

# Comparison of Balkan countries in the context of sustainable development and quality of life performances

## Abstract

This article focuses on the possibilities of citizens establishing a better life for themselves in the 21st century, taking as our locale the countries of Bulgaria, Croatia, Romania and Turkey. We look in particular at the issues of sustainable development, and the national strategies which have been developed to achieve this, as well as quality of life. In the former case, we examine the institutions which have been developed to contribute to chemicals and waste management strategies; in the latter, we explore issues such as subjective well-being, the local environment and the economic situation, all of which have a bearing on how individuals experience and report their quality of life. All our countries are below the European average in terms of economic development, although they have to some extent improved in the environmental dimensions of sustainable development; nevertheless, there are significant differences between them, and with the EU average, in terms of quality of life. In both cases, these highlight the gaps that remain to be overcome.

**Keywords:** sustainable development, national strategies, institutions, quality of life, Balkans

## Introduction

The question of what are the possibilities for a better life for citizens of countries has correlated substantively with the public policy agenda in recent years. The concept of sustainable development and quality of life are two of the concepts which have emerged as the most common responses to this question. This article, focused on countries with similar features and co-existing in the same Balkans geography, aims to evaluate trends in sustainable development and quality of life. Consequently, the article seeks to draw a sketch of the comparative performance of Bulgaria, Croatia, Romania and Turkey in both these areas.

Within this framework, we first need to define the primary concepts of 'sustainable development' and 'quality of life'.

The concept of sustainable development was first used in the 'World Protection Strategy'; however, it was started to be used widely after being named in the *Our Common Future* report (the Brundtland Report), prepared in 1987 by the United Nations Environment and Development Commission. According to this report, sustainable development is intended to meet the requirements of today without taking away the opportunity of future generations to meet their requirements. In order to realise sus-

tainable development, some of the critical aims of the environment and development policies to be followed are listed as follows (Brundtland Report, 1987: 78):

- reviving growth
- changing the quality of growth
- finding work, meeting the basic requirements of energy, water and health
- guaranteeing a sustainable population level
- protecting and enriching the resource base
- redirecting technology and managing risks
- connecting the environment and the economy in decision-making.

It can be said that 'changing the quality of growth', one of the aims of sustainable development, refers directly to the concept of 'quality of life'. Quality of life is a concept which is becoming more important each passing day. Today, when talking about almost any issue connected with social development, when the direction of that development is asked, the reply given, in general, is 'quality of life'. Quality of life has become a basic aim to be realised in terms of human rights, in determining economic policies, in directing health policies, regarding urbanisation, and accelerating economic development (Tekeli *et al.* 2010: 5). Quality of life may be defined in many different ways, but all such definitions suggest that 'quality of life', to a greater or lesser extent, consists of two basic ingredients: an operational or environmental, and a psychological, *milieu* (Wish, 1986: 94-95).

After explaining briefly the basic concepts of 'sustainable development' and 'quality of life' that we use in this article, we can step forward to evaluate the countries in our scope within this framework.

## Sustainable development

The measures that will be used in a determination of the level of sustainable development are an important issue. There has been no consensus regarding this issue and an 'evolutionary process' is continuing, as mentioned by Robert Engelman (2014: 24). Here, chemicals, waste management and the existence and operation of a national sustainable development strategy will be used as measures.

### Chemicals

Bulgaria has primarily legal arrangements regarding chemicals, as one of the components of sustainable development. It has transferred the relevant international arrangements to its own internal laws. For example;

- the global harmonised system for classification and labelling
- Regulation (EC) 1907/2006 of the European Parliament and the Council of December 18, 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- the requirements of Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer.

In Bulgaria, permanent organic contaminants (KOK) are not produced and their import is prohibited. The importing of CFCs has also been prohibited since 2006. In addition, a Clean Air Act (promulgated in SG. 99/8.12.2006) and amendments to De-

cree No. 254/1999, on the management and control of substances that deplete the ozone layer (as amended and supplemented by Decree No. 28/6.2.2007), have been adopted (*Bulgaria National Report – Chemicals*, 2011).

