

## Part II: Driving forces

# 2 Driving forces that shape environmental futures in the Western Balkans

Part I of this study provided an overview of current environmental trends in the Western Balkans. The future of the environment in the region, however, will be affected by political, social, economic and other dynamics – both those within the region itself as well as the dynamics at global and European levels. This chapter reviews the main drivers that could shape environmental change in the Western Balkans. Through these patterns, the drivers will shape human impacts on the environment in the coming decades. These drivers act on the environment in particular by changing production and consumption patterns, which are the topic of the next part of the study (Part III).

### 2.1 A framework for analysing driving forces

This chapter assesses the key drivers that can influence environmental change in the Western

Balkans in the coming decades. It builds on analysis carried out in recent and ongoing EEA work, including the report on *The pan-European environment: glimpses into an uncertain future*, which was presented at the 2007 Environment for Europe Conference in Belgrade. The EEA's work on drivers is based on the STEEPL framework, described in Box 2.1.

The STEEPL drivers will influence production and consumption patterns, which are themselves drivers that affect the environment (consumption and production patterns are described in the following chapters). Each section of the chapter reviews dynamics and uncertainties of drivers at different geographic scales: global, European, regional and national. Figure 2.1 describes this framework.

As Figure 2.1 suggests, developments at several scales will influence consumption and production patterns in the region. Table 2.1 identifies specific drivers at

#### Box 2.1 The STEEP framework

The STEEP framework is frequently used to identify drivers for futures analysis. This framework classifies forces shaping the future into five broad categories:

- **Social:** changes in composition or attitudes of people, including trends in demographics, gender issues, and consumer values;
- **Technological:** changes due to innovations and applications of science and technology;
- **Environmental:** changes in natural systems/ecology;
- **Economic:** changes in the system of material exchange;
- **Political:** changes in government, related institutions, issues, and their constituents.

The EEA has developed this framework further by including one additional category:

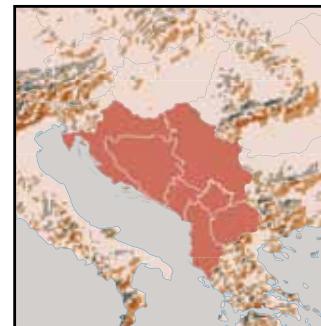
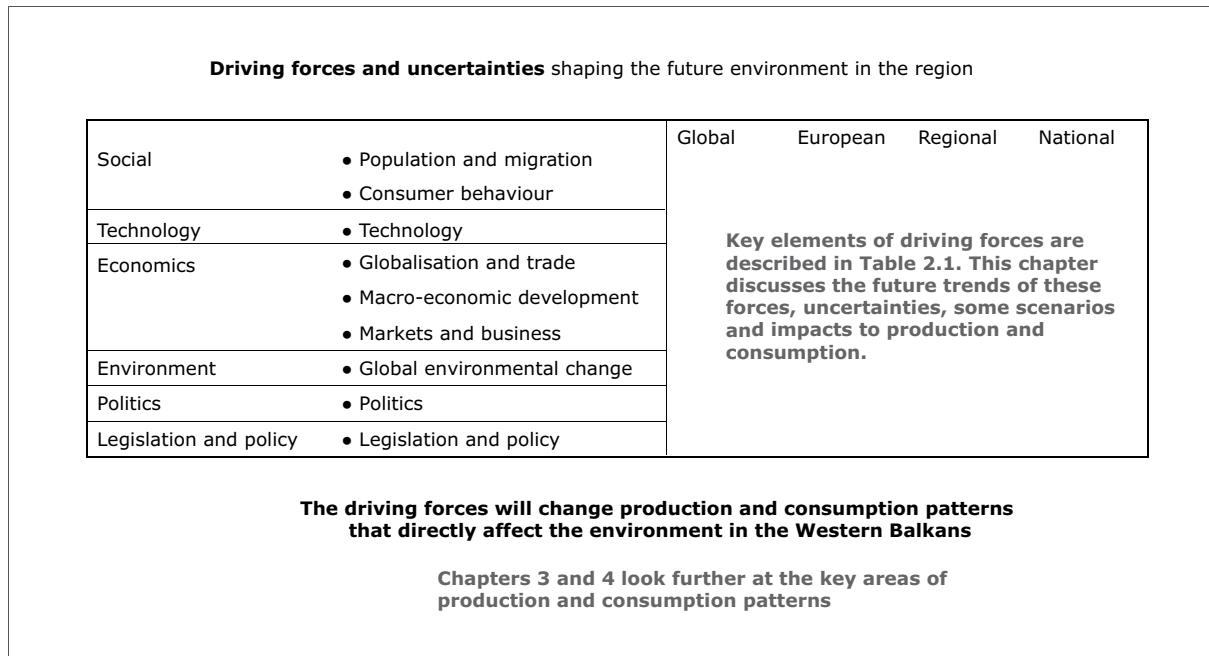
- **Legislative and policy:** the laws that regulate and influence business and household activities in relation to the environment and determine government actions.

Thus, this chapter's analysis uses a STEEPL framework. (Some studies call this a PESTEL framework – see for example, Gillespie, 2007) <sup>(56)</sup>.

**Source:** Peter Schwartz, Global Business Network (GBN) in *The art of the long view*, 1996.

<sup>(56)</sup> Andrew Gillespie, *Foundations of Economics*, 2007 (chapter on business strategy), available at [www.oup.com/uk/orc/bin/9780199296378/01student/additional/page\\_12.htm](http://www.oup.com/uk/orc/bin/9780199296378/01student/additional/page_12.htm) (accessed January 2010).

**Figure 2.1 Linking drivers, production and consumption patterns and environmental futures**



#### Potential environmental futures in the Western Balkan countries

Chapter 5 discusses outlooks and alternatives for major environmental impacts: air, water pollution, greenhouse gas emissions and climate change, land use, solid waste, water use, marine and coastal environment

four geographical scales: global, European, regional (Western Balkans) and national.

At the global scale, for example, the development of new international agreements on climate change is likely to influence long-term decisions concerning energy production in the Western Balkans. Global decisions will also affect the extent of the long-term impacts of climate change, both worldwide and within the region. Similarly, prolonged global economic uncertainty may stunt growth and development in the Western Balkans and this could have wide-ranging impacts on the environment: on

the one hand, production and consumption levels could decline; however, on the other hand countries will have fewer resources to invest in wastewater treatment plants and other pollution-control methods, which could cause further continuation and expansion of the unsustainable use of natural resources (forests, fisheries, water and agricultural land). Developments at European scale, such as decisions about whether and when to admit new Member States to the European Union, will also influence consumption and production patterns and the environment in the Western Balkans: accession will bring new environmental standards and new

legislation that influence agriculture, industry and many other production sectors; it will bring financing to address environmental problems in these sectors; and it will also bring new rules on products that can be placed on the market — and these requirements will then influence the environment and improve the know-how and institutional and governance framework for dealing with issues influencing the future state of the environment.

These drivers are described and analysed in further detail in the sections that follow.

The future holds many uncertainties, which policy-makers and other actors in the region will

need to consider as they prepare robust, long-term actions. The sudden arrival and ferocity of the world's current economic problems show the importance of considering uncertainties and possible unexpected events. This chapter highlights some of these uncertainties and describes several plausible scenarios that have been developed and analysed in recent future-oriented studies.

The various drivers are closely interrelated. For example, political forces can influence economic development, which in turn can affect cultural values. The sections of this chapter highlight many of these interactions (Table 2.1).

**Table 2.1 Key elements of driving forces at different geographical levels**

		Key elements of drivers that influence consumption and production patterns in the Western Balkans			
STEEPL drivers		Global	European	Regional (Western Balkans)	National
Social	Population and migration		• Migration from and via Western Balkans to EU	• Migration within the region (e.g. resolution of 1990s refugees; migration to countries with falling populations)	• Population growth/decline • Ageing populations • Household size • Rural/urban migration
	Culture, values and needs	• Consumer culture • Environmental non-governmental organisations and civil society	• Consumer culture • Environmental non-governmental organisations and civil society		• National cultural patterns • Individuals, non-governmental organisations, civil society
Technological	Technology	• Development of new technologies	• Innovation policies		• Innovation policies
Economic	Globalisation and trade	• Global trade flows	• Imports/exports of agricultural products and raw materials		• Imports/exports of agricultural products and raw materials • Transit of energy resources (e.g. oil, gas)
	Macro-economic development	• Global economic growth	• EU economic growth		• National growth rates • Enterprise restructuring
	Markets and business	• Business leadership for the environment	• Business leadership for the environment		• Foreign direct investment • Business leadership for the environment • Privatisation of energy, water services
Environmental	Global environmental change	• Global climate change impacts • Global biodiversity loss		• Climate change impacts in the region	
Political	Politics	• Geo-politics	• EU internal effectiveness • EU enlargement	• Cooperation among countries in the region	• Accession to the EU • National political and institutional reforms • Social and ethnic instability
Legislative	Legislation and policy	• Global environmental agreements	• Future development of EU legislation		• Implementation of environmental laws • Sustainability policies

## 2.2 Population and migration

### Key messages

In coming decades, most of the countries in the region are projected to see declining and ageing populations; demographic growth is expected to continue only in Albania and Kosovo under UN Security Council Resolution 1244/99.

Migration patterns are less certain. The region must still resolve the legacy of migrants who in the 1990s left to escape conflict and economic problems, and these flows could change the region's demography. In coming decades, countries may see further departures to richer countries; migrants arriving from other continents and countries (including illegal migration); and domestically, further movements from rural to urban areas.

These trends will influence many aspects of consumption and production patterns and the environment. For example, it is expected that households will become smaller, resulting in higher consumption per capita: for example, energy for heating needed per person will increase. Migration patterns are likely to perpetuate rural land abandonment in rural areas, as well as pressures for sprawl in urban areas.

The influence of changes in the expected age structure to consumption and production patterns has not yet been well investigated, but it is expected that older people will have different needs and habits. The impacts of these changes in the Western Balkans are expected to be slightly different to those in other EU Member States, due to the region's different history and culture. More analysis is needed concerning the environmental impacts of migration in the region and its influence on consumption and production patterns.

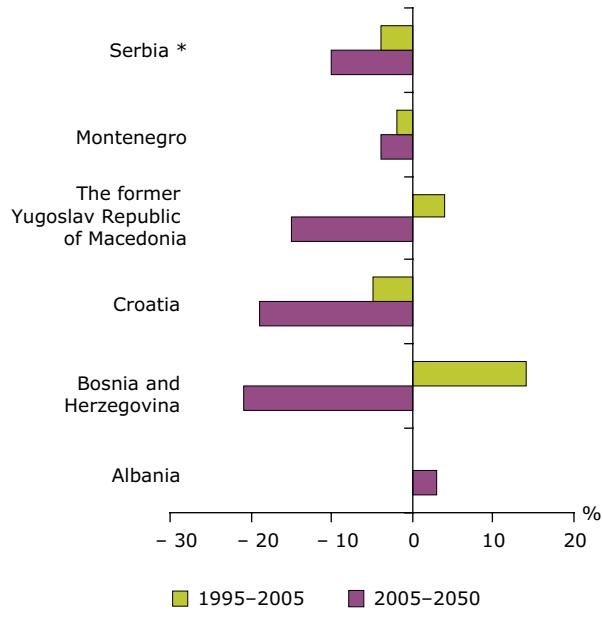
The size and structure of the population is directly linked to environmental pressures: larger populations have higher resource requirements and generate more emissions. For some areas of consumption, such as food, water and energy, the link between population size and environment is very close. Nonetheless, population is only one driving force influencing future environmental impacts: changes in production and consumption patterns due to economic conditions, technology, values and other forces could greatly change these impacts. These links need further attention.

The global population is expected to increase from 6.5 billion in 2005 to more than 9 billion in 2050<sup>(57)</sup>, and this growth will put new pressures on the world's resources. In Europe, in contrast, populations are projected to shrink by 2030, and will also age: the share of population over 65 in Western Europe is projected to increase from 17 % in 2005 to 24 % in 2030<sup>(58)</sup>.

### Population growth and decline

In coming decades, most countries in the region are expected to see declining populations (Figure 2.2). For Croatia, Montenegro and Serbia, this trend has

**Figure 2.2 Population growth and decline in the Western Balkans, 1995–2005 and projections for 2050**



**Note:** \* Figures for Serbia include Kosovo.

**Source:** World Bank.

<sup>(57)</sup> Based on the medium variant projection from: United Nations, *World population prospects: the 2008 revision, population database*, available at <http://esa.un.org/unpp/index.asp> (accessed January 2010).

<sup>(58)</sup> EEA (2007), *The pan-European environment: glimpses into an uncertain future*, Report No 4/2007.

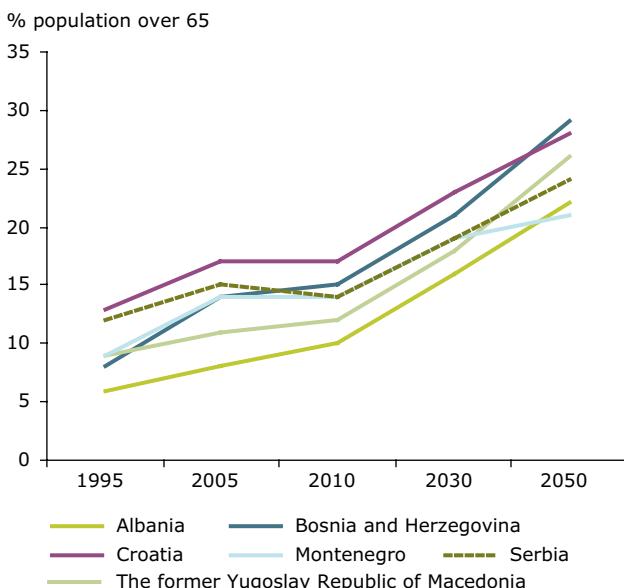
already started. Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia are projected to see declines after 2010. Between 2005 and 2050, Albania will be one of only two parts of the region whose population is projected to grow — Kosovo under UN Security Council Resolution 1244/99 being the other, though it is not included in the figure.

### *Ageing populations*

In the Western Balkans, countries will face ageing populations: by 2050, more than 20 % of inhabitants will be over 65 in all the countries of the region; in some, such as Croatia and Bosnia and Herzegovina, it is projected that close to 30 % of inhabitants will be over 65 (Figure 2.3). Ageing is an important trend for the present and future throughout Europe, including in the EU.

Ageing will pose a challenge for government finances and social programmes. On the one hand, as the proportion of individuals of working age declines, so will government revenues from employment taxes and the growing number of elderly will need health care. In many advanced economies, pension systems risk bankruptcy. These problems can be tackled by policy reforms, such as changing employment, pension and tax policies (⁵⁹).

**Figure 2.3 Ageing population in the Western Balkans in 1995–2005 and projections until 2050**



**Source:** World Bank.

The decline in working-age populations could slow economic growth. Indeed, the Economist Intelligence Unit's economic projections for Croatia and Serbia to 2030 take this factor into account, and on this basis predict a decline in the rate of economic growth in these countries.

If countries do not face up to these problems, government budgets may come under pressure and this could lead to cuts in areas such as funding for the environment. On the other hand, a shift to green taxes on consumption might provide a double benefit, by supporting government finances while reducing environmental impacts.

The changing population structure in the EU and the Western Balkans has another element. Life spans have increased and families, and hence the size of households, are becoming smaller. This is contributing to changing consumption patterns, such as a higher use of energy per capita for heating (Chapter 3). This trend has contributed to higher environmental pressures in the EU and it could have a similar impact in the Western Balkans in coming years.

### *Whither migration?*

While detailed demographic projections can be more certain, migration patterns are less certain.

At EU level, several migration trends have been seen in recent years. One is the arrival of people from developing countries who seek work or political asylum; this trend is expected to continue in particular for EU Member States as domestic workforces remain stable or start to decline. Another trend is that many retired Europeans have moved from northern Europe to warmer climates in southern Europe.

The countries of the Western Balkans have been greatly affected by migration. Many people in former Yugoslavia moved in the 1990s to escape conflict — over 600 000 to other European countries, and perhaps 4 million within the region (Map 2.1). Others left to seek better economic opportunities: by one estimate, over 1 million inhabitants of Albania, about one-third of the country's population, emigrated. Most migrants went to the European Union. Emigrants represent a noticeable source of investment in the domestic country, even if they live abroad.

<sup>(59)</sup> Jean-Philippe Cotis, 'Population ageing: facing the challenge', *OECD Observer*, September 2003, available at: [www.oecdobserver.org/news/fullstory.php?aid=1081/Population\\_ageing:\\_Facing\\_the\\_challenge.html](http://www.oecdobserver.org/news/fullstory.php?aid=1081/Population_ageing:_Facing_the_challenge.html) (accessed January 2010).

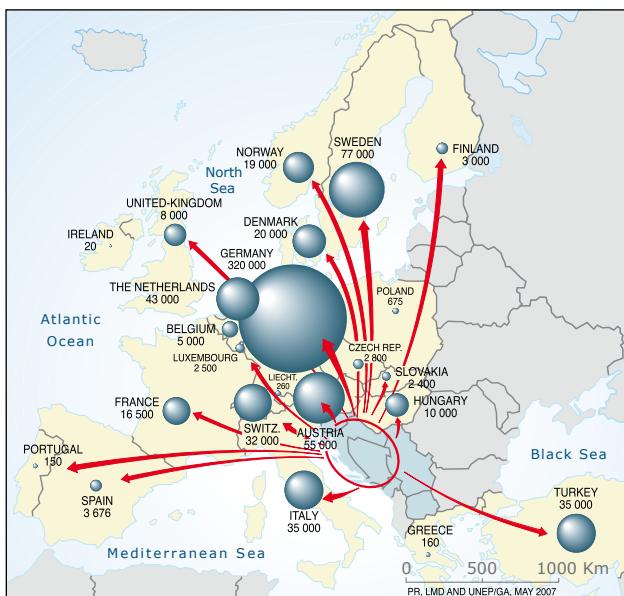
While the flow of ethnic refugees from the region largely stopped after the 1990s, many problems remain, including the resettlement of those who left. Migration out of the region for economic reasons continues<sup>(60)</sup>. The region's current migration trends include the following:

- workers continue to leave for wealthy economies, such as those in western Europe. The young and the highly educated are among those leaving — and this can harm growth in the Western Balkans;
- the region is witnessing an ongoing movement from rural to urban areas;
- illegal immigrants from developing countries seeking to enter the EU have transited through the Western Balkans — and some have stayed in the region;

- in the 1990s, the Western Balkans saw about 5 million ethnic refugees and economic migrants move from their homes; about half have settled in new places or returned to their original homes, but the other half have not settled permanently<sup>(61)</sup>.

