as its status of a transit country for energy resources is likely to determine the enduring Russian influence on strategic and political decisions.²³³

Given Ukraine's geographic position, its territorial size and population and its role as the main transit state for Russian oil and gas exports to Central and Western Europe, Ukraine will remain a critical strategic factor for Euro-Atlantic and Eurasian security. Today it stands at critical crossroads between developing a liberal state integrated into European space of democracy, prosperity and market economy or an increasingly autocratic system mired in the economic stagnation and political instability. The choice is straightforward: Ukraine can either join the European mainstream or remain in grey zone of insecurity between Europe and Russia. While choosing Russia as its top priority partner is apparently impossible without accepting Russia's economic domination in strategic sectors and in the form of the Customs Union, European integration requires adopting Western democratic standards, including respect of human rights and the rule of law, media freedom, curbing corruption and rejecting the practice of selective application of justice. These principles will be a precondition to move ahead to a new level of Ukraine-EU relations through the Association Agreement. As for the Euro-Atlantic integration, despite pragmatic and extensive cooperation with NATO, it is not likely that Ukraine will follow the path leading to the membership in NATO.

Two interlinked developments set **Moldova's** transformation process: Transdnistrian separatism and out-migration. Over the years the existence of the secessionist Transdnistrian Moldovan Republic (frozen conflict) substantially weakened the fragile legitimacy and authority of the Moldovan state. Transdnistria has become a black hole in the global economy, a hot spot of organised crime and trafficking. Economic and political situation in Moldova will be further heavily complicated by the Transdnistria with no international recognition but with Russia's overt support to regime. Russia's main objective will remain Moldova's non-alignment or neutrality policy protected under the constitution of a unified Moldova. The status would be guaranteed by a federal state structure with continued Russian military supervision²³⁴. In total contrast will remain the call of Moldova, with the support of the Western international community, for the immediate and complete withdrawal of Russian troops and weaponry as a precondition for finding solution to this frozen conflict. Contrary to Ukraine, which will be successful in maintaining its territorial integrity but may provoke debate as to its pro-Western political orientation, Moldova's strategic pro-Western choice should remain stable, meanwhile *de facto* integrity of the country remains questionable. The 5+2 format will be further applied for the settlement of

²³² Taras Kuzio, "The Crimea: Europe's Next Flashpoint?", The Jamestown Foundation (Nov 2010), p. 36-37.

²³³ Ministry of Defence of Finland, op. cit., p. 31.

²³⁴ The Russian scenario envisages handing secessionist authorities a share of power in the country's central government under a federal formula and guaranteeing such a settlement through a predominantly Russian military force.



the Transdnistria issue.²³⁵ Over the next two decades the situation in all likelihood will not change and could become even more acute.²³⁶ Future reunification of Moldova will be a gradual process of democratisation, demilitarisation and diversification of Transdnistria. The approach should be gradual rapprochement between the two parts of the country, reintegration, confidence building, people-to-people contacts.

One of the biggest challenges that Moldova faces will continue to be its low capacity in governance. Despite the progress made by Moldova's pro-EU government its European course will remain at stake: if the pro-Russian Communist opposition is back to power it will take the country in a different direction. As for now, Moldova is on track to sign agreements with the EU on free trade and visa-free travel as part of the Association Agreement. What is needed is a political consolidation and sustainability of reforms.

In the upcoming two decades the membership of Belarus, Ukraine and Moldova in the EU and (or) NATO should not be expected; however, depending on the efforts of the states themselves and internal processes in the EU and NATO there might be a possibility for strengthened partnerships and new forms of cooperation.

2.2.2. The South Caucasus: Armenia, Azerbaijan and Georgia

Future development in the South Caucasus region could be characterized by several general trends:

- Demographic situation in the region will be slightly better than that of the Western CIS countries: only Georgia will face population decline. Russians and other ethnic minorities will be returning to their countries of origin in increasing numbers, which will subsequently make countries of the region more ethnically homogeneous. On the other hand, links with Russia and its culture will not be severed as migration from these states to Russia will also be rather extensive.
- Economies of the region will remain largely undiversified, based almost exclusively on the production of energy resources and their export or transit. The South Caucasus will remain and even strengthen its importance to Europe as transit region providing alternative routes for the import of energy resources from Central Asia to the EU. The region's dependence on energy resources from Russia will weaken.
- For Russia the South Caucasus in its entirety will remain a focal point with respect to the security and economic interests. Geopolitical situation of the region may change. Russia's influence there might be declining, and the South Caucasus might move from being an exclusively Russia-controlled region to constituting a buffer zone between Russia and NATO/the EU. The levers of Russian influence in the South Caucasus vary. They are economic and military in Armenia, scarcely present in Azerbaijan and essentially related to negative publicity as well as economics in Georgia. Russia will continue to employ new „softer“ ways of preserving what it has in the South Caucasus region. Despite this, especially among the younger generation, Russia will be no longer

²³⁵ Named because of the participants: Transdnistria, Moldova, Ukraine, Russia and the OSCE, plus the US and EU.

²³⁶ NATO, FSE 2025, p. 116.

equated with modernity and security. It will find itself at a disadvantage in competition with Western culture, education and technology, and the attraction of the West is likely to increase.²³⁷

■ Azerbaijan and Georgia are likely to receive increased US attention, even though the possibilities of the deployment of the US military bases in the region remain unclear. This will depend on the overall readjustment process in the system of the US military bases, also on the relations between the countries in the region and the Western states, Russia, Ukraine, and Turkey. Prospects for Euro-Atlantic integration of the region's countries will remain different for each state. It is likely that Georgia will continue to show the greatest integration efforts and results, therefore, it should receive some kind of encouragement from NATO and the EU.²³⁸

■ Political and security situation in the region will remain unstable because of unresolved frozen conflicts: Nagorno-Karabach, South Ossetia and Abkhazia.

Population figures in **Armenia** will remain largely unchanged: population will grow from 3.09m (in 2010) to 3.17m (in 2030). Social and economic systems in the country will be heavily affected by the ageing of population: the number of people over 65 years will grow from 11 percent (in 2010) to almost 18 percent (in 2030). From three South Caucasus states Armenia – the poorest country - will be the most isolated; it will possibly remain a Russia-protected state, but it also could potentially gravitate towards Iran's area of influence. Political isolation of the country will adversely affect its economy: Armenia will be unable to integrate into the international economic system; will not participate in strategic energy projects with Western European countries; energy dependence from Russia will decline but oil and gas import flows from Iran will increase; the country will not be attractive to foreign investors (except for the expatriate community), etc.

