

Education as an economic factor of development in Bosnia and Herzegovina

Abstract

The education system represents the foundation of the infrastructure and the growth and development of any society while, simultaneously, knowledge is the driving force of the new economy and intellectual well-being. The main objective of this article is to present, at top-line level, the problems of the education system in Bosnia and Herzegovina, and to contrast the approach adopted in our country against the context provided by competitiveness, the standards of other European Union countries and the needs of a modern labour market. We also examine citizens' attitudes towards education as a factor in the development of B&H, drawing on original research conducted with the use of a survey questionnaire addressed to a sample of 400 citizens in Bosnia and Herzegovina. A strong majority think that education is one of the real factors that can ensure the future development of B&H; however, citizens perceive that it is the indifference of the authorities – and thus institutional failure – that represents the greatest risk factor in the development of education in B&H.

Keywords: education, Bosnia and Herzegovina, knowledge society, knowledge economy, competitiveness.

Introduction

Despite education in Bosnia and Herzegovina having a long history, and even though the first school in this country was opened two centuries ago, B&H still has to deal with illiteracy and a poor education system. An education system represents the foundation of infrastructure growth and the development of any society, including our own. However, even the political system of the country is not in tune with seeing education as a development factor.

The education system in B&H is substantially decentralised. Education does not fall within the jurisdiction of the state which, nevertheless, does have a Framework Law on (Primary and Secondary) Education, and neither is it the responsibility of the entities (i.e. Republika Srpska and the Federation of B&H). In the Federation of B&H, responsibility for education lies at the cantonal level in which the laws on education are not even harmonised.

Contemporary education policies in developed countries are based on concepts that have been developed in recent decades by the international organisations which deal with education policy, including, among others: UNESCO; the OECD; the ILO; the Council of Europe; and the European Commission. Their work has resulted in numerous guidelines on the best and most efficient implementation of education reforms.

Unfortunately, the situation in Bosnia and Herzegovina continues to be very difficult in all areas, including for its education system, although there are prospects for its development. We examine these in this article which seeks to focus, from the practical side, on the role of education in delivering the future development of B&H.

Knowledge as an economic resource

Knowledge, on recent definitions, is characterised as an individual, invisible phenomenon focused on action, and based on rules and constant changes. Given the complexity of the term, knowledge is manifested as competence, a notion that constantly recurs in the education system of Bosnia and Herzegovina. Namely, the adoption of the Lisbon Declaration requires the harmonisation of competencies with other schools in the European education area. Learning has become a personal responsibility, with people needing to take responsibility for their own knowledge and the quality of the work they do, without waiting for the initiatives of higher levels of management to do so. However, in Bosnia and Herzegovina the problem lies within the system itself, which is loaded with several different laws on education that are often changed, even several times a year.

Not so long ago, the concept of capital and value creation lay in the field of money, material resources and finance and accounting. Today, in managerial and business philosophy, the words ‘capital’ and ‘value’ have a totally different meaning, applying to people and their knowledge, and their creative and developmental resources. Human resources include the total mental and physical potential of employees, but also both their latent and deployed potential.¹ Knowledge, as the driving force of the new economy and intellectual wellbeing, according to current accounting standards and business practices, has the character of material wealth. Some organisations spend more money on education and training than all the institutions of higher education in some countries. For example, IBM spent \$750m on training back in 1987, which was more than the entire budget of Harvard University.² Moreover, it is estimated that, nowadays, the intellectual property of a corporation is three to four times higher than the ‘tangible’ book assets denominated on its balance sheet.³ People are no longer considered as a variable cost: more than one-third of the total growth in the gross national product of the United States between 1943 and 1990 was the result of an increase in human capital. According to a study carried out by experts from the University of Iowa on the economic value of executive employees, professionals who perform complex tasks and belong to the top one per cent produce 127 times more even than the average employee.⁴

One of the dominant features of contemporary, ‘post-business’ society is its foundation in knowledge, justifying Drucker’s term of the ‘knowledge society’. The knowledge-based economy and the knowledge society are dominated by knowledge workers, with education and knowledge becoming not only ‘passports’ to a good job and career