In the future, people may continue to move. Within the region, countries with low or negative population growth may face a shortage of workers in coming decades. Those countries in the Western Balkans with stable or growing populations in coming years, such as Albania and Kosovo under UN Security Council Resolution 1244/99, are likely to supply migrants. Many EU Member States will also see declining populations and they may continue to draw immigrants from the Western Balkans seeking jobs.

**Map 2.1 Refugees and displaced persons in the 1990s**



#### Refugees and displaced persons from Western Balkans since 1991

Western Balkans

- Some 600 000 to 800 000 people emigrated to other European countries while 10 000–15 000 sought asylum in the United States and Australia
- Since 1991, between 3.7 and 4 million people have been displaced or have become refugees in Western Balkans

#### Population displacement in Former Yugoslavia 1991 to 2001

Croats  
Muslims

Serbs  
Others (Albanians, Hungarians)

**Source:** UNEP/GRID-Arendal (2007), *Balkans: vital graphics*.

<sup>(60)</sup> Baldwin-Edwards, *Patterns of migration in the Balkans*, Mediterranean Migration Observatory Working Paper No. 9, January 2006, available at [www.mmo.gr/pdf/publications/mmo\\_working\\_papers/mmo\\_wp9.pdf](http://www.mmo.gr/pdf/publications/mmo_working_papers/mmo_wp9.pdf) (accessed January 2010).

<sup>(61)</sup> Baldwin-Edwards, 'Sustainable development and emigration: the contemporary Balkans and the European Union', [www.mmo.gr/pdf/publications/publications\\_by\\_mmo\\_staff/SUSTAINABLE%20DEVELOPMENT%20AND%20EMIGRATIONv3.pdf](http://www.mmo.gr/pdf/publications/publications_by_mmo_staff/SUSTAINABLE%20DEVELOPMENT%20AND%20EMIGRATIONv3.pdf). The Political Impact of Migration Flows held in Lagonissi, Greece, 8–10 June 2003 and organised by the Council of Europe and the Hellenic Parliament; Baldwin-Edwards, *Patterns of migrations in Western Balkans*, 2006, Mediterranean Migration Observatory: both papers are available at [www.mmo.gr](http://www.mmo.gr).

**Table 2.2 Driving force: population and migration**

Driving forces	Scenarios for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Europe and Western Balkans</b>			
Migration	<ul style="list-style-type: none"> <li>Assessments of ongoing migration patterns by Baldwin-Edwards and others</li> </ul>	<ul style="list-style-type: none"> <li>Unresolved issues include: legacy of the 1990s migration to the EU for work; migration within region (e.g. to countries with declining populations); illegal migration into and via the Western Balkans; and migrations related to the establishment of secondary homes and retirement</li> </ul>	<ul style="list-style-type: none"> <li>Migrants increase levels of consumption in their host countries</li> <li>Their work and financial transfers can support economic growth in both host and home countries, changing consumption patterns</li> <li>Returning migrants can bring new skills, new consumption patterns as well as a different awareness of environmental quality</li> <li>Second homes increase environmental impacts by households</li> </ul>
<b>National level</b>			
Population growth/decline and structure	<ul style="list-style-type: none"> <li>Projections (e.g. World Bank and UN) foresee declining population size and ageing populations</li> </ul>	<ul style="list-style-type: none"> <li>Population trends appear fairly certain</li> <li>Uncertainties related to migration patterns</li> </ul>	<ul style="list-style-type: none"> <li>Ageing populations may require more government resources, reducing those available for the environment</li> <li>Ageing populations will have changing consumption patterns</li> </ul>
Household size	<ul style="list-style-type: none"> <li>With ageing populations and smaller families, average household size is expected to decrease</li> </ul>	<ul style="list-style-type: none"> <li>Population trends appear fairly certain</li> </ul>	<ul style="list-style-type: none"> <li>Smaller households consume more and create higher pressures on the environment per capita</li> </ul>
In-country migration (e.g. rural to urban)	<ul style="list-style-type: none"> <li>Currently, an ongoing rural to urban shift</li> </ul>	<ul style="list-style-type: none"> <li>Will rural to urban migration continue?</li> </ul>	<ul style="list-style-type: none"> <li>Declining rural populations abandon farm land, especially in mountain areas</li> <li>Growing urban populations can fuel sprawl</li> </ul>

The countries surrounding the Western Balkan region (Italy, Slovenia, Austria, Hungary, Romania, Bulgaria and Greece) have a special function in the migration patterns, as they are typically the first targeted destination for emigrants. Potential immigration into the Western Balkan region is expected from the return of refugees and from illegal immigration, even though the latter trend is decreasing.

In addition to international migration, inhabitants are also moving within countries — in particular from mountains and other remote rural areas to cities to seek better opportunities. These shifts may increase economic growth, but they can create new environmental pressures by fuelling urban sprawl as well as land abandonment. The influence of these factors on the future of the region's environment — including on future consumption patterns — is examined elsewhere in this chapter as well as in the next chapter on drivers.

In addition, coastal zones and other scenic areas (mountains, spas) of the Western Balkans may become a new destination in the Europe-wide trend of elderly people seeking retirement homes in warmer climates: this could affect the region's coast in particular — though, as Section 2.8 shows, the impacts of climate change in coming decades could limit this factor.

Summary of population and migration driving forces is presented in Table 2.2.

#### *Selected forward-looking studies from the review*

Anusic, Z. et al. (2003). *Pension reform in Croatia*, World Bank Social Protection Discussion Paper Series No. 0304.

Blagoja, M. and Mirijanka, M. (2001). 'Момент на трансформација на селското население во градско во Република Македонија' (The transformation of the population from rural to urban in Macedonia), *Yearbook of the Geographical Institute*.

Donco, G. and Apostol, S. (2000). *Процесот на демографско стареење во Македонија* (The process of demographic ageing in Macedonia).

Grozdanovski, T. and Nospalovska, K. (2004). 'Демографски промени и стареење на населението во Македонија' (Demographic changes and ageing of the population in Macedonia), *Yearbook of the Law Faculty 'Justinian I'*.

Kulenovic, S. and Ibreljic, I. (2002). 'Migration flows from the Western Balkans in the last decade of the 20th century (with a special reflection on Bosnia and Herzegovina)', Paper presented at the 42nd ERSA Congress, August 27–31 2002, Dortmund, Germany.

Vasa, D. (2002). 'Актуелни проблеми во вкупното движење на населението во Република Македонија' (Current problems of migration in Macedonia), *Geografski razgledi*.

## 2.3 Culture, values and needs

### Key messages

Consumerism has become a global phenomenon, and in the Western Balkans, many households are seeking to catch up with western levels of consumption patterns. At the same time, traditional consumption patterns continue in the region. It is expected that in a scenario of rapid economic growth, traditional values and patterns will be at risk.

For coming decades, however, some global studies and other assessments see a chance — and a need — for new values and new cultural patterns that will change consumption patterns. Such a change might occur following unexpected events, but also in reaction to new ideas and to policy actions. Around the world, including the Western Balkans, individuals and non-governmental organisations can play a part in shaping social values and thus consumption patterns.

Just as culture, values and needs will shape consumption patterns, such as the food people buy, how they use energy and the extent of traffic, these consumption patterns will directly affect the environment in the Western Balkans.

A series of forces shape the choices and behaviour of consumers in society. These include personal needs, the broader culture and our values and social milieu. These different forces influence the goods that people consume — and the environmental impacts of these consumption patterns.

#### Personal needs

For most of human history, the most important driving force behind consumption patterns has been meeting basic human needs for food, water and shelter. Only a small elite could think about luxuries. At the global scale, meeting basic needs remains a huge challenge: worldwide in 2005, about 1.4 billion people in developing countries — one in four of all humanity — lived on less than USD 1.25 a day, a level considered by the World Bank as a basic measure of poverty<sup>(62)</sup>.

In the EU and other wealthy parts of the world, however, most citizens have sufficient means to obtain their food and shelter. Although segments of the population in these countries, continue to face poverty and lack sufficient food and especially, decent shelter, post-materialist needs have become more important. These needs include: esteem, self-esteem, achievement, social affiliation/acceptance, respect of others, and respect by others<sup>(63)</sup>.

#### Culture and consumerism

While once our consumption patterns were driven mainly by basic human needs, in wealthy societies today, these basic needs are usually satisfied. The higher needs are closely tied to the culture around us and to values, and thus these factors have a significant role in driving consumption patterns and their environmental impacts<sup>(64)</sup>. These forces are part of the socio-cultural framework, the system of shared, beliefs, customs and behaviours. This framework, which is abbreviated as culture here, is in itself tied to the personal values that each of us share.

While culture has many dimensions, a key issue for the environment is today's consumer culture. In the 1950s, John Kenneth Galbraith referred to the rise of 'consumer culture' in the US, fuelled by widespread advertising on television. However, as long as a century ago Thorstein Veblen, a Norwegian-American economist, wrote that wealthy individuals pursued 'conspicuous consumption' as a means to establish their status in society<sup>(65)</sup>. By some interpretations, conspicuous consumption is now a common pattern at all income levels, and consumerism is not only a reaction to the availability of ever greater quantities of convenient goods, but also to individuals' efforts to establish their status in society.

<sup>(62)</sup> Chen, S. and Ravallion, M. (2008), *The developing world is poorer than we thought, but no less successful in the fight against poverty*, World Bank Policy Research Working Paper 4703, Washington DC, available at [www.worldbank.org](http://www.worldbank.org). In 1981, according to the paper, 1 in 2 people in developing countries lived below this poverty level.

<sup>(63)</sup> Maslow (1954) and Inglehart (1977), cited in Baedeker, C. et al. (2008), *Survey: public and private consumption. sub-task 1 survey on consumption behaviour and its drivers*, 2nd draft, September 2008.

<sup>(64)</sup> Based on Baedeker, C. et al. (2008).

<sup>(65)</sup> Veblen, T., *Theory of the leisure class* (1899).

Consumerism is tied to the importance given in wealthy societies to life enjoyment, which is now seen as an important value. In other and past societies, religious devotion and community had much greater roles. In this new focus, the consumption of goods and services are often seen as a path to enjoyment. At the same time, many high-income adults are quite busy with work and other activities. As a result, they increasingly focus on convenient and time-saving forms of consumption and leisure, such as eating prepared foods, frequent visits to restaurants and taking weekend holidays by plane<sup>(66)</sup>. These activities often have high environmental impacts.

Consumerism grew slowly in wealthy market countries such as those in western Europe and North America. In contrast, most of the countries that joined the EU in 2004 and 2008 experienced over four decades of centrally planned economies in which trade and the availability of consumer goods were restricted. Their transition to free markets was accompanied by a sudden rush to consumerism. A similar process appears to be under way in the Western Balkans, and the consumption patterns of wealthy EU and North American countries are seen as an ideal.

More broadly, consumerism has become a global phenomenon, seen not only in the wealthiest countries, but also in the rising middle class of transitional and developing countries around the world. This implies that major changes to

consumer culture can be global. For some, any change may seem unlikely. However, some studies have imagined scenarios where people worldwide develop new priorities. One example is the 'Sustainability first' scenario of the UNEP report *Global environment outlook – environment for development (GEO-4)*: this scenario sees a new emphasis on local communities and sustainability. Another UNEP scenario, the *Carpathians environment outlook*, translated GEO-4's global vision to a region of Europe (Box 2.2).

While such a shift may seem unlikely after a visit to one of the many sprawling shopping centres in EU Member States (and which are now being built in the Western Balkans), some researcher argue that a culture shift is necessary. For example, Beddoe *et al.* (2008) argue that our current world view, together with institutions and technology, is based on a vision of an empty world, i.e. one with few people and relatively unlimited resources. They affirm that our world view has not yet caught up to the constraints created by current population levels and production and consumption patterns, and without a shift in vision — as well as in institutions and technology — our current civilisation risks disappearing just as ancient ones did<sup>(67)</sup>.

### Social groups

Modern societies are not monolithic, and different social groups can have different consumption

#### Box 2.2 An alternative to consumerism?

In its 'Sustainability first' scenario, the *GEO-4* report images a world where new values emerge. Civil society groups promoting approaches such as fair trade, socially responsible investment and slow food gain membership and influence and become more important actors on local as well as world stages. Governments around the world provide business and civil society with greater space for participation.

UNEP's *Carpathians environment outlook* develops scenarios for this based on the global ones in *GEO-4*. Its sustainability scenario is entitled *Carpathian dream*. In this future, community becomes more important than consumerism, competition and individualism. Carpathian region's population increases — in contrast to other scenarios — as young people move in to take advantage of its educational services as well as the quality of life. Organic and traditional farming methods increase. Houses and villages improve their energy efficiency and increasingly use renewable energy sources. The region receives strong income from summer nature and active tourism activities such as hiking, fishing and farm tourism.

Other future studies have imagined similar changes. The International Panel on Climate Change (IPCC) emission scenarios (Section 2.9) include a possible sustainability focused world. EEA's PRELUDE study includes an 'Evolved society' scenario, in which Europeans return to rural areas, choosing lifestyles that are less hectic and less consumer-oriented.

<sup>(66)</sup> Sheate, W. *et al.*, *EEA Research Foresight for Environment and Sustainability: Final Report*, 15 November 2007. Available at: <http://scenarios.ew.eea.europa.eu/fol585720/overview-available-forward-looking-studies/research-foresight-literature-review>.

<sup>(67)</sup> Beddoe, R. *et al.* (2008), 'Overcoming systemic roadblocks to sustainability: the evolutionary redesign of worldviews, institutions, and technologies', *Proceedings of the National Academy of Sciences*. 106 (8): 2483–2489. This outlook is echoed in Diamond, J. (2005), *Collapse: how societies choose to fail or succeed* (Viking, New York).

patterns. In the last century, researchers typically divided social groups into classes based on economic status. While economic means are still important, analysts now analyse groups based on their post-materialist needs and their values. In these analyses, the different groups influence their patterns of consumption (Box 2.3).

#### ***Environmental non-governmental organisations: promoting new values***

Culture and values are shaped by many forces, including the level of education as well as market forces such as advertising and marketing (Section 2.7).

Civil society groups can also play an important part in influencing cultural values, among them environmental non-governmental organisations. In many countries, these groups have brought environmental issues to the attention of the public and policy makers, and they have promoted new ways of looking at the world. Their actions have helped make environmental issues part of mainstream values.

#### ***Cultural patterns in the Western Balkans***

Some studies emphasise that social groups are becoming more uniform around the world as

marketing, advertising, products and media all become global<sup>(68)</sup>. Nonetheless, important differences between countries and regions remain.

In the Western Balkans, traditional cultural patterns persist — these are often closely tied to the land and to extended families. These traditional patterns influence consumption, as urban dwellers often have rural homes and value food they grow there or that rural relatives and friends grow. Extended families often celebrate special occasions with large meals — which can cost the hosts an important share of their income. Similar patterns can be seen, though now attenuated, in other southern European countries such as Italy and Spain.

On the other hand, many people in the Western Balkans seek to emulate consumption patterns in western Europe, especially since they receive idealised images from advertising, TV and films. Other countries that emerged from socialism, including those that are now EU members, have experienced a similar process of catching up with western motor vehicles, clothes and homes.

#### ***Individual values***

Individual consumption patterns are shaped by wider cultural values and by social groups. At the

#### ***Box 2.3 Two studies of social groups and their consumption patterns***

Many studies have looked at different social groups and their consumption patterns. Here, two recent studies are highlighted.

A multinational advertising and marketing firm, Young and Rubicam, has proposed a 'Cross Cultural Consumer Characterisation', based on Maslow's hierarchy of human needs, that they argue is valid across countries and cultures. Their scheme has seven categories of people: 'explorers' who are driven in life — and in their consumption patterns — by a need for discovery; 'aspirers' who seek status and materialistic rewards; 'succeeders' who seek control and prestige; 'reformers' who are anti-materialistic; 'mainstream' people who need security and want to fit in; 'strugglers' who seek escape and do not plan for the future; and the 'resigned', focusing on survival and often clinging to traditional values.

A study of consumers in Germany by another firm, Sinus Sociovision, proposes a different set of social groups. This study constructed a matrix showing, on the one hand, social status (low, medium and high, akin to low, middle and upper classes) as well as different basic values: traditional (duty and order); modern (individualism, self-actualisation and pleasure); or re-orientation (experimentation and paradox). The study identifies 10 social groups within this framework, together with their environmental values and consumption patterns. For example, the 'mainstream' group has some environmental awareness and in particular an interest in healthy food. 'Consumer-materialists', on the other hand, have little environmental awareness, while 'post-materialists' have high environmental awareness and are particularly interested in methods for green consumption.

**Source:** Young and Rubicam, *There are seven kinds of people in the world*, undated, London, [www.4cs.yr.com](http://www.4cs.yr.com) (accessed January 2010); Baedeker, C. et al. (2008), Survey: public and private consumption — sub-task 1 survey on consumption behaviour and its drivers, European Topic Centre on Resource and Waste Management.

<sup>(68)</sup> Young and Rubicam (undated), *There are seven kinds of people in the world*, London, available at [www.4cs.yr.com](http://www.4cs.yr.com) (accessed January 2010).