Differently from Azerbaijan and Georgia, Armenia will not develop military cooperation with the US. The main security guarantee for this state will be a bilateral defence treaty with Russia, Russia is to extend its lease on military base in Armenia from 2020 to 2044 while reinforcing the garrison of 3,000 Russian troops stationed there to guarantee Armenia's security. Armenian armed forces will be strongly linked with the Russian forces and armed mostly with modernized Russian weaponry.²³⁹

The conflict between Azerbaijan and Armenia over Nagorno-Karabakh will most likely remain frozen. In this conflict Russia committed itself to defend Armenia under the CSTO agreement and bilateral defence treaty. Russia sees its mediation over Nagorno-Karabach in terms of its influence and may not be genuinely interested in a resolution. This is shown by Russian objections to an international peacekeeping force and to changes in the make-up of the OSCE Minsk Group²⁴⁰, which has been mediating on the conflict since 1992. Since the Minsk Group has no real levers to the conflict, the situation in Nagorno-Karabach is likely to worsen, and tension between conflicting parties will rise.

²³⁷ James Nixey, "The Long Goodbye: Waning Russian Influence in the South Caucasus and Central Asia", ChathamHouse Briefing Paper (June 2012), p. 15.

²³⁸ NATO, FSE 2025, p. 50–51.

²³⁹ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030.

²⁴⁰ The OSCE Minsk Group, co-chaired by Russia, US and France, founded in 1992 for the purpose of resolution to the Nagorno-Karabach conflict.



The progress in the EU-Armenian relations, especially in the negotiations on the Association Agreement (including DCFTA), seems to provide Armenia with EU associated membership and draw the country closer to Europe, but it is not likely that Armenia will become an EU member in the foreseeable future.

Population of **Azerbaijan** will grow from 8.9m (in 2010) to 10.3m (in 2030). Population will be ageing: the number of people over 65 years will grow from 7 per cent (in 2010) to 13 percent (in 2030). Azerbaijan will remain a country dependent on a single economy sector – energy export – with widespread corruption and significant wealth differentiation in society.²⁴¹ The country will manage to achieve rapid economic growth by increasing its oil and gas production to maximum capacities, as well as reduce its energy dependence on Russia by increasing the extraction of raw materials in the Caspian Sea region. Still, if no new fields are found, explored reserves will suffice only until 2030. Foreign investors will still be inclined to invest but investments will mainly go to the energy sector and that in turn will hinder the diversification of economy.

Economic growth will create favourable conditions for Azerbaijan to increase defence financing and modernize its armed forces. Azerbaijan and Armenia are caught up in an arms race, in which the former's defence budget will increase with oil export revenues (has been larger than Armenia's entire state budget for some time). Though Azerbaijan is capable of resolving the Nagorno-Karabakh conflict by force, it is not likely that a large-scale military campaign will be launched, which could potentially damage the country's economic situation and relations with the West.²⁴²

While EU-Azerbaijan relations have advanced in some areas, notably in energy cooperation, negotiations on the Association Agreement are proceeding slowly. The government's lack of political will and interest to embrace a European vocation is likely to keep Azerbaijan lagging behind its South Caucasus neighbours and other countries of the Eastern Partnership (except Belarus)²⁴³.

In **Georgia**, in comparison to the other two states, the population will decline from 4.2m (in 2010) to 3.8m (in 2030). Reduced energy dependence on Russia will have a positive effect on Georgia's economic growth: the country will see more intensive extraction of energy resources from the Caspian Sea. Economic stability will also benefit from Georgia acting as a transit country for energy resources.

One of the main political problems of the country will remain its territorial integrity, which is not likely to be restored: returning Abkhazia and South Ossetia to Georgia seems an even more unrealistic option than ever. Although Russia has withdrawn its military bases from Georgia under the Istanbul Agreement, after the war in 2008 it re-established an even greater military presence – almost 4,000 soldiers in Abkhazia and South Ossetia. Continued developing of military infrastructure in the occupied territories indicates that Russia has no intention of leaving. At the same time, Georgia will continue pursuing “non-recognition policy”, including deterring Russia's attempts to achieve international recognition of Abkhazia and South Ossetia, and will seek

²⁴¹ NIC, *Global Trends 2015: A Dialogue about the Future with non Governmental Experts*, 2002, p. 69.

²⁴² Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, p. 52-53.

²⁴³ Eastern Partnership – a Polish-Swedish initiative in 2009 – includes 6 post-Soviet Eastern European states: Ukraine, Moldova, Belarus, Georgia, Armenia, and Azerbaijan.

to engage Abkhaz and Ossetians (applying reintegration strategy of human-centric approach) to eventually reintegrate these separatist regions.

Georgia remains the country in the former Soviet Union with the most potential to take steps forward in democratic development. Georgia's irreversible foreign policy priorities will remain Euro-Atlantic integration and working relations with Russia. The country will purposefully continue on the path of Western democracy by actively cooperating in political and military areas both with NATO and the EU. Of all Eastern Partnership countries Georgia is best prepared to become a NATO member, however, without fixed timetable in sight. In the near future Georgia is likely to sign an Association Agreement with the EU.

Despite some concrete steps from Georgia towards Russia aimed at normalisation of relations they are likely to remain tense.²⁴⁴ Georgia does not seem to have a clear plan about precisely what should be done to improve the relationship without damaging its own vital interests: Euro-Atlantic integration and territorial integrity. The occupation of Abkhazia and South Ossetia will remain the single largest spoiler in Georgia's relations with Russia.

2.2.3. Central Asia: Kazakhstan, Kirgizstan, Tajikistan, Turkmenistan and Uzbekistan

Central Asia is arguably a more cohesive region than the South Caucasus. None of these states are at war with each other or have major territorial disputes, secular Islam is dominant in all of them, none have any overt Euro-Atlantic orientation, they have similar problems such as corruption and drug-trafficking, and they are all governed by authoritarian regimes, albeit of different severity. Of the five Central Asian states, Kazakhstan is the leading state, with the greatest economic and political independence from Russia. At the same time, Kazakhstan is one of the most consistently pro-Russian post-Soviet countries. Owing to its size and large Russian diaspora, Kazakhstan is at once protected from and affected by Russia. Most of Kazakhstan's infrastructure is linked to Russia, which sees the country as the gateway to all the other countries in Central Asia.²⁴⁵ Overall, Russia's influence in Central Asia is waning. Uzbekistan, Kazakhstan and Turkmenistan are increasingly likely to have their own political agendas, Kirgizstan and Tajikistan will remain more vulnerable in security sense.

In the upcoming two decades Central Asia will remain only relatively stable. One of the most serious problems threatening stability of the region and fuelling conflicts between the states may be water shortages and uncoordinated actions by individual states unilaterally managing region's water flows.²⁴⁶ There is also a possibility of strengthening of local radical Islam based around ethnic groups in the region.²⁴⁷


Demography. There will be a trend of total population growth observed in the region. Population in Kazakhstan will grow by almost 9 percent (from 15.8m in 2010 to 17.2m in 2030), in Kirgizstan – by 16 per

²⁴⁴ Ibid.

²⁴⁵ James Nixey, "The Long Goodbye", op.cit., p.8.

²⁴⁶ NATO, FSE 2025, p. 29.

