

III. CLIMATE AND ENVIRONMENT

8

The Greening of the Global South? Analyzing World Values Survey and European Values Survey Data on Environmental Movements in 88 Countries and Territories from 2017–2021

Arno Tausch

University of the Free State, Bloemfontein, South Africa

Abstract

This study focuses on the analysis of public opinion survey data on trust and participation in environmental movements from the World Values Survey and the European Values Survey, covering 88 countries and territories from 2017 onwards. Are we witnessing a greening of the Global South? Most of the existing, highly influential studies on this topic are based on earlier waves of the World Values Survey and the European Values Survey, with only a limited number of countries from the Global South covered in the surveys.

Our multivariate analysis suggests that, in today's world, it is rather the Global South that is 'greening' and where environmental movements enjoy the highest levels of participation and confidence. We also show that, holding human development indices constant, this greening of the Global South has overall positive effects on the socio-economic development of the countries concerned.

Keywords: *environmental movements, global comparisons, opinion surveys, Global South, World Values Survey, European Values Survey.*

Introduction

This study focuses on the analysis of public opinion survey data on trust and participation in environmental movements from the World Values Survey and the European Values Survey, covering 88 countries and territories from 2017 onwards. Are we witnessing a greening of the Global South? Most

History & Mathematics: Political, Demographic, and Environmental Dimensions 2024 187–245 DOI: 10.30884/978-5-7057-6354-2_09

of the existing, highly influential studies on this topic are based on earlier waves of the World Values Survey and the European Values Survey, with only a limited number of countries from the Global South included in the surveys.

The importance of the issues analyzed here cannot be underestimated. Brand (2015, 2023; Brand and Lang 2015) argues that in contrast to the concept and strategy of sustainable development in the 1990s, a green economy now appears to be attractive to relevant socio-economic actors. Technologies are available to develop renewable energy sources or electronic engines for cars, and microelectronics play a much more important role today than 20 years ago. And there is another dynamic, namely the current crisis, the main cause of which is an enormous amount of over-accumulated capital looking for new investment opportunities. Brand (2015, 2023) and Brand and Lang (2015) also point out that finance capital has discovered agriculture, land, infrastructure and environmental protection as new areas of investment, creating opportunities for a few and threatening the livelihoods of many, especially in the Global South.

With the emergence of countries such as China, India and Brazil as strong and confident economies, Brand (*Ibid.*) predicts new geopolitical rivalries over scarce resources. For example, last year the Chinese government banned the export of certain rare minerals for use in manufacturing processes in China. Brand (*Ibid.*), along with the European Commission, also highlights the growing competition for resources.

Our study is structured as follows: first, we discuss the theoretical background, then we provide a brief overview of our data and the multivariate methods used, and finally the results and conclusions of our work are presented.

Background Developments at the Global Level

The political-economic starting point facing environmental movements has been summarized by Brand (*Ibid.*), who emphasises that liberal policies of open markets and fierce competition have led to deindustrialization in many countries of the Global South. What makes sense from a neoclassical perspective – production taking place where it is most efficient – has pushed many countries into the new-old strategy of resource extractivism. According to Brand (*Ibid.*), for most countries in Latin America this seems to be the only viable development strategy to alleviate poverty and globalization means above all what can be called an ‘imperial way of life’. Globalized liberal markets are inscribed in everyday practices in the sense that access to cheap and often unsustainably produced goods and labour is normalized. This is not particularly controversial in times of crisis and is universalized among the global upper and middle classes.

We briefly mentioned above that existing studies on environmental movements and global values have not yet adequately taken into account the dimension of the Global South, which is playing an increasingly important role in an increasingly multicentric world facing multiple crises.

According to Dunlap and York (2008), the presumed lack of widespread concern for the environment in LDCs follows from the assumption in many current global values studies that environmental quality is a higher-order, quality-of-life value that poor people struggling to meet basic needs cannot afford to support. They point out that leading values research (see below) assumes a lack of environmental concern among citizens in the world's poorer nations. Post-materialist, pro-environmental values, the argument goes, are far more prevalent in wealthy nations than in poor ones.

And yet, recent advances in environmental political economy, which examine the relationships between variables such as globalization, carbon emissions, population growth, urbanization, *etc.* would suggest that global values research would also be obliged to produce evidence focusing specifically on the growing importance of the ecology movement in the countries of the Global South.

For example, in a widely read study on the political ecology of the environment, Jorgenson (2012) argues that transnational corporations are building new or acquiring existing facilities in less developed countries – such as in Asia and Latin America – to take advantage of lower production costs and more permissive environmental laws. As he notes, this shift in production has contributed to an increase in carbon emissions in less developed countries, even though many of the products are consumed in developed countries. The modest, relative decoupling between total emissions and development in the countries of the global North may in fact be linked to two sets of structural processes in countries of the global South: (1) the intensification of the relationship between per capita emissions and economic development, and (2) the temporal stability of the strong relationship between total emissions and economic development. Therefore, Jorgenson (2012) points out that the dynamics of the global economic system require that a conceptualization of shifts be incorporated into the assessment of environment-economic development relationships.

The study of the interaction between level of development – or if you wish, existential security – and the state of the environment involve several highly intricate methodological issues. In a highly influential study on this subject, Liddle (2014) critically discusses the assumptions of the Environmental Kuznets Curve (EKC)¹. Dinda (2004) in his highly influential study on the subject, stipulated that the Environmental Kuznets Curve (EKC) hypothesis postulates an inverted-U-shaped relationship between different pollutants and per capita

¹ See URL: <https://www.sciencedirect.com/topics/economics-econometrics-and-finance/environmental-kuznets-curve>.

income, *i.e.*, environmental pressure increases up to a certain level as income goes up; after that, it decreases. He also highlights that the common point of all the studies is the assertion that the environmental quality deteriorates at the early stages of economic development/growth and subsequently improves at the later stages (Dinda 2004). In other words, environmental pressure increases faster than income at early stages of development and slows down relative to GDP growth at higher income levels. Dinda (*Ibid.*) discusses the various explanations for this EKC: (a) the progress of economic development, from clean agrarian economy to polluting industrial economy to clean service economy; (b) tendency of people with higher income having higher preference for environmental quality, *etc.*

Liddle (2014) highlights in this context that the empirical consideration of many cross-sectional units combined with observations taken at many time intervals (*i.e.*, time series – cross-sectional or panel data) offers substantial advantages over simple cross-sectional analysis, for example, (1) using country and/or time-fixed effects to control for some omitted variables (*i.e.*, factors that may affect emissions that are not captured by variables specified in the regression model, such as economic shocks, changes in population policies, or other country-specific development pathways); (2) increasing substantially the degrees of freedom; and (3) allowing for dynamic modelling (*e.g.*, estimating short-run and long-run effects). However, as he notes, employing such time series and cross-sectional data both introduces statistical challenges and provides opportunities to address those challenges and other modelling issues: namely, serial correlation, non-stationarity, cross-sectional dependence, heterogeneity, nonlinearities, and endogeneity. Liddle (*Ibid.*) also makes the point that a variable, which is particularly strongly related to global value change, population growth (see also Tausch, Heshmati, and Karoui 2014) and its impact on the level of national carbon emissions has not been explicitly explored. He also points out that urbanization may lead to higher emissions/energy consumption through urbanization's association with industrialization, that is, the shift from agriculture to industry and services. The co-evolving movement of people from rural to urban areas and from agricultural to industrial employment causes energy consumption to increase in three ways: (1) agricultural operations must mechanize as they become less labor-intensive; (2) urbanization spatially separates food consumers from food producers, thus necessitating a transport requirement that did not exist under traditional agriculture and settlement patterns; and (3) modern industry/manufacturing uses more energy per unit of output and per worker than does traditional agricultural and manufacturing.

Such shifts will even increase the importance of the question of how economic changes in the Global South affect the strength of the environmental movement in the Global South.

In a recent study on the globalization-oriented drivers of the global environmental crisis, Tausch and Heshmati (2013) have closed the circuit from the usual studies on globalization and environmental degradation. The study showed severe detrimental effects of 'globalization' measurement yardsticks, such as high foreign savings, free production zones employment as a % of total population, MNC penetration, and large-scale immigration on environmental data.

The Analysis of Global Values

The major existing sociological theories of global values (Tausch, Heshmati, and Karoui 2014), to be sure, have not really focused decisively on these phenomena: Hofstede (Hofstede, Hofstede, and Minkov 2010), Schwartz (2009, 2014) and his research colleague Davidov (Davidov, Schmidt, and Schwartz 2008) and finally Inglehart (Inglehart 2009, 2018, 2020; Inglehart and Baker 2000) are for us the main hitherto well-known theoretical approaches guiding the discipline of value research today.

Inglehart

Inglehart, in some of his major publications (*Ibid.*; for a more detailed discussion see also Tausch, Heshmati, and Karoui 2014) developed an interpretation of global value change based on a well-known two-dimensional scale of global values and global value change. It is based on the statistical technique of factor analysis of up to 20 key World Values Survey variables from the original 900+ WVS survey items. These 900 items cover virtually all major areas of human concern, from religion to politics and from economic to social life.

The two Inglehart dimensions are: (1) the Traditional/Secular-Rational; and (2) the Survival/Self-expression. In a factor analysis of ten indicators, these two dimensions explain more than 70 % of the cross-national variance. Each of these dimensions is strongly correlated with scores on other important variables. For Inglehart and Baker (2000), all pre-industrial societies have relatively low levels of tolerance for abortion, divorce, and homosexuality; and tend to emphasize male dominance in economic and political life. There is a respect for parental authority and the importance of family life, and these societies are relatively authoritarian. Most of them place a strong emphasis on religion. Advanced industrial societies tend to have the opposite characteristics.

When survival is uncertain, cultural diversity seems threatening. When there is not 'enough to go around', foreigners are seen as dangerous outsiders who may take away one's livelihood. People cling to traditional gender roles and sexual norms, and emphasize absolute rules and family norms to maximize predictability in an uncertain world. Conversely, when survival is taken for granted, ethnic and cultural diversity becomes increasingly acceptable. Beyond a certain point, diversity is not only tolerated but may be positively valued be-

cause it is interesting and stimulating. In advanced industrial societies, people seek out foreign restaurants to try new cuisines; they pay large sums of money and travel long distances to experience exotic cultures. Changing gender roles and sexual norms no longer seems threatening.

Tanzania, Puerto Rico, and Jordan are the least secular countries in the world, while Sweden, Japan and the Czech Republic are the most secular.

New Zealand, Australia and the United States are the most self-expressive countries in the world, while the five most survivalist and least self-expressive countries in the world are all Orthodox Christian heritage: Moldova, Ukraine, Russia, Belarus, and Romania.

As might be expected from a standard principal components analysis, the bivariate correlation between the two factors is indeed very low (*Ibid.*). There is an interesting wave structure in the relationship between secularism and self-expression. As secularization increases, there is first a certain implosion and then a rise in self-expression scores. Inglehart sees these self-expression values as very important for 'effective democracy' (measured by civil and human rights and absence from corruption). Then there is a rise in self-expression values to implode again. Only at very high levels of secularization does self-expression rise in a linear fashion. This wave structure of modernization, secularization and self-expression is an important qualification of Inglehart's theory.