**Table 2.3 Driving force: culture, values and personal needs**

Driving forces	Scenarios for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Global and EU</b>			
Consumer-oriented culture	<ul style="list-style-type: none"> <li>GEO-4: 'Sustainability first'</li> <li>Beddoe <i>et al.</i>: a new world vision</li> </ul>	<ul style="list-style-type: none"> <li>Will new priorities replace consumerism?</li> <li>Will we develop a new global world vision</li> </ul>	<ul style="list-style-type: none"> <li>Global and EU consumer culture will influence consumption patterns in the Western Balkans</li> </ul>
Environmental non-governmental organisations and civil society	<ul style="list-style-type: none"> <li>GEO-4: 'Sustainability first'</li> </ul>	<ul style="list-style-type: none"> <li>A stronger global role for linked NGOs and civil society</li> </ul>	<ul style="list-style-type: none"> <li>Non-governmental organisations at global and EU level may have an indirect impact by influencing international and EU policies that change consumption and production patterns in the Western Balkans</li> </ul>
<b>National level</b>			
National cultural patterns	<ul style="list-style-type: none"> <li>None identified</li> </ul>	<ul style="list-style-type: none"> <li>Will traditional patterns continue, or be overwhelmed by groups seeking to catch up with the west?</li> </ul>	<ul style="list-style-type: none"> <li>Direct influence on consumption patterns in the region</li> </ul>
Individuals, non-governmental organisations, civil society	<ul style="list-style-type: none"> <li>None identified</li> </ul>	<ul style="list-style-type: none"> <li>Will individuals be able to promote greener values?</li> </ul>	<ul style="list-style-type: none"> <li>Direct influence on consumption patterns in the region</li> </ul>

same time, individuals can choose their own values and lifestyle. A few individuals can influence wider trends and patterns, including those that promote more sustainable consumption patterns. Some individuals can act via civil society groups or by writing books and preparing websites. Others can be engineers, designers and entrepreneurs who develop more environmentally friendly production methods or products.

Summary of culture values and personal needs driving forces is presented in Table 2.3.

#### *Selected forward-looking studies from the review*

##### **Global**

UNEP, *Global environment outlook — environment for development (GEO-4)* (2007).

##### **Europe**

EEA, *PRELUDE (Prospective environmental analysis of land use development in Europe)* (2006).

## 2.4 Technology

### Key messages

Some studies see the possibility of a new industrial revolution based on breakthroughs in information technology, biotechnology and nanotechnologies. New discoveries and inventions could provide ways of addressing climate change and other problems. At the same time, the development of technologies in areas such as genetically modified organisms, especially relevant for the Western Balkans, could create new threats for the environment, for example putting biodiversity at risk.

While the development of technology and new products occurs around the world, national actions could help shape the results. Innovation policies in the Western Balkans could influence which technologies are used in the region. The EU is seeking to develop technologies to tackle environmental problems. Some countries in the Western Balkans have a strong scientific tradition and could take an active role, cooperating with EU Member States in this pursuit. Moreover, much of the technology used in the region is outdated. Macro- and micro-economic policies could be adjusted to encourage the use of new environmental technologies as well as technical assistance from abroad.

The technologies that are adopted in coming decades for energy, transport, agriculture and other sectors will determine the types of impact that production and consumption have on the environment at all levels, from global to local.

#### *Global technology revolutions?*

Overall, the new technologies that affect the Western Balkans are likely to be developed and introduced first elsewhere in the world. In past decades, the US, the EU and Japan have led the world in technology. In future decades, China, India and other countries are likely to have a growing role.

While science is to a great extent an open, international endeavour, many technologies – such as radar, jet aircraft and global positioning – have been developed more secretly, as part of military research. In addition, new commercial technologies are often developed by companies and unveiled only as they go to market, and patent rights limit the actors who can use these new technologies.

Future-oriented studies, such as technology-foresight studies, have tried to identify areas where new technologies will be developed.

One important opportunity is the development of new energy technologies to combat climate change. Here, the costs could be huge. Major new research programmes will be needed in areas such as carbon sequestration, renewable energy and

energy efficiency if the world is to meet stringent climate change goals. Both government and private energy research and development have decreased in recent years: the IEA warns that research and development will need to increase, perhaps more than double, if low-carbon technologies are to be used throughout the global economy. Trillions of dollars will also be needed to deploy new power plants, transport systems and more<sup>(69)</sup>.

Some foresight studies see the possibility of a new industrial revolution in a coming synthesis between biomedical, information and nano-technologies: this could create smart materials for use in spheres ranging from medicine to energy to buildings. Others predict new developments in genetically modified crops and food that incorporate qualities appealing directly to consumers, such as providing more vitamins and nutrients, lower cholesterol and other health advantages<sup>(70)</sup>.

A key issue will be the social and political acceptance of new technologies. The European Union has referred to the use of the precautionary principle in its Sustainable Development Strategy – this should slow the adoption of new technologies until their safety can be assured. However, other parts of the world have been less cautious – and this may be the case, especially where new technologies offer economic advantages.

Social and political acceptance of new technologies will be closely tied to perceived risks and impacts. Box 2.4 discusses potential issues related to nanotechnology.

<sup>(69)</sup> IEA, *Energy technology perspectives 2008: scenarios and strategies to 2050*, 2008. This study looks at the technologies and investments needed to cap atmospheric carbon at 550 or at 450 parts per million (ppm).

<sup>(70)</sup> Sheate, W. et al., *EEA research foresight for environment and sustainability: final report*, November 2007.

#### **Box 2.4 The promise – and risks – of nanotechnology**

One of the most promising areas for new research and development is nanotechnology. A study for the European Commission on nanotechnology included three scenarios of how research and public acceptance might interact in coming years (to 2015).

**Disaster recovery.** New nanotechnologies are not regulated: governments are slow to develop policies, and the private sector does not take their place with its own codes. A disaster at a nanotechnology plant in Asia leads to a public backlash. New EU regulations are introduced. Research continues at a slower pace — and the word 'nanotechnology' is no longer used.

**Now we're talking.** Strong international regulations set a legal framework for the research and introduction of nanotechnologies. The regulations focus on health and safety risks. In addition, governments promote research into nanotechnology with public benefits, such as filters for safe water that can be used in developing countries.

**Powering ahead.** Research has moved fast, and nanotechnologies have been used to develop low-cost photovoltaic cells and other products that are close to market. Regulation has moved slowly, but in the public eye the benefits outweigh risks.

**Source:** Wuppertal Institute for Climate, Environment and Energy, Forum for the Future, triple innova, EMPA, *The future of nanotechnology: we need to talk* (study for the European Commission, DG Research), 2006.

One broad technology risk, however, is that modern societies are becoming more dependent on technology, and in particular on information technology and networks. Countries thus could be growing more vulnerable either to premeditated attacks such as terrorism or to unexpected accidents. In August 2003, simple line faults led to a cascade of events that cut off electricity for up to 50 million people living on the east coast of the United States of America<sup>(71)</sup>. In the following month, another simple electrical line fault in Switzerland created a blackout in much of Italy<sup>(72)</sup>.

Experts disagree on the risks and environmental impacts of new technologies (Box 2.4). For some, new genetically modified crops could reduce environmental impacts, for example increased productivity and a reduction in the use of chemicals; for others, such crops could harm biodiversity, perhaps in catastrophic ways.

In general, the share of GDP for research and development expenditure is small in the countries of the Western Balkans. A common problem for national economies is the weak dissemination of modern technologies in traditional industries, which still account for a considerable share of GDP. Technologies, including those for pollution control, are outdated and not the best available. Indicators show that the region's economies still use high

levels of energy and natural resources compared to levels in the EU-15.

The role of information technologies is also crucial for achievement of policy goals. It is difficult to obtain concise information on the level of innovation and the penetration of information technology in the Western Balkans.

#### *European Union: technology for the environment?*

The European Union has supported research and development of environmentally friendly technology, for example through its research framework programmes. Over the six years from 2007 to 2013, the European Commission has budgeted almost EUR 2 billion for research on the environment, including new technologies to address environmental problems. Member States are providing further support in these areas.

The EU has also had a key role by seeking to apply the precautionary principle, and investigating the risks of new technologies such as genetically modified organisms before allowing their use. In coming decades, the EU may continue to follow the principle and also convince other major powers, such as the USA, to make greater use of this approach. On the other hand, the wider adoption of the precautionary principle may come only

<sup>(71)</sup> Canada — US Power System Outage Task Force, *Final Report on the August 14th Blackout: Causes and Recommendations*, April 2004, available at <https://reports.energy.gov/BlackoutFinal-Web.pdf>.

<sup>(72)</sup> Swiss Federal Office of Energy, *Report on the blackout in Italy on 28 September 2003*, November 2003, available at [www.bfe.admin.ch](http://www.bfe.admin.ch).

after a crisis, as the 'Disaster recovery' scenario for nanotechnologies suggests.

Alternatively, the promise of new technologies may be seen to outweigh their risks — as in the 'Power ahead' scenario, especially in the face of economic and other crises.

### **The Western Balkans: actors for technology development?**

The countries of the region are most likely to follow European and global trends in technology. Governments can nonetheless support new, environmentally friendly technology in the region

by encouraging universities and businesses to cooperate with their counterparts in Europe and worldwide.

Indeed, several experts in the region see strong policy support for education and technology as one of the key elements in determining competitiveness of the region's economies (Box 2.5). National policies for innovation could help companies introduce new technologies in the region, including those for environmental protection.

Summary of technology driving forces is presented in Table 2.4.

#### **Box 2.5 The role of new technology in the Western Balkans**

Two experts in Serbia saw opportunities for strong economic development in their country and the region, through restructuring, new technologies, better education and research.

Professor Đuro Kutlača, who works on foresight in Belgrade and Novi Sad, said that with 'faster and wiser restructuring of the economy' Serbia could attain a high GDP with technology-based services as a central element of its economy.

Dr Mirsov Antevski of Belgrade's Institute of International Politics and Economics saw a similar opportunity — but he emphasised that this would require large and immediate investments in education, research and development.

**Note:** Interviews carried out in 2006.

**Table 2.4 Driving force: technology**

Driving forces	Scenarios for the future	Key uncertainties	Possible influence on the environment in the Western Balkans
<b>Global</b>			
Development of new technologies	<ul style="list-style-type: none"> <li>Technology foresight studies (Sheate <i>et al.</i> provides an introduction to key technologies and environmental impacts)</li> </ul>	<ul style="list-style-type: none"> <li>Pace of technology development</li> <li>Extent of environmental impacts</li> <li>Public perception of risks and opportunities and acceptance of new technologies</li> </ul>	<ul style="list-style-type: none"> <li>The use of new manufacturing technologies could reduce local and regional pollution in the Western Balkans as well as natural resource use</li> <li>New energy technologies could reduce greenhouse gas emissions, both globally and in the Western Balkans</li> <li>New technologies (biotechnology, nanotechnology, etc.) could also pose risks to human health and biodiversity — especially if the region becomes a testing place</li> </ul>
<b>EU</b>			
Innovation policies	<ul style="list-style-type: none"> <li>Sheate <i>et al.</i> and others</li> </ul>	<ul style="list-style-type: none"> <li>Effectiveness of the EU in developing new, environmentally friendly technologies (e.g. energy, transport)</li> <li>Transfer of new technologies to the Western Balkans</li> </ul>	<ul style="list-style-type: none"> <li>More efficient technologies developed in the EU could spread quickly to the Western Balkans, reducing environmental impacts</li> </ul>
<b>National</b>			
Innovation policies	<ul style="list-style-type: none"> <li>Kutlača and Antevski interviews: national choice whether to promote technology and education strongly</li> </ul>	<ul style="list-style-type: none"> <li>Capacities of national policies to support effectively environmentally friendly technologies transfer and development when possible (increased R&amp;D expenditure)</li> <li>Economic policies adjusted to adoption of new technologies</li> </ul>	<ul style="list-style-type: none"> <li>Faster dissemination of more efficient technologies tailored to problems in the Western Balkans, reducing environmental impacts</li> </ul>

*Selected forward-looking studies from the review*

**Global**

Anton, P. S. *et al.* (2001). The global technology revolution: bio/nano/materials trends and their synergies with information technology by 2015, RAND/National Defense Research Institute.

IEA. *Energy technology perspectives 2008: scenarios and strategies to 2050.*

Wuppertal Institute for Climate, Environment and Energy, Forum for the Future, triple innova, Swiss Federal Laboratories for Materials Testing and Research (EMPA), (2006). *The future of nanotechnology: we need to talk* (study for the European Commission, DG Research).

**Europe**

Erdmann, L. *et al.* (2004). *The future impact of ICTs on environmental sustainability*, Institute for Prospective Technological Studies, Joint Research Centre, European Commission.

Geyer, A. *et al.* (2003). *The future of manufacturing in Europe 2015–2020: the challenge for sustainability scenario report*, Institute for Prospective Technological Studies, Joint Research Centre, European Commission.

Sheate, W. *et al.* (2007). *EEA research foresight for environment and sustainability: final report.*

**Western Balkans**

Vrhovcak, M. B. *et al.* (2004). 'Perspectives of renewable energy use in Croatia', *Proceedings of the 12th IEEE Mediterranean*, Vol. 3, pp. 1 033–1 036.

## 2.5 Globalisation and trade

### Key messages

Globalisation has linked the world economy through markets, investment, technology and communications.

However, links such as trade have spread the environmental impacts of production and consumption across the globe. The countries of the Western Balkans export large quantities of minerals to the EU — but suffer the environmental problems related to mining.

Neighbouring countries have a crucial role for trade issues in the Western Balkans, as they can facilitate or hinder their exchange with external markets. The future of globalisation is uncertain in the face of today's economic problems. Security fears in the future might also weaken these links.

Future trade and investment patterns will influence economic structures, production and consumption patterns and environmental pressures in the Western Balkans: for example, they will help shape the region's agricultural production as well as its exports of fuels and minerals.

World trade expanded greatly in the second half of the 20th century, and it accompanied the world's steady economic growth. The first years of the 21st century saw further growth in trade as well as in global investment patterns. This growth is part of the broader trend called globalisation, a wide-ranging process in which trade, investment, technology and communication patterns have become more international (73).

Through trade patterns, goods and services are transported from one part of the world to another. This directly affects the pattern of economic activities and their pressures on the environment. For example, western Europe imports food, fuels, and minerals and also manufactured products from across the globe — thus, many of the impacts from oil consumption, steel production and other activities that are part of its economic system occur in distant countries (74).

### *De-globalisation?*

Today, the world is at a crossroads. The credit crunch has brought global economic uncertainty. Even before this crisis, the success of the current 'Doha Round' of negotiations to update the General Agreement on Tariffs and Trade was in doubt. In 2008, global foreign direct investment fell by about 20 %; and in 2009, global trade is predicted to decrease. The continuation of globalisation is in doubt, and some observers are already talking about de-globalisation (75).

Even before the current crisis, some future studies assessed the uncertainties of globalisation. A 2005

study *Shell global scenarios to 2025: the future business environment — trends, trade-offs and choices* prepared by Shell, the global oil company, looked at different scenarios for globalisation. While this study did not foresee the current economic crisis, its 'Low-trust' scenario sees globalisation slowed by legal requirements, while in its 'Flags' scenario, security concerns slow economic globalisation as well as environmental agreements (Box 2.6). The GEO-4 'Security first' scenario is similar (see Box 2.11): here too, security concerns slow global trade and also block environmental cooperation.

Global trends will help shape trade and investment patterns in the Western Balkans. This section considers the implications for agricultural trade in particular.

### *The impacts of agricultural trade in the EU and the Western Balkans*

Globalisation and trade have had a wide-ranging and variable impact on Europe's economy. Germany in particular has seen growth in its high-technology manufacturing exports in recent years — and its economy is strongly affected by the current downturn in trade. Southern European countries that depended more on light manufacturing have seen imports from Asia replace domestic production.

Future trade agreements, if reached, could strongly affect Europe's agriculture and land use. The *Scenar 2020* study reviewed possible impacts on rural areas across the EU (Box 2.7). Broadly speaking, this study predicts that a global liberalisation of agricultural

(73) OECD (2008), *Environment and globalisation: background report for Ministers*, April 2008.

(74) EEA (2007), *Glimpses*.

(75) 'Globalisation: turning their backs on the world', *The Economist*, 19 February 2009.

### Box 2.6 What future for globalisation?

The *Shell global scenarios to 2025* describes three very different paths for globalisation and trade in coming decades.

The study warns that security concerns have grown since the beginning of the millennium and at the same time trust in business and trade has fallen. In one scenario, 'Low-trust globalisation', global trade continues, but governments (with the support of non-governmental organisations) increase the legal requirements on companies, and countries also strengthen their national security measures. While international non-governmental organisations remain active, governments address major global environmental problems only after crises erupt. In several parts of the world, conflicts over scarce water resources grow.

The 'Open doors' scenario imagines a different world where greater trust allows market incentives to combine with community forces. Globalisation continues, while business accountability, supervision by civil society institutions and strong media scrutiny provide an alternative to regulation. The precautionary principle is widely adopted. Business, universities and non-governmental organisations cooperate in tackling many global environmental problems. International agreements seek efficient mechanisms to address climate change, such as emissions trading systems.

In contrast, the 'Flags' scenario sees a world fragmented into mutually suspicious countries, ethnic groups and sectoral causes. Terrorism and conflict grow, globalisation stalls and new global environmental agreements are not reached.

**Source:** Shell (2005), *Shell global scenarios to 2025*.

### Box 2.7 Globalisation and trade will affect agriculture and land use in the EU

The *Scenar 2020* study for the European Commission modelled the impacts of current drivers on agricultural and rural economies in the EU. The study prepared a 'Reference scenario' and two alternatives: the 'Regionalisation' scenario, in which the failure of the Doha Round leads to greater regional trade and a reduction of global trade in agricultural products; and the 'Liberalisation' scenario, which imagines a global liberalisation of agricultural trade.

In all three scenarios, the agricultural economy continues to expand, though more slowly than the rest of the economy. Agricultural employment declines, in particular in the new EU Member States. The number of farms declines in all three scenarios — and most steeply in the 'Liberalisation' scenario, in which livestock production, in particular meat production, declines markedly. The greatest changes in land use also occur in this scenario: liberalisation of agricultural markets will lead to widespread land abandonment, in particular in central Italy and southern France. In addition, arable land in many countries will shift to pasture land. In contrast, the 'Reference' and 'Regionalisation' scenarios foresee much smaller changes in land use.