- 1 Sajfert Z (2006) *Menadžment ljudskih resursa, apologija humanog kapitala* Univerzitet u Novom Sadu, Tehnički fakultet ‘Mihajlo Pupin’, Zrenjanin, p. 25.
- 2 Marinković, V (2010) *Upravljanje ljudskim resursima* Megatrend univerzitet, Beograd, p. 26.
- 3 *ibid.* p. 37.
- 4 Goleman, D (2008) *Working with Emotional Intelligence* Mozaik knjiga: Zagreb, p. 40.

but also the main capital of company and industry. Knowledge provides people with more opportunities to choose their organisations as well as their careers. All of these raise the imperative of continuing learning and development, while employers and managers need to become teachers and their enterprises transformed into classrooms. There is no investment in a modern economy that can be, according to Drucker, as profitable as a higher education diploma. Intellectual workers (or knowledge workers) must also invest continually in their knowledge as a means of ensuring their competitive ability and employability.

Changes in the value system – autonomy; independence; respect; and equality in relationships – are becoming the core values and assumptions as regards employee involvement. People are becoming more aware of the value of their knowledge and capabilities such that they do not accept the authority of position but instead seek partnerships. Intellectual or knowledge workers, as pointed out by Drucker, are colleagues and partners, not subordinates. They require managers and leadership that earns their loyalty, devotion and respect. Changes in the labour structure and in employment relations are affecting such people, who are becoming more independent business and intellectual entrepreneurs, capable of selling their knowledge, skills and services to organisations through special working arrangements and networking. New technology strengthens these individuals and expands their power, which enables the creation of networks of individuals.

The role of education in economic development

A significant contribution to these changing attitudes towards people and the economic value of their knowledge has been made by global research which has articulated an awareness of the importance of investing in people and of the impact of development and the advantages of social productivity and development. Together, these issues are summarised in the concept of ‘human capital’ and the great significance that has been accorded to this in the process of the creation of new values. The theory that involves the accumulation of human capital has led, according to Schultz, to:

The important new approaches that direct the economy toward human behaviour.⁵

The direct and significant correlation between training and national income and economic growth in general, as demonstrated in a series of studies, is an integral and most important indicator of the role of ‘human capital’ and investment in it as regards the achievement of the goals of economic and social development. Smith has emphasised the importance of the education and training of individuals for society as a whole, highlighting that the individual skills acquired through training are part of societal, not just individual, wealth. In his analysis of productivity factors, Marx put the expertise and skills of workers in first place, considering versatile human development, together with knowledge and science, to be the most important productive force of society. Education and training contributes to raising productivity and entrepreneurial skills,

5 Schultz, T. W (1985) *Investing in people* CEKADE: Zagreb.

making it clear that education and the development of people are investments in quality itself.

Education and training involves the acquisition of, and constant innovation in, the broad knowledge of applied scientific disciplines and business practices that are relevant to the activity and goals of every company and institution. The future belongs only to those societies, organisations and individuals that will have all the necessary knowledge and skills that enable them to overcome powerful and inter-related forces, such as the speed of change, the complexity of the environment and the uncertainty of the times in which we live. Only those that adapt to changes and constantly renew, improve and acquire new knowledge will be safe.

Education and competitiveness

The fundamental challenge facing the B&H economy is its lack of competitiveness. One of the reasons for the low medium-term competitiveness of B&H is the poor coverage of education which, along with Albania, is the lowest in Europe. This needs to be increased by one-third to reach European levels. Thus, B&H does not have a sufficiently-educated population: only 7.1% of citizens more than 15 years old have an education which is above the secondary diploma (higher school, first degree, masters or doctorate).⁶ However, the EU has adopted a strategy of 40 per cent of citizens having higher education by 2020. One of the reasons why that percentage in Bosnia and Herzegovina is less than 10 per cent⁷ is that more than one-half of the total number of students who are enrolled do not complete their education. Generally speaking, a low level of competition means a low level of so-called applicative competitiveness, which means that the country has inadequate levels of workers' education and training, low capital expenditure and a low capability of managing society and the economy.

According to the Global Competitiveness Index for 2013-2014 of the World Economic Forum, Bosnia and Herzegovina is, among 148 countries, in 87th place. In comparison with the other countries analysed, B&H has a prominent competitive advantage in the following areas of education:

- the quality of primary education (16th)
- the quality of maths and science education (13th)
- university-industry collaboration in R&D (37th)
- the availability of scientists and engineers (27th).⁸

The secondary education enrolment rate puts our country in 73rd place, while the tertiary education enrolment rate puts us in 69th place. Furthermore, 41st place for the quality of management schools is not at all negligible, since management research in this region does not have a long tradition. However, being in 132nd place for the quality of the education system is pretty disappointing, as is the low place in terms of the

6 Domazet, A and E. Resić (2009) *Komparativna analiza konkurentne pozicije BiH ekonomije sa implikacijama za oblikovanje politika* Ekonomski institut: Sarajevo, p. 10.