²⁴⁷ NIC, Mapping the Global Future 2020..., p. 74.



cent (from 5.6m in 2010 to 6.5m in 2030), in Tajikistan – by 31 percent (from 6.9m in 2010 to 9m in 2030), in Turkmenistan – by 21 percent (from 5.2m in 2010 to 6.3m in 2030), in Uzbekistan – by 22 percent (from 27.8m in 2010 to 34m in 2030).

Economy. Economic progress of the region's countries will be limited. However, their role as non-OPEC energy exporters might be increasing. The states will be able to significantly increase resource extraction, therefore, it is likely that economy of the region will remain virtually non-diversified.²⁴⁸ Kazakhstan is likely to remain the economic leader of Central Asia. At the same time, some of its decisions on economic policies, such as aid (through investments and loans) to poorer countries of the region, bilateral projects of gas and oil pipelines with China, oil exports via Baku–Tbilisi–Ceyhan crude oil pipeline, could lead to increased tensions with Russia.²⁴⁹ Russia is no longer the number one trading partner of the five Central Asian states as a whole. In Kazakhstan, Kyrgyzstan and Turkmenistan, it has already been overtaken by China.²⁵⁰ However, Russia's economic penetration of Central Asia is more multi-dimensional, encompassing sectors such as mining, construction, military-industrial complex, telecommunications, transport and agriculture.²⁵¹ Kazakhstan aside, the business environment in most of central Asia is poor, partly because of corruption. While this may discourage Western investors, it does not deter Russia.

Politics. Authoritarian regimes will persist in all states except for possibly Kirgizstan. Regime changes could become the source of political instability, but any social unrest, if emerged, is most likely to be suppressed by force. Foreign countries most actively involved in the region will be China and Russia; they will be trying to involve the region's countries in creating energy transport corridors in the directions favourable to them, while EU role will remain rather limited. Russia may gradually lose its positions in Central Asia, while China may come to dominate the region: no matter who comes to power in these countries, they will all maintain good relations with China.²⁵² Nevertheless relations with Russia most likely will remain close: Kazakhstan is a member of the Custom Union – a key Russia's economic project in the post-Soviet space – a basis for integration to the Eurasian Union. For Kazakhstan, the Customs Union is more a symbol of good neighbourly relations with Russia rather than of economic integration. Kyrgyzstan and Tajikistan are being pressurized to join the club.

In terms of security situation in the region, it is difficult to predict what will happen after NATO's withdrawal from Afghanistan. But it is unlikely that the Taliban will immediately move out towards Tajikistan or Uzbekistan.²⁵³ It could also constitute a favourable factor for Russia to strengthen its influence and military presence in the region.²⁵⁴

Military dimension. In the military domain countries in the region will remain largely dependent upon

²⁴⁸ Ibid.

²⁴⁹ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 54.

²⁵⁰ WTO and Asian Investment Bank figures.

²⁵¹ James Nixey, "The Long Goodbye", op.cit., p.13.

²⁵² "Russia in Central Asia: Security Challenges – Real and Imagined", Russia and Eurasia Meeting Summary (Chatham House, 11 Feb 2013).

²⁵³ Ibid.

²⁵⁴ Ministry of Defence of Finland, p. 49.

Russia and will be involved in the activities of CSTO and SCO. The CSTO will remain Russia's instrument of choice when it comes to influencing events in Central Asia with greater "legitimacy".

2.3. Countries of the 'Arc of Instability'

The terms 'arc of instability' or 'arc of crises' define a group of countries situated in different regions which pose threat to international stability because their complicated internal demographic, economic situation, religious extremism, political instability and (or) unclear foreign policy goals. Potential adverse consequences include local and international conflicts, humanitarian crises and terrorism. There is no fixed list of states belonging to the 'arc of instability'; it changes depending on the period. During the Cold War the 'arc of instability' extended from South Asia (India, Pakistan, Bangladesh, Nepal, Bhutan and Sri Lanka) through the Middle East to North Africa.²⁵⁵ Currently it is significantly more expanded and encompasses Sub-Saharan Africa, North Africa, the Middle East, South Asia (excluding India), part of Central Asia (Afghanistan), and part of East Asia (North Korea).²⁵⁶ Further in this section, the main hot spots of instability are discussed in more detail.

2.3.1. The Middle East²⁵⁷

In the next two decades the geopolitical and economic importance of the region will not diminish, meanwhile, the instability may be only rising. The Middle East region will remain the largest global supplier of energy resources providing for increasingly more countries. At the same time, the region will remain one of the world's main centres for weapons proliferation and extremist Islamist operations.²⁵⁸

Demography

Total population in the Middle East region will grow by more than 50 percent until 2030. Societies in these countries will remain young. Urbanization will take up the pace. However, the countries will not be able

²⁵⁵ NATO, FSE 2025, p. 52.

²⁵⁶ NIC, Global Trends 2025: A Transformed World, p. 61.

²⁵⁷ Even though there is no precise definition for the Middle East region, traditionally the Middle East encompasses countries in southwest Asia (Bahrain, Iraq, Israel, Yemen, Jordan, United Arab Emirates, Qatar, Kuwait, Lebanon, Oman, Saudi Arabia, Syria, and Palestinian territories) and Egypt. A broader definition of the Middle East also includes Afghanistan, Pakistan, countries in the Caucasus and Central Asia, and North Africa. Turkey and Cyprus which geographically fall into the Middle East region are normally attributed to Europe.

²⁵⁸ NATO, FSE 2025, p. 125.



to properly respond to these changes – they will be unable to ensure enough jobs, housing, education, health care, social services and other basic elements of public policy. Living conditions will be further aggravated by water shortages. Decreasing quality of living will lead to increasing social dissatisfaction and frustration.²⁵⁹

This situation will be certainly explored by extremist religious and political movements trying to recruit new members (in particular young people) into their ranks. It is likely that radical Islam will be especially attractive to the people searching for a unifying force able to oppose the existing regimes and will become a means of expressing religious rather than national identity.²⁶⁰ The spread of Islam among social groups will not be a threat in itself, but fostering of Islamic identity is likely to strengthen the polarization between the Shia and the Sunni. It is speculated that the spread of radical Islam will reach its peak around 2020 when, following struggles between the groups, a united leadership unrestricted by national borders might be formed.²⁶¹

There is almost no doubt that almost entire labour force surplus will choose emigration to Europe or the U.S. as opposed to the neighbouring states. Western states will attract Middle East population because of their socioeconomic opportunities but they will remain culturally alien; therefore, radical Islam will be strong among the emigrant groups.²⁶²

Economy

In terms of economic development the Middle East region will remain highly heterogeneous. The richest states in the region (Israel, United Arab Emirates, and Qatar) most probably will be successful in maintaining rapid economic growth; meanwhile, less developed countries (Iraq, Yemen, Palestinian territories, and Syria) will face serious economic problems. They will not be able to create enough jobs for rapidly growing labour force (in particular for younger people), unemployment and social inequality will rise.²⁶³

Even though the Middle East region is traditionally regarded as an oil exporting region, economic diversification levels among the region's countries vary (e.g., economies of Kuwait, Qatar, Saudi Arabia and United Arab Emirates are mainly dependent on oil production and exports whereas Israel and Bahrain have relatively diversified economies). In the future, some of these countries will remain dependent on a single sector – extraction and exports of oil and other natural resources. For some (e.g., the richest country in the region Qatar) this will guarantee further stable economic growth, but others (e.g. Yemen) will remain poorly developed. Some states might try to diversify their economies. E.g., Oman – currently the most natural resource-dependent state in the Middle East – is planning to reduce its share of revenues from oil production and exports from 66 percent to 10 percent.

