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# IS ROMANIA “GREEN” ENOUGH? – A MULTI-LEVEL APPROACH

Viewpoint

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## Keywords

Climate changes  
Green economy  
Sustainable growth  
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## JEL Classification

Q5, M10

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## Abstract

*Climate changes' effects are already present in our day to day life. The EU and national public authorities established strategies and public policies in order to enhance a more desirable behavior of the companies and citizens with regard to recycling and use of green energy. The companies try to make production choices that are more eco-friendly and to sustain campaigns helping cities to become “greener”. The environmentalist citizens occupy a growing share in the general population and are more vocal for convincing the others. But even with the “on the wave” eco-friendly attitude, is it done enough? The article will present some conclusions for Romania. The perspective taken is interdisciplinary and tries to draw a short review of the state of the art achievements in greening Romania's economy, at macroeconomic level, while proposing new marketing approaches for enhancing further sustainable development, through promoting change in the companies and consumers attitudes and behaviors.*

## 1. Climate changes

### 1.1. Climate changes' acknowledgement and mitigation efforts

#### 1.1.1. Brief history of climate changes' acknowledgement

The greenhouse effect has been first described in 1824, by Jean Baptiste Fourier. Starting with the first industrial revolution, between 1850 and 1870, the atmospheric CO<sub>2</sub> concentration rose (Handel and Risbey, 1992; Jäger, 1992, as cited by Fankhauser (1995) [1]. Starting with this period, increasing attention has been given to the greenhouse effect, both by scientists, as by authorities. Finally, in 1988, the World Conference on the Changing Atmosphere, held in Toronto, calls for a reduction in CO<sub>2</sub> emissions by 20% in 1988 levels by the year 2005. In November 1988, the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) established the Intergovernmental Panel on Climate Change (IPCC). The IPCC is a scientific body under the auspices of the United Nations (UN). (Intergovernmental Panel on Climate Change). [15] The IPCC has been given a triple task (Fankhauser, 1995) [1]: furthering scientific understanding about global warming, assessing its impact and formulating possible response strategies. By the time of the Second World Second Conference, when IPCC presented its first report, it had already become the authoritative body on global warming. Several hundred scientists have been and are involved in producing the reports of its three Working Groups, either as authors or as reviewers. The IPCC succeeded not only in achieving a scientific consensus, but also in communicating the state of the art knowledge in the field to a former un-informed or ill-informed public (Grubb et al, 1993, as cited by Fankhauser, 1995) [1].

Awareness on climate changes continued rising, through efforts of scientists and International and National Bodies. Nowadays, many people are pursued that climate changes are the effect of the unsustainable industrial and agricultural growth and not just a meteorological effect without influence from our civilization ways.

#### 1.2. "Europa 2020"

The European Union continued the line of giving importance to the sustainable economic growth, as foreseen already by the Lisbon Strategy for 2000-2010, in the new development agenda, established in 2000, "Europa 2020". In the view of the European Commission, pressure on resources and environmental concerns (EC, 2011, 2014) [10], [11] is rising: during the twentieth century, the world increased its fossil fuel use by a factor of 12, whilst extracting 34 times more material resources. The EU statistics show that, nowadays in EU, each person consumes yearly fifteen tons of materials and generates five tons of waste, from which half

going to landfill. Also, the EU companies face higher costs for essential raw materials, energy and minerals, the absence of security of supply and the price volatility.

The sources of minerals, metals and energy, as well as stocks of fish, timber, water, fertile soils, clean air, biomass and biodiversity are under pressure, as is the stability of the climate system. Demand for food, feed and fiber may increase by 70% by 2050, yet 60% of the world's major ecosystems that help produce these resources have already been degraded or are used unsustainably.