7 Agency for Statistics of Bosnia and Herzegovina (2013) *Labour Force Survey Thematic Bulletin 9* Sarajevo, p. 31.

8 World Economic Forum (2013) *The Global Competitiveness Report 2013-2014* Centre for Global Competitiveness and Performance: Geneva, p. 130-131.

primary education enrolment rate (107th) and the availability of research and training services (100th).

It is interesting to point out that entrepreneurs in B&H consider an inadequately-educated workforce to be among the most problematic factors for doing business (0.9%), which is also the case with the poor work ethic in the national labour force (2.7%).

However, what is definitely a serious cause for concern is the ‘brain drain’, which is among the biggest competitive disadvantages of Bosnia and Herzegovina, putting the country in 143rd place. Neither is the country’s ability to attract talent any better (140th). Needless to say, these two devastating factors have negative consequences for the country. According to reasonably recent data, 150 000 young people, which is almost 10 000 people per year, have left Bosnia and Herzegovina since 1995; while today more than 60 per cent of young people would do the same if they had the chance. Besides IT experts, the largest outflow of highly-educated people is recorded in health care: more than 340 physicians and specialists have left Republika Srpska during the last three years.

According to the analysis and recommendations of the Organization for Economic Co-operation and Development, B&H needs to move up the value chain in order to strengthen its competitiveness. Above all, it needs to differentiate itself by increasing its applicative competitiveness, which includes the approach to higher education and training; gross fixed investment in equipment and quality management; and better use of its proximity to EU markets. It should be noted that developed countries in particular do not compete primarily on products and services, but in labour skills. A country’s ability to develop an excellent education system and improve the knowledge of its workforce through training is essential to the competitiveness of that country and its companies. Consequently, if we want to make progress in terms of competitiveness, we need to invest more in knowledge.

The most wanted roles in 2030 include the following:⁹

- climate change forecasters
- spatial market planners
- solar fuel developers
- poets
- holographic game producers
- hydrogen marketing and neuro-marketing managers
- anti-terrorism technologists
- health performance enhancers
- nano-manufacturing agents
- renewable energy entrepreneurs
- customer knowledge mining specialists
- real-time supply chain designers.

9 According to research conducted by the Institute for Global Futures from San Francisco, available at: <http://www.globalfuturist.com/dr-james-canton/the-extreme-future/about-the-extreme-future.html> [last accessed on 12 May 2011].

Unfortunately, the education system in B&H is not in compliance with European standards and the needs of the modern labour market, while institutions and companies do not have sufficient professional staff to work with new technologies. On the contrary, the country educates people for employment bureaus. The gap between the needs of the labour market and the professionals who are educated at state-funded universities sees the creation of an arsenal of scarce jobs and a level of over-production among people who do not have the necessary skills. In extremely poor societies such as ours, the problems which stem from having a lack of trained experts are even more pronounced, leaving the labour market with a huge mismatch between supply and demand. This is why young people constantly need to train themselves and to master additional skills.

Indeed, according to the latest analysis of the World Bank, Bosnia and Herzegovina is among the countries with the highest unemployment rate in the region as a result of experiencing shortages in specific skill areas. Specifically, there are almost 40 000 unemployed highly-educated citizens, including those with masters and PhDs, in Bosnia and Herzegovina, according to the data of the Agency for Statistics of B&H.¹⁰

Furthermore, in the absence of qualified personnel in the labour market, and with the lack of formal educational programmes matching the required profiles, companies will have themselves to take on the educational role and start offering training programmes to develop appropriate skills and establish the practice of lifelong learning at work.

At the same time, not only the functional, but also the basic, literacy of the population of Bosnia & Herzegovina is falling into question at a time when the modern world is working on its computer literacy. Of course, there are no accurate data, because of the still-unpublished official census results, but there is a reasonable assumption that illiteracy is growing from year-to-year, putting B&H at the top of the European charts in terms of the number of citizens who are illiterate. Thus, if we want to stay in touch with trends, and be able to respond adequately to the real and current needs of the (labour) market, we will have to start studying the future demand for labour. The list of the professions that will be most needed in the near future quoted above shows strongly why we should take seriously such demands.