But in our own analyses (*Ibid.*), we already found that the countries of the former USSR and the countries of the Christian-Orthodox cultural tradition as a whole, and not the Muslim countries, are the real problematic cases for 'effective democracy', and they combine high secularization with low self-expression. While Egypt and its neighbour Israel have residuals of about the same size, most Muslim countries (except for post-Soviet Kyrgyzstan and Azerbaijan) are even ahead of the three Baltic EU members Lithuania, Latvia, and Estonia. Poland, an EU member, ranks about the same as Turkey and is even behind several other Muslim countries. The prospects for Muslim countries must therefore be seen as relatively good within the strict framework of Inglehart's sociology.

For Inglehart, support for ecological movements is seen in the larger context of nations moving away from (1) the traditional/secular-rational dimension and (2) the survival/self-expression dimension.

The World Values Survey and European Values Survey Analyses on Environmental Movements

In the following, we will first attempt to provide our readers with a brief synthesis of established wisdom on global opinion surveys of environmental concerns (for a summary see Abramson and Inglehart 2009; Dunlap and York 2008; Dutcher *et al.* 2007; Franzen and Vogl 2013; Inglehart 2009; Inglehart and Baker 2000; Inglehart and Abramson 1994). Inglehart (see Abramson and

Inglehart 2009; Inglehart 2009; Inglehart and Baker 2000; Abramson and Inglehart 1994) maintained the position that value priorities in advanced industrial society will tend to shift away from materialist concerns about economic and physical security towards greater emphasis on freedom, self-expression, and the quality of life, or post-materialist values. Arguing that differences between the formative socialization of young Europeans and their elders have led younger birth cohorts to give relatively high priority to freedom and self-expression, he (*Ibid.*) suggests that future intergenerational population replacement would bring about a shift towards new value priorities. The growth of post-materialist values will contribute to a decline of social class voting and to the rise of new social movements, particularly environmentalist movements and parties. According to Inglehart (*Ibid.*), changing value priorities may reshape the nature of political cleavages and the political meaning of left and right, giving rise to a new politics axis. This new axis, as he notes (*Ibid.*), cuts across the traditional left-right dimension, characterized by radical reform parties and movements at one pole and right authoritarian parties and movements like the Christian Coalition, the National Front, and the *Republikaner* at the other. Inglehart (*Ibid.*) demonstrates that there has been a clear trend towards post-materialism largely resulting from intergenerational population replacement. Moreover, the growth of post-materialism has occurred despite, rather than because of, rising levels of unemployment.

For Inglehart (see Abramson and Inglehart 2009; Inglehart 2009; Inglehart and Baker 2000; Inglehart and Abramson 1994), the shift from materialist to post-materialist values is not a uniquely Western phenomenon. Rather, it is found in societies with very different institutions and cultural traditions. The rise of post-materialist values is closely linked with prosperity and seems to occur wherever a society has experienced sufficient economic growth in recent decades for younger birth cohorts to experience significantly greater economic security during their formative years than older cohorts experienced. Intergenerational differences in values reflect a society's rate of economic growth. Economic growth, of course, is only one factor contributing to security or insecurity, but it happens to be (1) an important part of the story and (2) one for which we have relatively good cross-national and cross-time data. Inglehart (*Ibid.*) argues that war, domestic upheaval, and ethnic conflict can also have a major impact on feelings of security, but precisely because they tend to be situation-specific (and are less readily quantified), they are more difficult to analyze empirically. Intergenerational differences are remarkably robust. As he notes (*Ibid.*), in Western Europe, clear and substantial differences between the values of younger and older birth cohorts persisted through the recessions of the mid-1970s and the early 1980s. The post-materialist shift in values does not simply reflect current conditions: it also has a long-term component that seems to re-

flect the distinctive formative circumstances experienced by given birth cohorts as much as 40 or 50 years ago.

Based on their data analysis of the World Values Survey and Gallup's 24-nation 'Health of the Planet' (HOP) survey, for Dunlap and York (2008) the crucial issue is that both conventional wisdom and social science explanations of environmental concern as stemming from post-materialist values which would predict consistently positive relationships between citizen's concern for the environment and levels of national affluence, but clearly the first three waves of the now seven waves of the WVS (see methodology section below) do not produce supportive evidence for either. When one considers that many of the WVS items appear to be biased in favour of more pro-environmental responses from the public in wealthy than in poor nations, the results become even more noteworthy. Given the emphasis that both spokespersons of post-materialism, such as Inglehart, place on public willingness to pay for environmental protection, and that the most straightforward indicators of such willingness are consistently (if not always significantly) negatively correlated with national affluence. For Dunlap and York (*Ibid.*) the WVS results are particularly damaging – and even puzzling. They (*Ibid.*) conclude that those who have followed the rapidly accumulating evidence of citizen action for environmental protection in poor and developing nations around the world will not be surprised that environmental activism in these countries often reflects widespread public sentiment. It is clear that both environmental activism and public support for environmental protection have become global phenomena and are no longer – if they ever were – limited to the wealthy nations of the world.

Dunlap and York (*Ibid.*) also maintain that while it may take different forms, concern for the environment has obviously spread well beyond wealthy nations, and it is time for both policymakers and social scientists to revise their views accordingly. To conceptualize environmental quality as something that only the wealthy can afford, and that is of little concern to the poor, does violence to the facts.

Franzen and Vogl (2013) analyze the development of environmental concern by using the three waves of the environmental modules of the International Social Survey Programme. The results show that environmental concern is closely correlated with the wealth of the nations. However, environmental concern has declined in almost all nations slightly during the last two decades. The decline was lower in the countries with improving economic conditions suggesting that economic growth helps to maintain higher levels of environmental concern. The results of Franzen and Vogl (*Ibid.*) show that GDP has a positive effect on respondents' environmental concern, confirming the finding from the cross-sectional data. Overall, environmental concern decreased slightly in al-

most all countries (the exception is Chile). However, the decline was weaker in countries where GDP has increased since 1993. This finding, according to Franzen and Vogl (*Ibid.*), is compatible with the results obtained from a time series analysis of public attitudes towards climate change in the United States. Controversies among political elites, particularly scepticism regarding climate change among Republican leaders, contributed most strongly to the decline. Franzen and Vogl (*Ibid.*) believe it is very likely that after 2008, the financial crisis diverted attention away from environmental concerns.

The fact that environmental concern has declined over the past two decades is, of course, bad news for the prospects of protecting the planet (*Ibid.*). It suggests that governments willing to implement measures for environmental protection will find it increasingly difficult to receive public support.

Methodology and Data

The World Values Survey and European Values Survey Data

Launched in 1981, the World Values Survey (WVS) is a series of nationally representative surveys conducted in nearly 100 countries, covering almost 90 % of the world's population, using a common questionnaire on the attitudes of the world's population towards religion, politics, economics, society, education, prejudice, gender and sexuality, and the family. The WVS is the largest non-commercial, cross-national, time-series survey of human beliefs and values ever conducted, and currently includes interviews with nearly 400,000 respondents (Inglehart 2020).

According to the current documentation of the WVS² and our own macro-quantitative data (see below), the WVS currently captures the opinions of more than five billion global residents, or about 66 % of the world's population.

The current study uses the well-established methodology of analyzing data from international surveys, again in the World Values Survey, as already presented in detail in the study by Tausch, Heshmati, and Karoui (2014). We would like to emphasize that, in addition to comparing percentages and means in cross-tabulations, the present study makes particular use of the method of partial correlations and promax factor analysis. As can be seen in Tausch, Heshmati, and Karoui (*Ibid.*), promax factor analysis is particularly suitable for extracting dimensions of variables that may be correlated with each other from a dataset with many variables. Table 1 shows the date of the WVS samples as well as the sample size N .

² URL: <https://www.worldvaluessurvey.org/WVSDocumentationWV7.jsp>.

Table 1. Our surveys from the World Values Survey and the European Values Study

Country	Year of Survey	N =
Albania	2018	1,435
Andorra	2018	1,004
Argentina	2017	1,003
Armenia	2018, 2021	2,723
Australia	2018	1,813
Austria	2018	1,644
Azerbaijan	2018	1,800
Bangladesh	2018	1,200
Belarus	2018	1,548
Bolivia	2017	2,067
Bosnia and Herzegovina	2019	1,724
Brazil	2018	1,762
Bulgaria	2017	1,558
Canada	2020	4,018
Chile	2018	1,000
China	2018	3,036
Colombia	2018	1,520
Croatia	2017	1,487
Cyprus	2019	1,000
Czechia	2017	1,811
Denmark	2017	3,362
Ecuador	2018	1,200
Egypt	2018	1,200
Estonia	2018	1,304
Ethiopia	2020	1,230
Finland	2017	1,199
France	2018	1,870
Georgia	2018	2,194
Germany	2017, 2018	3,698
Great Britain	2018	1,788
Greece	2017	1,200
Guatemala	2020	1,229
Hong Kong SAR	2018	2,075
Hungary	2018	1,514
Iceland	2017	1,624
Indonesia	2018	3,200
Iran	2020	1,499

Continuation of Table 1

Country	Year of Survey	N =
Iraq	2018	1,200
Italy	2018	2,277
Japan	2019	1,353
Jordan	2018	1,203
Kazakhstan	2018	1,276
Kenya	2021	1,266
Kyrgyzstan	2020	1,200
Latvia	2021	1,335
Lebanon	2018	1,200
Libya	2022	1,196
Lithuania	2018	1,448
Macau SAR	2019	1,023
Malaysia	2018	1,313
Maldives	2021	1,039
Mexico	2018	1,741
Mongolia	2020	1,638
Montenegro	2019	1,003
Morocco	2021	1,200
Myanmar	2020	1,200
Netherlands	2017, 2022	4,549
New Zealand	2020	1,057
Nicaragua	2020	1,200
Nigeria	2018	1,237
North Macedonia	2019	1,117
Norway	2018	1,122
Pakistan	2018	1,995
Peru	2018	1,400
Philippines	2019	1,200
Poland	2017	1,352
Portugal	2020	1,215
Puerto Rico	2018	1,127
Romania	2018	2,870
Russia	2017	3,635
Serbia	2017, 2018	2,545
Singapore	2020	2,012
Slovakia	2017	1,432
Slovenia	2017	1,075
South Korea	2018	1,245

Continuation of Table 1

Country	Year of Survey	N =
Spain	2017	1,209
Sweden	2017	1,194
Switzerland	2017	3,174
Taiwan ROC	2019	1,223
Tajikistan	2020	1,200
Thailand	2018	1,500
Tunisia	2019	1,208
Turkey	2018	2,415
Ukraine	2020	2,901
United States	2017	2,596
Venezuela	2021	1,190
Vietnam	2020	1,200
Zimbabwe	2020	1,215
Total N =	2017–2022	147,260

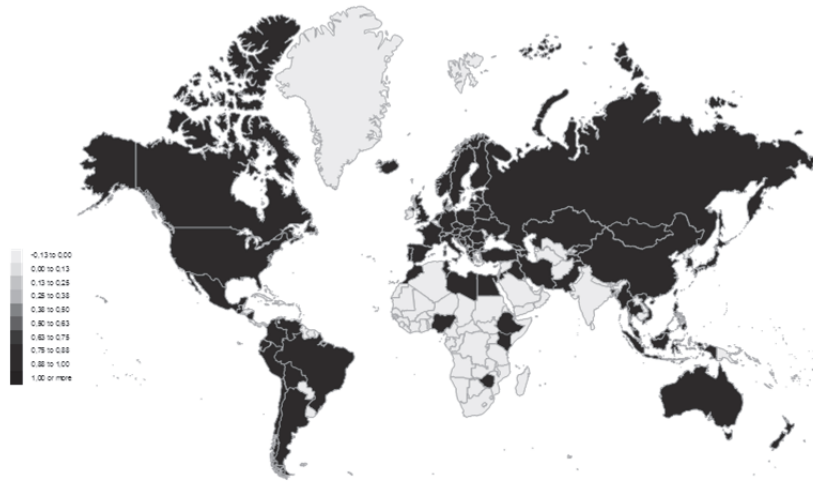




Fig. 1. The global reach of our multivariate models, based on World Values Survey Wave 7 and the European Values Study

Notes: WVS Cross-National Wave 7 spss v4 0.zip.