**Source:** European Centre for Nature Conservation, Landbouw-Economisch Instituut, Leibniz-Zentrum für Agrarlandschaftsforschung, Leibniz-Institut für Länderkunde and Central European University, *Scenar 2020 — scenario study on agriculture and the rural world*, 2006 (an update of the study is currently under way).

trade will reduce farming in much of the EU, leading to land abandonment. In contrast, farming will be stronger if trade patterns become more regional — which could happen if globalisation and global trade falter. Similar impacts might be seen in the Western Balkans: for example, stronger European trade might result in expansion of the region's agricultural exports to the EU.

#### Trade patterns in the Western Balkans

Over the past decade, trade has risen rapidly in the Western Balkans. In 2007, Bosnia and Herzegovina, Croatia and Montenegro all had merchandise

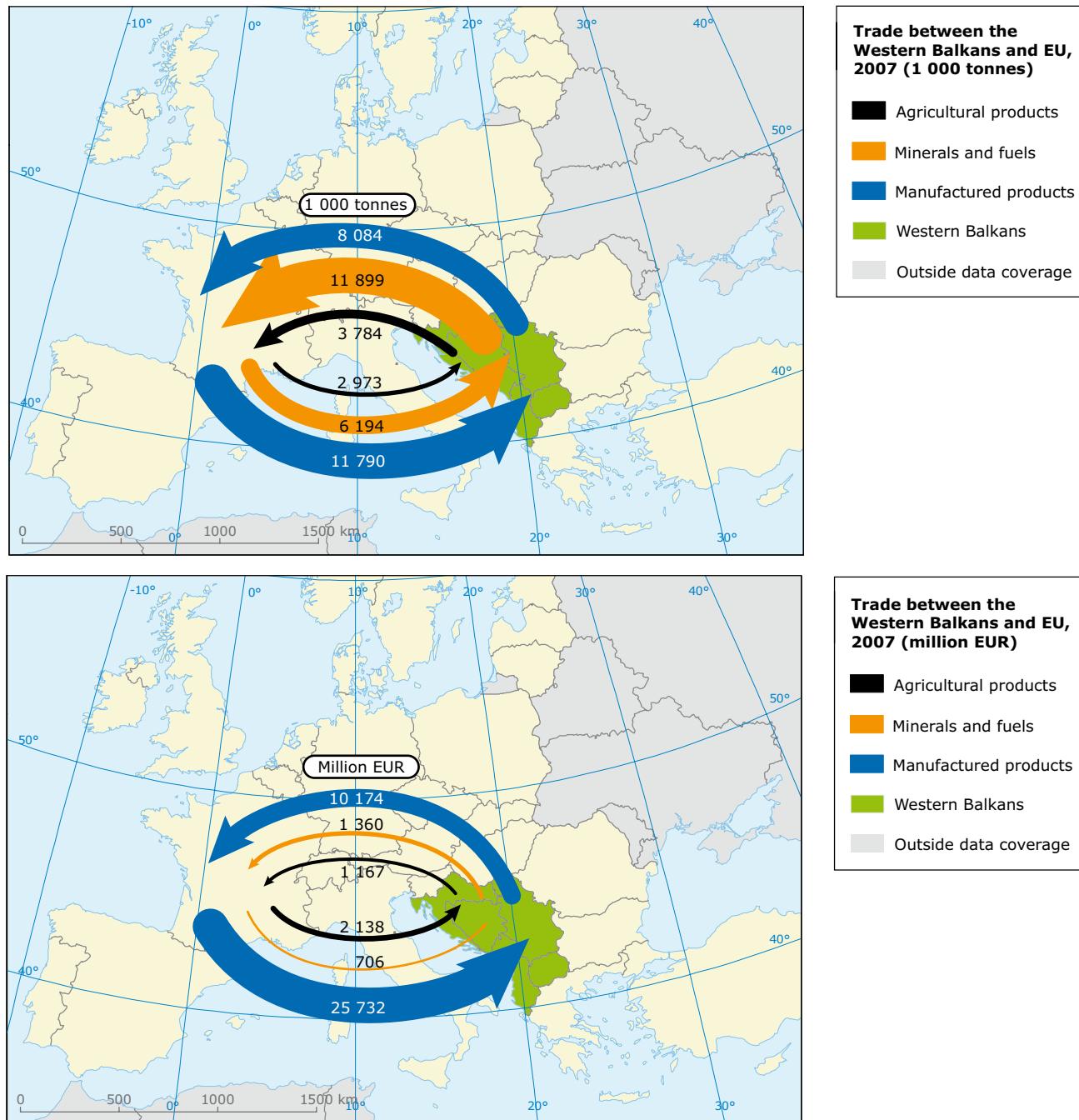
imports equivalent to half or more of their GDPs. The countries also had high levels of merchandise exports (they also exported services, such as tourism for visitors).

The region also had a high level of manufacturing exports and imports: for all but Montenegro, these were over half of total merchandise imports and exports. Moreover, the countries of the Western Balkans had close trade links with the EU, which accounts in most cases for over 50 % of their merchandise imports and exports (for Albania, 90 %). This dependence could influence their future competitive capacities and vulnerability.

The countries neighbouring the Western Balkans have an important role in the region's external trade exchanges: they can facilitate trade or hinder it. The countries in the region also have strong trading links among themselves (an important exception is Croatia). Indeed, trade links within the region and between the region and the EU are perhaps stronger

than political links. However, regional actions for integration are rare and weak. Long-term scenarios show that development of more intensive regional links can minimise many uncertainties of political and economic nature<sup>(76)</sup>. Other important trading partners include Russia, an important source of oil and natural gas imports.

**Map 2.2 Trade between the Western Balkans and the EU (in tonnes and EUR)**



**Note:** Data for Montenegro are for 2006, and are incomplete.

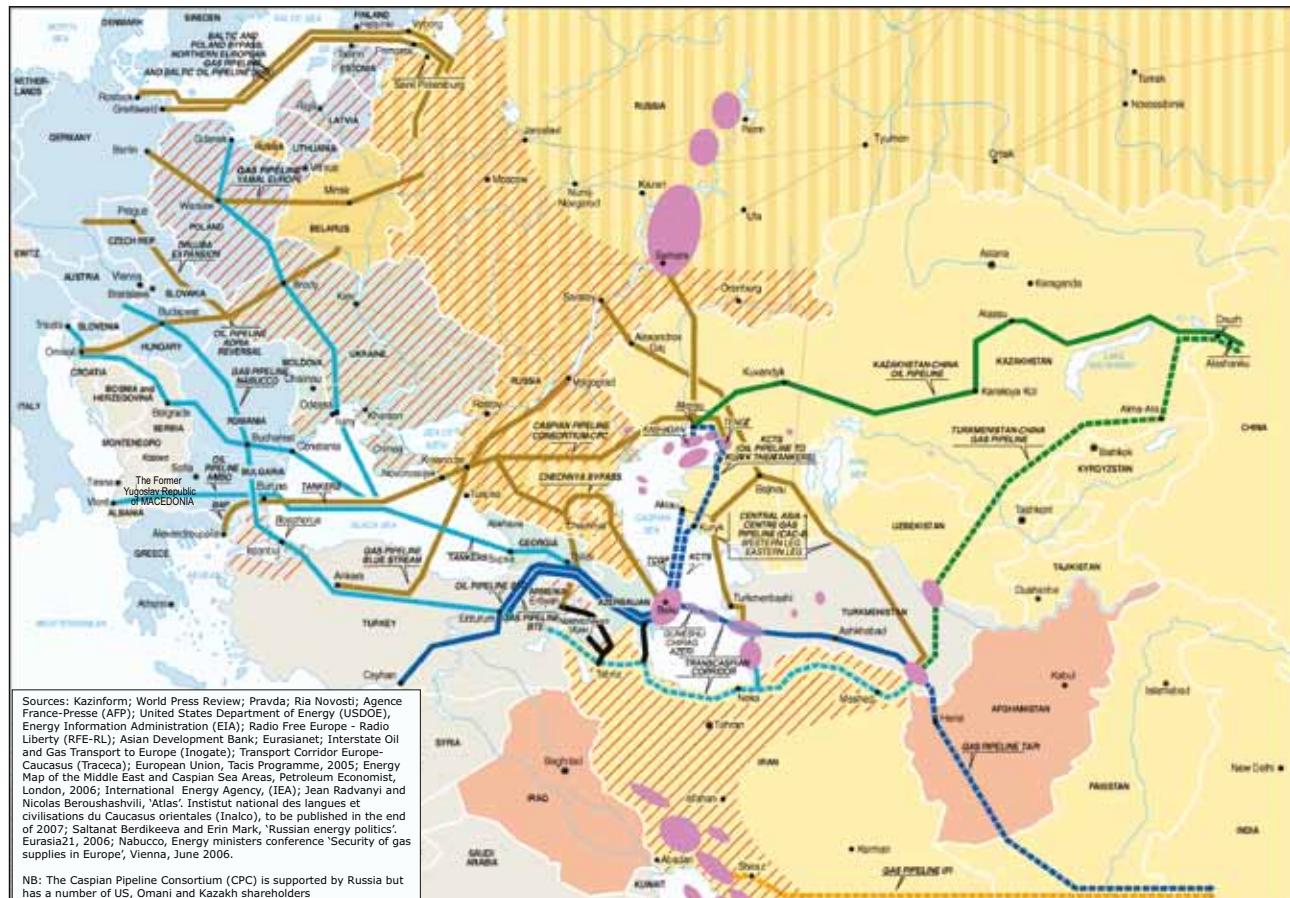
**Source:** Eurostat data (accessed April 2009).

<sup>(76)</sup> K. Stanchev, *The Balkans in 2010: economic scenarios*, Institute for Market Economics, Sofia; Western Balkan Integration and the EU: An Agenda for Trade and Growth, K. Sanjay, World bank Publication (2008); I. Krastev, European Union and the Balkans: Enlargement or Empire, Center for liberal strategies (2005).

In terms of monetary value, the region's imports from the EU in 2007 were far larger than its exports. Imports of manufactured products from the EU dominated trade between the two regions. In terms of tonnes, however, exports from the Western

Balkans were larger than imports from the EU. Exports of lower value minerals and fuels largely matched the tonnage of imports of higher-value manufactured goods (Map 2.2).

**Map 2.3 Current and proposed oil and gas pipelines in south-east Europe**



Political and economic alliances, 2007		
Member and observer countries		
<ul style="list-style-type: none"> <li><span style="background-color: #92D050; display: inline-block; width: 15px; height: 15px;"></span> of the GUAM: Georgia, Ukraine, Azerbaijan, Moldavia (a pro-western organisation)</li> <li><span style="background-color: #81D4FA; display: inline-block; width: 15px; height: 15px;"></span> of the European Union</li> <li><span style="background-color: #FFF176; display: inline-block; width: 15px; height: 15px;"></span> of the Shanghai Cooperation Organisation (SCO)</li> <li><span style="background-color: #FFC107; display: inline-block; width: 15px; height: 15px;"></span> of the Union of Russia and Belarus</li> <li><span style="background-color: #FFCCBC; display: inline-block; width: 15px; height: 15px;"></span> of both the SCO and the Union of Russia and Belarus</li> </ul>		
The oil and gas pipeline 'war'		
<ul style="list-style-type: none"> <li><span style="color: #92D050;">●</span> Major oil and gas fields</li> </ul>		
Choosing a route: geostrategic 'bypass' policies		
<ul style="list-style-type: none"> <li><span style="background-color: #F08080; display: inline-block; width: 15px; height: 15px;"></span> Territory which is largely not under state control and where the security of oil and gas pipelines cannot be guaranteed</li> <li><span style="background-color: #FFCCBC; display: inline-block; width: 15px; height: 15px;"></span> Territory that players in the Great Game say should be avoided when planning the transport of oil and gas from the point of extraction to the main markets (US, Europe, China and Japan)</li> </ul>		
MAP BY PHILIPPE REKACEWICZ, 2007		

**Source:** UNEP/GRID-Arendal, *Balkan Vital Graphics*, 2007.

**Table 2.5 Driving force: globalisation and trade**

Driving forces	Scenarios for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Global</b>			
Global trade flows	<ul style="list-style-type: none"> <li>GEO-4: 'Markets first' vs 'Security first'</li> <li>Shell scenarios: 'Open doors'; 'Low-trust globalisation'; 'Flags'</li> </ul>	<ul style="list-style-type: none"> <li>Global politics, including security concerns</li> <li>World economy</li> <li>Global trade agreements</li> </ul>	<ul style="list-style-type: none"> <li>Global trade patterns will shape production and consumption in the region — and thus will bring a broad range of environmental impacts in the Western Balkans, including on resource use</li> </ul>
<b>EU and Western Balkans</b>			
Imports and exports of agricultural products and natural resources		<ul style="list-style-type: none"> <li>Global trade patterns</li> <li>Integration of the Western Balkans with the EU</li> <li>The role of the 'Balkan fence' countries</li> <li>Rate of international aid and investment in the Western Balkans</li> </ul>	<ul style="list-style-type: none"> <li>These patterns will shape impacts related to production and consumption in the region, and in particular will affect land use, resource use and biodiversity</li> </ul>
Transit of energy resources (especially oil and natural gas)		<ul style="list-style-type: none"> <li>EU energy policy decisions</li> </ul>	<ul style="list-style-type: none"> <li>Environmental risks related to oil and gas transit</li> <li>New pipelines and ports could change energy patterns and natural resource use in the region</li> </ul>

The other side of this coin, however, is that the countries in the region are vulnerable to changes in trade patterns and prices, though the impact of the current downturn in global trade may be softened due to their high level of trade with the European Union. Long-term trends in global and European trade will thus have major impacts on the economies and the environment in the region. It is more certain that Western Balkan countries would fail without international support and it is uncertain that they will succeed with international support (Sanjay, K., 2008; Krassen, S., 1999; Krastev, I., 2005 (76)).

For example, future global agreements could open EU markets, as well as those in the Western Balkans, to higher levels of agricultural imports from distant countries such as Argentina and Australia. This could put further pressure on agriculture in the region — perhaps driving small farmers out of business and encouraging large agricultural enterprises to use more intensive methods. Future agreements could make it harder for European countries to restrict the sale or labelling of food products using genetically modified crops — as well as lifting national restrictions on these crops.

If, on the other hand, future global trade becomes weaker, regional trading blocs may become more important. As a result, the Western Balkans may see its trade in agriculture and other goods tied ever more closely to the EU — and this could lead to

stronger demand for its agricultural products and a revival of farming in the region.

The future of energy trade will also be important for the Western Balkans (Map 2.3). Here, international choices and investments for infrastructure will play a major role in determining trade flows. For example, several current proposals would build new gas pipelines from eastern Europe and central Asia across the region to the EU. Other projects would increase the traffic of oil tankers and natural gas carriers in the Adriatic. However, the recent drop in energy prices, together with a competing set of international infrastructure projects, creates uncertainty.

#### *Selected forward-looking studies from the review*

##### **Global**

Shell (2005). *Shell global scenarios to 2025: the future business environment — trends, trade-offs and choices*.

##### **Europe**

European Centre for Nature Conservation, Landbouw-Economisch Instituut, Leibniz-Zentrum für Agrarlandschaftsforschung, Leibniz-Institut für Länderkunde and Central European University, (2006). *Scenar 2020 — Scenario study on agriculture and the rural world*.

Klassen, G. et al. (2001). 'The future of gas infrastructures in Eurasia', *Energy Policy*, Vol. 29, Issue 5/April 2001, pp. 399–413.

## 2.6 Macro-economic developments

### Key messages

The current global economic crisis highlights the uncertainty of economic growth. It also shows the importance of economic links: global and European economic trends directly affect economic development in the Western Balkans. Driving forces of these uncertainties include: geopolitical factors, the changing international and national environment, external and internal shocks, national commitment to and continuation of existing reforms, dependency on foreign aid and investment, import-export structure, high unemployment, property rights and market protectionism. The current crisis also offers opportunities for the future, such as seeking a new global green deal.

National economic governance will shape the economies of the Western Balkans as well, and thus could have a different influence on the environment. Economic growth can increase environmental pressures: as people in the region have higher disposable incomes, they may change their consumption patterns with greater environmental impacts. At the same time, economic growth can provide resources to address environmental issues, such as financing for investments.

Economic growth is closely linked to environmental pressures. Prosperity can bring stronger pressures for the construction of holiday homes in coastal zones, higher demand for energy, and new food consumption patterns, such as preferences for exotic, imported fruit or packaged, prepared meals.

At the same time, poverty remains an important concern in many parts of the Western Balkans — some of the countries and geographic areas in the region belong to the least developed regions in Europe. Poverty drives people to leave their homes, either moving internally from rural to urban areas — leading to land abandonment and urban sprawl — or leaving the country. In rural areas, poverty can create demand for fuel wood, reducing forests and threatening biodiversity.

Moreover, if national and local governments lack resources, they may not be able to invest in or maintain adequate environmental infrastructure for growing urban areas, such as safe drinking water supply, sufficient wastewater treatment and effective solid waste management.

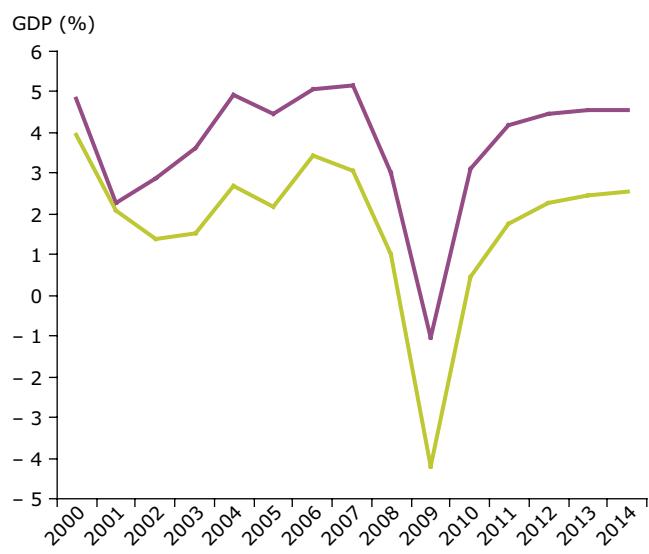
These issues have become more pressing in the face of the current global economic crisis.