The education system of Bosnia and Herzegovina

The contemporary political system of B&H is characterised by a very complicated situation, which is reflected in the decentralisation of education. This has resulted in numerous difficulties since – as we said above – there is no harmonised approach to decision-making and the interpretation of laws in this area. The education system of Bosnia and Herzegovina consists of four basic levels of education: pre-school education and upbringing; primary education; secondary education; and higher education.

Political influence in the field of education is reflected in the appointment of school boards, principals and teachers, which does not necessarily mean that the top candidates

10 There were 39 547 registered unemployed people with higher education in December 2013. For further reference see: Agency for Statistics of Bosnia and Herzegovina (2014) *First Release, Registered Unemployment* Sarajevo, p. 2.

are appointed to these positions. Political motives also have a negative impact on financial management within the education system, leading to out-dated and inefficient school networks, and schools which have inadequate funds for equipment, libraries and teacher training. Monitoring mechanisms, such as education inspectors, are often the victims of political pressures and the lack of independence.¹¹

The education system in B&H provides two types of result: some achieve perfect results; while others cannot express all their values. We need to be aware that, if we want to achieve European and world standards in primary, secondary and higher education, we must invest in education and we have to change. Any investment in education means the acceptance of European standards and values, as well as full membership of the European Union. These factors can help us understand that education is the most important and the most useful social investment that will bring us closer to achieving the goals we have set ourselves. Education is one of the strategic interests and paths for achieving rapid economic and industrial development in Bosnia and Herzegovina. It cannot, however, be said that we do not strive for this in B&H: there are many documents related to the improvement of education and closer movement towards European standards.

The Department of Education was established within the Ministry of Civil Affairs in B&H. As a result of education reform, five strategies have been adopted at the level of B&H and these are:

1. Strategic Direction for the Development of Pre-School Education and Upbringing in B&H
2. Strategy for the Development of Vocational Education and Training in B&H for the period 2007-2013
3. Strategic Direction for the Development of Education in B&H and Implementation Plan, 2008-2015
4. Roadmap and Action Plan for the Inclusion of B&H in EU Programmes for Life-long Learning
5. Youth in Action.

Moreover, seven basic strategies and guidelines for the implementation of the Bologna Process have also been adopted:

1. Framework for Higher Education Qualifications in B&H
2. Implementation of the Framework for Higher Education Qualifications in B&H
3. Standards and Guidelines for Quality Assurance in Higher Education in B&H
4. Recommendations for the Implementation of Quality Assurance in Higher Education in B&H
5. National Action Plan for the Recognition of Qualifications in B&H
6. Model for the Supplementary Diploma in B&H
7. User Manual for the Model for the Supplementary Diploma in B&H.

The pursuit of any reform which is implemented in our society aims to bring us closer to modern European and world standards. In that respect, we follow the positive examples of others while retaining all those positive achievements of education which we have inherited from our domestic forebears. We realise that we are in an age of

11 <http://www.oscebih.org/Default.aspx?id=3&lang=BS> [last accessed on 13 May 2014].

knowledge in which only those countries that develop and gain quality in their education system will succeed.

In order to achieve the desired level of development and a certain quality of education, it is necessary continuously to invest, innovate and follow global trends. This is a good recipe for real progression and, precisely for this reason, it is necessary to observe education as a factor in future development and not a factor of consumption.

Attaching a more significant importance to education implies an increase in education's:

- quality
- efficiency
- availability
- competitiveness
- continuous improvement
- flexibility
- compliance with education standards in Europe and developed countries.

However, in order to achieve this level of progress in B&H, it is necessary to implement a substantial number of reforms in order to improve the education system so that it can gain the importance it deserves. In this respect, a determination of the position and role of all stakeholders in the education process, as well as a determination of the goals of education, can help. We must invest in education because investment in education is an investment in the future.

Review and analysis of the results of empirical research

Education and training is a precondition for the survival and development of modern societies and the assumption is that only those institutions that can adapt quickly, and adopt amendments in the quality of their system of education, and in post-education human resources training and development, will succeed. Therefore, the subject of our study has been education as a factor in the future development of Bosnia and Herzegovina.