The identical version of the joint EVS/WVS is accessible through two data service points:

- EVS/GESIS: via the GESIS Data Collection at GESIS – Leibniz Institute for the Social Sciences (data download page).
- WWSA: via the WVS website.

Methodology

Our research attempt is, of course, guided by the vast traditions of mathematical-statistical analysis in opinion survey research (see Tausch, Heshmati, and Karoui 2014; Abdi 2003; Basilevsky 2009; Braithwaite and Law 1985; Brenner 2016; Browne 2001; Fabrigar *et al.* 1999; Hedges and Olkin 2014; Kline 2014; Knippenberg 2015; McDonald 2014; Mulaik 2009; Suhr 2012; Yeşilada and Noordijk 2010).

Our methodological approach is within a more general framework for studying global values with the methodology of comparative and opinion-survey based political science (Brenner 2016; Knippenberg 2015; Inglehart 2018, 2020). Our methodology for evaluating global public opinion from global surveys is also based on recent advances in mathematical statistical factor analysis (Basilevsky 2009; Hedges and Olkin 2014; Kline 2014; McDonald 2014; Mulaik 2009). Such studies allow projecting the underlying structures of the relationships between the variables.

Our research also uses myriads of cross-national development data and has been written in the well-established tradition of macro-quantitative and time-

series development research (see below). We especially mention what can be termed ‘development accounting’ (see Tausch and Heshmati 2012). We project our research results also at the level of choropleth maps.³

In general, our entire work firmly shares the established methodology of global values and comparative opinion research (*Idem.* 2014).

Our main statistical calculations relied on simple cross tables, comparisons of means, bi-variate and partial correlation analyses, factor analysis (oblique factor rotations based on promax factor analysis) (Abdi 2003; Babones 2014; Basilevsky 2009; Browne 2001; Clauß and Ebner 1970; Fabrigar *et al.* 1999; Hedges and Olkin 2014; Kline 2014; Suhr 2012; Tabachnick and Fidell 2001; for a condensed survey, see also Tausch, Heshmati, and Karoui 2014).

For the algorithm of partial correlation analysis and promax factor analysis, we refer our readers to IBM-SPSS 2014; Hendrickson and White 1964; and Morrison 1976.

Promax Factor Analysis

Concerning factor analysis and the so-called oblique rotation of the factors, which are underlying the correlation matrix, we also refer our readers to important literature on the subject (Abdi 2003; Browne 2001). The IBM-SPSS routine chosen in this context was the so-called *promax* rotation of factors (Braithwaite and Law 1985; Browne 2001; Fabrigar *et al.* 1999; Suhr 2012; Yeşilada and Noordijk 2010), which in many ways must be considered to be the best suited rotation of factors in the context of our research today.⁴ Formulated in plain everyday language, the mathematical procedures of the rotation of factors which best represent the dimensions underlying a correlation matrix are necessary to make the structure simpler and more reliable.

The problem which factor-analysis solves can be described as follows: can the variables under consideration here be represented in mathematically reduced dimensions, and what percentages of the total reality are thus reproduced, and how are these dimensions related to each other? And what is the relationship of the underlying variables with these dimensions? Is there indeed such a ‘factor’ or ‘dimension’ as religiosity, and how does it affect phenomena like ‘trust in the police’ or ‘Antisemitism’? Is there, apart from it, also something like ‘accepting gender equality’, and something like ‘class’ or ‘status’, which influences ‘trust in the police’ or ‘Antisemitism’, independent from the other ‘factors’? Promax factor analysis is a well-established multivariate and mathe-

³ The choropleth maps of this book were drawn using the free software developed by Robert Mundry (see URL: <https://www.clearlyandsimply.com/>).

⁴ Older approaches often assumed that there is no correlation between the factors, best representing the underlying dimensions of the variables. But, *e.g.*, in attempting to understand the pro-Brexit vote in the United Kingdom it would be ridiculous to assume that, say, there is no correlation between anti-immigration attitudes and the feeling to be among the losers of globalization.

mathematical variety among the general techniques of factor analysis, which extracts the underlying dimensions from the matrix of correlations between the variables and precisely answers the questions just raised above.⁵ It was amply described in recent literature (Finch 2006; Tausch, Heshmati, and Karoui 2014). As already stated, Promax factor analysis is the most appropriate technique of factor analysis in public opinion survey studies today (Finch 2006). Factor analysis – in our case promax factor analysis – also allows the researcher to use the mathematical model for the development of a new measurement scale for the new dimensions, derived in the research process (*Ibid.*). In modern social indicators research, such new scales are called ‘*parametric indices*’.

In the vast literature, surveyed in Tausch, Heshmati, and Karoui (*Ibid.*), there are two ways to add together the results from the different components, making up either an UNDP-type of performance Index indicator: simply adding the results together, or first grouping them together to various subcomponents, and only from there to arrive at the results.

Parametric Indicators

But our destabilization indicator is a so-called ‘parametric indicator’, which – in everyday plain language – combines the data with the aim of multivariate statistical analysis (*Ibid.*). Such a parametric indicator relies on advanced statistical methods, such as principal components analysis (*Ibid.*). Such an analysis extracts an overriding indicator, mathematically best representing the component variables and their correlation matrix. Our parametric index thus relies on the original survey respondents of the survey and calculates the country results, based on principal components factor scores.

Our statistical calculations were performed by the routine and standard IBM-SPSS statistical program (IBM-SPSS XXVIII)⁶ and relied on standard partial correlation analyses and factor analysis (*Ibid.*).⁷ Since both our data and the statistical methods used are available around the globe, any researcher can repeat our research exercise with the available open data and should be able to reproduce the same results as we did.

Error Margins

For the calculation of error margins of the representative opinion survey, readers are referred to the easily readable introduction to opinion survey error margins, prepared by Cornell University Roper Center (2017). Readers more interested in the details are also being referred to Langer Research Asso-

⁵ The mathematical algorithm is described at URL: https://www.ibm.com/support/knowledgecenter/en/SSLVMB_22.0.0/com.ibm.spss.statistics.algorithms/alg_factor_promax.htm. Interested readers are also referred to materials used at the University of Texas in Dallas, available at URL: <https://www.utdallas.edu/~herve/Abdi-rotations-pretty.pdf>.

⁶ URL: <https://www-01.ibm.com/software/at/analytics/spss/>.

⁷ URL: <https://www.ibm.com/analytics/spss-statistics-software>.

ciates n.d.⁸ On the basis of the methodological literature on opinion surveys this website makes available a direct opinion survey error margin calculator. It is important to recall that, for example at a 5 % distrust rate in the police, error margins for our chosen samples of around 1,000 representative interview partners for each country are ± 1.4 %. A 10 % distrust rate, the error margin is ± 1.9 %: and at a distrust rate of 15 % the error margin is ± 2.2 % (see Langer Research Associates n.d.). That error margins differ according to reported rates of, say, distrust in the police, is an important fact of opinion survey research theory, often forgotten to be mentioned in the public debate.

In line with standard traditions of empirical opinion survey research (Tausch, Heshmati, and Karoui 2014), for all analyzed groups and sub-groups, a minimum sample size of at least 30 respondents in each country had to be available in order to make reasonable predictions (Clauß and Ebner 1970).

Table 2. Maximum ranges of variation for survey results (the probability of error is 5 %)

Sample size	Maximum fluctuation ranges (\pm)	Maximum fluctuation ranges (\pm)	Maximum fluctuation ranges (\pm)	Maximum fluctuation ranges (\pm)	Maximum fluctuation ranges (\pm)
N	10 % or 90 %	20 % or 80 %	30 % or 70 %	40 % or 60 %	50 %
20	13.1 %	17.5 %	20.1 %	21.5 %	21.9 %
30	10.7 %	14.3 %	16.4 %	17.5 %	17.9 %
40	9.3 %	12.4 %	14.2 %	15.2 %	15.5 %
50	8.3 %	11.1 %	12.7 %	13.6 %	13.9 %
75	6.8 %	9.1 %	10.4 %	11.1 %	11.3 %
100	5.9 %	7.8 %	9.0 %	9.6 %	9.8 %
250	3.7 %	5.0 %	5.7 %	6.1 %	6.2 %
500	2.6 %	3.5 %	4.0 %	4.3 %	4.4 %
1,000	1.9 %	2.5 %	2.8 %	3.0 %	3.1 %
2,000	1.3 %	1.8 %	2.0 %	2.1 %	2.2 %

Dimensions and Variables from the World Values Survey and European Values Survey

As we already stated above, in our factor analytical model, we used the following dimensions from our multivariate data:

- (1) The importance of friends, leisure, politics, work, religion in life.
- (2) Happiness, health, life satisfaction.
- (3) Important child characteristics: hard work, tolerance and respect for other people, religious belief.
- (4) Xenophobic attitudes towards people of a different race, immigrants/foreign workers.

⁸ URL: <https://www.langerresearch.com/moe/>.

(5) Membership: Belonging to conservation, the environment, ecology, animal rights.

(6) Acceptance of women as political leaders, in higher education, as business leaders.

(7) Willingness to fight for the country.

(8) We need greater income differences.

(9) Private vs. public ownership of business.

(10) Good or bad competition.

(11) Trust: Press, trade unions, parliament, civil service, political parties, big business, environmental movement.

(12) Perceptions of main roles of democracy: tax the rich, religious authorities interpret the laws, choose leaders in free elections, state aid for unemployment, civil rights protect people's freedom, women have the same rights as men, the state equalizes people's incomes, people obey their rulers.

(13) Never attend religious services.