### *The global economy: a 'green deal' for the future?*

Economic forecasts typically predict steady growth into the future (<sup>77</sup>). The sudden arrival of the

world's current economic problems shows that steady growth is not an automatic prospect. In autumn 2009, the IMF estimated that the global economy would decline by 1 % for the year as a whole, and the EU economy would decline by 4 % (Figure 2.4). According to the World Bank, this is the first decline recorded in the global economy since the start of systematic records after World War II (<sup>78</sup>).

**Figure 2.4 After the crisis: will global economic growth return?**



**Source:** International Monetary Fund (IMF), World Economic Outlook Database (October 2009).

(<sup>77</sup>) For example, a decade ago, OECD published a study entitled *The future of the global economy: towards a long boom?* (OECD, Paris, 1999). The study saw ongoing globalisation and did not consider potential problems such as global conflicts or security concerns. It did, however, see the search for new technologies and methods to improve environmental sustainability as one of the three main drivers for steady global economic growth.

(<sup>78</sup>) World Bank (2009), *Global economic prospects 2009: forecast update*, 30 March 2009.

The IMF now forecasts that by 2011, both the EU and the global economies will return to close to their former levels of growth — while emphasising that a number of economic risks remain<sup>(79)</sup>.

A return to economic growth, however, could bring back some of the problems seen before the global economic crisis, including high demand for food and fuel as consumers in China, India and other fast-growing developing countries develop new consumption patterns closer to those in wealthy economies. Renewed demand could bring back the high food and fuel prices that particularly affected poor people worldwide. It would also renew pressures on the global environment.

These problems can be addressed if countries seek an alternative sustainable path for global development: independent thinkers such as Lester Brown have made such proposals<sup>(80)</sup>. In late 2008, UNEP called for a 'New Global Green Deal', focusing on new energy technologies, including rural energy, sustainable agriculture, ecosystem and forest protection, and sustainable cities, especially in developing countries<sup>(81)</sup>.

The choice between business as usual and a greener global economy will influence economic choices and the environment in Europe and in the Western Balkans. In particular, a greener economy is likely to promote new consumption patterns for food, energy and mobility.

Uncertainty concerning globalisation, shifting political international environment and trade patterns and external shocks all add to uncertainties for economic prosperity in the region.

#### *Europe's economy: growth or decline?*

In March 2000, EU leaders endorsed the Lisbon Strategy to promote economic growth and competitiveness across the European Union. This strategy originally sought to make the EU the 'most dynamic and competitive knowledge-based economy

in the world' by 2010<sup>(82)</sup>. A review in 2004 and 2005 found that little progress had been made, and EU leaders revised the broad-based strategy to focus on growth and jobs<sup>(83)</sup>.

At present, the global economic crisis makes Europe's economic growth in the short term uncertain. Also, in the longer term, the dynamism of the EU economy remains in doubt. For example, among scenarios developed several years ago by the US National Intelligence Council one foresees 'reforms to economic growth' in Europe but another proposes the opposite: 'from stagnation to decline', in which the EU does not make economic and social reforms, and as a result countries start to consider leaving the union. A third scenario — 'multi-speed Europe' — falls between the two. In this scenario, new EU Member States grow quickly but EU-15 economies stagnate, (NIC, 2005).

As we have seen in the previous section, the countries of the Western Balkans are becoming increasingly linked to the EU economy through trade. Thus, the future of the EU economy will greatly influence economic development in the Western Balkans, and thus indirectly, the region's environmental future. In addition, enlargement policy may be linked to economic conditions in the EU — if the coming years and decades see ongoing economic uncertainty, enlargement halted. This will affect the implementation of EU environmental legislation in the Western Balkans, as well as the availability of European finance for environmental investments (Box 2.8).

#### *The Western Balkans: a return to economic growth?*

Forecasts in mid-2008 saw the region's economic growth continuing steadily into the future, though declining populations will slow overall growth rates (Figure 2.5). Just before the credit crunch and global economic downturn in late 2008, the Economist Intelligence Unit forecast that both Croatia and Serbia would see over 4 % GDP per capita growth through 2010.

<sup>(79)</sup> IMF, *World economic outlook*, October 2009.

<sup>(80)</sup> Brown, L.R. (2003), *Plan B: rescuing a planet under stress and a civilization in trouble*, Earth Policy Institute, Washington, available at [www.earth-policy.org/Books/PlanB\\_contents.htm](http://www.earth-policy.org/Books/PlanB_contents.htm) (accessed January 2010).

<sup>(81)</sup> UNEP (2008), *Global green new deal — environmentally focused investment historic opportunity for 21st-century prosperity and job generation — UNEP launches green economy initiative to get the global markets back to work*, London and Nairobi, 22 October 2008, available at [www.unep.org/greenconomy](http://www.unep.org/greenconomy) (accessed January 2010).

<sup>(82)</sup> Council of the European Union, European Council Brussels: 23 and 24 March 2000 — *Presidency conclusions*. Available at [www.consilium.europa.eu/ueDocs/cms\\_Data/docs/pressData/en/ec/00100-r1.en0.htm](http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/00100-r1.en0.htm).

<sup>(83)</sup> Kok, W. et al. (2004), *Facing the challenge: the Lisbon strategy for growth and employment*, November 2004, available at <http://ec.europa.eu/growthandjobs/pdf/2004-1866-EN-complet.pdf> (accessed January 2010); Council of the European Union, European Council Brussels: 22 and 23 March 2005 — *Presidency conclusions*, 7619/1/05REV1, available at [www.consilium.europa.eu/ueDocs/cms\\_Data/docs/pressData/en/ec/84335.pdf](http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/84335.pdf) (accessed January 2010).

### Box 2.8 The economy of the Western Balkans: looking backward to the present

A study prepared in Bulgaria at the turn of the millennium looked ahead to the economy of the Western Balkans, as well as Bulgaria and Romania, in 2010. This study proposed three scenarios:

In '**Monumental economic disasters**', institutional constraints, the legacy of war and a lack of engagement by external powers such as the EU block progress. The countries in the region do not reach peace agreements, and renewed conflict threatens. The pace of economic reform varies significantly across the region.

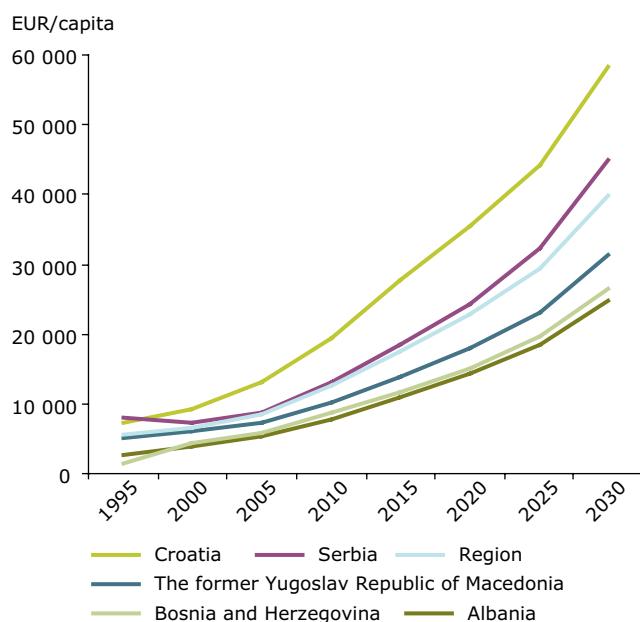
'**Balkan valleys**', in contrast, foresees steady progress towards regional cooperation as well economic reform. Reforms will build trade and investment links among the countries of the region, as well as common, regional infrastructure.

In the '**Balkan basement**' scenario, the region instead adopts ready-made solutions provided by the EU and international organisation. While this scenario could establish the foundations for a new economic and political order, it could also keep these countries in an under-qualified status.

The study is interesting as its time frame is now almost over. Do any of these scenarios bear a resemblance to current economic structures, or are elements of each scenario in place? Countries in the region have largely avoided economic disaster. On the other hand, the study refers to calls a decade ago for a 'Marshall Plan' for south-east Europe similar to the US programme of economic assistance for the reconstruction of Western Europe after World War II. The various sides had different visions of this — politicians in the region imagined finance at their disposal, while those in the EU imagined a plan they would make. In the years since the study was prepared, however, no Marshall Plan has materialised.

**Source:** Stanchev, K., *The Balkans in 2010: economic scenarios*, Institute for Market Economics, Sofia.

**Figure 2.5 Economic trends (GDP) in the Western Balkans until 2030**



**Source:** IMF (trends to 2005); projections are based on forecasts by the IMF and Economist Intelligence Unit.

Many national and regional uncertainties threaten the positive scenario, especially the shifting political environment and separatist groups looking for opportunities for

liberalisation, possibilities of internal shocks, high unemployment, dependency on foreign aid and investment, and an import-export structure highly dependent on the EU and domestic market.

#### *The Western Balkans: how long a 'transition'?*

Transition means on the one hand a shift from centrally planned to free market economics. It is also a process of modernisation, with economies developing a capacity to adapt and compete successfully in a globalised world. This means the process should foster conditions for future development — nonetheless, it can be difficult in social terms.

The countries of the region have been in transition for over two decades. They have followed the path of economic transition away from central planning at various speeds; except for Albania, conflict interrupted economic reforms.

By 2008, all the countries in the region had advanced significantly in terms of the privatisation of state-owned enterprises, according to the European Bank for Reconstruction and Development (EBRD). Several countries, including Albania, Bosnia and Herzegovina, Montenegro and Serbia, still had to take difficult steps in terms of restructuring enterprises, a process that can involve cutting staff, closing plants and even bankruptcy.

Table 2.6 presents the EBRD's transition indicators for three key elements of economic reform: the privatisation of large state-owned enterprises; the privatisation of smaller state-owned enterprises; and the restructuring of these enterprises (which often occurs after privatisation).

While some countries, and notably Croatia, have progressed far on the road to a market-based economy, further reforms are needed across the region. These may prove difficult in the short term in the face of the current economic crisis.

Will countries in the region continue the path of reform and better economic governance? A scenario study prepared a decade ago looked at this question. The issues for coming decades may be the same (Box 2.8).

**Table 2.6 Transition indicators: privatisation and enterprise restructuring, 2008**

	Large-scale privatisation	Small-scale privatisation	Enterprise restructuring
Albania	3.67	4.00	2.33
Bosnia and Herzegovina	3.00	3.00	2.00
Croatia	3.33	4.33	3.00
The former Yugoslav Republic of Macedonia	3.33	4.00	2.67
Montenegro	3.00	3.67	2.00
Serbia	2.67	3.67	2.33

**Note:** Scale from 1 to 4+, with 1 equivalent to central planning and 4 to the level of advanced market economies (the scoring method can be found at [www.ebrd.com/country/sector/econo/stats/timeth.htm](http://www.ebrd.com/country/sector/econo/stats/timeth.htm) (accessed January 2010)

**Source:** EBRD.

**Table 2.7 Driving force: macro-economic development**

Driving forces	Scenarios for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Global and EU</b>			
Economic growth	• National Intelligence Council (NIC) scenarios for the EU: stagnation to decline; multi-speed Europe; reforms to economic growth	• Global politics • Global trade agreements • EU effectiveness • Aid and investment in the region	• Global and EU growth will affect growth in the Western Balkans — and thus influence employment and income levels and consumption and production patterns in the region
<b>National</b>			
Economic growth	• Economist Intelligence Unit (EIU) and IMF projections (now outdated)	• Growth rates in coming years/decades	• Direct influence on production and consumption levels
Enterprise restructuring (N)	• Stanchev, The Balkans in 2010: economic scenarios, Institute for Market Economics, Sofia	• Extent to which national governments make reforms • Unemployment • Export-import structure	• Restructuring could lead to short-term unemployment; in the longer term, it could encourage enterprises in the Western Balkans to be more efficient, reducing the environmental impacts of production patterns

#### *Selected forward-looking studies from the review*

##### **Global**

OECD (2000). *The Future of the global economy: towards a long boom?*

World Bank (2007). *Global economic prospects – managing the next wave of globalization.*

##### **Europe**

US National Intelligence Council. *NIC Europe, 2020: scenarios* (outcome of the April 2004 Budapest workshop). Available at: [www.dni.gov/nic/NIC\\_2020\\_2004\\_04\\_28\\_intro.html](http://www.dni.gov/nic/NIC_2020_2004_04_28_intro.html) (accessed January 2010).

##### **Western Balkans**

EIU, *Country forecasts*, various editions.

UNDP (2004). *Bosnia and Herzegovina human development report/millennium development goals 2003: Where will I be in 2015?* UNDP Bosnia and Herzegovina.

Popov, D. (2004). 'Privatization and foreign investments: the case of Serbia and Montenegro', *Transition Studies Review*, Vol. 11, No. 4.

Mihaljek, D. (2001). *Toward a long-term strategy of economic development of Croatia: where to begin, what to do and how to do it?*, Institute of Public Finance Occasional Paper no. 11.

Stanchev, K. *The Balkans in 2010: economic scenarios*, Institute for Market Economics, Sofia.

## 2.7 Markets and business

### Key messages

In recent decades, free markets have had a growing role in the global economy. Around the world, enterprises have encouraged consumption patterns that use high amounts of natural resources. At the same time, some enterprises have adopted environmental management systems and sought to reduce their pressures on the environment. The future role of the global business sector is likely to remain complex: enterprises will continue to be a source of environmental problems and also of solutions.

In the Western Balkans, markets and business have taken some environmental initiatives, and they could play an important part in supporting environmental solutions in the future.

Government policy can also influence the extent of markets. One important policy choice in coming decades will be whether to privatise water services such as water supply, sewerage and treatment, and perhaps energy services: privatisation could provide new financial resources to invest in better plants, reducing environmental impacts and improve efficiency, but would impose higher prices on households and other users.

The business sector today plays a key role in shaping production and consumption patterns around the world. When enterprises innovate, they can bring new environmental technologies to market. At the same time, markets have brought more and cheaper consumer products, often produced in developing countries, to consumers — and the resulting growth in consumption has increased pressures on the environment.

This is in marked contrast to the enterprises under former centrally planned economies. Their pollution and resource use per unit of production were typically much higher than those of market enterprises; overall, however, there were fewer consumer goods available and less variety<sup>(84)</sup>.

### A market world?

Until 2008, global markets grew steadily more integrated through globalisation patterns such as increasing trade, foreign investment and

communications. As a result, some analysts saw a future where the world would be dominated by business, as in the GEO-4 'Markets first' scenario (Box 2.9). The Shell scenarios (Section 2.4) sees a future where business and civil society work together to tackle global environmental problems.

A strong role for business and markets may seem unlikely in the face of today's economic problems brought by an unregulated, global financial sector. However, business is likely to remain an important actor — for example by promoting and diffusing environmental management in production.

In Europe and worldwide, enterprises have created an ever-wider choice in consumer products, and they have helped induce demand for their products through marketing and advertising. Companies have also developed new ways of producing, distributing and selling products more efficiently — in many cases, by repeating a basic model throughout the world. For example, supermarket

### Box 2.9 Markets first?

In GEO-4's 'Markets first' scenario, the world places faith in business and markets as the best path for rapid economic growth. Foreign direct investment and private donations grow further to become the main avenues of financial support for developing countries. Water and other services are increasingly privatised. While wealthy countries continue to address local and regional environmental problems, pollution levels grow in most developing countries. Climate change pressures also continue, as do global biodiversity losses.

UNEP's recent *Carpathian environmental outlook* includes scenarios based on those in GEO-4. The 'Business as usual' scenario for the Carpathians is based on a global pursuit of markets first. In this scenario, the Carpathians region sees traditional values disappear, and regional disparities increase. Rural areas face sharp declines in their population. Overall, air and water pollution increase. Could a focus on markets lead to a similar set of impacts in the Western Balkans? Here too, rural areas are losing population.

<sup>(84)</sup> See for example, OECD, *Environment in the transition to a market economy*, 1999. These differences were seen also in the more flexible socialist economy of the former Yugoslavia.

and retail chains — many of them from western Europe — opened stores in the new EU Member States in the 1990s. In this decade, they have expanded to many parts of the Western Balkans. Companies such as McDonald's have spread rapidly through locally owned franchises.

### ***Business action for the environment***

At the same time, a growing number of European and global businesses have sought to play a part in seeking solutions to environmental problems.

A growing number of companies have adopted management systems to better evaluate, monitor and reduce their environmental impacts, thus going beyond compliance with environmental legislation. Such systems include the ISO 14000 series and EMAS, the EU Eco-Management and Audit Scheme. EMAS, which is also open to public authorities, can be adopted by enterprises and organisations in EU candidate countries, i.e. Croatia and the former Yugoslav Republic of Macedonia in the Western Balkans. Large companies that adopt such environmental management systems often require their suppliers to establish similar mechanisms, thus diffusing this approach.

By mid-2008, about 4 000 companies and other organisations in the EU-27 had adopted EMAS. Over 50 000 companies had adopted ISO 14000 systems, which are typically less onerous in terms of reporting and other requirements. These environmental management systems often call on companies to ensure that their suppliers also undertake environmental management initiatives. Through this mechanism, EU companies are likely to help disseminate environmental management practices to supplier companies in the Western Balkans.

Other companies have gone further by advocating and encouraging new policies and innovations for the environment. The World Business Council for Sustainable Development was founded just before the 1992 Rio Earth Summit. It brings together about 200 companies to support approaches for sustainable development.

Companies have also sought to address social issues together with environmental ones by adopting

corporate policies for social responsibility. Companies worldwide have subscribed to the UN Global Compact, which sets principles for environment, human rights, labour rights and anti-corruption practices<sup>(85)</sup>.

A growing number of companies see environmental issues as a business opportunity. This is the case for climate change: the IEA estimates that reshaping global energy and transport systems in order to reduce greenhouse gas emissions and maintain atmospheric carbon levels below 450 ppm will require an additional USD 10.5 trillion in investments to 2030 — a 40 % increase over the USD 26 trillion required in its reference scenario<sup>(86)</sup>. Many enterprises are seeking to develop the technologies that will be needed.

Governments can play an important part in supporting innovation of environmental technologies and products, through support for research and tests as well as for the introduction of new technologies. Mechanisms that can help introduce new technologies include guaranteed tariffs for renewable energy, a mechanism used by many EU Member States. Another is through green public procurement: in 2008, the European Commission proposed setting targets for green public procurement in Member States<sup>(87)</sup>.