Romania became a member of the European Union on 1 January 2007. For that reason, it makes its legal arrangements regarding chemicals within the framework of the AB legislation. During the 2010-2015 period, in Romania, as an EU member state, the provisions of the directives and Regulations referred to above will be brought into operation.

Other than these, a plan to implement the Stockholm Agreement regarding Permanent Organic Contaminants, approved in 2004, has been advanced in a National Application Plan brought by government decision (1497/2008). Furthermore, Romania has declared that it is seeking to attain the targets of the 2020 Johannesburg Plan (*Romania National Report – Chemicals*, 2011).

The competent authority for chemicals in the Republic of Croatia is the Ministry of Health and Social Welfare, which has undertaken the necessary activities prescribed by national legislation and ordinances, with the purpose of the comprehensive national regulation of chemicals. The primary national arrangements regarding chemicals are the Chemicals Law (RG 150/05) and its associated by-laws; the Act on the Implementation of Regulation No. 1907/2206 of the European Parliament and of the Council concerning the registration, evaluation, authorisation and restriction of chemicals (OG 53/08); and the Biocidal Products Law (RG 63/07, 35/08). Other than these, the Ordinance on the Classification, Labelling and Packaging of Chemicals (OG 23/08, 64/09) is being revised so as to be in compliance with EU standards.

Regarding materials that are thinning the ozone layer, the Croatian legislation is completely in compliance with the Montreal Protocol and its amendments. Additionally, and in order to reduce the use of agricultural chemicals, the Ministry of Health and Social Welfare and the Ministry of Agriculture, Fishery and Rural Works are working in co-operation (*Croatia National Report – Chemicals*, 2011).

In Turkey, the responsible agencies in the field of chemicals management are the Ministry of Environment and Forestry, the Ministry of Health, the Ministry of Agriculture and Rural Affairs, the Ministry of Labour and Social Security, the Ministry of Transportation, the Ministry of Industry and Trade, the Under-Secretariat of Foreign Trade and the Under-Secretariat of Customs.

The first legislation issued in 1991 relating to the management of chemical waste was followed by the Regulation on the Control of Hazardous Waste; the Regulation on General Principles Regarding Waste Management; and the Regulation on the Control of Waste Batteries and Accumulators. Turkey is also a party to international agreements relating to chemicals; for example, the International Transportation of Dangerous Goods via Highways Treaty was signed in 2009, with Turkey becoming a party on 1 January 2010 through the ratification instrument of Law No. 5434. Regarding the fulfilment of the obligations arising from the Treaty, a Regulation on the Transportation of Dangerous Goods via Highways was issued in January 2010 (*Turkey National Report – Chemicals*, 2011).

Hazardous chemicals which have completed their lifetime and become waste are regarded as hazardous and must be disposed of according to the provisions of the

Regulation on the Control of Hazardous Waste. Furthermore, Turkey became a party to the Stockholm Convention on Persistent Organic Pollutants on 12 January 2010. A National Implementation Plan has been prepared within the framework of the provisions of the Convention (*Turkey National Report – Waste Management*, 2011).

### *Waste management*

According to the European Environment Agency, 47% of the total amount of waste in the EU went to landfill sites in 2004. The trend is expected to continue on a downwards direction, with landfill reaching 35% in 2020. Re-use and recycling are, in contrast, expected to rise from their present level of 36% to reach about 42% in 2020. Incineration was used for only 17% of solid waste in 2004 and this percentage is expected to reach 25% in 2020.

In its implementation of its EU commitments, related to the establishment of a system of facilities ensuring environmentally-sound treatment and disposal of the total waste generated in the country, and the closure of all existing facilities which are not in conformity with the requirements of the legislation and modern technical standards, Bulgaria's National Waste Management Programme 2009-2013 defines a long-term sustainable waste management strategy and a framework for decision-making in compliance with EU legislation and policy (*Bulgaria National Report – Waste Management*, 2011).