²⁵⁹ Ibid.

²⁶⁰ Ibid.

²⁶¹ NIC, Mapping the Global Future 2020..., p. 81.

²⁶² Ibid.

²⁶³ NATO, FSE 2025, p. 126.

Politics

Despite the Arab Spring, a wave of political and social protests which engulfed practically all countries in the Middle East, and lead to the fall of three regimes (Tunisia, Egypt and Lebanon) broader prospects of democratization in the region remain unclear. Most favourable conditions to further democratic change are in those states where regimes have been successfully overthrown. Nevertheless, it should be pointed out that even in these states the regime changes have been spontaneous rebellions; in the case of Libya – foreign intervention was needed. In general, it could be claimed that in the countries of the Middle East with long histories of non-democratic rule there is little room for the spread of liberal views, as well as formation of civic society which would create basis for more sustainable systemic change. There could be an increase in façade democracies having all the democratic institutions, elections and certain political freedoms, but still undemocratic by nature.

The probability of countries in the Middle East embarking on a path of cooperation or even regional integration in the next two decades is slim. On the contrary, a new balance of power is likely to emerge accelerated by Iran's nuclear programme. Countries in the region will closely follow Iran's decisions in this area and will shape their actions accordingly. If Iran acquires nuclear weapon, several other states in the Middle East might be encouraged to develop their military nuclear capabilities. In this case, at least three nuclear powers would emerge in the region during next twenty years: Israel, Iran and Saudi Arabia. Algeria and Egypt might also consider the possibility of acquiring nuclear weapons. Nuclear arms race in the region would lead to the formation of two power poles: one would be comprised of moderate (Sunni) states led by Saudi Arabia; to counterbalance this block there would be a block of Shia states with Iran at the forefront. The existence of these two blocks would significantly increase the probability of serious conflicts in the Middle East region.²⁶⁴

Despite new grounds common to some of the states in the region (Israel and moderate Arab countries will come to be seen as one block) persisting conflicts will not be resolved. The major breakthrough in the Israel and Arab conflict would be the signing of peace treaties between Israel, Syria, Lebanon, and Palestinian territories. However, this would not most probably help to normalize relations with the neighbours.²⁶⁵ With religious dimension of the conflict growing stronger the probability of another military conflict between Israel and Arab countries should also not be dismissed.²⁶⁶

Until now, major global powers had significant influence on the dynamics in the Middle East region. It is likely that in the future with the consolidation of multipolar international system, the number of external "stakeholders" will only increase. Influence of the U.S., which had the dominant position in the region after the Cold War, could slightly weaken, but the EU, Russia, China, and India will be active. The EU will continue to prioritize the development of economic relations. Even though the Middle East will not pose a direct military threat to the EU, increasing numbers of immigrants from the Middle East to European countries might force

²⁶⁴ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 59.

²⁶⁵ Ibid, p.59–60.

²⁶⁶ NATO, FSE 2025, p. 126.



some EU member states to take additional measures to ensure the stability of their societies. Just like the EU, China, Russia and India will have economic interests in the Middle East but they will also be interested in the intensifying arms race in the region. Interest of third parties in the Middle East will open up wide opportunities for the states in the region to select and change allies. Generally all these alliances will be short-lived and will survive as long as they benefit the Middle East countries, i.e. provide military support, security guarantees or development of trade relations. Though formal goal of the international community in the Middle East will be maintaining stability, the presence of third countries will facilitate armament of the Middle East countries. Thus even without directly participating in regional conflicts foreign countries could become one of the factors destabilizing the region, and the region itself could become a new stage for ‘cold energy war’.²⁶⁷

In addition to the attempts of overthrowing ruling regimes, a potential source of instability could become escalation of national, ethnic, and religious disagreements, humanitarian crises, exploitation of economic resources. Different countries may be affected by different combinations of destabilizing factors, although the worst case scenario – systemic regional crisis affecting virtually all the states in the Middle East – is unlikely. The probability of conventional or nuclear war between the countries of the region is also slight. Most probably, terrorism will remain the main manifestation of instability used to resolve both conflicts between the countries in the region and disagreements with third parties.²⁶⁸

Because of its strategic geographic situation and a growing military power **Iran** will retain its importance and will possibly attempt to become the dominant state in the region. Despite the declining birth rates in Iran over the past several decades, Iran has remained and will remain the most populous country in the Middle East region. Iran will also retain the position of cultural leader for Shia states and will outrun other countries in the region by literacy and gender equality rates. Iranian economy remains based around natural resources: Iran is the third largest country in the world by oil resources and the second largest by gas resources. For now, the economy remains largely controlled by the state, a lot of sectors are stagnating because of corruption and bureaucracy. If Iran manages to solve these problems, to improve energy infrastructure and, in addition to energy sector, invest in other economic sectors (firstly into the finance and banking), in the future it could secure a stable and dynamic economic growth.²⁶⁹

The largest armed forces in the region, investments into armed forces’ modernization (both national arms industry and imports from Russia, China, and North Korea), and a nuclear programme maintained by the state quite clearly reflect Iran’s military ambitions. It is likely that strengthening of conventional military capabilities will remain one of the priorities for Iran though attention to asymmetric tactics could also be an option.²⁷⁰

Further scenario of Iran’s development will at large depend on the outcome of the struggle between

²⁶⁷ Ministry of Defence of Finland, Predictions Regarding International Actors up to the Year 2030, p. 60–61.

²⁶⁸ Ibid, p.61–62.

²⁶⁹ UK MOD, Global Strategic Trends – Out to 2040, p. 57.