(14) Justifiable: Claiming government benefits to which you are not entitled, cheating on taxes, accepting a bribe, abortion, divorce, euthanasia, suicide, political violence, capital punishment.

(15) Gender: female.

(16) Year of birth.

(17) Highest level of education attained.

These dimensions were represented by the following variables:

- Not important in life: Friends;
- Not important in life: Leisure time;
- Not important in life: Politics;
- Not important in life: Work;
- Not important in life: Religion;
- Feeling of unhappiness;
- State of health bad (subjective);
- Satisfaction with your life;
- Important child qualities: hard work;
- Important child qualities: tolerance and respect for other people;
- Important child qualities: religious faith;
- Membership: Belonging to conservation, the environment, ecology, animal rights;
- Reject neighbours: People of a different race;
- Reject neighbours: Immigrants/foreign workers;
- Men do not make better political leaders than women do;
- University is not more important for a boy than for a girl;
- Men do not make better business executives than women do;
- Willingness to fight for country;
- We need larger income differences;
- Private vs state ownership of business;

- Competition good or harmful;
- No confidence: The Press;
- No confidence: Labour Unions;
- No confidence: Parliament;
- No confidence: The Civil Services;
- No confidence: The Political Parties;
- No confidence: Major Companies;
- No confidence: The Environmental Protection Movement;
- Democracy: Governments tax the rich and subsidize the poor;
- Democracy: Religious authorities interpret the laws;
- Democracy: People choose their leaders in free elections;
- Democracy: People receive state aid for unemployment;
- Democracy: Civil rights protect people's liberty against oppression;
- Democracy: Women have the same rights as men;
- Democracy: The state makes people's incomes equal;
- Democracy: People obey their rulers;
- Never attend religious services;
- Justifiable: Claiming government benefits to which you are not entitled;
- Justifiable: Cheating on taxes;
- Justifiable: Someone accepting a bribe;
- Justifiable: Abortion;
- Justifiable: Divorce;
- Justifiable: Euthanasia;
- Justifiable: Suicide;
- Justifiable: Political violence;
- Justifiable: Death penalty;
- Gender: female;
- Year of birth;
- Highest educational level attained – Respondent: ISCED-code one digit.

Cross-National Data

In the explanation of the dependent variables due emphasis was also given to dependency and world system approaches to development, which received large-scale empirical confirmation (see Bornschier 1980, 1983; Bornschier and Ballmer-Cao 1979; Bornschier and Chase-Dunn 1985; Tausch and Heshmati 2012). Earlier, well-known datasets for these investigations were:

- Ballmer-Cao Scheidegger (1979);
- Müller and Bornschier (1988);
- Tausch (2012)⁹.

⁹ Free download available at URL: http://www.uni-corvinus.hu/index.php?id=47854&tx_ttnews%5Btt_news%5D=0&tx_ttnews%5BbackPid%5D=31638&tx_ttnews%5BcalendarYear%5D=2012&tx_ttnews%5BcalendarMonth%5D=6&cHash=af8ef6888f7c9922b83b113f71c1ca32.

More recent databases, integrating dependency and world system approaches with conventional economic theories and the sociology of world values research are:

- Tausch (2019)¹⁰;
- Tausch and Heshmati (2012)¹¹.

The present dataset, which we used in our analysis, is available in EXCEL format data¹².

Results from the World Values Survey and European Values Survey

Table 3 and Fig. 2 clearly show the rising tide of environmental movements in the Global South, directly contradicting many of the prognoses of previous World Values Survey research.

Table 3. Membership: Belonging to conservation, the environment, ecology, animal rights (0 = 0 %; 1.0 = 100 %)

	Membership: Belonging to conservation, the environment, ecology, animal rights	N
Kenya	0.394	1,203
Indonesia	0.349	3,188
Colombia	0.346	1,520
Thailand	0.320	1,500
Guatemala	0.263	1,192
Malaysia	0.263	1,313
Nicaragua	0.256	1,200
Libya	0.234	1,170
Ethiopia	0.220	1,216
Mongolia	0.218	1,638
Morocco	0.218	1,200
Tajikistan	0.216	1,200
Nigeria	0.210	1,211
Switzerland	0.206	3,142

¹⁰ See URL: <http://jcpa.org/article/migration-from-the-muslim-world-to-the-west-its-most-recent-trends-and-effects/> (with data definitions and sources). Free data download available at URL: https://www.academia.edu/37568941/Migration_from_the_Muslim_World_to_the_West_Its_Most_Recent_Trends_and_Effects.

¹¹ Free data download available at URL: https://www.academia.edu/35044095/Globalization_the_human_condition_and_sustainable_development_in_the_21st_Century_Cross-national_perspectives_and_European_implications_Codebook_and_EXCEL_data_file.

¹² See URL: https://www.researchgate.net/publication/368810044_RESILIENCE_2023_EXCEL_DATA_PUBLIC_ACCESS_for_the_publication_Destabilizing_forces_a_MENA_country_regional_survey_and_a_global_comparison.

Continuation of Table 3

	Membership: Belonging to conservation, the environment, ecology, animal rights	N
United States	0.196	2,573
Zimbabwe	0.191	1,205
New Zealand	0.181	982
Philippines	0.174	1,199
Pakistan	0.173	1,796
Netherlands	0.172	4,385
Hong Kong SAR	0.166	2,075
Puerto Rico	0.165	1,127
Taiwan ROC	0.164	1,223
Australia	0.157	1,781
Mexico	0.155	1,738
Chile	0.154	1,000
Bolivia	0.152	2,045
Canada	0.150	4,018
Cyprus	0.146	984
Denmark	0.144	3,349
Sweden	0.142	1,177
Slovenia	0.138	1,071
Iran	0.128	1,497
Czechia	0.125	1,554
Ecuador	0.122	1,186
Iceland	0.122	1,616
North Macedonia	0.115	1,092
Macau SAR	0.103	1,017
Iraq	0.102	1,164
Germany	0.100	3,635
Great Britain	0.086	1,787
Finland	0.079	1,178
Argentina	0.070	1,003
Norway	0.066	1,122
Maldives	0.061	1,012
Myanmar	0.060	1,200
Croatia	0.058	1,427
Tunisia	0.058	1,174
Ukraine	0.058	2,820
Serbia	0.053	2,391

Continuation of Table 3

	Membership: Belonging to conservation, the environment, ecology, animal rights	N
Bangladesh	0.051	1,173
South Korea	0.051	1,245
Turkey	0.051	2,371
Romania	0.050	2,741
Venezuela	0.050	1,190
Peru	0.049	1,389
Singapore	0.049	2,004
Spain	0.049	1,201
France	0.047	1,868
Hungary	0.046	1,512
Kazakhstan	0.043	1,196
Lebanon	0.043	1,200
Austria	0.040	1,637
China	0.039	3023
Armenia	0.038	2,716
Brazil	0.037	1,719
Vietnam	0.037	1,200
Andorra	0.036	1,002
Greece	0.035	1,199
Jordan	0.035	1,160
Kyrgyzstan	0.032	1,194
Bulgaria	0.031	1,435
Bosnia and Herzegovina	0.028	1,696
Latvia	0.028	1,332
Montenegro	0.027	997
Italy	0.026	2,249
Poland	0.022	1,346
Georgia	0.018	2,178
Albania	0.017	1,435
Lithuania	0.016	1,413
Estonia	0.014	1,304
Japan	0.014	1,336
Russia	0.014	3,585
Slovakia	0.010	1,411
Belarus	0.009	1,548
Portugal	0.009	1,188
Azerbaijan	0.005	1,775
Egypt	0.005	1,199

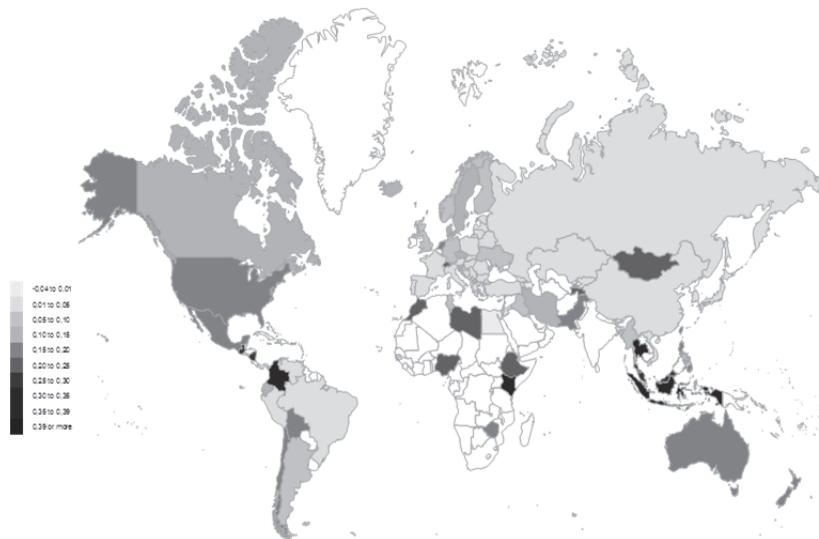


Fig. 2. Membership in the environmental movement

Table 4 and Fig. 3 indicate high confidence in the environmental movement in many countries and territories of the Global South, especially in East and Southeast Asia. In general terms, trust in the environmental movement is the lowest in some Arab countries, in Southeastern and Eastern Europe, and in some countries of Latin America and the Caribbean.