Starting with this state of facts, the European Commission (EC) [7] proposed on March 2010 a new ten-year strategy for advancement of the economy of the European Union, called "Europa 2020". The "Europa 2020" Strategy established as one of its five priorities, to mitigate climate change through the "20-20-20" targets for year 2020. The "20-20-20" targets are:

- *To reduce the greenhouse gas emissions by at least 20% compared to the levels from 1990,*
- *To increase the share of renewable energy in final energy consumption to 20%, and*
- *To move towards a 20% increase in energy efficiency.*

The aim of the EC targets is to give an overall view of where the EU should be on key parameters by 2020, but they are also translated into national targets so that each Member State can check its own progress towards these goals. Also, they do not imply burden-sharing – they are common goals, to be pursued through a mix of national and EU action and they are interrelated and mutually reinforcing.

According to the European Commission's measurements and estimates (EC, 2014) [11], these targets are broadly achievable by 2020 and progress is already noticeable:

- the EU already achieved an 18% reduction in greenhouse gas emissions by 2012. Current climate and energy policies have delivered on progress, with the economic slowdown also having a significant effect on emissions' reduction. Further progress can be expected by 2020 and could bring the reduction of greenhouse gas emissions to 24% compared to 1990.

- from 7.5% in 2000, the share of renewable energy consumption already reached 14.4% in 2012. The target of a 20% share by 2020 seems achievable and may be exceeded (around 21%). This progress means that the EU is the world's leader in terms of global investment in renewables. For instance, the EU had installed about 44% of the world's renewable electricity (excluding hydroelectricity) by the end of 2012.

- primary energy consumption fell by around 8% between the 2006 peak and 2012. A further reduction of 6.3% would be needed by 2020 to meet the target. A large part of the reduction in

consumption is a function of the economic slowdown and thus recovery could limit progress towards the target. However, some structural shifts are also taking place: the energy intensity of the EU economy has reduced by 24% between 1995 and 2011 whilst the improvement by industry was about 30%.

### 1.3. The climate changes and energy sustainability targets for Romania

Among the five main priorities of the Europa 2020 Strategy, the targets for Romania regarding the mitigation of the climate change are still the “20-20-20” targets, the same as the general EU 2020 strategy, except for the reduction of the greenhouse gas emissions, where progress of 30% from the values in 1990 is desired, if it is achievable. [7]

In Romania, organizations are subjected to the national laws, which, in their turn, are in principle designed in accordance with the European Union’s policies and laws. Consequently, the EU regulations regarding the environment can only indirectly influence the organisations’ activities in Romania that are placed under the immediate impact of the national laws. Nevertheless, many national laws, including laws concerning the environment, refer directly to the European norms, and enforce their application. When organisations sign non-refundable financing—from European funds—agreements, they commit themselves to observing the EU regulations: in such cases, they subject themselves directly to the European legislation. With respect to the issue of GHG (greenhouse gases) emissions, Romania committed itself, under the provisions of the Kyoto protocol, to reducing the country’s GHG emissions by 8% until 2012, compared to 1989. Between 1989 and 2009, the overall GHG emissions decreased by 54.17%, and the net emissions by 62.81%. Consequently, Romania has polluted less than it anticipated when it subscribed to the Kyoto Protocol. Thus no legal pressures aiming to impose, on various organizations, the reducing of GHG emissions, were necessary (Moza, Ilin, 2012). [4]

#### 1.3.1. Looking at the indicators’ values in order to assess the meeting of the targets

The targets are operationalized in a series of indicators and are specific for every EU country. With regard to the climate change, the targets for Romania for year 2020 are presented in table no. 1 [8]. By 2020, the CO<sub>2</sub> emissions should be reduced by 19% in comparison to the 1990 level. The renewable energy consumption should increase by 24% and the reduction of non-renewable energy consumption should decrease with 10 million tons in comparison to the 1990 level.

So, if the European Union, in general, is on the track to meet the targets, is Romania on the same track? Looking at the progress made by 2012 (the latest data available), we will try to take a short conclusion. Using the Eurostat data, we will follow

the evolution for the following indicators: greenhouse gas emission, the primary and the final energy consumption.