²⁷⁰ Ibid, p.57–58.

internal political groups – reformists and hard-line Islamists. Accordingly, three scenarios of Iran’s development are possible: (1) no clear winner on the Iranian political stage and the continued balancing between reforms and the hard-line policy; (2) Iran establishes itself as a strong theocratic state with foreign policy focused on maintaining territorial integrity and strengthening military power; (3) reformists come to power, theocratic regime is overthrown (possibly by way of a revolution) and Iran slowly becomes more open country pursuing transparent and non-confrontational foreign policy.²⁷¹

Syria is another state in the Middle East region whose growing military power could become a concern for the international community, particularly in the light of unclear future of the country’s political regime. Syria is already implementing nuclear and chemical programmes (though it does not officially recognize its uranium enrichment activities), and has a stock of biological weapon. It is likely that Syria will try to use these weapons for symmetrical attacks or supply technology to terrorist groups.²⁷²

Afghanistan will remain a state of increased risks and demanding attention from the international community, particularly after the end of NATO’s International Security Assistance Force (ISAF) operation. If reforms fail, the country might become a long-term source of instability and tensions. Afghanistan could retain clear remnants of tribal regime and conflicts. If Kabul strengthens central rule, it is likely that tribal disputes in provinces will remain and in some places could even become more acute and escalate into conflicts between constantly regrouping and internally differing coalitions. Western aid to support Afghanistan’s economic and social development could become the object of intertribal competition as opposed to being a foundation for sustainable development.²⁷³

It seems that **Iraq** will remain weak throughout the upcoming two decades. The struggle for power in Baghdad could continue being a result of rival between various groups competing for foreign aid or simply status of importance and the implementation of weak economic policy.²⁷⁴

2.3.2. Pakistan

The future of Pakistan heavily depends on the development of neighbouring Afghanistan and is difficult to forecast. Province on the northwest border of Pakistan and tribal territories within it will most probably remain under weak rule and continue being a source of instability. There is a likelihood of Pakistan being unable to maintain its territorial integrity. In this case a large-scale union of Pashtun tribes is probable leading to the lifting of Durand line and expanding Pashtun influence in Punjab Pakistan and Tajik Afghanistan to the maximum. On the other hand, Taliban and other Islamic activists could pursue a variety of intimidation measures as an alternative to such tribal policies.²⁷⁵

²⁷¹ NATO, FSE 2025, p. 32.

²⁷² Ibid, p.32–33.

²⁷³ NIC, Global Trends 2025: A Transformed World, p. 72.

²⁷⁴ Ibid.

²⁷⁵ Ibid.



It is likely that Pakistan will become even more divided, isolated and dependent on international financial aid. All attempts to remove ongoing chaos in the political and economic governance of the country, corruption, and ethnic friction will not bear results. Government will remain dependent upon radical Islamist parties, individual groups of political elite, etc. Armed forces will continue being one of the principal and most powerful institutions in Pakistan which will receive special attention from all political, religious and other groups.²⁷⁶

It is likely that Pakistan's political and military cooperation priorities will be directed towards China, economic cooperation priorities – towards Saudi Arabia.²⁷⁷

Kashmir will remain the main source of dissent with India. Pakistan and Kashmir nationalists will seek to exacerbate the situation in the region, to push India out of Kashmir and annex it to Pakistan. It is however likely that a conflict will be avoided and there is even a probability of slight improvement in the cooperation between Indian and Pakistani armed forces, in particular in the areas of nuclear confidence and control.²⁷⁸

One of the possible stimuli for improved relations with India could be worsening of internal situation in Pakistan. For fear of growing political and economic marginalization of the country, Pakistan's political establishment could attempt looking for ways to improve relations with India and thus improve economic situation of the country.²⁷⁹

2.3.3. Korean Peninsula

Unclear intentions of the domestic and foreign policies of North Korea following change in leadership, constant probability of a conflict with South Korea and the U.S. means that North Korea will remain one of the greatest threats to the security of East Asia and the world. Despite international diplomatic efforts North Korea will not be inclined to improve relations with South Korea in the near future. Further provocations remain a possibility though these will most likely not escalate into a large-scale military conflict.²⁸⁰

International community will also fail to reach an agreement with North Korea to reduce its nuclear threat or at least to ensure higher degree of transparency of its nuclear programme. The danger of North Korea using its nuclear weapon will remain; North Korea will also continue being an active exporter of nuclear technology and its supply systems.²⁸¹

It is likely that North Korea will face serious internal problems: regime might be incapable of providing its population with sufficient energy and food resources; with the end of the ruling dynasty a struggle for power could ensue. Political crisis could lead to closer contacts between North Korea and South Korea, and there is a

²⁷⁶ NIC, *Global Trends 2015: A Dialogue about the Future with non Governmental Experts*, p. 64–66.

²⁷⁷ Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, p. 41.

²⁷⁸ Ibid.

²⁷⁹ *Predictions Regarding International Actors up to the Year 2030*, p. 44.

²⁸⁰ NATO, *FSE 2025*, p. 31.

²⁸¹ Ibid.

probability of the unification of Korean Peninsula (or at least formation of a confederation).²⁸² To ensure that the unification proceeds peacefully efforts to improve mutual relations must be started in the immediate future. Also, North Korea's progress with the development of nuclear arsenal at the time of unification remains unclear. As a result, in addition to other problems (first of all economic), a newly created state would have to solve the question of becoming a nuclear-free state.²⁸³

²⁸² UK MOD, Global Strategic Trends – Out to 2040, p. 62.

²⁸³ Ibid.



Extraordinary
circumstances (shocks)
and their potential
consequences

3. Extraordinary circumstances (shocks) and their potential consequences

For the purposes of this document a shock shall be defined as a sudden and unexpected change in the direction, scope and (or) pace of a certain process, resulting in consequences the existing societal system would be unable to effectively overcome.

A shock may be described by a combination of two characteristics – low probability and high impact – therefore, in order to anticipate potential shocks in the future it is necessary to focus on the circumstances and situations which would deviate most from the probable course of events. Another important aspect in examining shocks is the insight of their consequences on the international system, individual regions and states and their populations.

The list of potential shocks provided here is not complete – it was made by taking into consideration the scale of impact these shocks could have on the international system:

- Terrorist coalition
- Collapse of a strategically important state
- Collapse of an important international organisation
- Global economy collapse
- Fundamental change in energy resources
- Use of nuclear weapon
- Space armament
- Global long-term conventional conflict
- Disruption of global communication and information systems
- Pandemic, technical and natural disasters of an extraordinary scale
- Sudden climate change
- Water shortage

Terrorist coalition

A terrorist coalition is a deliberate and calculated alliance of various terrorist groups or organisations to achieve common goals and interests.

A terrorist coalition may develop different organisational forms but the most dangerous and the most destructive form of cooperation would be the creation of an international terrorist organisation with efficient organisational structure. Such terrorist coalition would be composed of different types of terrorist groups (religious, ideological, and nationalist) having a common goal of fighting against the processes of globalization and modernization.



A terrorist coalition with a robust and coherent organizational structure and common funding mechanism would be capable of carrying out terrorist campaigns on a larger scale and with more intensity. Common budget would provide an opportunity for purchasing modern technologies and weapons of mass destruction. Acting as a coalition terrorists could be able to carry out an extremely large-scale terrorist attack or several terrorist acts of the same or different type in different geographic spots simultaneously.

First and foremost, activities of a terrorist coalition would greatly reduce the possibilities of individual states and international organisations to effectively respond to terrorist attacks, would undermine their moral and political authority. In the long term activities of a terrorist coalition would strongly affect financial, human, and other resources of countries, protection of human rights and freedoms, free movement of people and capital. It is likely that international ethical and legal norms would be revised to create more legitimate opportunities for the international actors to implement anti-terrorist activities.