The practical aspects of the research study examined the attitudes and opinions of B&H citizens towards the importance and role of education in ensuring the future development of B&H; the elements necessary for increasing the importance of education for the development of our country in the future; and the greatest risk factors in this process.

The research study thus started with three major and specific hypotheses:

H1: Education is one of the potential and relevant factors that will contribute to ensuring the future development of B&H.

H2: Education will regain importance for the development of B&H by the compliance of the education system of B&H with the education standards of Europe and the world.

H3: The greatest risk factor in the process of education development in B&H is sub-replacement fertility rates, or de-population.

The survey instrument was a questionnaire. The research sample consisted of 400 B&H citizens above 18 years old, selected randomly. A professionally prepared and

correctly applied questionnaire, as well as diligently processed data and consistently derived conclusions, led us to reliable results about the general attitude and opinion of the citizens in our sample on the role of education in the future development of B&H.

Respondents could select among three answers ('yes', 'no' and 'not sure') for a question on whether education was one of the factors that could ensure the development of B&H in the future. The results of their responses are presented in Table 1:

Table 1 – Education as one of the factors that can ensure the development of B&H

	No.
Yes	270
No	50
Not sure	80

It is obvious that the majority of citizens think that education is one of the real factors that can facilitate the development of B&H in the future. This result specifically confirms the first in our series of hypotheses.

Respondents had the option of selecting from among four pre-prepared answers, or submitting their own idea, on the question of what is needed for education to regain its importance in the development of B&H in the future (Table 2 has the results).

Table 2 – Elements needed for education to regain its importance in the development of B&H

	No.
Quality, efficiency and availability	210
Competitiveness	10
Continuous improvement and flexibility	90
Compliance with the education standards of the European Union	90
Something else	0

We can conclude from the above that the quality, efficiency and availability of education is, in the opinion of the citizens in our sample, crucial in strengthening the importance of education for the development of Bosnia and Herzegovina. Compliance with the education standards of the European Union, as well as continuous training provided not only within the EU regulations but also the local ones, i.e. the regulations of B&H, are also essential assumptions that would help education gain more importance for the development of the country.

The majority of citizens recognised the role of these elements, but our second hypothesis was not fully confirmed.

When it comes to the demographic characteristics of the labour market, many developed countries record decreasing birth rates, an aging population and changes in family life. It is important to point out that Bosnia and Herzegovina does not, in this

respect, lag these trends. The data shows that the situation in Bosnia and Herzegovina is alarming because population growth in recent years has recorded negative trends, threatening the country with depopulation.¹² Many contemporary authors agree on the view that changes in demographic and family structures have as dramatic impact on the labour market and employment as the globalisation of the world economy. Consequently, we have assumed that it will affect education as well.

Table 3 – The greatest risk factors in the development of education in B&H

	No.
Economic crisis	114
Lack of interest of authorities in BiH	280
Outwards labour migration	6
Something else	0

Table 3 provides the details of the results to our question on the greatest risk factors in the development of education in B&H. It seems that the citizens of B&H do not consider a decrease in the birth rate as a serious threat when it comes to the improvement of education in our country. On the other hand, the greatest and, in fact, most crucial risk factor, as recognised by citizens, is the indifference of the B&H authorities towards the improvement of the quality of education. It is not surprising that the economic crisis, in the opinion of many of our citizens, hinders the development of education in our country.

Therefore, we could not prove the third of our hypotheses.

Conclusion

Knowledge and education, as processes, have a significant impact in terms of approaches to raising the quality of life, as well as in terms of improving the standard of living, but their current role in this area does not reach the desired level of achievement.

This research study has addressed the existing problems in order to identify citizens' opinions towards this issue. Analysis of the questionnaires filled in by our respondents has shown how our citizens perceive the role of education as a factor in the future development of B&H. In particular, statistical analysis has led to the following results:

- a strong majority of citizens think that education is one of the real factors that can ensure the development of B&H in the future
- a majority of citizens believe that the quality, efficiency and availability of education are crucial in enhancing the importance of education for the development of Bosnia and Herzegovina
- citizens perceive that the indifference of the B&H authorities represents the greatest risk factor in the development of education in B&H.