The data for the indicator *Greenhouse gas emissions, with base year 1990 - Index (1990 = 100)*, showing trends in total man-made emissions of the “Kyoto basket” of greenhouse gases and presenting annual total emissions in relation to 1990 emissions, are presented in figure number 1 [12]. As noticeable in figure number 1, Romania is situated in the lowest range of greenhouse emissions in comparison to the base year 1990, meaning that a very high progress has been registered in this area.

The data for the indicator *Primary energy consumption*, showing trends in the Gross Inland Consumption excluding all non-energy use of energy carriers (e.g. natural gas used not for combustion but for producing chemicals), this quantity being relevant for measuring the true energy consumption and for comparing it to the Europe 2020 targets, are presented in figure number 2 [13]. As noticeable in figure number 2, as compared to the 1995 data, Romania falls in the range with the second highest reduction of primary energy consumption, according to Eurostat.

The data for the indicator *Final energy consumption*, meaning all the energy supplied to industry, transport, households, services and agriculture (excluding deliveries to the energy transformation sector and the energy industries themselves), are presented in figure number 3. [14] This quantity is relevant for measuring the energy consumption at final place of energy use and for comparing it to the Europe 2020 targets. The “Percentage of savings” is calculated using these values of 2005 and its forecast for 2020 targets in Directive 2012/27/EU; the Europe 2020 target is reached when this value reaches the level of 20.

As for the case of the primary energy consumption, the values for the final energy consumption, make Romania fall in the range of the countries with the second highest decrease in energy consumption, taking the 1995 value as starting point and up to 2012, the latest data available.

So, apart from the renewable energy consumption increase, which has not been considered to make the point of this article, the progress in *Greenhouse gas emissions’ decrease and also the decrease of the primary and final energy consumption* show that Romania is in a strong position among other EU countries in meeting the targets, some of them being already met.

Romania drew up a *National Strategy for Mitigating Climate Changes for the period 2013-2020*, in order to offer a general vision of the specific actions needed to be further taken (Ministry of Environment, 2013) [16]. Also, alike the other EU member-states, Romania will allocate 20% of the structural and investments funds to

projects and actions with relevance to climate changes which are comprised among the priorities of the EU's cohesion policy in the 2014-2020 EU budgetary exercise (EC, 2013). [9]

### **1.3.2. Looking at the everyday organizational life' practices**

Large organizations are responsible for a significant amount of GHG emissions. Specialists in the organizational field agree on the fact that the activities in organizations and environmental conditions are related (Dunn, 2002) and consider that companies are responsible for making changes in their behaviour in order to promote environmental sustainability in their activities (Hunt & Auster, 1990; Oskamp, 2000, as cited by Moza, Ilin, 2012). [4]

As a result, many organisations do not only take responsibility for addressing environmental impacts, but seem to be aware of the business case for integrating sustainability into their business strategies (Govindarajulu & Daily, 2004; Ambec & Lanoie, 2008) and are committing to environmental policies that facilitate a shift towards more sustainable business practices (Jabbour & Santos, 2008). The movement has gained strengths as many organisations compete to be seen as leaders in sustainability (Zibarras & Ballinger, 2011 apud Moza, Ilin, 2012). [4]

As a key practice of everyday life, work is a place and space where the sometimes-contradictory demands of economic profit and environmental sustainability meet and are negotiated, with the resulting effects on work practices, energy consumption and greenhouse gas emissions. As people spend an important part of their lives at work, within a community of values, norms and everyday practices, it is also the place where identities are negotiated, where individual values are transformed and where sustainability-related behaviour is either promoted and rewarded or hindered and discouraged (Brown, Kirpal & Rauner, 2007 as cited by Moza, Ilin, 2012). [4]

The top-management has an important role in reducing the GHG emissions. At this management level, it is decided when and whether it is time to concentrate on certain aspects related to the environment and the establishment of distinct objectives along these lines can be requested. Until then, all actions and practices regarding the environment are subordinated to other objectives of the organization. The main aspects relevant to the GHSe issue considered in strategic planning of Romanians organizations are economic efficiency, compliance with the legislation and image benefits. The organizations understand that the compliance with, and implementation of, European, national and regional environmental regulations is crucial to the integrity of its image and to its success in attracting non-refundable funds for large scale

investments. The obtaining of ISO 14001 certification and the implementation of the environmental management system reflects the organizations' commitments to managing the significant environmental aspects associated to its activities.