Table 4. Confidence in the environmental movement (0 = 0 %; 1.0 = 100 %)

	A great deal	Quite a lot	A great deal + quite a lot	N
Vietnam	0.177	0.719	0.896	1,162
China	0.152	0.663	0.815	3,016
Myanmar	0.323	0.484	0.807	1,200
Indonesia	0.281	0.516	0.797	3,173
Philippines	0.309	0.480	0.789	1,199
Malaysia	0.180	0.595	0.775	1,310
Iran	0.263	0.501	0.764	1,474
Macau SAR	0.106	0.636	0.742	1,016

Continuation of Table 4

	A great deal	Quite a lot	A great deal + quite a lot	N
Singapore	0.107	0.615	0.722	1,750
Taiwan ROC	0.126	0.589	0.715	1,207
Ethiopia	0.234	0.481	0.715	1,147
Great Britain	0.118	0.587	0.705	1,734
Sweden	0.117	0.584	0.701	1,160
Thailand	0.196	0.493	0.689	1,127
Andorra	0.088	0.601	0.689	994
Puerto Rico	0.344	0.335	0.679	1,113
Iceland	0.102	0.561	0.663	1,566
Estonia	0.090	0.571	0.661	1,115
Latvia	0.056	0.598	0.654	1,250
Kyrgyzstan	0.144	0.508	0.652	1,133
South Korea	0.057	0.591	0.648	1,245
Bangladesh	0.172	0.476	0.648	1,081
Zimbabwe	0.214	0.429	0.643	1,175
Germany	0.086	0.556	0.642	3,477
France	0.087	0.554	0.641	1,779
Switzerland	0.072	0.567	0.639	3,124
New Zealand	0.089	0.546	0.635	953
Ecuador	0.198	0.434	0.632	1,190
Brazil	0.173	0.454	0.627	1,575
Spain	0.131	0.494	0.625	1,159
Kenya	0.272	0.349	0.621	1,237
Canada	0.100	0.519	0.619	4,018
Portugal	0.071	0.548	0.619	1,107
Hong Kong SAR	0.085	0.533	0.618	2,057
Denmark	0.083	0.534	0.617	3,277
Austria	0.131	0.482	0.613	1,596
Lithuania	0.037	0.576	0.613	1,226
Belarus	0.110	0.502	0.612	1,366
Kazakhstan	0.159	0.452	0.611	1,193
Tajikistan	0.250	0.360	0.610	1,048
Slovakia	0.061	0.548	0.609	1,338

Continuation of Table 4

	A great deal	Quite a lot	A great deal + quite a lot	N
Maldives	0.191	0.414	0.605	1,025
Pakistan	0.224	0.378	0.602	1,734
Chile	0.178	0.423	0.601	971
Argentina	0.135	0.462	0.597	865
Italy	0.106	0.491	0.597	2,169
Australia	0.095	0.501	0.596	1,788
Norway	0.090	0.504	0.594	1,103
Cyprus	0.109	0.479	0.588	890
Azerbaijan	0.097	0.487	0.584	1,523
Nigeria	0.190	0.377	0.567	1,211
Turkey	0.088	0.472	0.560	2,285
Hungary	0.114	0.443	0.557	1,419
Nicaragua	0.253	0.304	0.557	1,200
United States	0.116	0.434	0.550	2,565
Finland	0.055	0.491	0.546	1,160
Japan	0.052	0.486	0.538	1,109
Russia	0.112	0.413	0.525	3,201
Netherlands	0.056	0.468	0.524	4,118
Slovenia	0.069	0.441	0.510	1,031
Georgia	0.113	0.386	0.499	2,035
Poland	0.077	0.400	0.477	1,207
Bolivia	0.164	0.302	0.466	1,950
Greece	0.046	0.420	0.466	1,134
Jordan	0.137	0.328	0.465	879
Colombia	0.226	0.234	0.460	1,520
Venezuela	0.092	0.366	0.458	1,190
Morocco	0.090	0.352	0.442	1,200
Peru	0.100	0.336	0.436	1,323
North Macedonia	0.085	0.349	0.434	1,060
Ukraine	0.046	0.387	0.433	2,520
Armenia	0.069	0.357	0.426	2,496
Mongolia	0.096	0.319	0.415	1,498
Bosnia and Herzegovina	0.075	0.326	0.401	1,673

Continuation of Table 4

	A great deal	Quite a lot	A great deal + quite a lot	N
Montenegro	0.061	0.338	0.399	958
Romania	0.096	0.302	0.398	2,562
Guatemala	0.093	0.281	0.374	1,229
Mexico	0.126	0.245	0.371	1,696
Tunisia	0.174	0.194	0.368	1,003
Croatia	0.048	0.309	0.357	1,426
Iraq	0.137	0.188	0.325	1,053
Albania	0.062	0.260	0.322	1,345
Serbia	0.059	0.262	0.321	2,373
Czechia	0.048	0.266	0.314	1,622
Libya	0.078	0.206	0.284	1,054
Bulgaria	0.025	0.253	0.278	1,359
Lebanon	0.063	0.159	0.222	1,164
Egypt	0.009	0.140	0.149	681

**Fig. 3.** Trust in the environmental movement

What is Trust? Results from the World Values Survey and European Values Survey

In our multivariate analyses, we first analyzed the different indicators of trust using a simple principal component analysis, which explains 51.144 % of the variance. Clearly, there are variables associated with distrust in democratic institutions, and there are variables associated with distrust in the army and religious institutions. Table 5 shows the factor loadings and Table 6 lists the countries of the world ranked by the absence of distrust in democratic institutions. Again, many countries in the Global South, particularly in East and South-East Asia, are at the top.

Table 5. The different dimensions of trust – principal component analysis from World Values Survey and European Values Survey data

	Distrust in democratic institutions	Distrust in the army and religious institutions
No Confidence: Churches	0.365	0.591
No Confidence: Armed Forces	0.523	0.633
No Confidence: the Press	0.619	-0.007
No Confidence: Labour Unions	0.654	-0.117
No Confidence: the Police	0.660	0.239
No Confidence: Parliament	0.795	-0.113
No Confidence: the Civil Services	0.753	-0.062
No Confidence: the Government	0.768	-0.015
No Confidence: the Political Parties	0.743	-0.150
No Confidence: Major Companies	0.618	-0.129
No Confidence: the Environmental Protection Movement	0.588	-0.286
No Confidence: Justice System/Courts	0.741	0.057
No Confidence: the United Nations	0.586	-0.270

Table 6. Factor scores of trust in the world system

Country (ISO 3166-1 Numeric code)	Distrust in democratic institutions	Distrust in the army and religious institutions
Vietnam	-1.278	0.305
Tajikistan	-1.208	-0.143
Philippines	-0.971	-0.137
Bangladesh	-0.916	-0.412

Continuation of Table 6

Country (ISO 3166-1 Numeric code)	Distrust in democratic institutions	Distrust in the army and religious institutions
Indonesia	-0.779	-0.593
Kazakhstan	-0.739	-0.081
Myanmar	-0.724	0.994
Azerbaijan	-0.715	-0.488
Singapore	-0.678	0.142
Norway	-0.629	0.283
Macau SAR	-0.602	0.536
Iran	-0.573	-0.624
Thailand	-0.508	0.389
Pakistan	-0.498	-0.899
Turkey	-0.485	-0.451
Sweden	-0.436	0.537
Denmark	-0.403	0.067
Malaysia	-0.398	-0.037
Ethiopia	-0.388	-0.364
Finland	-0.387	-0.319
Kenya	-0.277	0.082
New Zealand	-0.264	-0.017
Japan	-0.262	0.396
Switzerland	-0.234	0.509
Austria	-0.200	0.299
Hong Kong SAR	-0.190	0.397
Zimbabwe	-0.190	0.352
Kyrgyzstan	-0.186	0.049
Portugal	-0.174	-0.061
Nigeria	-0.174	0.042
Canada	-0.167	0.284
Taiwan ROC	-0.164	0.229
Estonia	-0.153	0.256
Belarus	-0.146	0.180
Lithuania	-0.137	-0.097
South Korea	-0.121	0.481
Germany	-0.097	0.452
Great Britain	-0.095	-0.009
Australia	-0.012	-0.015
Netherlands	-0.010	0.525
Slovakia	0.000	0.204

Continuation of Table 6

Country (ISO 3166-1 Numeric code)	Distrust in democratic institutions	Distrust in the army and religious institutions
Russia	0.007	-0.266
Latvia	0.010	0.090
Jordan	0.027	-1.458
France	0.038	0.071
Cyprus	0.062	-0.066
Georgia	0.087	-0.515
United States	0.094	-0.200
Italy	0.096	-0.037
Mongolia	0.123	0.601
Hungary	0.130	0.271
Spain	0.130	0.490
Maldives	0.133	-0.372
Montenegro	0.148	-0.137
Chile	0.239	0.522
Poland	0.270	-0.085
Ecuador	0.271	-0.232
Morocco	0.300	-0.271
Ukraine	0.330	-0.134
Brazil	0.331	-0.019
Armenia	0.343	-0.503
North Macedonia	0.369	-0.160
Romania	0.381	-0.544
Greece	0.384	-0.647
Puerto Rico	0.411	-0.147
Slovenia	0.441	0.407
Iraq	0.448	-0.702
Bosnia and Herzegovina	0.512	-0.078
Czechia	0.512	0.418
Lebanon	0.516	-0.898
Colombia	0.566	0.075
Argentina	0.578	0.404
Libya	0.601	-0.869
Bulgaria	0.603	0.340
Nicaragua	0.639	0.290
Tunisia	0.657	-0.609
Serbia	0.663	-0.256
Bolivia	0.668	0.395

Continuation of Table 6

Country (ISO 3166-1 Numeric code)	Distrust in democratic institutions	Distrust in the army and religious institutions
Albania	0.686	-0.168
Mexico	0.808	-0.138
Guatemala	0.822	0.045
Venezuela	0.845	0.290
Croatia	0.847	0.031
Peru	0.977	0.083

Results of the Global Factor Analysis

In the following, we will try to present our factor analytic model in the simplest possible terms. Table 7 shows the sample sizes and Table 8 the total explanatory power of the variables in the model (factor analytical communalities). For example, the share of variance explained by the lack of willingness to defend the country is 58.5 %, and the share of variance explained by the acceptance of political violence is 54.4 %. This means that about half of the total variance in these two measures is explained by our factor analytic model. Table 9 again shows how the 14 factors contribute to the explanation of the overall model. In accordance with the conventions of factor analysis, only those factors are listed that have a so-called mathematical eigenvalue greater than 1.0. Fig. 4 shows the important scree plots of these eigenvalues which, according to the conventions of factor analysis, guide researchers in the interpretation of the factor analysis results. The first six factors clearly deserve the most theoretical attention and are very clearly above a straight line from right to left, while the other factors line up in a straight line from factor 14 to factor 13 to factor 12 and so on.

In a way, our analysis confirms the importance of the view taken by the Harvard economist Alberto Alesina in his academic work (Alesina and Giuliano 2015; Alesina and La Ferrara 2000, 2002; Alesina *et al.* 2015). According to our analysis, trust and distrust are, as for Alesina, the most important dimension of the World Values Survey and the European Values Survey, and the factor distrust, with an Eigenvalue of 5.2, already explains 10.6 % of the variance of our overall model. According to the level of the eigenvalues and the explained proportion of the variance, the factor analytic dimension of secularism explains a further 8.0 % of the total variance and is well comparable with the analytical results presented by the American sociologist Ronald Inglehart. The third factor is support for social liberal democracy, which explains 6.6 % of the total variance.

The next factor is demoralization, which explains almost 5 % of the total variance, followed by acceptance of gender equality, which explains 4.1 % of the variance.

At this point, our readers will be asking how we have defined the individual factors of our analysis and how we have arrived at our results in the first place; the precise answer to this question can be found in Table 10. In any factor analytic presentation, such a table (the structure matrix from the Promax factor rotation) must be at the centre of the reflection.

Factor loadings greater than 0.5 are highlighted in Table 10, and the table shows, for example, that the response to the question whether politics is not important has a factor loading of 0.304 with the dimension we have called mistrust. It should be emphasized that any factor naming in factor analysis involves a certain degree of subjectivity. And Table 10 also answers the essential question of how the individual factors relate to the two key variables of our study, namely the environmental movement data. We would also like to mention for the specialists that the Kaiser-Meyer-Olkin test for the statistical quality of the model gave a very respectable value of 0.847. Table 11 shows the component correlations of the model and Table 12 the factor scores for the countries in our analysis.