### ***Western Balkans: foreign investment***

One important dynamic in the Western Balkans has been the arrival of western investors opening new supermarkets, fast-food restaurants and other shops — and this has brought new consumption patterns to the region. Table 2.8 presents an overview of foreign direct investment earlier in this decade.

### ***Western Balkans: can business be an actor for change?***

At the same time, business groups have taken several initiatives to address environment and social issues. A study in Croatia found that all the large businesses interviewed undertook some form of environmental management action, including business activities — such as improving eco-efficiency and undertaking environmental accounting — or through community investment activities. While the study did not cover small and medium enterprises (SMEs), it appears that these lag behind large businesses<sup>(88)</sup>.

<sup>(85)</sup> [www.unglobalcompact.org](http://www.unglobalcompact.org) (accessed January 2010).

<sup>(86)</sup> IEA (2009), *World energy outlook 2009*, Paris, available at [www.worldenergyoutlook.org](http://www.worldenergyoutlook.org) (accessed January 2010).

<sup>(87)</sup> [http://ec.europa.eu/environment/gpp/index\\_en.htm](http://ec.europa.eu/environment/gpp/index_en.htm).

<sup>(88)</sup> Basic, A., et al. (2004), *An overview of corporate social responsibility in Croatia*, Academy for Educational Development, Prince of Wales International Business Leaders Forum, Map Consulting Inc., Zagreb.

**Table 2.8 Net foreign direct investment inflows to the countries of the Western Balkans, 2004**

Country/territory	Net foreign direct investment inflows, 2004 (% of GDP)
Albania	5.6
Bosnia and Herzegovina	7.2
Croatia	3.6
The former Yugoslav Republic of Macedonia	2.9
Montenegro	3.3
Serbia	4.0
Kosovo under UN Security Council Resolution 1244/99	1.0

**Source:** UNDP (2007), *Environmental policy in South East Europe* for all data except Serbia: Republic Development Bureau, Republic of Serbia.

**Table 2.9 Driving force: markets and business**

Driving forces	Scenarios for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Global and EU</b>			
Business leadership for the environment	• One GEO-4 scenario, 'Markets first', imagines a global future shaped by markets.	• Extent of business action for the environment	• Business initiatives at global and EU scale could influence enterprises in the region, encouraging them to reduce environmental impacts of production
<b>National</b>			
Foreign direct investment (FDI)	• No studies identified	• Extent of FDI in coming years	• FDI can transform industrial production by bringing financial and technical resources • FDI in retail will directly influence consumption patterns
Privatisation of energy, water services	• No studies identified	• Extent to which national governments make reforms (see Section 2.10 on policy)	• By privatising water and energy services, countries will receive new investments to improve production methods — but consumers are likely to face higher tariffs
Business leadership for the environment	• No studies identified	• Extent of business action for the environment	• Enterprises in the region — both foreign and national investors — could become actors for environmental improvement, reducing the impacts of production patterns and developing new, greener products

Governments can support these efforts. In 2007, for example, the Serbian government together with the UN Industrial Development Organization (UNIDO) created a Cleaner Production Centre at the University of Belgrade. Fourteen companies signed agreements with the Centre to undertake cleaner production initiatives in 2008, and a further eleven did so in 2009 (<sup>89</sup>). Other groups are working to support corporate social responsibility, such as the non-profit Smart Kolektiv, also based in Belgrade (<sup>90</sup>).

#### *Privatising infrastructure?*

The countries in the region face ongoing choices about how they structure their private markets. The countries of the Western Balkans are still engaged in a transition to market-based systems. While the privatisation of large and small enterprises has progressed significantly in recent years (Section 2.6), key choices still need to be made regarding the energy sector as well as water services. Here, privatisation could bring new investors that could finance improvements.

However, the new investors are likely to recover the full costs for water extraction and provision, including the costs of their new investments, through higher tariffs on users, including households.

Summary of markets and businesses driving forces is presented in Table 2.9.

#### *Selected forward-looking studies from the review*

##### **Global**

UNEP (2007). *Global environment outlook 4 (GEO-4)*.

##### **Western Balkans**

Business Monitor International, *The business forecast reports: emerging Europe*, various editions.

Stanchev, K. *The Balkans in 2010: economic scenarios*, Institute for Market Economics, Sofia.

##### **Other**

UNEP, (2007). *Carpathian environmental outlook*.

(<sup>89</sup>) Cleaner Production Centre of Serbia, [www.cpc-serbia.org](http://www.cpc-serbia.org) (accessed January 2010).

(<sup>90</sup>) Smart Kolektiv, [www.smartkolektiv.org/cms/item/aboutus/en.html](http://www.smartkolektiv.org/cms/item/aboutus/en.html) (accessed January 2010).

## 2.8 Global environmental change

### Key messages

Global environmental changes will affect the environment in the Western Balkans. Climate change is expected to bring higher summer temperatures and lower rainfall; it will shape agriculture (especially in the countries with extensive irrigation such as Albania, Kosovo under UN Security Council Resolution 1244/99 and the former Yugoslav Republic of Macedonia), hydroelectricity production and energy use in the future, as well as coastal tourist areas. And climate change will have an important impact on the region's biodiversity.

Another global change under way is the widespread decline in biodiversity. Global losses can affect the rich biodiversity in the Western Balkans (increase of invasive species); moreover, threats to biodiversity in the region can affect biodiversity in other parts of Europe as well as broader global patterns.

There is the lack of information and analysis about the links between the Western Balkan environment and global environmental changes i.e. climate change and biodiversity loss.

The impacts of global environmental changes will also affect the environment in the Western Balkans over the coming decades, as well as its economy and society. Climate change, biodiversity loss, nutrient loading in oceans and seas and land degradation are among the ongoing changes at global scale. This section focuses on the impacts of two global changes under way: climate change and biodiversity loss.

#### *Global climate change impacts*

A key question for the future will be the extent of climate change and its impacts. IPCC developed a

series of global emission scenarios (Table 2.10). The scenario that sees the smallest increase in global temperature, 1.8 °C, is a world where markets and policy work together for sustainability. In contrast, in a market-focused world where future technologies focus on fossil fuels, global temperatures could rise by 4 °C by the end of this century.

Since the IPCC report was published, some scientists have warned that climate impacts may be even greater than it predicted, and that the earth is close to a 'tipping point' of irreversible changes (<sup>(91)</sup>).

**Table 2.10 IPCC emission scenarios for climate change**

Scenario	Overview	Description	Best estimate of global temperature increase *
A1B	Market-driven world	A world of rapid economic growth and integration. Future technology focuses on both fossil-fuel and alternative energy	2.8
A1FI		A world of rapid economic growth and integration. Future technology focuses on fossil fuels.	4.0
A1T		A world of rapid economic growth and integration. Future technology focuses on non-fossil-fuel energy	2.4
A2	Fragmented world	A world where regional differences persist and grow. Population rises faster than in the A1 scenarios, but technological change is slower	3.4
B1	Markets and policy	An integrated world that focuses on sustainability and resource-efficient technologies	1.8
B2	Local sustainability	Regional and local focus on sustainability. Slow economic growth, faster population growth. Resource-efficient technologies are adopted — but slowly	2.4

**Note:** \* Increase in temperature in °C at 2090–2099 relative to 1980–1999. The estimates represent an average based on the results of different climate change models.

**Source:** IPCC, *Climate change 2007: synthesis report*, 2007.

<sup>(91)</sup> See for example Hansen, J. et al. (2007), 'Dangerous human-made interference with climate: a GISS modelE study', *Atmospheric chemistry and physics* (7, 2287–2312, 2007); available at [http://pubs.giss.nasa.gov/docs/2007/2007\\_Hansen\\_etal\\_1.pdf](http://pubs.giss.nasa.gov/docs/2007/2007_Hansen_etal_1.pdf) (accessed January 2010).

### *Climate change impacts in the Western Balkans*

By 2005, the pan-Europe region (i.e. including Eastern Europe, the Caucasus and Central Asia countries) had experienced a 1.4 °C increase in temperatures over pre-industrial levels — higher than the global average. Southern Europe, including the Western Balkans, experienced even stronger warming than the European average.

Over the course of this century, climate change is projected to increase. The IPCC reported in 2007 that ongoing emissions of carbon dioxide and other greenhouse gases will contribute to an increase of about 0.2 °C over the next two decades. As shown in Table 2.10, global temperatures are expected to increase further through the end of the century (<sup>92</sup>).

In the Western Balkans, climate change is expected to bring:

- higher temperatures, in particular in summer months;
- an increase in extreme events, including summer heat waves and both droughts and flooding;
- a reduction in precipitation, and thus of water run-off (according to estimates gathered by the IPCC, total water run-off in southern Europe could decrease by up to 23 % in the 2020s and by up to 37 % by 50 years later — though the specific impacts in the Western Balkans may vary).

Table 2.11 summarises the impacts estimated by three countries of the region in their recent

reports under the UN Framework Convention on Climate Change. Most of these reports were prepared at the beginning of the current decade, and their estimates are less drastic than those in the most recent IPCC report — in their upcoming communications, the countries may revise these forecasts upwards.

These changes will affect ecosystems in the region further. Reduced water flows will affect freshwater ecosystems and in mountain areas, higher average temperatures will shift the tree line upwards. Across ecosystems, climate change could encourage invasive species. By one estimate, up to 25 % of endemic plant species in southern European countries may disappear (<sup>93</sup>).

In coastal zones, sea-level rise and erosion driven by increased storms will put human settlements and ecosystems at risk. Globally, sea levels rose about 10 cm during the 20th century. The IPCC estimates that sea levels could increase by a further 60 cm in the 21st century if greenhouse gas emissions continue unabated. However, predictions of sea-level rise are not definite and the IPCC warns that understanding of the factors involved is still limited (IPCC, 2007).

The effects of climate change on economies in the region will need to be studied further. The IPCC suggests that summer tourism in southern Europe could decline as summer temperatures there become uncomfortable while they also increase in northern Europe. Energy patterns are likely

**Table 2.11 Climate change impacts in the Western Balkans: forecasts in national communications**

Country	Observed temperatures (in °C)	Temperature increase forecast (in °C)		Observed precipitation (mm/year)	Precipitation change forecast (in %)	
		2050	2080/2100		2050	2080/2100
Albania	6 to 17	1.2 to 1.8	2.1 to 3.6	1 485	- 6.1 to - 3.8	- 12.5 to - 6.0
Croatia	- 3 to 22	1.0 to 2.1	2.4 to 3.2	600 to 3 500	2.4 to 6.5	6 to 10
The former Yugoslav Republic of Macedonia	11–14	1.3 to 1.7	1.7 to 3.2	500 to 1 000	- 1.8 to - 2.4	- 2.4 to - 4.4

**Source:** National Communications on Climate Change for Albania (2002), Croatia (2001) and the former Yugoslav Republic of Macedonia (2003).

<sup>(92)</sup> IPCC (2007), *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, available at: [www.ipcc.ch/publications\\_and\\_data/ar4/syr/en/contents.html](http://www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html).

<sup>(93)</sup> EEA (2007), *Europe's environment — The fourth assessment*, available at: [www.eea.europa.eu/themes/regions/pan-european/fourth-assessment](http://www.eea.europa.eu/themes/regions/pan-european/fourth-assessment).

to change: while demand for energy for winter heating may fall, demand for summer cooling could increase. Croatian, Serbian and Montenegro economies are heavily based on tourism.

Lower rainfall could reduce hydropower generation in Albania, Bosnia and Herzegovina and Serbia — countries that rely heavily on this energy source (<sup>94</sup>).

#### *Biodiversity loss: a global and a local dilemma*

Biodiversity loss is a global problem — and one that generates high costs for human societies (<sup>95</sup>). The loss of biodiversity threatens ecosystem services, ranging from fisheries that provide food and income, to forests, fields and wetlands that help store water, protect water basins from flooding and provide resources during droughts. Ecosystems also provide nutrient cycling for agriculture and forestry.

The Millennium Ecosystem Assessment developed four scenarios for possible global futures (Box 2.10).

Biodiversity in the Western Balkans is also under threat (Chapter 1). Western Balkan biodiversity trends are also an important element in global changes, as many species and habitats are of wider importance (freshwater fish species, karstic underground species and old tectonic lakes habitats). While many of the pressures and problems are local, they often follow continent-wide and global patterns. Across Europe, including the Western Balkans, the pressures that threaten biodiversity include urban sprawl and the abandonment of extensive, high-nature-value farming. Invasive species threaten endemic ones in land, freshwater and marine ecosystems. The loss of habitat in Africa and western Europe can affect the populations of migratory birds that pass through the Western Balkans. Overfishing and invasive species threaten marine ecosystems throughout the Mediterranean, including the Adriatic.

Climate change will put additional pressure on ecosystems. For example, reduced water flows could threaten freshwater ecosystems. Warmer sea

#### **Box 2.10 Millennium Ecosystem Assessment scenarios: biodiversity and economic growth**

The Millennium Ecosystem Assessment developed four scenarios to explore possible futures for ecosystems at the global scale. All four scenarios project a loss of global biodiversity, but its extent varies as do the impacts on human well-being.

'Order from strength' — A world focused on security and protection, fragmented on a regional basis. Ecosystem problems are dealt with on a reactive basis. Of the four scenarios, this one predicts the lowest economic growth (annual incomes reach just USD 6 000 per capita in EECCA in 2050) while population growth and biodiversity loss are the highest.

'Global orchestration' — A global society that focuses on trade and economic liberalisation. Economic growth is strong (EECCA income reaches USD 15 000 per capita by 2050). While steps are taken to reduce poverty and inequality, ecosystem problems are dealt with on a reactive basis.

'Adapting mosaic' — Regional, water basin-scale ecosystems are the focus of political and economic activity.

Power shifts to local institutions, many of which take the lead for ecosystem management. Economic growth rates are low, but increase with time; population is nearly as high as in the 'Order from strength' scenario.

'TechnoGarden' — This globally connected world relies on environmentally sound technology. There is close attention to ecosystem problems — often using highly managed, engineered ecosystems to provide services. Economic growth is high, population is in the mid-range of the four scenarios and biodiversity loss is low.

Land-use changes are expected to have the largest impact on biodiversity in all the scenarios, followed by climate change (a threat in particular for river ecosystems) and nitrogen deposition.

(<sup>94</sup>) World Bank, Albanian Ministry of Environment, Forestry and Water Administration and Global Water Partnership—Mediterranean, 'Information note', *International Workshop on Water and Climate Change in Southeastern Europe: Understanding Impacts & Planning for Adaptation*, Tirana, June 2008.

(<sup>95</sup>) Millennium Ecosystems Assessment (2005), *Ecosystems and human well-being: scenarios, volume 2*, Island press, Washington DC.

**Table 2.12 Driving force: global environmental change**

Driving forces	Scenarios for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Global</b>			
Climate change impacts	• IPCC reports and scenarios	• Level of future global climate change emissions • Impacts of climate change at regional level	• Climate change could have a broad range of global impacts: e.g. changing global agricultural production patterns and encouraging migration. These could have an indirect influence on production and consumption in the Western Balkans
Nature and biodiversity loss	• Millennium Ecosystem Assessment	• Future global economic systems and their impact on biodiversity, both worldwide and in the region • Loss of biodiversity in the Western Balkans of wider importance	• Global biodiversity loss could also affect production and consumption patterns worldwide, influencing changes in the region • Global biodiversity loss could increase biodiversity loss in the Western Balkans, which may harm agriculture, fisheries, forestry in particular
<b>Western Balkans</b>			
Climate change impacts	• IPCC reports and scenarios	• Level of future global climate change emissions • Impacts of climate change at regional level	• Climate change will have a broad range of direct environmental impacts in the Western Balkans, including higher summer temperatures, lower summer rainfall that will reduce freshwater flows, and increased pressures on ecosystems • Climate change will have a range of effects on production and consumption patterns: for example, it may reduce hydroelectricity production in the region and it could increase demand for energy for home cooling in the summer

temperatures will allow new invasive species to prosper in the Adriatic and Ionian Seas.

#### *Selected forward-looking studies from the review*

##### **Global**

IPCC (2007). *Climate Change 2007*, Geneva.

Millennium Ecosystem Assessment Board (2005). *Ecosystems and human well-being: scenarios, volume 2*, Island Press, Washington DC.

##### **Europe**

Bakkenes, M. et al. (2002). *Assessing effects of forecasted climate change on the diversity and distribution of European higher plants for 2050*, Planbureau voor de Leefomgeving, Bilthoven, Netherlands.

Parry, M. (2000). *Assessment of the potential effects and adaptations for climate change in Europe: the Europe ACACIA project*, Jackson Environment Institute (JEI), University of East Anglia, United Kingdom.

Rotmans J. and van Asselt, M. (2001). *Integrated visions for a sustainable Europe*, International Centre for Integrated Studies (ICIS), Maastricht University.

## 2.9 Politics: from global to national

### Key messages

Politics at all levels — global, EU, regional and national — will set the scene for environmental policies, laws and actions in the coming decades, and thus will have a strong influence on environmental trends.

Political futures are by nature uncertain. At global level, the extent of cooperation or conflict among nations will be vital in terms of determining the world's economic and social framework in coming decades. This choice between conflict and cooperation will affect the extent and effectiveness of international environmental agreements.

The future of the European Union — both its internal effectiveness and its enlargement policies — is also uncertain: and its future will however greatly influence Western Balkan politics as well as environmental laws and policies in the region. Enhanced regional cooperation is crucial for minimising political risks in the future.

In the region itself, many problems remaining from the conflicts of the 1990s still need to be resolved: while Western Balkan countries have taken important steps towards greater regional and European cooperation, the path forward is far from certain.

Internally as well, countries in the region need to resolve a number of problems, including the poor level of public governance, which hinders effective implementation of all policies, including those for environment and sustainability.

In the 1990s, conflict engulfed much of the Western Balkans. As those events show, the extent of conflict or cooperation will play a central role in shaping the economy, society and environment of the Western Balkans in the coming decades.