## **2. Sustainable marketing**

Many local, regional and national governments have undertaken efforts to predict possible impacts of the climate change in their geographic areas, looking for options to a better adaptation. Predictive environments are very important for companies in order to shape the vision of their development and design their change management. One important feature of the climate changes' impact on companies is that it does not affect at the same extent all the business sectors. Some sectors may face serious threats, but others can remain almost unaffected, while for others, climate changes can even bring opportunities (Stigson, 2010). [6]

Also, companies and especially big corporations are judged to be responsible for the climate changes by a share of the public opinion, since industrialization and the modern way of life seem to pay the price of intensive agriculture and cost-efficient production ways, in most sectors, with disregard for eco-friendly agriculture and industry. Also, consumerism and the modern way of the consumers' relation with the society, in the developed countries, are considered, by a part of the public voices, to maintain this vicious cycle, disregarding natural finite resources and life conditions, especially in less developed countries.

So, how should marketing react to these allegations? If the answer is to consume less, is there any purpose for further existence of marketing at all? The new movements show that there is. New approaches, as sustainable growth, sustainable production and even sustainable consumption make their ways among the attitudes of governments, companies and consumers.

Marketing, as a science and practice, has long evolved since its beginnings, when it started with the purpose to sell the products the company produces. After a long series of adaptations to the changes in the societies' ways of life, through modifications of their values and attitudes towards the products and services consumed in order to satisfy the people's needs and desires, the practice of marketing evolved to a win-win relationship with the consumers. Still, under the environmentalists' pressure, companies in sectors seriously affecting ecosystems (e.g. cloth producers using wild animals fur) and with the rising awareness from NGOs on the choice of raw materials the companies use in the production process (e.g. intensive fishing of several species), they begun to look for newly considered raw

materials options and for innovative technologies less consuming of water and fuel, in order to keep their credibility on the market and, in the final end, to keep their customers. A new production, placement, price and promotion mix developed: the *sustainable marketing*.

Fuller (1999) [2] gives what he calls a “managerial definition” of the sustainable marketing. According to Fuller, “sustainable marketing” is a term coined by Sheth and Parvatiyar in 1995 and it addresses the “ways and means” for reconciling the economic and the ecological factors through reinvented products and product systems. Also, Fuller (1999) presents a series of other labels used by different authors, such as “green marketing” (Ottman 1993; Peattie, 1992), “environmental marketing” (Coddington, 1993), “ecological marketing” (Henion, 1976) or “eco-marketing” (Fuller and Butler, 1994), resulting, as Fuller remarks, in confusion and misunderstanding.

That is why, starting from the concept of “sustainable development”, Fuller proposes, in 1999, a broader concept, of “sustainable marketing”.

Sustainable marketing is defined (Fuller, 1999: 4) [2] as the process of planning, implementing and controlling the development, pricing, promotion and distribution of products in a manner that satisfies three criteria: the customers’ needs are met, the organizational goals are attained and the process is compatible with the ecosystems.

Of course, organizational decisions, as eco responsible as might become, will not, by them alone, make the change the society claims to be needed in order to foster sustainable development. Consumers also play a major role. In a consumerist society, efforts made by companies and governments will not have the entire wanted effect. That is why, new approaches for buying and consuming are more and more taken in consideration and alternative lifestyle attitudes (e.g.: several persons sharing a car on a certain distance, even if not family, with the aim to reduce fuel consumption) are looked upon.

This led to the appearance of the socially responsible consumer. The *socially responsible consumer* was first defined in the mid-seventies by Webster (1975: 188), as cited by Rekettye & Hetesi (2010: 183)[5], as “a consumer who takes into account the public consequences of his or her private consumption or who attempts to use his or her purchasing power to bring about social change”.