Romania's national policy documents governing waste management comprise two main components: the National Waste Management Strategy; and the National Waste Management Plan. These are the basic tools for EU waste policy implementation in Romania. Both documents are currently under a process of revision to establish updated targets and actions for reducing the amount of waste disposed by landfill, through effective selective collection, recycling and the restoring of materials to economic usage, as well as producing energy from waste. Based on these documents, regional plans and county waste management systems were prepared, these being useful in development projects funded by European funds amid the optimisation of investment and operating costs concerning waste management at district and regional levels. The basic principles of environmental policy in Romania are set in accordance with European and international provisions, ensuring protection and nature conservation, biological diversity and the sustainable use of its components (*Romania National Report – Waste Management*, 2011).

### *National Sustainable Development Strategies*

The challenges ahead of the National Strategy for Sustainable Development in the Republic of Bulgaria are:

- climate change
- increases in the prices of energy and the restricted possibilities of new energy sources
- growing social and regional imbalances
- accelerated regional integration in conditions of global economic competition, increasing the level of dependence between regions and countries worldwide
- the influence of expansion over economic, social and territorial cohesion

- the influence of the ageing of the population and migration processes across the labour market, and the offer of services of common interest and across the domestic market
- the increase in transportation traffic
- the over-exploitation of environmental resources and the loss of biodiversity, more particularly the urbanisation of territories and the depopulation of some regions.

The National Sustainable Development Strategy of the Republic of Bulgaria was developed in the pursuit of EU policy on the renewal of SDS and fully reflects the main challenges of EU strategy. The chapter on 'clean energy' also reflects the well-adopted aims and priorities for energy development of the new energy package, accepted in the Spring 2007 European Council (*National Report on Implementing the EU SDS*, 2007).

Croatia's Sustainable Development Strategy was adopted in 2009. The Steering Committee established to draft the Action Plan involved various stakeholders from different sectors. The Action Plan aims to identify gaps and determine the requisite actions and measures for reinforcing the strategy in national policy. The concept of sustainable development has not in itself garnered wide comprehension in Croatia; however, several new national policies and regulations do support it in principle (*National Report of the Republic of Croatia to the UN Commission for Sustainable Development* CSD-18/19, 2011).

The *Strategy for Sustainable Development of the Republic of Croatia*, the document directing long-term economic and social development, as well as environmental protection in Croatia towards a strategy of sustainable development, holds a key position in the Environmental Protection Act. The Strategy contains fundamental principles and criteria for determining objectives and priorities in orienting Croatia's long-term transformation towards sustainable development. The *Strategy* sets basic objectives for, and measures of, sustainable economic development and sustainable social development, as well as environmental protection, identifying at the same time key challenges in their realisation. The analysis of the most important challenges includes a description of the current situation of all of these components. Ultimately, the *Strategy* enlists the institutions involved, and the responsibilities they have undertaken, as well as the methods of implementation and monitoring (*National Report of the Republic of Croatia to the UN Commission for Sustainable Development* CSD-18/19, 2011).

In Romania, the following recommendations for appropriate action have emerged from consultations with central and local authorities, associations and other stakeholders, and have been presented for consideration to the Romanian Government:

1. to begin preparation of multi-annual national budget estimates spanning seven years, thus mirroring the financial programming exercise of the European Union. This is to be conceived on a sliding scale and to be annually reviewable in order to ensure the continuous, uninterrupted funding of sustainable development objectives which conform to the obligations undertaken by Romania as a member state of the European Union and which are within the Romanian national interest
2. to establish, as a component of the Romanian government, a specialist institution for the elaboration of economic and social development strategies in Romania, and to follow up on their implementation. This is to be carried out in conjunction with the support of market capital in the medium- and long-run, and for the co-ordination

of inter-dependent sectoral programmes to ensure the coherence of the government programmes and of those receiving EU financing

3. to create a Ministry of Energy and Resources and to re-examine the functioning of the relevant regulatory mechanisms and specialist agencies in a transparent manner, according to EU policies and practice
4. to undertake as a priority the preparation of a proactive medium-to-long term strategy regarding demographic change and migration, as points of reference for a realistic review of national and sectoral programmes and for the adjustment of strategies on human resource development, education and training, and public health (Romania Ministry of Environment and Sustainable Development, 2008)
5. regarding sustainable development, an appropriate evaluation is made in the *Romania National Report* (2011):

