# A REVIEW OF THE ACTUAL STATE OF ENVIRONMENTAL PERFORMANCE OF ROMANIA – EPI 2012

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**Abstract**: The paper objective is to review the EPI 2012 results and analyze Romania performance and ranking. We detail the ranking status for Romania on different levels of aggregation. We also emphasize the new features and methodology chances available for the 2012 ranking. The paper also presents some cases of asymmetries between EPI 2012 and other development measurements, presenting some cases of countries scoring different across those rankings.

**Keywords**: environment, performance, EPI, Romania

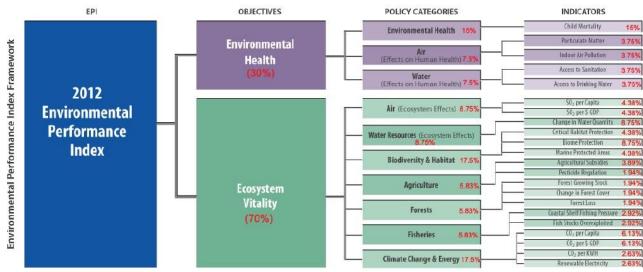
#### 1. INTRODUCTION

The Environmental Performance Index (EPI) is a tool for measuring and comparing different countries efficiency in dealing with environmental issues and creating sustainable policies. It was first developed as the Environmental Sustainability Index between 1999 and 2005 (EPI 2012 Full Report).

The EPI ranks 132 countries for the 2012 version based on a complex algorithm between 22 performance indicators from the following policy categories: environmental health, water (human health effects), air pollution (human health effects and ecosystem effects), water resources (ecosystem effects), biodiversity and wild life habitat, forests, fisheries, agriculture and climate change.

The two objectives in the EPI 2012 framework weight different being described by a different number of policy categories. Thus the environmental health contributes with 30% in the total score (contains 3 policy categories) while the ecosystem vitality weight 70% (with 7 policy categories). Each policy category unfolds on quantifiable indicators.

Figure 1: EPI 2012 framework



Source: EPI 2012 Full Report

The 2012 EPI apparently shows less evidence of interdependency between the economic welfare (described by the GDP per capita) and the environmental performance.

Thus Kuwait is a performing country when talking about economic development (in terms of GDP per capita) – 11<sup>th</sup> in the IMF 2012 GDP per capita ranking (in a total of 182 countries) – but fails to rank better in terms of environmental performance (126 of 132). The same situation in the case of Kazakhstan – 57<sup>th</sup> in terms of GDP per capita but only 129 in the 2012 EPI. It is also interesting that countries such as India and Kazakhstan perform poorly in terms of environmental policies efficiency trend (95<sup>th</sup> and 126<sup>th</sup>). On the other hand Nepal for example, a poor performer in terms of GDP per capita (161<sup>st</sup> in 182 countries), place 38<sup>th</sup> in the EPI ranking and shows a very active environmental policy trend (14<sup>th</sup>).

Again we can observe differences between the EPI assessment and other welfare indexes (in this case HDI). It is the case of Kuwait which rank 54<sup>th</sup> (in a total of 186) in the HDI and is placed at the bottom of the EPI 2012. Again similar to the GDP per capita case, Nepal place in the lower category of HDI countries, even the environmental performance described by the EPI 2012 is rather high.

Another asymmetry is that there are countries (again Kuwait) that place 11<sup>th</sup> in the HDI environment component ranking (so even better that the global HDI).

The reason for these incompatibilities between data in EPI 2012 and other indexes can be the large spectrum of environmental characteristics and combinations between the quantifiable environmental variables and the impossibility to cover all in one index. Also the methodological differences are evident and are directly connected with the environmental characteristics and variables chosen for inclusion in one index or another.