But changing consumers’ behaviors is not easy task. According to Lee, Kotler & all, (2012), marketing tools have been used for several decades to influence behavioral change for improving public health and for preventing injuries. The “process that applies marketing principles and techniques to create, communicate and deliver

value in order to influence target audience behaviors that benefit society (public health, safety, the environment and communities) as well as the target audience” is called *social marketing* (Kotler, P., Lee, N.R. & Rothschild, M., 2006; Lee, Kotler & all, 2012:4) [3]

The *social marketing* might use the traditional marketing tools, but in a new aim-tailored approach. Rekettye & Hetesi (2010:185) [5] describe the “retooling” of the traditional marketing-mix for serving the new aims, as defined by Paettie&Paettie (2008):

- The first P is not a Product, but a Proposal or offer (use bike instead of cars, the new is not always better than then the existing one, etc.).

- The second P, the Price, cannot be regarded as customers’ monetary cost, but rather as a kind of energy or as a psychological cost of changing existing behavior patterns.

- The third P, the Placement, stands, in this new concept, not for the availability of goods, but for the way to access the socially more beneficial alternatives.

- And the fourth P is not Promotion, but a very comprehensive social communication.

All these new scientific and practical approaches begun to show their mark in the daily practice and reality of the businesses and of the consumers. In the organizational identity, a new set of values begun to emerge. Among them, we can mention the following ones without restriction to them:

- giving back to the community that helps us grow, through buying our products or services,

- promoting ethical values,

- protecting the ecosystems and the environment.

Larger companies, which can afford Corporate Social Responsibility Campaigns, begun to get involved more and more in the community, though with a shy beginning. Since some campaigns, under the initiative of a company (e.g. Andrei’s Country, sponsored by a fuel producing Romanian company) or sponsoring NGOs’ campaigns (e.g. World Wide Fund for Nature, WWF Romania, working at protecting the natural habitats of species in the Carpathians Mountains), succeeded to get notoriety even at national level, the companies participating in such campaigns learnt that their image can benefit from them, through the shaping of an organizational identity which involves values such as: responsibility, community, eco-friendly attitude, through which they can influence the consumers’ emotions towards them and, by consequence, the consumers’ retention.

Even if successful, the implication of the companies in the communities’ life is at its beginning and there it is still a lot more that can be done in this area, for the benefit of all stakeholders.

### 3. Conclusions and future research directions

Taking in consideration the progress made at country level for mitigating climate changes, as resulted from the indicators and organizational practices analyzed above, we can conclude not only that Romania will, probably, be on track to meet the targets set for greening the economy, which, in our analysis, are observed at macro-economic level, but also we can presume that part of this macroeconomic result is obtained by non-compulsory change in attitudes and behaviors at micro-economic and at individual level.

Starting from the effects of the economic crisis, the consumerist attitudes and the vicious self-maintaining cycle conducted by "individualistic" values of personal success, the new models of producing, consumption and marketing have to be redesigned in order to promote more equitable values for the entire society and for sustainable economic growth, with the protection of the ecosystems.

All stakeholders: governments, companies and consumers begun to change the ways they relate to and promote a sustainable economic growth. We can already see the fruits of the first seeds of attitude and behavior change, at all levels. Firstly, at macro-economic level, Romania is a lot greener than a few decades ago. Still, the exact extent to which these new attitudes are embraced at micro-economic level, by companies and consumers, remain subject for further research.