Collapse of a strategically important state

Strategically important states are states that due to their political, military and (or) economic power practically determine the evolution of international processes and have the greatest influence on the actions of other international actors.²⁸⁴

Collapse of a strategically important state could be caused by a variety of factors: protracted political crisis (in the case of non-democratic regime – struggle for power within the political elite and potential strengthening of the opposition); economic bankruptcy of the state; social unrest, often resulting from economic difficulties and escalating into an open civil conflict; clashes between various ethnic groups living in the country escalating into an open conflict and posing threat to territorial integrity of the country; large-scale natural, ecologic or technical disaster and the inability of the state to efficiently manage the crisis. Depending on a concrete state a combination of these factors may differ; in separate cases collapse of a state could be the result of some other specific cause not covered in this document.

Collapse of a strategically important state would in all aspects destabilize the international system. The existing balance of power would be disrupted, as well as activities of the major political and economic international organisations. States linked with the collapsed state by close strategic partnership relations would be particularly heavily affected – they would lose an important national security guarantee. Other states that saw the collapsed state as their competitor/enemy would seek to exploit the resulting situation to increase their power in the international system. In their attempt to draw former allies of the collapsed state into their sphere of influence they might apply political, economic and in extreme cases military pressure. A probability of military invasion into the territory of the collapsed state should not be dismissed as well.

²⁸⁴ Strategically important states are states covered under 2.1 Key actors in the International System. Description of this shock does not include some of the states in the Arch of Instability because their strategic importance is disproportionate to their power resources.

Socioeconomic consequences of a collapse of a strategically important state would also be adverse: significant flows of refugees into neighbouring countries and regions, ethnic or social cleaning, disruption in supply of energy resources and other raw materials, disruption of international trade flows, etc.

Collapse of an important international organisation

Collapse of an important international organisation is the suspension of activities by a regional or global organisation exerting significant influence in maintaining international security and stability and (or) regulating economic relations between countries. In this case suspension of activities means both the dissolution of organisation *de jure* under the rules set out in its founding treaty and massive withdrawal of membership in the organisation thus leaving the organisation *de facto* inoperative. It is also possible that formally states continue their membership in a certain organisation but for various reasons no longer see it as an adequate instrument to realise their national interests – essentially the organisation is no longer “used”.

In the case of collapse of an important international organisation the factor of definiteness and predictability regulating relations between countries would be removed. The states to suffer the most would be the states which considered the collapsed international organisation an important channel for implementing foreign policy interests. For other – more powerful states – the collapse would open up the opportunity to act freely therefore, bilateral and multilateral relations between countries could see widespread use of pressure, blackmail and other similar measures. The possibility of interstate conflicts should not be dismissed as well. Collapse of an international organisation regulating economic relations would also have many adverse consequences: lost benefits provided by free trade, aggravated access to foreign markets, difficulties in overcoming economic crises without access to aid from external funds, etc.

Global economy collapse

Collapse of the global economy means the collapse of an established system of production, trade, finance and transportation relations between countries.

Economic globalization fosters economic cooperation and integration of countries but it does not remove the desire of governments and non-state actors to dominate in various economic areas. Unreasonable increase in prices of certain goods or services would lead to the collapse of the main (most powerful) sectors of international markets which in turn would lead to economic and financial crises in individual countries and entire regions because of high interdependence of states.

Global economy crisis would have the worst effect on those countries which are the most dependent upon complex relations of international economy. Possible national consequences of the global economy collapse would be: economic and financial bankruptcy of countries, mass unemployment, mass protests, riots, rise in crime rates, huge sovereign debts, collapse of social security systems and public service sectors, disintegration



of infrastructure, collapse of political systems. On the international level, collapse of the global economy would disrupt the established economic relations between the countries for a long period of time and would increase the probability of military conflicts.

Fundamental change in energy resources

Fundamental change in energy resources means a universal move to new energy resources (controlled nuclear fusion reaction, controlled thermonuclear reaction, use of hydrogen, ethanol, sun, wind, etc.).

Move to alternative energy resources would enable countries to free themselves from the increasing dependence on rapidly declining primary energy resources (oil, gas, coal). New energy resources (in particular light nuclear synthesis, hydrogen, ethanol, and methanol) would be more mobile, autonomous and provide for relatively cheaper energy. New technologies allowing efficient use of local renewable energy resources (sun, wind, water) would create opportunities for solving the problems of unequal geographical distribution of resources and energy dependence, and would ensure secure and uninterrupted supply of energy.

Fundamental change in energy resources would also have negative consequences on the international geopolitical system. Important international organisations, such as OPEC and Eurogas, would lose their significant influence on the global market. Oil-rich countries would lose their international status and oil revenues and consequently be pushed out to the margins of the international system. This would negatively impact social and political development of these states and (or) regions they belong to: lead to potential collapse of their economic systems, increased emigration to more stable regions, also create favourable conditions for regional military conflicts. In certain cases these changes would allow extremist groups to overtake national government structures which in turn would increase the likelihood of regional conflicts.

Use of nuclear weapon

Use of nuclear weapon means an event when a nuclear weapon of tactical or other purpose is used in time of peace, crisis or war.

Open military power demonstration by certain countries, as well as their attempts to enforce their will may become a reason for other countries to acquire nuclear weapon as a security measure against possible military intervention. Growing dissemination of information and the access to technologies may provide better opportunities for non-state international actors (e.g., terrorist organisations) to acquire nuclear weapons or radioactive substances and technologies needed to develop a nuclear weapon. Terrorist organisations could attempt to develop their own nuclear weapon and use it in terrorist campaigns.

Unilateral use of nuclear weapon, irrespective of the intents of such act, would greatly damage the international balance of power, create more difficult and more dangerous strategic environment. This would diminish the ability of the world's most powerful states to carry out large-scale military operations, fundamentally

alter the course of an armed conflict and weaken the effects of arms control mechanisms.

Use of a nuclear weapon would cause extremely high environmental damage and would have substantial long-term negative consequences for human life. Mass migration of nuclear attack survivors to safer regions would ensue which subsequently would fuel social unrest, create new hot spots for tensions and conflicts over territories, drinking water and foods not poisoned with radioactive substances would emerge.

Space armament

Human activities in the near space go back for about 50 years but all the operations until now were limited to the militarization of space: deployment of non-destructive instruments – navigation and intelligence systems, communication satellites – in space. Space armament would mean launching weapon systems into space and/or their deployment in cosmic objects

Even though the international community has agreed on using space solely for the benefit of humanity and peaceful purposes only, major countries could be including plans to expand available military capacities into space – the fourth military dimension next to land, sea and air – into their geopolitical strategies with the aim of maintaining or increasing their influence with respect to other countries.