Table 7. Sample size of the factor analysis

	N
Albania	927
Andorra	868
Argentina	434
Armenia	1,437
Australia	1,362
Austria	912
Azerbaijan	570
Bangladesh	803
Belarus	741
Bolivia	1,095
Bosnia and Herzegovina	1,158
Brazil	835
Bulgaria	543
Canada	3,997
Chile	521
China	2,532
Colombia	1,498
Croatia	901
Cyprus	256
Czechia	587
Denmark	1,516
Ecuador	878

Continuation of Table 7

	N
Egypt	424
Estonia	420
Ethiopia	750
Finland	917
France	1,164
Georgia	1,118
Germany	2,124
Great Britain	1,411
Greece	722
Guatemala	631
Hong Kong SAR	808
Hungary	942
Iceland	1,095
Indonesia	2,889
Iran	1,173
Iraq	828
Italy	917
Japan	266
Jordan	491
Kazakhstan	573
Kenya	880
Kyrgyzstan	744
Latvia	465
Lebanon	997
Libya	504
Lithuania	424
Macau SAR	688
Malaysia	1,292
Maldives	822
Mexico	1,413
Mongolia	1,225
Montenegro	642
Morocco	1,200
Myanmar	1,192
Netherlands	1,049
New Zealand	310
Nicaragua	929
Nigeria	938

Continuation of Table 7

	N
North Macedonia	518
Norway	927
Pakistan	1,030
Peru	942
Philippines	1,175
Poland	625
Portugal	595
Puerto Rico	899
Romania	1,343
Russia	1,547
Serbia	1,521
Singapore	1,354
Slovakia	847
Slovenia	683
South Korea	1,245
Spain	696
Sweden	885
Switzerland	2,436
Taiwan ROC	1,099
Tajikistan	797
Thailand	826
Tunisia	761
Ukraine	809
United States	2097
Venezuela	1173
Vietnam	1,006
Zimbabwe	1,027
Total	88,611

Table 8. Communalities of the Factor Analytical Model

	Extraction
Not important in life: Friends	0.548
Not important in life: Leisure time	0.550
Not important in life: Politics	0.503
Not important in life: Work	0.487
Not important in life: Religion	0.726
Feeling of unhappiness	0.669
State of health bad (subjective)	0.583

Continuation of Table 8

	Extraction
Satisfaction with your life	0.672
Important child qualities: hard work	0.503
Important child qualities: tolerance and respect for other people	0.319
Important child qualities: religious faith	0.569
Membership: Belonging to conservation, the environment, ecology, animal rights	0.341
Reject neighbours: People of a different race	0.737
Reject neighbours: Immigrants/foreign workers	0.738
Men do not make better political leaders than women do	0.704
University is not more important for a boy than for a girl	0.644
Men do not make better business executives than women do	0.752
Willingness to fight for country	0.585
We need larger income differences	0.620
Private vs state ownership of business	0.581
Competition good or harmful	0.473
No confidence: The Press	0.437
No confidence: Labour Unions	0.499
No confidence: Parliament	0.669
No confidence: The Civil Services	0.592
No confidence: The Political Parties	0.634
No confidence: Major Companies	0.481
No confidence: The Environmental Protection Movement	0.451
Democracy: Governments tax the rich and subsidize the poor	0.425
Democracy: Religious authorities interpret the laws.	0.448
Democracy: People choose their leaders in free elections.	0.594
Democracy: People receive state aid for unemployment.	0.490
Democracy: Civil rights protect people's liberty against oppression.	0.577
Democracy: Women have the same rights as men.	0.534
Democracy: The state makes people's incomes equal	0.582
Democracy: People obey their rulers	0.380
Never attend religious services	0.604
Justifiable: Claiming government benefits to which you are not entitled	0.470
Justifiable: Cheating on taxes	0.608
Justifiable: Someone accepting a bribe	0.656
Justifiable: Abortion	0.665
Justifiable: Divorce	0.617
Justifiable: Euthanasia	0.632
Justifiable: Suicide	0.552

Continuation of Table 8

	Extraction
Justifiable: Political violence	0.544
Justifiable: Death penalty	0.552
Gender: female	0.501
Year of birth	0.755
Highest educational level attained – Respondent: ISCED-code one digit	0.491

Table 9. Eigenvalues of the factor analytical model

	Eigenvalues	% of total variance	cumulated %
Distrust	5.187	10.586	10.586
Secularism	3.930	8.021	18.607
Support for socio-liberal democracy	3.234	6.599	25.206
Demoralization	2.391	4.880	30.086
Accepting Gender Equality	1.989	4.060	34.146
Unhappiness	1.629	3.324	37.470
Xenophobia & Racism	1.401	2.859	40.329
Social Isolation	1.353	2.761	43.091
Pro-Abortion	1.250	2.551	45.642
Rejecting the market economy	1.159	2.365	48.007
Pro Death Penalty	1.092	2.229	50.236
Upper-class rejection of egalitarianism	1.074	2.192	52.428
Younger generations	1.034	2.110	54.538
Lack of Resilience	1.020	2.082	56.620

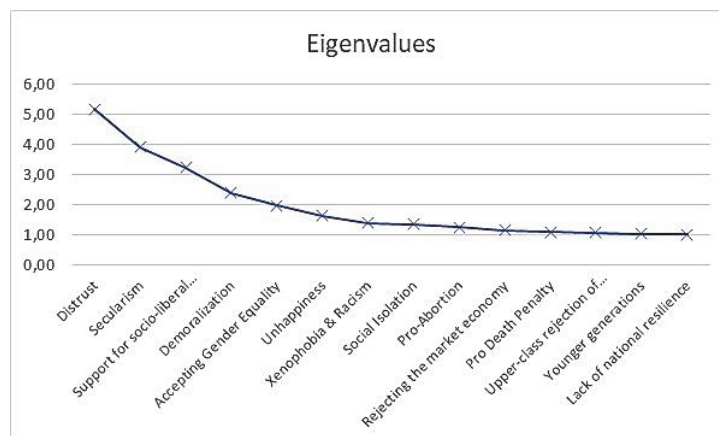
**Fig. 4.** Scree plot of the Eigenvalues

Table 10a. Factor loadings after promax factor rotation

	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Not important in life: Friends	0.088	-0.074	-0.079	0.024	-0.065	0.095	0.036
Not important in life: Leisure time	-0.020	-0.073	-0.030	0.022	-0.133	0.094	0.039
Not important in life: Politics	0.304	-0.042	-0.077	-0.148	0.064	-0.088	-0.019
Not important in life: Work	0.008	0.277	0.022	0.032	0.003	0.029	-0.072
Not important in life: Religion	0.020	0.815	0.133	0.064	0.262	0.028	-0.119
Feeling of unhappiness	0.131	0.047	0.005	0.022	-0.022	0.805	0.035
State of health bad (subjective)	0.075	-0.051	-0.034	0.001	-0.017	0.629	0.048
Satisfaction with your life	-0.105	0.043	0.087	-0.069	0.108	-0.789	-0.062
Important child qualities: hard work	0.000	-0.061	-0.015	0.013	-0.107	0.084	0.097
Important child qualities: tolerance and respect for other people	0.033	0.160	0.063	-0.091	0.257	-0.031	-0.143
Important child qualities: religious faith	0.023	-0.676	-0.092	-0.067	-0.214	-0.007	0.065
Membership: Belonging to conservation, the environment, ecology, animal rights	-0.099	-0.058	-0.039	0.233	-0.083	0.041	0.021
Reject neighbours: People of a different race	-0.050	-0.120	-0.049	0.055	-0.197	0.028	0.856
Reject neighbours: Immigrants/foreign workers	-0.009	-0.105	-0.071	0.040	-0.188	0.045	0.854
Men do not make better political leaders than women do	0.105	0.349	0.108	-0.051	0.828	-0.037	-0.207
University is not more important for a boy than for a girl	0.140	0.306	0.157	-0.116	0.793	-0.005	-0.193

Continuation of Table 10a

	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Men do not make better business executives than women do	0.107	0.318	0.107	-0.064	0.861	-0.036	-0.207
Willingness to fight for country	-0.103	-0.173	-0.002	-0.073	-0.118	-0.085	0.027
We need larger income differences	-0.004	-0.138	-0.026	-0.026	-0.074	-0.100	0.020
Private vs state ownership of business	-0.053	-0.140	0.049	0.022	-0.086	-0.027	0.050
Competition good or harmful	-0.013	-0.049	-0.118	0.181	-0.083	0.065	0.045
No confidence: The Press	0.652	0.059	-0.051	-0.076	0.139	0.056	-0.045
No confidence: Labour Unions	0.695	0.008	-0.098	-0.054	0.093	0.050	-0.035
No confidence: Parliament	0.808	-0.030	-0.104	-0.057	0.103	0.120	-0.049
No confidence: The Civil Services	0.762	-0.012	-0.130	0.000	0.084	0.102	-0.001
No confidence: The Political Parties	0.780	-0.002	-0.051	-0.093	0.165	0.096	-0.093
No confidence: Major Companies	0.643	0.117	-0.002	0.002	0.112	0.144	-0.019
No confidence: The Environmental Protection Movement	0.629	0.035	-0.100	-0.004	-0.021	0.094	0.040
Democracy: Governments tax the rich and subsidize the poor.	-0.090	-0.053	0.564	-0.002	-0.062	-0.017	-0.003
Democracy: Religious authorities interpret the laws.	-0.099	-0.541	0.005	0.132	-0.348	-0.075	0.129
Democracy: People choose their leaders in free elections.	-0.012	0.152	0.713	-0.178	0.187	-0.042	-0.111

Continuation of Table 10a

	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Democracy: People receive state aid for unemployment.	-0.077	0.065	0.669	-0.052	0.054	-0.001	-0.004
Democracy: Civil rights protect people's liberty against oppression.	-0.067	0.131	0.735	-0.114	0.113	-0.009	-0.086
Democracy: Women have the same rights as men.	-0.044	0.200	0.677	-0.169	0.280	-0.100	-0.101
Democracy: The state makes people's incomes equal	-0.130	-0.153	0.492	0.016	-0.124	-0.028	0.101
Democracy: People obey their rulers	-0.195	-0.370	0.292	-0.009	-0.241	-0.103	0.062
Never attend religious services	0.026	0.710	0.105	0.009	0.210	0.054	-0.057
Justifiable: Claiming government benefits to which you are not entitled	-0.034	-0.094	-0.117	0.596	-0.148	-0.003	0.074
Justifiable: Cheating on taxes	0.011	0.031	-0.095	0.751	-0.125	0.074	0.065
Justifiable: Someone accepting a bribe	-0.039	-0.003	-0.121	0.783	-0.131	0.060	0.079
Justifiable: Abortion	-0.009	0.678	0.225	0.324	0.365	0.039	-0.169
Justifiable: Divorce	0.077	0.600	0.239	0.218	0.407	0.022	-0.202
Justifiable: Euthanasia	-0.012	0.633	0.176	0.300	0.309	0.030	-0.163
Justifiable: Suicide	-0.051	0.481	0.097	0.519	0.193	0.073	-0.085
Justifiable: Political violence	-0.061	0.050	-0.101	0.711	-0.108	0.070	0.052
Justifiable: Death penalty	0.056	0.084	-0.014	0.206	-0.043	0.064	0.029