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**Tables:**

Table No. 1

*Values of indicators of climate change mitigation for Romania, resulting from Europa 2020 Strategy*

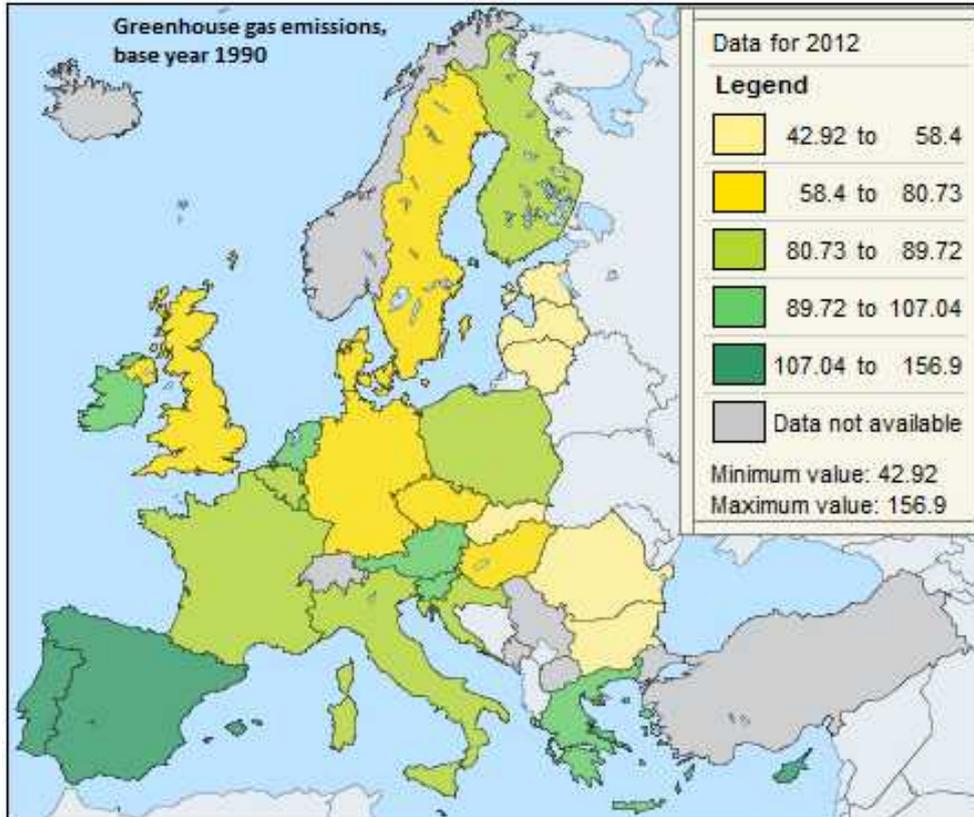
Indicator	CO <sub>2</sub> emissions reduction	emissions	Renewable energy consumption increase	Reduction of energy consumption
<b>Value for 2020</b>	19		24	10
<b>Measurement Units</b>	%		%	Million tons

*Source: adapted from the definitions of the targets presented on EC webpage for every EU country(EC)*

**Figures:**

Figure no. 1

*Greenhouse gas emissions, base year 1990 - Index (1990 = 100)*



© EuroGeographics Association for the administrative boundaries

Figure source: Eurostat, Data source: European Environment Agency

Figure No. 2

Primary energy consumption (data from 2012, the latest available and value in year 2005 considered 100).