Deployment of weapon systems in space would not only destroy the established strategic balance between the major geopolitical players but would also lead to the changes in the whole global security architecture. The effectiveness of using conventional or nuclear weapons, as well as nuclear deterrence would become greatly limited. Increasing number of states possessing only conventional and nuclear armaments would no longer be capable of properly ensuring their security and would turn to developing new capabilities deployed in space – it would inevitably lead to new arms race.

Deployment of weaponry in space would increase space load and consequently the probability of collision with man-made or natural space objects. In case of such collision any wrong interpretation of the incident would increase political tension or even spark military conflicts. Moreover, growing number of military objects in space would hinder the development of peaceful space programmes designed for civilian needs.

Global long-term conventional conflict

Conventional world war is a large-scale long-lasting military conflict which involves many countries in the world and military actions on several fronts (often in several continents) simultaneously, by employing only conventional²⁸⁵ weapons.

A developing conventional world war could be recognized by the following indicators: intensifying armament of countries (often in violation of international arms control agreements); formation of new or

²⁸⁵ Conventional weapons include all arms even the ones banned by international treaties, except for nuclear, chemical and biological weapons of mass destruction.



expansion and strengthening of the existing political-military alliances, also search for separate allies by employing mutual support treaties; strengthening of nationalist ideologies.

Though essentially a world war would be a clash between the most powerful states and their alliances, several scenarios of conflict escalation are possible. It is likely that a conflict may start as a direct confrontation between two or several major countries. The aspirations of the developing states to change the *status quo* and the choice to do so by military means should also not be dismissed as a motive of such a conflict. Another possible scenario is an attack on a smaller and weaker ally of the major global power which could force other countries tied to the invaded country by defence obligations to enter the conflict. A conflict in one of unstable world regions could also escalate into a world war.

A future conventional war would be distinguished by the mass use of modern conventional weaponry: automatic guns, artillery, reactive artillery, high-precision weapon systems, rockets, aviation bombs, etc. This would lead to high numbers of casualties and fatalities, disruptions in the supply of strategic raw materials, humanitarian crises, high numbers of war refugees, heavy damage to agricultural, industrial and other infrastructure and in the long run complete exhaustion of the states. World war would have a long-term negative impact on international relations – there would be loss of confidence in international organisations, disruption in established diplomatic, economic, cultural, and scientific relations between the countries.

Disruption of global communication and information systems

Operation of global communication and information systems, such as the Internet, radio navigation system in space, and communication networks, could be disrupted due to a number of reasons, such as natural or technical factors, terrorist attacks.

Failure of the global communication and information systems would result in great damage to or complete shutdown of critically important national and international systems, operation of particularly important infrastructural objects. Failure of communication and information technology systems would greatly damage efficient functioning of government institutions, endanger the security and economic welfare of the countries. If a lot of economic sectors stop functioning due to the disruption of the communication and information systems, countries would face sudden economic crises. Moreover, there would be quite a number of problems with ensuring proper functioning of national security and defence establishments: if information systems, communication networks are disrupted, it will complicate intelligence gathering, planning and implementation of military operations, slow down decision-making, etc. The magnitude of negative consequences for a state would be directly proportional to level of its dependency on modern communication and information technologies.

Pandemic, technical and natural disasters of an extraordinary scale

Pandemic is massive and sudden spread of infectious diseases exceeding epidemic levels and affecting

a large territory (several countries, a region, continent, etc.). Pandemic could be caused by natural or man-made, known or unknown viruses and bacteria which have naturally mutated and developed resistance to various medications and disinfection agents and spread naturally or were released into the human-inhabited environment. The intensity, multiplication and survival of these viruses and bacteria could be influenced by climate conditions and specific features of society's functioning. Pandemic of an extraordinary scale would not only cause mass illnesses and human deaths but also disrupt normal functioning of state and civil institutions. Pandemic animal or plant diseases would have a negative impact on animal- and plant-farming, disrupt exports and imports of agricultural produce, lead to food shortages in certain countries and regions.

Technical disaster is an event of technical origin, most usually – naturally or artificially occurring failures of technical objects or systems of varying purposes. Negative consequences of technical disasters could be large-scale pollution over territories and ocean aquatory, as well as the atmosphere with poisonous chemical substances, mass human fatalities or devastation of their inhabited territories.

Natural disaster encompasses negative consequences to people and environment resulting from natural events, such as sun storms, collision of the Earth with a space object,²⁸⁶ large-scale earthquake,²⁸⁷ eruption of a mega-volcano²⁸⁸ or a mega-tsunami.²⁸⁹ Strong solar storm would affect the functioning of communication and power systems which in turn would lead to mass interferences in the provision of communication, transportation, and electronic services. Earth's collision with a space object would cause an intensive shock wave; upon impact, solid harmful substances comprising the space object would evaporate leading to the poisoning of the atmosphere; large areas would suffer from heavy demolitions and fires, mass destruction of plant, animal and human life. A strong earthquake or eruption of a mega volcano would result in mass mud slides, fires, collapse of buildings and infrastructure, high numbers of human injuries and fatalities and possible subsequent outburst in infectious diseases. Large volumes of volcanic ash, dust and gas released high into the atmosphere would spread around the globe, block out the sunlight and in the long run would affect the Earth's climate, plant and animal life. Waves of mega tsunami would devastate inhabited territories along the sea and ocean coastlines.

Due to the growing world population, urbanization, state interdependence, intensifying settlement of unfavourable (dangerous) territories, pandemics, technical and natural disasters are likely to have much broader effects on the mankind in the future. Managing the consequences of these disasters (isolation of territories and the infected, rescue evacuation, hospitalization, provision of temporary shelter, drinking water, food, medications and clothing, rebuilding, etc.) will require enormous resources.

Sudden climate change

Sudden climate change involves significant, unusual and unexpected changes in climate system

²⁸⁶ Collisions with space objects larger than 100 m in diameter are particularly dangerous.

²⁸⁷ 9.0 magnitude and above on a Richter scale earthquake within a radius of several thousands of kilometres.

²⁸⁸ Eruption of a mega volcano could release hundreds or thousands of km³ of matter.

²⁸⁹ Mega tsunami – waves of 100 m and above flooding large areas at speeds of 20–30 m/s.



manifested by changing average annual temperature, temperature fluctuation interval, hydrological cycle causing fundamental changes in human and natural systems.

Sudden climate change could occur as a result of natural uncontrolled causes (deviation of Earth's orbit or axis, increase in solar activity, release of large volumes of volcanic gas and dust into the atmosphere, thinning of ozone layer, interruption of oceanic circulation cycle) or factors caused by human activity (deforestation, atmospheric pollution with carbon dioxide, various chemical substances).

Consequences of a sudden climate change would be first felt by the states situated nearest to the North Atlantic Ocean, i.e. most developed and politically stable economies possessing a large share of strategically important resources.