Continuation of Table 10a

	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Gender: female	-0.042	-0.117	-0.036	-0.105	0.307	-0.033	0.061
Year of birth	0.004	-0.106	-0.069	0.112	-0.049	-0.068	0.006
Highest educational level attained – Respondent: ISCED-code one digit	0.042	0.344	0.129	0.049	0.212	-0.003	-0.106

Table 10b. Factor loadings after promax factor rotation

	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Not important in life: Friends	0.692	-0.082	0.101	0.018	-0.087	0.015	-0.010
Not important in life: Leisure time	0.693	-0.129	0.070	-0.041	-0.088	-0.057	-0.047
Not important in life: Politics	0.476	-0.205	0.031	0.240	-0.238	0.248	0.280
Not important in life: Work	0.211	0.163	-0.113	0.090	0.103	-0.347	0.519
Not important in life: Religion	-0.066	0.324	-0.276	0.224	0.216	-0.159	0.298
Feeling of unhappiness	0.110	-0.032	0.004	0.038	-0.044	-0.081	0.054
State of health bad (subjective)	0.184	-0.110	0.146	0.053	-0.123	-0.393	0.027
Satisfaction with your life	-0.077	0.077	-0.032	0.014	0.095	-0.069	-0.021
Important child qualities: hard work	0.065	-0.541	0.054	-0.093	0.003	-0.026	-0.156
Important child qualities: tolerance and respect for other people	-0.078	0.419	-0.042	0.037	0.086	-0.134	-0.040
Important child qualities: religious faith	0.136	-0.144	0.156	-0.058	-0.151	0.174	-0.123

Continuation of Table 10b

	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Membership: Belonging to conservation, the environment, ecology, animal rights	-0.082	0.315	0.030	-0.238	0.159	0.039	-0.105
Reject neighbours: People of a different race	0.082	-0.169	0.120	-0.064	-0.116	0.031	-0.065
Reject neighbours: Immigrants/foreign workers	0.066	-0.158	0.107	0.000	-0.115	0.031	-0.038
Men do not make better political leaders than women do	-0.165	0.323	-0.214	0.101	0.188	-0.124	0.244
University is not more important for a boy than for a girl	-0.167	0.260	-0.263	0.141	0.246	-0.068	0.193
Men do not make better business executives than women do	-0.168	0.301	-0.200	0.119	0.188	-0.096	0.232
Willingness to fight for country	0.110	-0.121	0.078	-0.015	-0.027	0.022	-0.705
We need larger income differences	0.069	-0.147	0.110	0.056	0.494	-0.002	-0.143
Private vs state ownership of business	0.060	-0.117	0.678	-0.014	-0.077	0.027	-0.085
Competition good or harmful	0.037	0.041	0.569	-0.043	-0.161	0.084	0.094
No confidence: The Press	0.042	0.034	-0.088	0.096	0.076	0.041	0.084
No confidence: Labour Unions	0.096	-0.038	-0.099	0.036	0.083	-0.035	0.063
No confidence: Parliament	0.061	-0.011	-0.062	0.085	-0.003	0.107	0.117
No confidence: The Civil Services	0.068	-0.011	-0.024	0.029	-0.026	0.062	0.083

Continuation of Table 10b

	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
No confidence: The Political Parties	0.054	0.040	-0.112	0.116	0.032	0.082	0.131
No confidence: Major Companies	0.006	0.104	-0.005	-0.055	0.011	-0.073	0.093
No confidence: The Environmental Protection Movement	0.087	-0.099	-0.044	0.002	0.013	-0.121	0.034
Democracy: Governments tax the rich and subsidize the poor.	-0.014	-0.006	0.224	0.089	-0.272	0.028	-0.038
Democracy: Religious authorities interpret the laws.	0.187	-0.323	0.447	0.021	-0.424	0.289	-0.156
Democracy: People choose their leaders in free elections.	-0.096	0.139	-0.215	0.082	0.222	-0.124	0.031
Democracy: People receive state aid for unemployment.	-0.061	-0.041	0.071	0.035	-0.153	-0.023	0.015
Democracy: Civil rights protect people's liberty against oppression.	-0.082	0.105	-0.134	0.045	0.143	-0.044	0.016
Democracy: Women have the same rights as men.	-0.067	0.127	-0.164	0.102	0.161	-0.114	0.047
Democracy: The state makes people's incomes equal	0.089	-0.214	0.374	0.035	-0.548	0.211	-0.099
Democracy: People obey their rulers	0.156	-0.324	0.314	0.092	-0.332	0.212	-0.212
Never attend religious services	-0.100	0.208	-0.160	0.189	0.114	-0.105	0.192

Continuation of Table 10b

	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Justifiable: Claiming government benefits to which you are not entitled	0.089	-0.054	0.241	0.007	-0.166	0.173	-0.075
Justifiable: Cheating on taxes	-0.009	0.049	0.045	0.125	0.005	0.044	0.056
Justifiable: Someone accepting a bribe	-0.013	0.056	0.098	0.189	-0.047	0.067	0.063
Justifiable: Abortion	-0.376	0.637	-0.338	0.478	0.351	-0.248	0.366
Justifiable: Divorce	-0.349	0.603	-0.358	0.527	0.350	-0.199	0.362
Justifiable: Euthanasia	-0.302	0.565	-0.301	0.568	0.315	-0.261	0.296
Justifiable: Suicide	-0.277	0.558	-0.187	0.450	0.258	-0.172	0.294
Justifiable: Political violence	-0.042	0.137	0.073	0.308	-0.002	0.016	0.069
Justifiable: Death penalty	0.013	0.043	-0.041	0.670	0.048	-0.003	0.015
Gender: female	0.004	-0.046	0.241	0.178	-0.111	0.102	0.484
Year of birth	-0.008	-0.038	0.071	0.005	-0.035	0.831	-0.050
Highest educational level attained – Respondent: ISCED-code one digit	-0.263	0.327	-0.329	-0.052	0.568	0.137	0.176

Table 11a. Component correlations of the factor analytical model

Component	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Distrust	1.000	0.042	-0.119	-0.079	0.141	0.126	-0.049
Secularism	0.042	1.000	0.155	0.168	0.380	0.068	-0.175

Continuation of Table 11a

Component	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Support for socio-liberal democracy	-0.119	0.155	1.000	-0.072	0.140	-0.056	-0.084
Demoralization	-0.079	0.168	-0.072	1.000	-0.114	0.103	0.045
Accepting Gender Equality	0.141	0.380	0.140	-0.114	1.000	-0.034	-0.233
Unhappiness	0.126	0.068	-0.056	0.103	-0.034	1.000	0.044
Xenophobia & Racism	-0.049	-0.175	-0.084	0.045	-0.233	0.044	1.000
Social Isolation	0.096	-0.287	-0.119	-0.151	-0.218	0.033	0.085
Pro-Abortion	-0.001	0.560	0.115	0.282	0.361	0.039	-0.227
Rejecting the market economy	-0.110	-0.448	-0.030	0.037	-0.256	-0.016	0.173
Pro Death Penalty	0.054	0.264	0.162	0.240	0.209	-0.013	-0.080
Upper-class rejection of egalitarianism	0.038	0.415	0.003	0.073	0.256	0.008	-0.159
Younger generations	0.029	-0.304	-0.039	-0.005	-0.111	-0.160	0.063
Lack of Resilience	0.128	0.340	0.013	0.080	0.304	0.039	-0.083

Table 11b. Component correlations of the factor analytical model

	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Distrust	0.096	-0.001	-0.110	0.054	0.038	0.029	0.128
Secularism	-0.287	0.560	-0.448	0.264	0.415	-0.304	0.340
Support for socio-liberal democracy	-0.119	0.115	-0.030	0.162	0.003	-0.039	0.013
Demoralization	-0.151	0.282	0.037	0.240	0.073	-0.005	0.080
Accepting Gender Equality	-0.218	0.361	-0.256	0.209	0.256	-0.111	0.304
Unhappiness	0.033	0.039	-0.016	-0.013	0.008	-0.160	0.039

Continuation of Table 11b

	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Xenophobia & Racism	0.085	-0.227	0.173	-0.080	-0.159	0.063	-0.083
Social Isolation	1.000	-0.411	0.242	-0.062	-0.311	0.072	-0.038
Pro-Abortion	-0.411	1.000	-0.395	0.255	0.468	-0.244	0.292
Rejecting the market economy	0.242	-0.395	1.000	-0.064	-0.512	0.204	-0.149
Pro Death Penalty	-0.062	0.255	-0.064	1.000	0.025	-0.061	0.327
Upper-class rejection of egalitarianism	-0.311	0.468	-0.512	0.025	1.000	-0.259	0.095
Younger generations	0.072	-0.244	0.204	-0.061	-0.259	1.000	-0.077
Lack of Resilience	-0.038	0.292	-0.149	0.327	0.095	-0.077	1.000

Table 12a. Factor scores of the factor analytical model

Country	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Albania	0.957	-0.032	0.255	-0.766	0.604	0.272	-0.244
Andorra	0.096	0.796	0.570	-0.245	0.625	-0.289	-0.519
Azerbaijan	-0.476	0.116	0.034	-0.221	-0.431	0.424	0.414
Argentina	0.470	0.056	0.219	0.226	0.208	-0.290	-0.449
Australia	0.148	0.936	0.103	-0.081	0.746	-0.047	-0.476
Austria	-0.101	0.770	0.438	-0.081	0.625	-0.210	-0.118
Bangladesh	-0.813	-1.309	0.615	-0.431	-0.811	-0.287	0.516
Armenia	0.376	-0.385	-0.116	-0.249	-0.426	0.138	0.324
Bolivia	0.502	-0.623	-0.270	0.166	-0.010	-0.042	-0.308
Bosnia and Herzegovina	0.553	-0.226	0.123	-0.461	0.193	-0.165	0.260
Brazil	0.312	-0.289	-0.177	-0.105	0.216	-0.095	-0.513
Bulgaria	0.647	0.212	0.182	-0.360	0.061	0.345	0.727
Myanmar	-0.915	-0.997	0.223	-0.297	-0.997	-0.072	1.692
Belarus	-0.091	0.248	0.118	0.240	-0.372	0.207	0.284
Canada	-0.129	0.869	0.294	0.399	0.459	0.232	-0.407
Chile	0.121	0.188	-0.293	0.540	-0.076	-0.009	-0.385

