



Scoring sustainable development around the world

A new study has created a system which can measure sustainable development in numerical terms and used it to score the performance of 132 countries around the world. Norway ranked highest in its 'league table' of sustainable development, whilst Angola was ranked the lowest.

Sustainable Development (SD) is a complex concept with several dimensions. SD has been given many definitions but very few are attached with any quantitative or numerical approach. SD is high on the European agenda and it may be useful to numerically evaluate SD levels to apply policy effectively

The study identified three indicators of SD: social, technological and environmental. The social sustainability indicator is measured in terms of attributes such as human rights, human survival and income equity. The technological sustainability indicator is defined by research and development, percentage of renewable energy and energy efficiency. Environmental sustainability is measured according to attributes such as clean air, water usage and ecological protection.

Information about each of the attributes was taken from data from respected international sources, including the UN and the World Economic Forum. Each country was given a score on the three SD indicators and then a total score was calculated. Although the data was from 2000-2001 and can only provide a picture for that period, the study provides a useful illustration of how SD can be measured.

Overall, Norway scored the highest at 1533 out of a possible 1800 points, followed by Sweden and Finland. Angola had the lowest score of 170. The average score was 998, as awarded to Uzbekistan.

The Netherlands had an interesting result: its total SD score places it in the top ten per cent of countries, but its environmental element was mid-field, with a low score for clean air and natural resource use. This is a surprise since the Netherlands is viewed as an environmentally progressive country, but suggests that high technological and social capacity for SD may not necessarily improve a country's environmental capacity for SD.

The research looked for patterns across the scores. There were no clear differences between North and South or developed and developing countries. All EU Member States were ranked in the top fifty per cent. Norway, Sweden and Finland had the highest scores in the EU, whilst Romania, Bulgaria and Latvia were the lowest scoring EU Member States. In general, the relatively strong performance of EU and OECD nations was driven by their high score on social and technological indicators, whereas South American nations performed well on environmental sustainability.

The countries fell into five major groups according to the relationship between scores on the social and technological indicators. Those with low scores on both indicators were severely in debt with low GDP and life expectancy, and included Nigeria and Rwanda.

The research related the five groups of countries to a well-known hierarchy ('Maslow's hierarchy') of five individual needs that range from basic survival needs to more complex emotional needs. It suggests that countries in the low-scoring group must meet their basic needs before moving onto the advanced needs of environmental sustainability. A 'one-size-fits-all' policy will not lead to equal global SD, as there are many national levels of progress. Further research could reveal how resources, such as foreign aid and relieving countries of their debt, can close the gap in global SD between countries.

Source: Udo, V.E. & Jansson, P.M. (2009). Bridging the gaps for global sustainable development: A quantitative analysis. *Journal of Environmental Management*. 90(12): 3700-3707.

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