*Close to the end of the first decade of the twenty-first century, after a long, traumatic transition to pluralistic democracy and a market economy, Romania still needs to overcome significant gaps relative to the other member states of the European Union. Seeking to absorb and implement the principles and practice of sustainable development in the context of globalisation, it outlines the premises of a uniform and inclusive vision created by implementation of a National Sustainable Development Strategy.*

In Turkey, a sustainable development process is imagined to increase productivity and competitiveness in all sectors of the economy, while it will require additional costs and sacrifices along with its benefits. However, via an approach to development which was designed with the right measures and incentive policies in mind, the positive externalities of increased productivity and competitiveness will be over and above the short-term costs. For that reason, existing and additional financial resources should be mobilised to reduce the pressure on the environment and to increase the economic benefits (*Turkey's Sustainable Development Report*, 2012).

The sustainable development vision of Turkey has been defined in the context of the principles involved in the *National Environment Strategy*. These include:

- a) taking into consideration environmental protection concerns in sectoral policies such as industry, agriculture, energy, transportation and energy
- b) performing activities in a manner that causes minimum change in the environment; creates minimum risk for human health and the environment; pollutes the air to the minimum extent; and recycles used products
- c) using natural resources in a sustainable manner.

The *Strategy*'s most important sub-objectives include:

- achieving an environmental management system that ensures equitable and healthy access to natural resources by observing the needs of future generations and establishing the projected usage of natural resources
- ensuring a level of integration between environmental policies and economic and social ones
- utilising economic instruments for environmental protection
- providing the necessary incentives and improving finance facilities
- carrying out infrastructure and other investments

- observing environmental protection in all processes from production through to consumption (*Turkey National Report*, 2010).

## Quality of life

Quality of life may be classified in two different dimensions.

The first dimension may be differentiated according to the measurement of quality of life indicators as objective or subjective. Objective measures focus on the material conditions for quality of life and which can be measured objectively. In contrast, subjective measures are based on the feelings of human beings regarding these conditions, i.e. they are subjective evaluations.

Differentiation of the quality of life in the second dimension occurs as individual and community level measures. Generally, when talking of community welfare, we are talking of the welfare of the members of that community (Tekeli *et al.*, 2010: 24).

Within this framework, we are basing our study on three measures, i.e. subjective well-being (life satisfaction and expectations about the future), local environment and the economic situation.

### *Subjective well-being*

This section provides a picture of subjective well-being in Bulgaria, Romania, Croatia and Turkey by focusing on levels of life satisfaction, satisfaction with various life domains and drivers of life satisfaction. Expectations about the future are also included by looking at optimism and its variation according to social group.

#### Life satisfaction

Life satisfaction is extensively used in subjective well-being research, as it is considered to be a holistic measure of the quality of a person's life.

The question measuring life satisfaction in the EQLS survey runs as follows: 'All things considered, how satisfied are you with your life these days?' The question uses a scale of one to 10, with one meaning 'Very dissatisfied' and 10 meaning 'Very satisfied'.

Traditionally, a north-south divide in life satisfaction has been observed in western Europe, with Nordic countries being more satisfied and southern countries displaying a lower level of satisfaction, especially Portugal and Greece.

When it is looked at from this point of view, according to the research of the European Foundation, Bulgarians are the least satisfied with their lives, while Romania ranks slightly above the average for the six low-income EU countries. However, both countries have a considerably lower level of life satisfaction than is found in most of the EU-15. Both countries have similar per capita income, but their citizens report different levels of life satisfaction. The average life satisfaction score in Romania is higher than would be predicted by income, while in Bulgaria it is below the level for countries with a similar GDP (European Foundation for the Improvement of Living and Working Conditions, 2006).

Again according to another research conducted by European Foundation, in Croatia, as in other low-income countries, the mean level of happiness is markedly higher than

the level of life. This difference could capture aspects of subjective assessments of quality of life in different domains. The perspective of EU accession could also contribute to the optimism about the future in Croatia and Turkey (European Foundation for the Improvement of Living and Working Conditions, 2011).

In terms of life satisfaction, when Romania, Bulgaria, Croatia and Turkey are compared (see Table 1), we can see that the highest country of these four is Croatia (6.8). In spite of that, life satisfaction in Croatia is below the EU average (7.1). After Croatia, Romania and Turkey have the same rate (6.2). The lowest life satisfaction value is that of Bulgaria (4.2), which is notably lower than the EU average.