12 Agency for Statistics of Bosnia and Herzegovina (2009) *Demography, Thematic Bulletin 2* Sarajevo, p. 22.

Ultimately, in order to achieve established European standards in the field of education, as well as to realise the primary use of education as a factor in the future development of B&H, it is necessary to use knowledge as the most important resource for that goal: fostering the intellectual capital of a nation is a guarantee of its progress. In addition, according to our results, respondents are aware that intellectual workers will dominate the knowledge economy and the knowledge society. Moreover, B&H citizens are aware that education and knowledge are tickets to employment and a career, but are also the main capital of a company and the larger economy. Knowledge given and gained in schools in the European Higher Education Area is verified by competencies that offer more opportunities for career and employment.

Furthermore, it is necessary to harmonise the education system of Bosnia and Herzegovina with the highest international standards but, more importantly, to the needs of the local labour market. That a vast majority of the population in Bosnia and Herzegovina is illiterate while, at the same time, only a very small percentage of its population has a higher education diploma, confirms the failure to give importance to the role of education in the country's prosperity. At the same time, the devastating data on the high rates of unemployment among highly-educated people and those who are leaving the country reveal that the problems are, in fact, far deeper and more complex. A system of lifelong learning is essential for the continuing adjustment of human resources to the needs of the labour market, given that the modern market economy requires a very different set of professional skills and competencies across all sectors. This is important because the future workforce must be educated in occupations that do not yet exist.

However, in addition to investment in education and human capital, and increasing the adaptability of workers and enterprises, it is crucial to work on creating jobs. Also, it is vital to achieve a maximum level of synergy between quality at work, productivity and employment; while work itself, and not just education, should be appreciated and valued. We should not forget that, according to the economic experts of the World Bank, economic success and progress are associated with simple things: work; learning; and savings.

In concluding, we can again cite Drucker, who believes that any investment in a modern economy can not be as profitable as a higher education diploma. Education represents a serious investment, and indeed the one that is most cost-effective, because any investment in education is an investment in the future. This is why it is necessary to choose education as a key factor in the development of the country as a whole.

References

- Agency for Statistics of Bosnia and Herzegovina (2013) *Labour Force Survey* Thematic Bulletin 9, Sarajevo.
- Agency for Statistics of Bosnia and Herzegovina (2009) *Demography* Thematic Bulletin 2, Sarajevo.
- Agency for Statistics of Bosnia and Herzegovina (2014) *Registered Unemployment* First Release, Sarajevo.
- Damjanović, R (2001) *Pred izazovom promjena u obrazovanju* Pobjeda: Podgorica.

- Delors, J (1996) *Learning: the treasure within* UNESCO: Belgrade.
- Domazet, A and E. Resić (2009) *Komparativna analiza konkurentske pozicije BiH ekonomije sa implikacijama za oblikovanje politika* Ekonomski institute: Sarajevo.
- Drucker, P (2006) *Thoughts on management* Adižes: Novi Sad.
- Filipović, V (2011) *Obrazovanje za održivi razvoj* Agencija za odgoj i obrazovanje: Zagreb.
- Goleman, D (2008) *Working with Emotional Intelligence* Mozaik knjiga: Zagreb.
- Kovačević, D (2014) *Studiranje u Europi 2* Akademski centar Banjaluka i Studentski dani: Mostar.
- Kyriacou, C (2001) *Essential Teaching Skills* Zagreb.
- Marinković, V (2010) *Upravljanje ljudskim resursima* Megatrend univerzitet: Beograd.
- Orlić, S (1999) *Unapređenje kvaliteta srednjoškolskog obrazovanja* Nacionalni naučno-stručni časopis, JUSK, Menadžment totalnim kvalitetom, Beograd.
- Sajfert, Z (2006) *Menadžment ljudskih resursa, apologija humanog kapitala* Univerzitet u Novom Sadu, Tehnički fakultet 'Mihajlo Pupin': Zrenjanin.
- Schultz, T. W (1985) *Investing in people* CEKADE: Zagreb.
- Staničić, S (2006) *Menadžment u obrazovanju* Rijeka.
- World Economic Forum (2013) *The Global Competitiveness Report 2013-2014*, Centre for Global Competitiveness and Performance: Geneva.

Internet sources

- http://www.dep.gov.ba/razvojni_dokumenti/razvojna_strategija/Archive.aspx?lang-Tag=bs-BA&template_id=140&pageIndex=1 [last accessed 13 May 2014].
- <http://www.oscebih.org/Default.aspx?id=3&lang=BS> [last accessed 13 May 2014].
- <http://www.globalfuturist.com/more-on-the-extreme-future.html> [last accessed 12 May 2011].