Long-term analyses for the Balkan region identify three cross-cutting issues that are important for minimising the risks of unfavourable future political developments: establishment of good economic policies across the region, conducted by both international and national institutions; minimisation of the risk of war and other shocks; promotion of common security measures. For all these issues, additional scenario analysis is needed to explore options and their impacts on the environment.

### *Global cooperation or conflict?*

The extent of conflict or cooperation at global scale will be just as important for the region. The future of global politics presents a series of fundamental uncertainties for all humanity. UNEP's *GEO-4* report explores this through a scenario entitled 'Security first' (Box 2.11).

The coming decades may see a major change in the balance of global powers. A recent study prepared by the US National Intelligence Council (NIC) sets out four very different possible pathways for the future. The study also identifies what are seen as more certain trends: in particular, the role of current world powers — the US and Europe in particular — is likely to decline in coming decades as China, India and

### **Box 2.11     A world dominated by security concerns ignores the environment**

UNEP's fourth *Global environment outlook (GEO-4)* presents four scenarios for the world's future. These are entitled: 'Markets first', 'Policy first', 'Security first' and 'Sustainability first'.

In the 'Security first' scenario, governments limit global migration as well as trade, and increase military spending. Environmental governance suffers, and few new technologies seek to solve environmental problems. Countries do not agree on ways to tackle climate change. Environmental problems spread, especially in developing countries: in much of Africa, climate change reduces water resources in coming decades, while water quality declines significantly. Climate change and other pressures continue to reduce global biodiversity.

**Source:** UNEP (2007), *Global environment outlook 4*, Nairobi, available at [www.unep.org/geo/geo4](http://www.unep.org/geo/geo4) (accessed January 2010).

others take a larger role on the world stage. How will this shift in power influence world politics? The NIC study explored this question in some of its scenarios, such as the one entitled 'World without the west'. Energy resources are a common international interest in all scenarios<sup>(96)</sup>.

Global politics will set the scene and determine the conditions for agreements to tackle major environmental problems, such as climate change. If global conflicts increase, such agreements will be difficult to reach let alone fulfil. On the other hand, if the coming decades see greater global cooperation, such agreements, as well as international institutions to manage environmental issues, will likely be strengthened. Indeed, environment is one of the most important areas for international agreement, and agreements here can pave the way for cooperation in other areas.

Two of the NIC scenarios focus on actions to address climate change (Box 2.12). The study is notable because it sees climate change as a potential driving force for international politics: in the 'October surprise' scenario, for example, a severe weather event rather than terrorism or war pushes global action. Moreover, in its scenario entitled 'Politics is not always local', the NIC study also sees non-governmental organisations and other civil society actors as a potential driving force for change in the future.

### *Europe revived or unravelled?*

In Europe, one central question will be the future of the European Union, which today provides shared economic, social and environmental rules for its 27 Member States.

In 50 years, the development of what is now the European Union has transformed western Europe, bringing once-warring countries together. The countries of central Europe, as well as Bulgaria and Romania, have now joined. Two countries in the Western Balkans — Croatia and the former Yugoslav Republic of Macedonia — have accession agreements with the EU, putting them in line for future accession. Albania, Bosnia and Herzegovina, Montenegro and Serbia have all signed stabilisation and association agreements, a first step in the integration process.

Despite the EU's steady growth over the past 50 years in terms of its membership, its political role and its legislative framework, the continuation of these trends is not guaranteed.

Today, the expansion of the EU has been called into question by both politicians and public opinion. In a 2006 survey, over 60 % of EU citizens agreed with key principles behind the Union's enlargement, such as the goal of uniting Europe and strengthening the European Union. However, when asked about the possible accession of countries in the Western

### **Box 2.12      2025: a world transformed?**

The US National Intelligence Council, a government body, developed four striking scenarios for world developments to 2025.

**'A world without the west'** — The US feels overburdened and withdraws from central Asia; Europe will not take the lead; Russia, China, and other non-western powers gain ascendancy. The lack of any stable bloc adds to growing world instability.

**'October surprise'** — After a period of global growth-first mentality, New York City is hit by a major hurricane linked to global climate change. In the face of this calamity, world leaders begin to work on drastic measures to address global environmental problems.

**'BRICs bust-up'** — A steady period of growth has slowed as states struggle to cope with energy and resource shortages. Conflict breaks out between China and India over access to vital resources, including energy supplies. Outside powers intervene before the conflict escalates into a global conflagration.

**'Politics is not always local'** — Non-governmental organisations, religious groups, business leaders, and local activists work together to set the international agenda on the environment — through their influence, they choose the UN Secretary General. This coalition plays a crucial role in ensuring a new worldwide climate change agreement.

**Source:** US National Intelligence Council (2008), *Global trends 2025: a transformed world*, Washington DC, available at [www.dni.gov/nic/NIC\\_2025\\_project.html](http://www.dni.gov/nic/NIC_2025_project.html) (accessed January 2010).

<sup>(96)</sup> Canada — US Power System Outage Task Force, *Final Report on the August 14th Blackout: Causes and Recommendations*, April 2004, available at <https://reports.energy.gov/BlackoutFinal-Web.pdf>.

Balkans, 45 % of respondents thought that this would be primarily in the interest of these countries — and not in the interest of the EU. If these opinions persist, enlargement to the countries of the region may be politically difficult (<sup>97</sup>).

The future of the EU will directly affect environmental policies in the Western Balkans (Box 2.13). In Europe, an 'unbinding' or an 'unravelling' of the EU — as seen in two of the Economic Intelligence Unit (EIU) scenarios — is likely to weaken or dismantle the EU's current environmental rules and policy. The process of integration and accession — if it continues — could support economic growth and regional cooperation in the region, as well as the introduction of stronger environmental laws and policies (see the next section on legislation and policy), as accession involves harmonising national legislation with that of the EU. In coming years, those countries embarking on EU accession and the legal harmonisation process will take on a much stronger legal basis for environmental management, though a costly one.

Moreover, the EU has become a key power for Balkan security and stability, and has a wide-ranging influence on the region's economy and society, as well as its environment. The EU has also played a central role in supporting environment agreements across wider regions, such as those for the protection of the Danube river basin and the Mediterranean Sea. These agreements directly affect participating countries in the Western Balkans. Here too, a strong EU could support further action in coming decades — but if

the EU weakens, progress in implementing these agreements may also stall.

#### **Western Balkans: cooperation or mistrust?**

Twenty years ago, all the countries of this region except Albania were part of the Socialist Federal Republic of Yugoslavia (see Map 2.4). Today, this region has split into six countries, plus Kosovo under UN Security Council Resolution 1244/99 — a territory whose declaration of independence from Serbia is broadly but not universally recognised (another country that emerged from Yugoslavia, Slovenia, is an EU Member State). Today's political map emerged after a series of conflicts engulfed the former Yugoslavia in the 1990s. International agreements have ended the fighting, but the legacy of these conflicts still divides the countries of the region.

A key issue for coming decades is the region's integration with the European Union. Two countries — Croatia and the former Yugoslav Republic of Macedonia — are candidates for membership. While discussions between Croatia and the EU are already quite advanced, those with the former Yugoslav Republic of Macedonia are at an early stage. The EU has signed Stabilisation and Association Agreements — a significant step in closer relations — with all the other countries of the region.

At present, accession appears to be very popular in the two candidate countries. In a poll published in late 2008, an overwhelming majority of Macedonians

#### **Box 2.13 EU futures: five scenarios**

Despite the growth of the EU's political and economic role, its future appears uncertain. A study by the Economist Intelligence Unit suggests five scenarios for the EU to 2025 (<sup>98</sup>).

'Status quo' — implying little progress for further membership or the EU's political role.

'Europe unbound', with powers returning to the national level, though with Turkey and the Western Balkans joining by 2020.

'Europe unravelled' by increasing conflicts among Member States and a collapse of the euro.

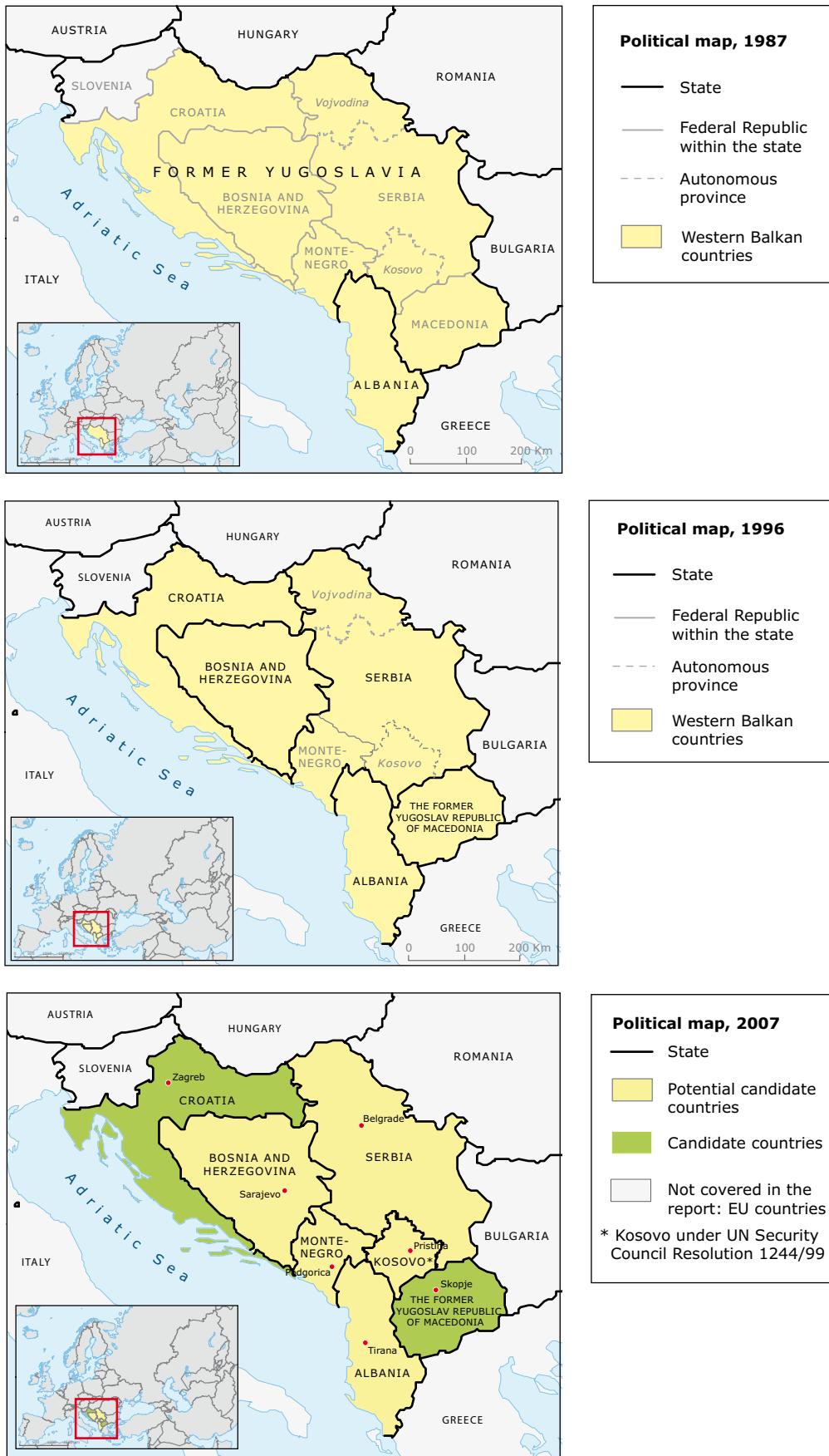
'Back to the core', a split between a core of 'inner' countries and a less integrated 'outer ring', though enlargement continues.

'Europe revived', with both economic integration and enlargement continuing.

**Source:** Kekic, L., (2005), *Long-term prospects for the European transition economies and some implications for the tourism industry*, Economic Intelligence Unit.

(<sup>97</sup>) European Commission, (2006), *Special Eurobarometer: attitudes towards European Union enlargement*, July 2006.  
 (<sup>98</sup>) Kekic, L., 'Long-term prospects for the European transition economies and some implications for the tourism industry', Economic Intelligence Unit. Presentation to the UN World Tourism Organization's European Meeting on Tourism: A Tool for Sustainable Development in Transition Economies, 20 June 2005.

**Map 2.4 Political maps of the Western Balkans: 1987, 1996 and 2007**



(94 %) said that they were in favour of their country joining the European Union, as did seven out of ten Croats (71 %) (<sup>99</sup>). Accession will bring many economic, social and environmental benefits – and also costs. An example can be seen in the need to meet the EU's stringent requirements for drinking water and wastewater treatment. These rules will cost countries in the region billions of euros (Chapter 1), but will improve human health and the environment.

The countries of the region, together with the EU, the USA and several European countries took a step towards cooperation in 2008, when they transformed the Stability Pact for South Eastern Europe into a permanent Regional Cooperation Council (RCC), with its secretariat in Sarajevo. This Council promotes cooperation in the Western Balkans, as well as the region's integration with Europe and the USA (<sup>100</sup>).

International environmental initiatives have built cooperation in the region. One is the Environment and Security Initiative (ENVSEC), which has brought together several international organisations – including the North Atlantic Treaty Organization (NATO), the Organization for Security and Co-operation in Europe (OSCE), REC, UNDP, UNECE and UNEP – to address environmental problems between countries and pave the way for improved cooperation. ENVSEC has worked in south-eastern Europe, including the Western Balkans, and also in eastern Europe, central Asia and the southern Caucasus (<sup>101</sup>).

The countries in the region have also created the Dinaric Arc Initiative to establish a network of protected areas in the Dinaric Alps and to cooperate

on biodiversity protection. Other partners in the initiative include Germany, Italy, Slovenia, UNEP, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Wide Fund for Nature (WWF) (<sup>102</sup>).

#### **National politics: politics and governance**

Countries in the region face two linked challenges: modernising national politics and reforming governance.

In interviews carried out in 2006, experts in the region all emphasised that the resolution of recent conflicts and current issues, such as the status of Kosovo under UN Security Council Resolution 1244/99, would be a central question for regional cooperation and will also be closely linked to national political development in coming decades (Box 2.14).

All the countries in the region have established democratic systems. Some major questions need to be resolved, however, including the status of Kosovo under UN Security Council Resolution 1244/99 and cooperation between the political units that make up Bosnia and Herzegovina.

Internally, the countries in the region have strengthened their governance over the past decade – but all countries need further improvements. The World Bank measures governance in over 200 countries, using indicators for six themes: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption. These indicators are based on measurements taken by other organisations, as well

#### **Box 2.14 The future of politics in the Western Balkans**

A series of experts from the region were interviewed in 2006 for this project on questions concerning the region's political and economic future.

These experts saw the future of national politics as a choice between two broad paths – either the continuation of closed political systems, or an opening to Europe, along with the development of more transparent decision making. At country level, the continuation of these disputes could fuel nationalistic forces opposed to cooperation with the EU and with neighbouring countries. Internally, this is a choice whether or not to improve governance; externally, it is a choice between cooperation and mistrust.

Interviews with: Dr Miroslav Antevski, Institute of International Politics and Economics, Belgrade; Prof Bosko Bojovic, Professor of Balkan History, École des Hautes Études en Sciences Sociales, Paris; Prof Dr Đuro Kutlača, Mihajlo Pupin Institute, Belgrade and University of Novi Sad.

(<sup>99</sup>) European Commission, *Eurobarometer 69: 5. The European Union today and tomorrow*, November 2008.

(<sup>100</sup>) See [www.rcc.int](http://www.rcc.int). In early 2009, Kosovo under UN Security Council Resolution 1244/99 was represented on the Council by the United Nations Interim Administration Mission in Kosovo under UN Security Council Resolution 1244/99 (UNMIK).

(<sup>101</sup>) See [www.envsec.org](http://www.envsec.org).

(<sup>102</sup>) WWF Mediterranean Programme Office, Big win for Dinaric Arc, 2008, available at [www.cbddinaricarc.com/content/view/28/41](http://www.cbddinaricarc.com/content/view/28/41) (accessed January 2010).

as surveys of individuals and firms. The indicators are presented in Figure 2.6 and explained in Box 2.15.

Overall, the countries in the region saw improvements compared to previous estimates. All the countries in the Western Balkans scored above the global median — which is set at 0 — for one component of governance; voice and accountability. However, most countries fell below the world median for other governance scores. The data show that the rule of law and the control of corruption are both major problems in the region: all countries except Croatia fell below the global median for these two indicators.