Table 1: EPI 2012 – Ranking bottom

EPI Rank	Country	Trend EPI Rank	
125	India	95	
126	Kuwait	131	
127	Yemen	29	
128	South Africa	124	
129	Kazakhstan	126	
130	Uzbekistan	69	
131	Turkmenistan	123	
132	Iraq	125	

Source: EPI 2012 Full Report

## 2. EPI 2012 AND SOME COMMENTS REGARDING ROMANIA

EPI 2012 has a unique feature showing beside the main ranking the "trend index performers" and the "trend index decliners". This is designed to show the evolution from the last measurements and better describes the environmental policies efficiency. It is an important feature because due to methodology changing from one EPI version to another it is a difficult task to assess the ranking evolution and obtain directly comparable results.

Thus even Romania place 88<sup>th</sup> in the main ranking, a rather poor performance, it place third in the top ten trend performers.

Table 2: EPI 2012 – Top 10 & Romania ranking and neighbors

EPI Rank	Country	Trend EPI Rank	EPI Rank	Country	Trend EPI Rank
1	Switzerland	89	84	Mexico	22
2	Latvia	1	85	Togo	90
3	Norway	84	86	Algeria	58
4	Luxembourg	106	87	Malta	97
5	Costa Rica	113	88	Romania	3
6	France	19	89	Mozambique	102
7	Austria	71	90	Angola	6
8	Italy	12	91	Ghana	28
9	United Kingdom	20	92	Dem. Rep. Congo	83
9	Sweden	63	93	Armenia	49

Source: EPI 2012 Full Report

The report mentions that Romania shows improvements in agricultural subsidies, fisheries (coastal fishing shelf pressure) and climate change, facts that place the country in top 3 environmental performance trends.

Detailing the levels of the aggregate we can note the highest rank for Romania (14<sup>th</sup>) for fisheries aspects and the lowest rank (108<sup>th</sup>) for the air effects on the ecosystem.

There is no evident tendency to excel in one direction or another (environmental health or ecosystem vitality). The scores and ranks for different level of aggregation being rather homogeneous (the exception for fisheries and ecosystem effects of air).

Performance Performance Score with Trend Shading Pilot Trend Results Level of Aggregation Score Rank Score (-50 to 50) Rank Environmental Performance Index 16.9 48.3 88 3 Environmental Health 60.7 78 17.5 35 12.8 Air (Effects on Human Health) 60.6 81 26 Environmental Burden of Disease 77.5 28.5 57 29 Water (Effects on Human Health) 270 102 0.0 84 Ecosystem Vitality 43.0 84 16.5 4 Agriculture 51.6 66 1 Air (Ecosystem Effects) 21.4 11.6 59 Biodiversity and Habitat 453 89 32.0 9 Climate Change 41.8 72 23.0 20 Fisheries 25.0 39.7 14 Forests 93.2 32 -3.4 32 79 -37.1 Water Resources (Ecosystem Effects) 25.7 79

Figure 2: EPI 2012 levels of aggregation - Romania

http://epi.yale.edu/dataexplorer/countryprofiles?iso=OMN&view=summary&thisind=EPI

EPI

In the same time Romania place 56<sup>th</sup> in the Human Development Index scoring well especially at the non-income HDI value. Though, Romania scores less well for the environmental component of the HDI (95<sup>th</sup>).

### 3. CONCLUSION

Source:

The vast complexity of the environmental issues across regions and nations cannot be describes or fully assessed by one particular index. The EPI 2012 is one example of how the continuous evolution in environmental issues can affect the data comparison in time even if we talk about the same indicator. However this not affects the importance of such approaches and does not prejudice the merits of it.

It is until now the most complex and most comprehensive environmental performance assessment developed across such a large number of countries with totally different economic and social peculiarities.

Recognizing the fact the developers included a new feature for better description of time evolution – the trend EPI rank.

Romania places in the second half of the index and shows good trend in improving the present situation. The 88<sup>th</sup> place (from 132 countries) cannot be described

as a good rank and the environmental policies must be closely observed in the future. It is interesting to see if the trend EPI rank will result in better future EPI rank or is just a circumstance without any sustainable effect upon the quality of environment.

## 4. REFERENCES

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