Negative effects of climate change on agriculture, animal and plant life would destroy global economic system, heavily affect public systems, lead to mass migration to territories which can sustain life. Shortages of food, fresh water and energy resources would increase competition and become key reasons for military conflicts. Conflicts could also arise over new territories under no one's influence yet emerging in the course of climate change processes (e.g., during glacier melting). To prevent military conflicts attempts could be made to regulate the distribution of critically important resources by means of new international treaties but dwindling of these resources means that the probability of military confrontation will not be removed.

Water shortage

Fresh water shortage is a quantitative and(or) qualitative shortage of fresh water to meet vital human needs and ensure the functioning of the most important economic and social systems.

Qualitative shortage of fresh water could be caused by natural causes beyond man's control resulting from climate change (glacier melting, reduced precipitation levels, longer and more frequent draught periods, etc.). Water shortages could also come about as a result of certain economic and social activities and the necessity to meet the most important human needs – abuse of river waters, water pollution, population growth, and irrigation could influence not only quantitative but also qualitative shortage of water.

Shortage of fresh water would mean that it would remain an important strategic resource and due to its unequal geographic distribution would determine structural power of regions or even individual states in the international system. International water shortage would inevitably determine a number and intensity of international conflicts. For certain countries, the struggle for limited fresh water resources would become a matter of national security, especially in regions where several states use the same water source.

For countries with economies greatly dependent upon fresh water resources (e.g., irrigational agriculture or hydro energy) the shortage of this resource would most likely lead to an economic crisis. Water shortage would also encourage migration into territories with better living conditions, would prompt a struggle between states or social groups for survival which in turn would create perfect conditions for disputes over territories and(or) resources.

References

1. Andreas Korn, "Prospects for Unconventional Gas in Europe", 5 February 2010. <http://www.eon.com/de/downloads/ir/20100205_Unconventional_gas_in_Europe.pdf>
2. Ahniya Asanovich, "Russia divides "emotions" and "business" in its geopolitical projects with Belarus", in BelarusInfo Letter (2011), 5(26).
3. Bruce P. Jackson, "The Post-Soviet Twilight", in Policy Review (Feb-March 2013), No 177.
4. European Ideas Network, *The World in 2025: How the European Union will Need to Respond*.
5. European Union Institute for Security Studies, *The New Global Puzzle: What World for the EU in 2025?* ISS, Paris, 2006. <<http://www.iss-eu.org/books/NGP.pdf>>
6. Heather A. Conley, "A New Security Architecture for the Arctic. An American Perspective." Center for Strategic & International Studies, January 2011. Economist Intelligence Unit, Foresight 2020: Economic, Industry and Corporate Trends, The Economist, 2006.
7. Jagadeesh Gokhale, "Globalization: Curse or Cure? Policies to Harness Global Economic Integration to Solve Our Economic Challenge". *Policy Analysis*, February 1, 2010, No 659, CATO Institute.
8. James Nixey, "The Long Goodbye: Waning Russian Influence in the South Caucasus and Central Asia", *Chatham House Briefing Paper* (June 2012).
9. John B. Alexander „The Evolution of Conflict through 2020: Demands on Personnel, Machines, and Missions“, 2009.
10. Klaus Naumann et al, *Towards a Grand Strategy for an Uncertain World: Renewing Transatlantic Partnership*. Noaber Foundation 2007.
11. Ministry of Defence of Finland, *Predictions Regarding International Actors up to the Year 2030*, 2007.
12. National Intelligence Council (NIC), *Global Trends 2025: A Transformed World*, November 2008.
13. National Intelligence Council, *Global Trends 2015: A Dialogue about the Future with non Governmental Experts*, 2002.
14. National Intelligence Council, *Mapping the Global Future. Report of the National Intelligence Council's 2020 Project, Based on Consultations with Nongovernmental Experts around the World*. United States, December 2004.

15. NATO, *Future Security Environment Study (FSE 2025)*, 1st Edition, 13 June 2007.
16. RAND, *The Global Technology Revolution 2020, In-Depth Analyses*. Prepared for the National Intelligence Council, RAND Corporation, 2006.
17. Remigijus Šimašius, Ramūnas Vilpišauskas, „Ekonominio saugumo samprata ir politikos principai Lietuvoje“. *Lietuvos metinė strateginė apžvalga 2004*.
18. Rob Huebert et al., „Climate Change & International Security: the Arctic as a Bellwether.“ Center for Climate and Energy Solutions, May 2012.
19. Ronald O'Rourke, „Changes in the Arctic: Background and Issues for Congress.“ Congressional Research Service, CRS Report for Congress, January 2, 2013.
20. Taras Kuzio, „The Crimea: Europe's Next Flashpoint?“, *The Jamestown Foundation* (Nov 2010), p. 36-37.
21. The Telegraph, „Arctic ice could be gone by 2030.“ <www.telegraph.co.uk/earth/earthnews/8005620/Arctic-ice-could-be-gone-by-2030.html>
22. U.S. Department of Energy, *International Energy Outlook*, July 2010.
23. United Kingdom Ministry of Defence, Development, Concepts and Doctrine Centre, *Global Strategic Trends – Out to 2040, 4th Edition*, 12 January 2010.
24. United Kingdom Ministry of Defence, *Global Strategic Trends Programme 2007–2036*, 3rd Edition, 23 January 2007.
25. United Nations, Department of Economic and Social Affairs, Population Division, Population Estimates and Projections Section, Division, *World Population Prospects: The 2010 Revision*. <<http://esa.un.org/unpd/wpp/unpp/p2k0data.asp>>
26. US Energy Information Administration, *World Shale Gas Resources: An Initial Assessment of 14 Regions Outside the United States*, US Department of Energy, Washington, April 2011.
27. Vyachaslau Pazdnyak, „The Rise and Fall of Belarus' Geopolitical Strategy“, in *Lithuanian Annual Strategic Review (2010-2011)*, pp. 173-190.
28. Vytautas Sirijos Gira, „The significance of the Arctic in Russia's foreign policy: why Arctic policy issues are of topical interest to the Baltic States.“ *Eastern Pulse*, 2010 No. 1 (29), Eastern Europe Studies Centre.
29. „Where are you going, Ukraine?“ (18 Jan 2013), at <<http://www.peoplefirst.com>>

UDK 316.42

Vo-153

The World 2030

Managing editor Kristina Šapkinaitė

Graphic Designer Loreta Keršytė

Photos: L. Ambrozevičiūtė, A. Pliadis, Ministry of National Defence, NATO, Reuters, United Nations, Wikipedia, www.bundesregierung.de, www.llnl.gov

20-06-2013 Circulation 600 units. Order Nr. GL-111.

Ministry of National Defence of the Republic of Lithuania,

Layout by the Publishing Section of the General Affairs Department of the Ministry of National Defence of the Republic of Lithuania, Totorių str. 25/3, LT-01121 Vilnius

Printed by the Military Cartography Centre of the Lithuanian Armed Forces,

Muitinės str., Domeikava, LT-54359 Kaunas District

www.kam.lt

ISBN 978-609-412-049-7