**Table 1 – Life satisfaction**

Country	2006	2011	2013
Romania	6.2	-	-
Bulgaria	4.5	-	-
Croatia	-	6.4	6.8
Turkey	-	6.2	-
EU	7.1	-	7.1

*Source: European Foundation for the Improvement of Living and Working Conditions, 2006, 2011, 2013)*

#### Components of life satisfaction

Comparing different areas of life allows for a more comprehensive assessment of the more positive or more negative aspects within the quality of life measure (see Table 2).

When we look at Bulgaria and Romania, we can see that the standard of living in both these countries ranks lowest among the various alternatives. This shows, once again, that this is the most problematic aspect of people's lives.

Another pattern that emerges for Bulgaria and Romania is the low ranking that people give to their social life, while family life is given the highest value. A similar model is also found in the six low-income EU countries. The low evaluations of social life can easily be explained in that social life is indeed poor and that people, in comparison with western countries, barely socialise.

In relation to people's satisfaction with their education, Romania ranks highest among the countries and country groups included in the analysis.

The relatively high assessment of accommodation, particularly in Romania, calls for some explanation. The objective quality of housing is not generally good, but people can identify here at least some positive elements, such as property ownership for the vast majority, the freedom to personalise it and its value as a commodity.

Jobs are also positively assessed; that jobs are scarcer in Romania and Bulgaria means that simply being employed is a source of individual satisfaction (European Foundation for the Improvement of Living and Working Conditions, 2006).

**Table 2 – Components of life satisfaction**

Country	Education	Work	Standard of living	Accommodation	Family life	Health	Social life
Romania	7.8	7.4	6.1	7.2	8.1	7.3	6.9
Bulgaria	6.4	6.3	4	6.4	7.1	6.5	5
Croatia	-	-	5.9	-	-	7.3	-
Turkey	4.7	6.3	4.6	6.5	7.8	7.1	-
EU	6.9	7.3	6.9	7.6	7.9	7.4	7.2

*Source: European Foundation for the Improvement of Living and Working Conditions, 2006, 2011, 2013)*

When we observe the four countries in terms of these components of life satisfaction, we can draw the following conclusions. The life satisfaction score of Romania regarding education (7.8), work (7.4) and family life (8.1) is higher than the other three countries and also higher than the EU average. The standard of living and accommodation score of Romania is also higher in comparison to the other three countries, although these scores are lower than the EU average. Bulgaria has the lowest values in terms of each one of the components (albeit that some are missing and some where Bulgaria is tied with another). Turkey and Croatia are both lower than the EU average, although they do score higher than Bulgaria.

#### Expectations of the future

In a similar way to life satisfaction, optimism shows a distribution of positive feelings about society, but also indicates a certain direction that is envisioned for that society. According to the European Foundation, having a high income and good education, and being employed and healthy, generally contribute to being optimistic. This is also the case in Romania and Bulgaria. In Bulgaria, gender or area of residence does not have a significant impact in relation to optimism (European Foundation for the Improvement of Living and Working Conditions, 2006)

**Table 3 – Optimism about the future**

Countries	2006	2011	2013
Romania	67	-	-
Bulgaria	47	-	-
Croatia	-	56	56
Turkey	-	-	50
EU	64	52	-

*Source: European Foundation for the Improvement of Living and Working Conditions, 2006, 2011, 2013)*

When the score on optimism about the future in these four countries is compared (see Table 3), it may be observed that Romania is the most optimistic country regarding the future (score of 67), followed by Croatia (56). In both, the optimism value of Romania and Croatia is higher than the EU average. Turkey (50) and Croatia (56) have scores on optimism about the future which are both absolutely low as well as being lower than the EU average.

#### *Local environment*

There is no doubt that the local environment and any problems in this respect is an important variable in terms of the quality of life.