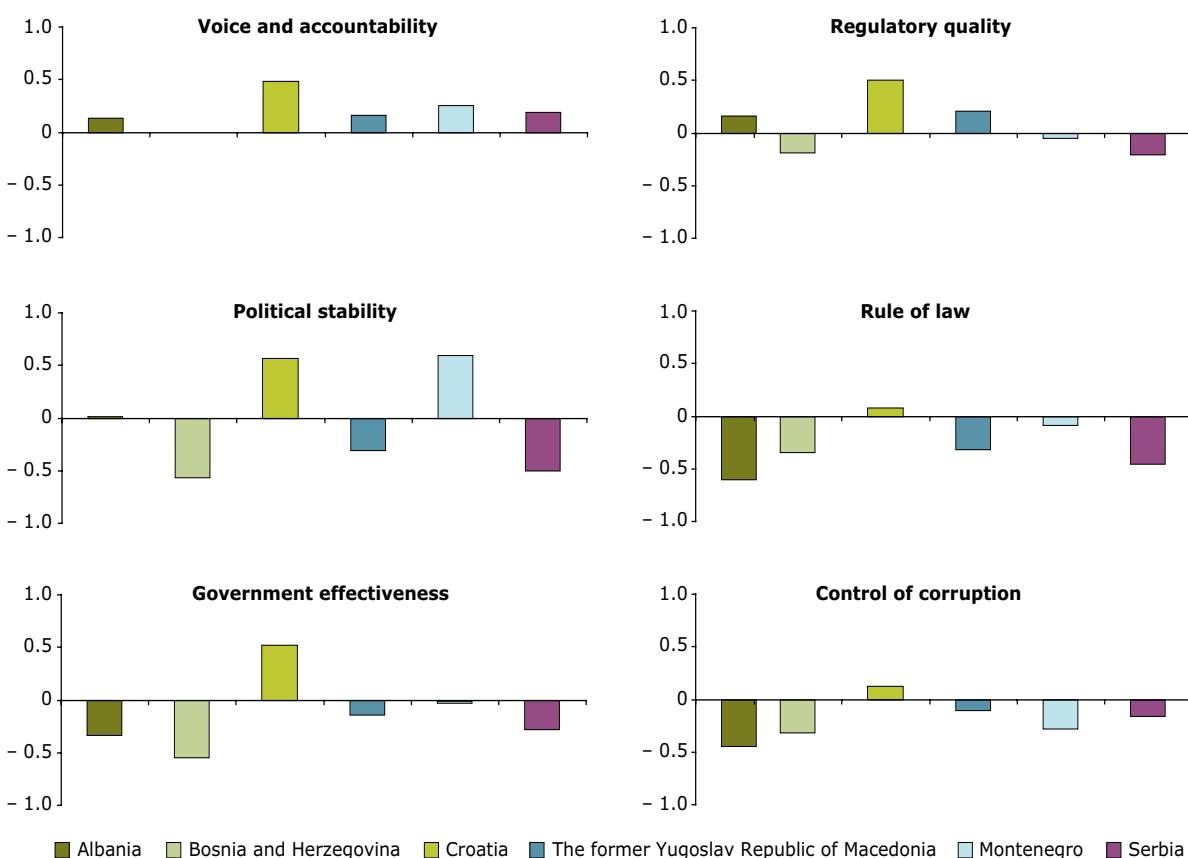
Governance is important for both economic and environmental management. The EIU looked at different scenarios for the accession of Balkan countries to the European Union. In a 'malign accession' scenario, a combination of poor economic governance in the region (and also in the EU) leads to low economic growth in the Western Balkans — the same levels as in a scenario without accession. In contrast, 'benign accession' depends on good economic governance.

Poor governance is a problem for environmental management in the region. The 2007 UNDP report, *Environmental policy in southeastern Europe*, concluded that, despite recent progress, the environmental institutions in the countries of the Western Balkans remain weak. The countries need to strengthen environmental ministries, agencies and inspectorates to implement EU legislation and pursue effective policies. It seems that improving overall governance will be an important step in terms of strengthening governance for the environment

According to UNDP, when environmental institutions are weak, environmental considerations are rarely considered in policy-making for other policy areas, such as agriculture, energy and fishing. Better policy integration will be needed if countries are to improve the environment in key areas such as promoting more sustainable consumption and production or protecting coastal zones.

Summary of driving forces related to politics is presented in Table 2.13.

**Figure 2.6 The World Bank's governance indicators for the Western Balkans, 2007**



**Note:** 0 = world median score; standard deviation of worldwide scores = +/- 1.

**Source:** World Bank (accessed November 2009).

### **Box 2.15 The World Bank's governance indicators**

The World Bank defines its six governance indicators as follows:

1. '**Voice and accountability**' — measuring perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
2. '**Political stability and absence of violence**' — measuring perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.
3. '**Government effectiveness**' — measuring perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
4. '**Regulatory quality**' — measuring perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
5. '**Rule of law**' — measuring perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
6. '**Control of corruption**' — measuring perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests.

The indicators are based on 35 separate sources prepared by international organisations, national governments, research institutes, non-governmental organisations and credit risk agencies. In presenting the results, the scores are re-scaled so that the mean of all country scores for each governance indicator is set at 0, and the standard deviation is set at 1. As a result, nearly all country scores fall between + 2.5 and – 2.5, with the higher scores indicating better performance. The methodology is described in: Kaufman, D.; Kraay, A. and Mastruzzi, M., (2008), *Governance matters VII: aggregate and individual governance indicators 1996–2007*, World Bank Policy Research Working Paper 4654, June 2008.

**Table 2.13 Driving force: politics**

Driving forces	Scenarios and uncertainties for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Global</b>			
Geo-politics	<ul style="list-style-type: none"> <li>• US NIC:</li> <li>• 'A world without the west';</li> <li>• 'October surprise';</li> <li>• 'BRICs bust-up';</li> <li>• 'Politics is not always local'</li> </ul> <ul style="list-style-type: none"> <li>• UNEP GEO-4 report: 'Markets first', 'Policy first', 'Security first' — or 'Sustainability first'</li> </ul>	<ul style="list-style-type: none"> <li>• Global cooperation in multilateral institutions</li> <li>• Conflict in Middle East and southwest Asia</li> <li>• Climate change impacts</li> <li>• Democracy in Russia and China</li> </ul> <ul style="list-style-type: none"> <li>• Dominant feature of global politics, economy and society</li> </ul>	<ul style="list-style-type: none"> <li>• The global political future will have a profound influence on consumption and production and the environment in the region, via its impacts on the global economy, society and environment</li> </ul>
<b>Europe</b>			
EU internal effectiveness	<ul style="list-style-type: none"> <li>• EU scenarios:</li> <li>• 'Status quo';</li> <li>• 'Europe unbound';</li> <li>• 'Europe unravelled';</li> <li>• 'Back to the core';</li> <li>• 'Europe revived'</li> </ul>	<ul style="list-style-type: none"> <li>• Strength of the EU as a political unit</li> </ul>	<ul style="list-style-type: none"> <li>• A strong EU will engage Balkan countries, including on environment, and encourage accession; a weak EU might withdraw from active engagement in the region — the path chosen will greatly influence production patterns and environmental policy in the region</li> </ul>
EU enlargement		<ul style="list-style-type: none"> <li>• Extent and pace of future EU enlargement</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing enlargement will mean accession for Balkan countries: this will influence their environmental legislation as well as EU financing for the environment — thus changing production and consumption patterns</li> </ul>
<b>Western Balkans</b>			
Cooperation among countries in the region	<ul style="list-style-type: none"> <li>• Experts interviewed for this project saw a basic choice facing politics. The path to reform includes greater regional cooperation</li> </ul>	<ul style="list-style-type: none"> <li>• Reform vs nationalist politics</li> </ul>	<ul style="list-style-type: none"> <li>• Cooperation can help address common environmental problems.</li> <li>• Link energy systems, making them more efficient</li> <li>• Highway links could lead to increased road traffic</li> </ul>
<b>National level</b>			
Accession to the EU	<ul style="list-style-type: none"> <li>• Experts interviewed for this project saw a basic choice facing politics</li> </ul>	<ul style="list-style-type: none"> <li>• Reform vs nationalist politics</li> </ul>	<ul style="list-style-type: none"> <li>• Accession will affect environmental legislation and bring EU financing for the environment</li> </ul>
National political and institutional reforms	<ul style="list-style-type: none"> <li>• Experts interviewed for this project saw a basic choice facing politics: openness and reform, vs a return to the nationalist approaches that dominated in the 1990s</li> </ul>	<ul style="list-style-type: none"> <li>• Reform vs nationalist politics</li> </ul>	<ul style="list-style-type: none"> <li>• Political commitment to improve governance will strengthen the implementation of environmental laws and policies — thus changing production and consumption patterns and protecting the environment</li> </ul>
Social and ethnic instability			

*Selected studies from the review*

**Global**

Shell (2005). *Shell global scenarios to 2025: the future business environment — trends, trade-offs and choices.*

US National Intelligence Council (2004). *Mapping the global future.*

US National Intelligence Council (2008). *Global trends 2025: a transformed world.*

UNEP (2007). *Global environment outlook 4 (GEO-4).*

**Europe**

Langer, J. (2005) *Four future scenarios for the European Union — reflections from the perspective of 'Path Dependence'*, *Europe2020*.

**Western Balkans**

Dobbert, M. (2000). 'Anticipatory anthropology and world peace: a view from 2050', *Futures*, Vol. 32, Issue 8/I 26 October 2000, pp. 793–807.

Gelazis, N., and Slezinger, M. (2005). *Bosnia on the road to European integration: a status report*, Woodrow Wilson Center, Princeton University.

Kekic, L. (2005). *Long-term prospects for the European transition economies and some implications for the tourism industry*, Economic Intelligence Unit.

Massari, M. (2005). 'Do all roads lead to Brussels? Analysis of the different trajectories of Croatia, Serbia-Montenegro and Bosnia-Herzegovina', *Cambridge Review of International Affairs*, Vol.18, No. 2, July 2005, pp. 259–273.

Zoran, M. (2004). 'The Future of Croatia', *South-East Europe Review*.

## 2.10 Legislation and policy

### Key messages

The number of global environmental agreements has increased steadily in recent decades. In the future, a strong global agreement to tackle climate change could change transport and energy systems around the world, including those in the Western Balkans (Sections 4.3 and 4.4). It remains uncertain, however, whether such an agreement can be reached.

The EU has extended and strengthened its environmental laws and policies in recent decades. However, further progress is not certain. For example, progress depends on a strong and effective EU, which is uncertain as described in the section on politics.

In the Western Balkans, countries can strengthen their environmental legislation by aligning it with EU requirements. However, for such measures to be effective, governments need to improve their implementation and enforcement of environmental policy.

More importantly, governments in the region (and around the world) have to make a strategic choice in coming decades as to whether or not to put environment and sustainability at the centre of their policy-making.

Legislation sets the rules for managing the environment. Policies work together with legislation by setting goals — for example, reductions in emissions of pollutants that threaten human health — and by bringing together various instruments, including regulations, taxes and financing to achieve these goals. The laws and policies that affect the environment include cross-sectoral issues such as: privatisation and economic reform; sectoral policies such as energy and, agriculture; as well as fiscal issues such as the tax structure, government subsidies and financing mechanisms.

Environmental laws and policies may lead enterprises to change their mode of operating and consumers to modify their actions; while creating new markets and a better quality of life.

For the countries of the Western Balkans, adopting EU legislation may be a central challenge for the future that will directly affect their environment and their economies.

### *Global environmental agreements*

The number of global environmental agreements has grown steadily in recent decades. A key issue for the near future is whether a strong agreement on climate change can be reached — for example, one that will set binding actions to meet the political commitment reached in December 2009 in Copenhagen to limit global warming to 2 °C. Climate change poses a huge challenge to humanity and it needs to be addressed also to stem the world's ongoing loss of biodiversity.

The EU has sought to lead efforts against climate change and has pledged to reduce its overall emissions to at least 20 % below 1990 levels by 2020. It has also pledged to make a 30 % reduction under a new global climate change agreement, if other developed countries make comparable efforts (<sup>103</sup>). A 30 % reduction, together with any possible future reductions to tackle climate change, would require major changes in Europe's energy and transport systems, and these are likely to have a strong influence also in the Western Balkans, in particular in countries that become Member States in the future.

### *Europe: a new wave of environmental measures?*

The European Union's legislation for environment, energy and related areas has evolved greatly over the past three decades to become a comprehensive framework of laws and will probably continue to evolve in coming years. The European Union has ambitious goals to address climate change and it may decide to continue taking actions that go beyond global agreements.

Also, the EU has pledged to end the loss of biodiversity in its territory by 2010. Here too, further action may be needed as this goal currently will not be met (see Section 1.3).

A comprehensive global agreement to address climate change and stronger European legislation could both change energy systems in the Western Balkans in future decades. Such an agreement might also

(<sup>103</sup>) European Commission (DG Environment), Climate Action: [http://ec.europa.eu/environment/climat/climate\\_action.htm](http://ec.europa.eu/environment/climat/climate_action.htm) (accessed March 2009).

change the types of cars people drive in Europe, the appliances they use and also the ways in which they heat and cool their homes.

The EU policies for sustainable development and sustainable consumption and production could also have far-reaching effects. Western Balkan countries that become EU Member States will be the first to be affected, but EU-wide standards will influence the whole region.

These present initiatives and future actions could bring a new wave of environmental change to Europe. Will the EU be able to put innovative new environmental policies in place? A recent study focusing on health and consumer policy included possible scenarios where future crises change the EU's role in legislation and policy (Box 2.16).

### ***Western Balkans: reforming environmental management***

In recent years the countries of the Western Balkans have taken major steps to strengthen their environmental legislation. This process is continuing, in particular in EU candidate countries, which face the task of adopting the European directives for the environment, as well as in many other sectors.

### ***The Western Balkans: alternative paths***

The countries in the region are in the midst of reviewing and strengthening their legislation for the environment as in other areas. Here, the EU

environmental directives provide a reference point. For Croatia and the former Yugoslav Republic of Macedonia, this work is part of the formal process as candidate countries to the European Union, and they are harmonizing national laws with those of the EU, across areas from environment to food safety to energy sector competition. Other countries of the region are also amending their legislation to bring it closer in line with EU requirements.

This process involves intense effort. For some countries, the process of putting new legislation in place will be a major administrative task in coming years.

The new legislation will also require considerable investment to bring environmental infrastructure, such as waste water treatment plants and solid waste landfills, up to EU standards.

EU laws will also require regular monitoring of environmental conditions, as well as inspections to ensure that industrial plants and other facilities meet new requirements. One concern is that efforts to strengthen enforcement have lagged behind. Many inspectorates lack trained staff, including in those working on legal issues. Programmes such as ECENA, managed by the Regional Environment Center, have provided training in enforcement to countries in the region, but further efforts will be needed in the future (<sup>104</sup>).

Laws and policies in other sectors will have an important influence on the environment and on

#### **Box 2.16      Will the EU body of legislation continue to grow — or be washed away?**

A recent study for the European Commission explored future challenges, including possible alternative scenarios to the EU's current role in setting and implementing European (and global) policies in the area of health and consumer affairs. The experts proposed three scenarios:

**Coral reef.** The EU is a 'living organism' with a strong European identity on the surface. Formal regulations and targeted tax rises continue to be accepted as effective tools to produce policy goals.

**Galapagos.** The EU faces crises as the Commission can no longer coordinate and reconcile the many different interests of Member States and stakeholders. The multiplicity of views in Europe has left it weak and divided on the world stage — its high regulatory standards are not followed elsewhere, and a global 'race to the bottom' threatens to undo them.

**Wave.** European regulation becomes increasingly complex until two major crises in 2012 (the breaking wave) result in a radical simplification of its rules and requirements. After the crises, pragmatic solutions are established through negotiations between the private sector, key non-governmental organisations and Member States, rather than in legislation.

**Source:** European Commission (Health and Consumer Protection Secretariat), *Future Challenges Paper: 2009–2014 — Annex 5: The SANCO scenarios developed by RAND Europe*, 2008.

<sup>(104)</sup> Regional Environment Center (20020, Environmental Enforcement and Compliance in South Eastern Europe, available at: [www.rec.org/REC/Programs/environmental\\_policy/ecena/](http://www.rec.org/REC/Programs/environmental_policy/ecena/).

**Box 2.17 Alternative policy paths: a sustainable future for the Mediterranean?**

The Blue Plan warns that the **baseline scenario** for the Mediterranean predicts increased social, economic and environmental disparities among the countries around this sea. Inland, rural areas in countries such as Albania will become marginalised, leading to further migration to urban areas and abroad. Urban growth and sprawl will continue. The excessive growth of seaside tourism throughout the Mediterranean could lead to a drop in tourist revenues, putting economies at risk. Environmental problems will worsen.

An **alternative scenario** requires a policy approach whereby economic growth in Mediterranean countries is based on the quality of the region's environment. Governments, as well as business and other stakeholders, need to take a forward-looking approach. In addition, countries need to cooperate more strongly. This scenario sees the region's heritage as an investment, and seeks economic development policies to protect natural and cultural heritage. In this scenario, growth is decoupled from environmental pressures and also reduces internal disparities among and within countries.

**Source:** Benoit, G. and Comeau, A. (eds.), *A Sustainable Future for the Mediterranean: The Blue Plan's Environment and Development Outlook*, Earthscan, London, 2005.

**Table 2.14 Driving force: legislation and policy**

Driving forces	Scenarios and uncertainties for the future	Key uncertainties	Possible influence on production and consumption patterns and the environment in the Western Balkans
<b>Global</b>			
Global environmental agreements	• Will depend strongly on geopolitics (see previous section)	• Extent of global cooperation or conflict	• Global climate change agreements could lead to a major change in the region's energy and transport systems
<b>Europe</b>			
Future development of EU legislation	• RAND scenarios: coral reef, Galapagos, or wave	• Member State, stakeholder acceptance of new EU legislation; its complexity and effectiveness	• The future of EU legislation will affect environmental legislation in the region, as well as EU actions in key areas such as agricultural subsidies and regional funds: EU actions in all these areas could influence production and consumption patterns in the region
<b>National level</b>			
Implementation of environmental laws	• No scenarios identified	• Closely tied to progress on political reforms and governance	• The countries in the region are reforming their environmental legislation and harmonizing it with EU legislation: its implementation and enforcement, however, will play a key role in terms of the impact on production and consumption patterns
Sustainability policies	• Blue Plan scenarios for the Mediterranean: baselines vs. alternative scenario	• Will governments put environment and sustainability at the centre of policy-making?	• The introduction and implementation of these policies would have a wide-ranging and direct impact on production and consumption patterns and their environmental impacts

society. For example, food safety rules will protect consumers but place new restrictions on farmers. If small, traditional farmers do not receive assistance they may not be able to implement the new requirements and may be forced to close. As a result, rural communities could suffer and land may be abandoned. On the other hand, provisions for organic farming may provide new exports for farmers and new opportunities for consumers in the region. Energy policies will have a strong impact on the environment, including on greenhouse gas emissions.

A recent study on the future of the Mediterranean Basin by UNEP's Blue Plan highlights the policy choices that countries in the Western Balkans face. The Blue Plan's study presents two scenarios: the baseline (or business as usual) against an alternative whereby countries pursue policies for sustainability (Box 2.17).

*Selected forward-looking studies from the review***Global**

UNEP (2007), *Global Environment Outlook 4 (GEO-4)*.

OECD (2008), *OECD Environmental Outlook to 2030*.

**Europe**

European Commission (Health and Consumer Protection Secretariat) (2008). *Future Challenges Paper: 2009–2014*, Annex 5: The SANCO scenarios developed by RAND Europe.

**Other geographic areas**

G. Benoit and A. Comeau (eds.) (2005). *A Sustainable Future for the Mediterranean: The Blue Plan's Environment and Development Outlook*, Earthscan, London.