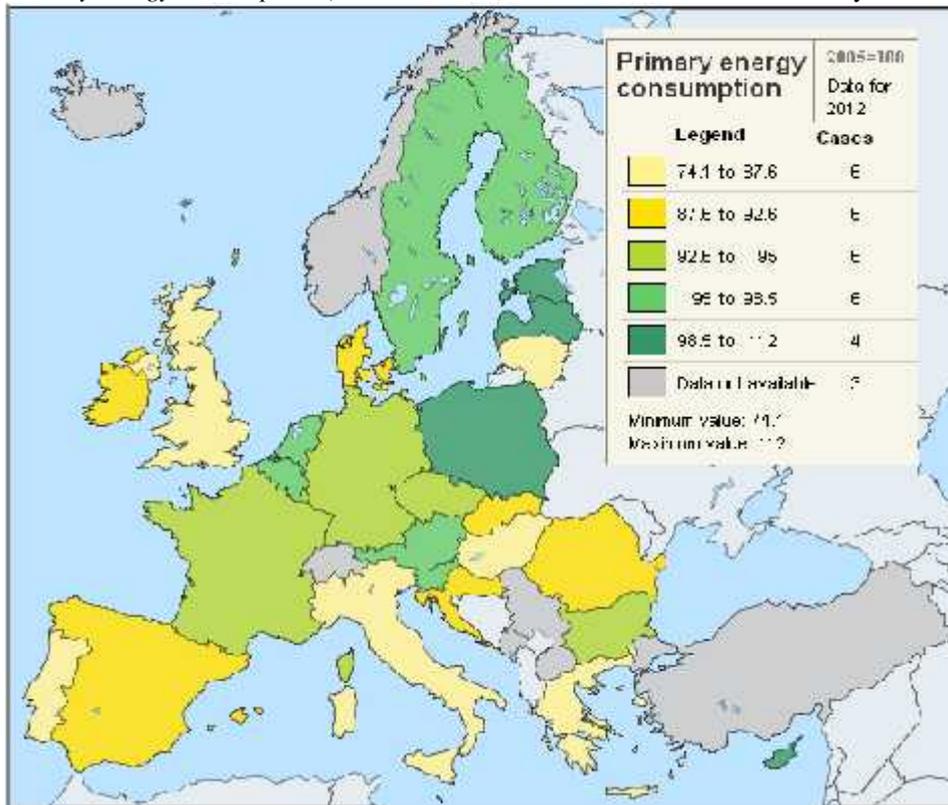
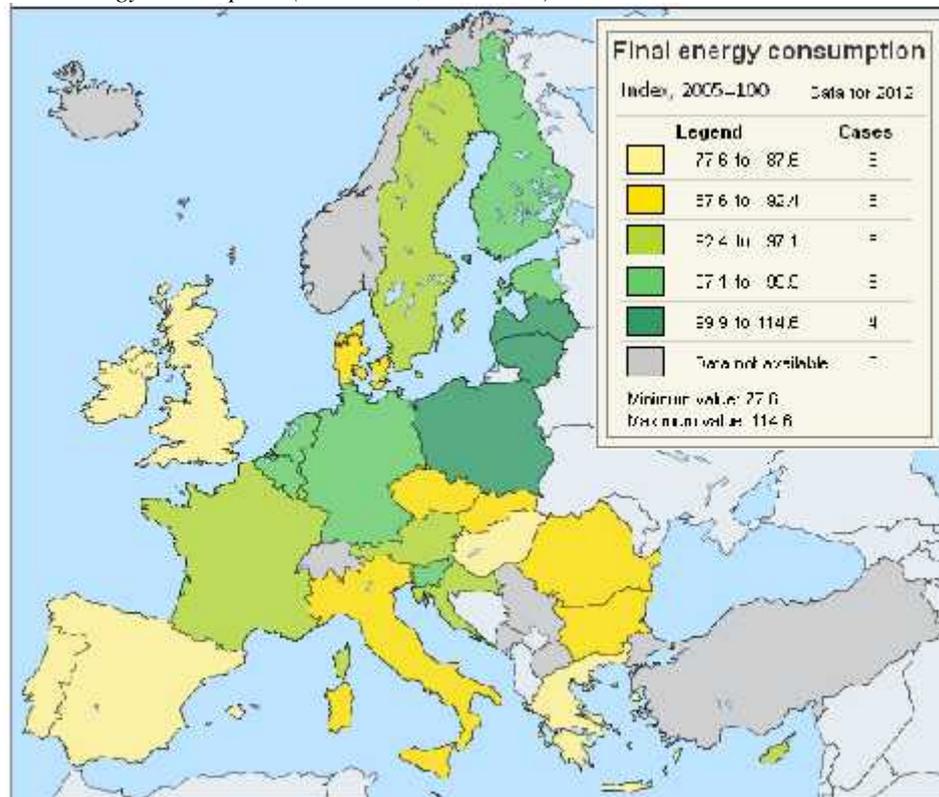


Figure source: Eurostat

Figure No. 3

Final energy consumption (unit: Index, 2005=100)



Figure's source: Eurostat