Here, when we compare Romania, Bulgaria, Croatia and Turkey (see Table 4), we can see that the most problematic country in terms of environmental problems seems to be Turkey, which has the highest scores across all environmental issues with these also being well above the EU average. On this measure, Croatia, which also scores well above the EU average, follows Turkey. The scores for Bulgaria and Romania in terms of environmental problems (except for water quality in Bulgaria) are close to each other as well as to the EU average; and at a level that can be considered to be acceptable.

**Table 4 – Respondents complaining about environmental problems (%)**

Country	Noise	Air pollution	Lack of access to green areas	Water quality
Bulgaria	19	1. 24	2. 18	3. 31
Romania	19	4. 26	5. 17	6. 21
Croatia	30.5	7. 32	8. 33	9. 28
Turkey	41	10. 41.5	11. 52.5	12. 53.5
EU 25	18	13. 18	14. 16	15. 15

*Source: European Foundation for the Improvement of Living and Working Conditions, 2006, 2011, 2013)*

#### *Economic situation*

One of the most important elements in quality of life is the economic situation. This not only directly influences quality of life, it also has an indirect impact in terms of the effects it has on the individual factors in quality of life.

When we look at the economic status of the four countries in this respect, focusing on GDP per capita (gross domestic product and the actual level of individual consumption) allows us to demonstrate the economic status of a country using one of the most commonly-used variables.

First of all, the four countries have very low scores on both of these measures. However, relatively-speaking, Croatia (average score of 60) has the highest value both for gross domestic product and for actual individual consumption. The lowest values on both measures belong to Bulgaria. Romania and Turkey are in the middle of these four and have the closest scores on both.

Table 5 – GDP per capita

Country	Gross domestic product			Actual individual consumption		
	2011	2012	2013	2011	2012	2013
Bulgaria	44	45	45	47	50	49
Romania	51	53	55	53	55	57
Croatia	60	61	61	59	60	61
Turkey	51	52	53	58	57	59
EA-18 <sup>1</sup>	108	108	107	107	106	106

Exchange rates and price level indices for AIC, 2011-2013 (EU-28=100)

Source: [http://ec.europa.eu/eurostat/statisticsexplained/index.php/GDP\\_per\\_capita,\\_consumption\\_per\\_capita\\_and\\_price\\_level\\_indices](http://ec.europa.eu/eurostat/statisticsexplained/index.php/GDP_per_capita,_consumption_per_capita_and_price_level_indices)

## Conclusion

Balkan countries, the subject of our research, have begun work on determining strategies for sustainable development, although this remains a continuing process. All these countries are below the European average in terms of economic development, although they have to some extent improved in the environmental dimensions of sustainable development.

In general, our research into these four countries demonstrates the efforts bring made to transpose international law into national law, both in terms of chemicals as well as waste management. This understanding is largely reflected in the national sustainable development strategies. A separation between the four countries may, however, be observed in terms of the basic objective, i.e. the efforts towards the harmonisation of the relevant legislation on sustainable development with the EU legislation.

In terms of quality of life and the elements that constitute it, it has been observed that there are significant differences between the four Balkan countries. These can be summarised as follows:

1. life satisfaction is below the EU average in the four Balkan countries. In Croatia, the figure is approaching the EU average, but it remains quite substantially below in Bulgaria
2. when considering the elements of life satisfaction, we can see that Bulgaria has again the lowest scores, while Romania has the highest scores in six of the seven measures. Moreover, three of these are actually above the EU average
3. in terms of expectations about the future, there is a surprising result. Romania's future optimism score is the highest across the four Balkan countries, and on this

1 The Euro Area (EA-18) is composed of: Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

it is also better placed than the EU average. The other three countries are close to each other's scores as well as to the EU average

4. it may be seen that Turkey's most problematic area as regards quality of life refers to environmental issues. Turkey is well behind the other three Balkan countries in this respect. It can also be said for Croatia that environmental problems are the preliminary factors that have a negative impact on quality of life. Romania and Bulgaria, if we leave water quality aside, have scores which are close to the EU average. Consequently, it is hard to assert for these two countries that environmental issues have a significantly negative impact on quality of life
5. Croatia is in the best condition in terms of its economic status. However, even between this country and European ones, there is a deep gap in terms of GDP per capita. Therefore, it can be argued that the economic situation also has a significantly negative impact on quality of life in the four Balkan countries.

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