Continuation of Table 12a

Country	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
China	-1.137	0.551	0.219	-0.341	-0.345	-0.108	0.195
Taiwan ROC	-0.121	0.261	0.143	-0.174	0.177	0.084	-0.142
Colombia	0.566	-0.485	-0.932	-0.005	-0.037	-0.461	-0.158
Croatia	0.841	0.174	0.182	-0.410	0.471	0.047	-0.131
Cyprus	0.301	-0.425	0.171	-0.532	0.227	0.020	0.019
Czechia	0.452	0.873	-0.429	0.150	-0.109	0.029	0.908
Denmark	-0.367	1.024	0.476	-0.197	0.728	-0.360	-0.502
Ecuador	0.343	-0.568	-0.722	0.186	0.000	-0.430	-0.291
Ethiopia	-0.316	-1.288	0.370	-0.435	-0.050	-0.005	-0.011
Estonia	-0.045	0.831	0.096	-0.258	0.209	0.086	0.051
Finland	-0.191	0.854	0.486	-0.128	0.640	-0.165	-0.324
France	0.118	0.889	-0.083	0.265	0.850	-0.081	-0.417
Georgia	0.189	-0.598	-0.274	-0.442	-0.221	0.395	0.467
Germany	-0.077	0.995	0.546	-0.112	0.652	0.103	-0.446
Greece	0.599	-0.135	0.430	-0.385	0.302	0.252	0.213
Guatemala	0.830	-0.536	-0.736	0.166	0.141	-0.221	0.185
Hong Kong SAR	-0.235	0.560	-0.195	-0.219	-0.022	0.331	-0.298
Hungary	0.175	0.359	0.085	-0.345	0.098	0.200	0.578
Iceland	-0.127	0.900	0.711	-0.205	0.874	-0.346	-0.504
Indonesia	-0.578	-1.393	-0.093	-0.044	-0.843	-0.339	-0.134
Iran	-0.439	-0.715	0.261	-0.030	-0.660	0.447	0.561
Iraq	0.519	-0.781	-0.010	0.368	-0.939	0.937	0.599
Italy	0.194	0.219	0.407	-0.137	0.401	0.095	-0.171
Japan	-0.110	0.853	0.056	-0.219	0.007	0.239	0.120
Kazakhstan	-0.685	-0.196	-0.172	0.382	-0.551	-0.065	-0.031
Jordan	0.481	-1.170	-0.147	-0.340	-0.783	-0.072	0.271
Kenya	-0.316	-0.788	-0.691	0.564	-0.081	0.201	-0.342
South Korea	-0.090	0.381	-0.161	0.181	-0.509	0.210	0.020
Kyrgyzstan	-0.188	-0.444	-0.174	-0.364	-0.947	-0.774	0.177
Lebanon	0.741	-0.475	-0.366	0.109	-0.105	0.173	0.614
Latvia	0.053	0.436	-0.111	-0.219	0.000	0.270	0.303
Libya	0.757	-1.041	-0.154	-0.411	-0.972	-0.450	0.035
Lithuania	-0.031	0.261	0.134	0.319	-0.159	0.320	0.427
Macau SAR	-0.603	0.615	-0.122	0.085	-0.220	0.245	0.762
Malaysia	-0.382	-0.684	-1.211	0.775	-0.520	0.168	0.273

Continuation of Table 12a

Country	Distrust	Secularism	Support for socio-liberal democracy	Demoralization	Accepting Gender Equality	Unhappiness	Xenophobia & Racism
Maldives	0.275	-1.183	-0.263	-0.670	-0.287	-0.089	0.179
Mexico	0.786	-0.311	-0.777	0.501	0.152	-0.514	-0.125
Mongolia	0.042	0.263	-0.655	0.884	-0.408	0.580	0.384
Montenegro	0.257	-0.487	-0.409	-0.398	-0.044	-0.227	0.736
Morocco	0.298	-0.821	0.150	0.492	-0.264	0.362	0.058
Netherlands	-0.092	1.194	0.278	0.123	0.594	-0.075	-0.301
New Zealand	-0.097	1.108	0.156	-0.058	0.649	-0.134	-0.528
Nicaragua	0.554	-0.681	-0.622	0.127	-0.142	-0.362	0.079
Nigeria	-0.322	-1.290	-0.209	-0.321	-0.995	0.280	-0.038
Norway	-0.502	0.910	0.515	-0.126	1.066	-0.336	-0.460
Pakistan	-0.541	-1.181	0.266	-0.234	-1.482	-0.458	0.248
Peru	0.913	-0.428	-0.304	-0.223	0.182	-0.185	-0.227
Philippines	-0.924	-0.885	-0.346	1.293	-0.596	-0.080	0.040
Poland	0.351	-0.118	0.107	-0.360	0.142	-0.087	-0.194
Portugal	-0.113	0.200	0.161	-0.356	0.344	0.052	-0.357
Puerto Rico	0.526	-0.464	0.131	-0.470	0.773	-0.447	-0.301
Romania	0.538	-0.507	0.132	-0.323	0.003	-0.101	0.152
Russia	0.006	0.347	0.260	0.553	-0.466	0.317	0.164
Serbia	0.746	0.148	-0.142	-0.044	0.190	0.264	0.465
Singapore	-0.579	0.040	-0.220	-0.265	0.029	-0.019	-0.336
Slovakia	-0.046	0.206	-0.342	0.555	-0.282	0.085	0.650
Vietnam	-1.263	0.172	0.336	0.725	-0.471	-0.494	1.237
Slovenia	0.377	0.714	0.081	-0.191	0.447	-0.047	0.077
Zimbabwe	-0.225	-1.104	0.077	-0.270	-0.128	1.132	-0.323
Spain	0.022	0.500	0.362	0.580	0.733	-0.110	-0.241
Sweden	-0.415	1.041	0.418	0.023	1.043	-0.193	-0.547
Switzerland	-0.168	0.948	0.418	0.065	0.634	-0.238	-0.447
Tajikistan	-1.109	-0.609	0.343	0.163	-1.047	-0.557	0.266
Thailand	-0.540	-0.303	-1.090	0.022	-0.507	0.175	0.661
Tunisia	0.758	-0.894	-0.175	-0.374	-0.392	0.628	0.165
Ukraine	0.218	0.150	0.286	0.381	-0.204	0.453	0.298
North Macedonia	0.420	-0.035	0.130	-0.461	0.065	-0.256	0.143
Egypt	1.077	-1.201	-0.055	-0.730	-1.040	0.556	-0.011
Great Britain	0.012	0.774	0.110	-0.129	0.512	-0.285	-0.471
United States	0.200	0.374	-0.107	0.124	0.345	0.151	-0.420
Venezuela	0.685	-0.309	-0.490	0.121	0.096	-0.073	-0.278

Table 12b. Factor scores of the factor analytical model

Country	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Albania	0.556	-0.455	-0.352	-0.270	-0.278	-0.045	-0.276
Andorra	-0.386	0.348	-0.448	0.474	0.177	-0.075	0.568
Azerbaijan	0.331	-0.763	0.183	-0.698	-0.356	0.199	-0.355
Argentina	0.013	-0.281	0.455	0.037	-0.490	0.144	0.019
Australia	-0.470	0.908	-0.673	0.437	0.897	-0.717	0.696
Austria	-0.612	0.864	-0.528	0.002	0.115	-0.528	0.542
Bangladesh	0.997	-0.733	0.476	0.002	-1.446	0.576	-0.610
Armenia	0.335	-0.746	0.114	-0.598	0.218	0.137	-0.376
Bolivia	0.708	-0.216	0.652	-0.222	-0.252	0.438	-0.509
Bosnia and Herzegovina	0.050	-0.319	0.157	-0.102	-0.562	0.122	0.341
Brazil	0.089	-0.168	-0.341	-0.098	-0.100	0.089	0.188
Bulgaria	-0.103	-0.345	-0.282	-0.044	0.512	-0.624	-0.158
Myanmar	0.752	-0.808	0.770	-0.391	-0.855	0.383	-0.769
Belarus	0.159	-0.432	-0.216	0.097	0.048	0.006	-0.099
Canada	-0.425	0.701	-0.462	0.396	0.508	-0.272	0.772
Chile	-0.103	0.216	0.148	0.071	-0.465	0.236	0.499
China	0.576	-0.782	0.297	-0.137	-0.548	-0.073	-0.480
Taiwan ROC	0.000	0.126	-0.175	0.541	0.360	-0.040	-0.142
Colombia	0.251	0.265	0.272	-0.216	-0.016	0.293	-0.240
Croatia	0.103	-0.115	-0.204	0.014	-0.190	-0.271	0.183
Cyprus	-0.228	-0.348	-0.375	-0.339	-0.284	-0.007	0.004
Czechia	-0.087	0.029	-0.481	0.469	0.244	-0.462	0.543
Denmark	-0.532	1.257	-0.752	0.385	0.596	-0.687	0.321
Ecuador	0.409	-0.005	0.402	-0.158	-0.289	0.430	-0.340
Ethiopia	0.261	-0.773	-0.004	-0.434	-0.373	1.037	-0.707
Estonia	-0.046	0.074	-0.433	0.334	0.312	-0.335	0.216
Finland	-0.527	0.965	-0.347	0.386	0.212	-0.562	0.181
France	-0.283	0.658	-0.204	0.725	-0.031	-0.363	0.185
Georgia	0.196	-0.803	0.065	-0.613	0.499	-0.200	-0.400
Germany	-0.642	0.989	-0.618	-0.060	0.667	-0.847	0.372
Greece	-0.279	-0.324	-0.380	-0.202	-0.023	-0.027	-0.128
Guatemala	0.051	-0.046	0.241	-0.145	0.256	0.558	-0.025
Hong Kong SAR	0.181	0.087	-0.111	0.022	0.224	-0.599	0.307
Hungary	-0.092	-0.139	-0.255	0.335	0.025	-0.342	0.296

Continuation of Table 12b

Country	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Iceland	-0.548	0.721	-0.505	0.112	0.220	-0.376	0.294
Indonesia	0.291	-0.440	0.790	-0.314	-0.513	0.521	-0.708
Iran	0.194	-0.425	0.360	0.130	-0.228	0.737	-0.366
Iraq	0.108	-0.233	0.677	-0.037	-0.962	0.722	-0.368
Italy	-0.255	0.277	-0.110	0.227	-0.217	-0.310	0.271
Japan	-0.364	0.604	-0.791	0.376	0.584	-0.758	0.798
Kazakhstan	0.182	-0.625	0.561	-0.300	-0.077	0.310	-0.087
Jordan	0.184	-0.417	0.177	0.077	-0.280	0.483	-0.664
Kenya	-0.182	-0.172	-0.233	-0.318	0.233	0.817	-0.357
South Korea	0.016	-0.201	0.206	-0.056	0.041	0.013	0.153
Kyrgyzstan	0.323	-1.069	0.735	-0.727	0.000	0.587	-0.445
Lebanon	0.015	-0.348	0.258	-0.388	-0.406	0.335	-0.113
Latvia	0.101	-0.221	-0.107	0.154	0.197	-0.214	0.301
Libya	0.153	-0.382	0.592	-0.477	-0.224	0.891	-0.687
Lithuania	0.137	-0.199	-0.239	0.206	-0.298	-0.138	0.636
Macau SAR	-0.116	-0.156	-0.096	-0.094	0.087	0.024	0.632
Malaysia	-0.046	0.174	0.349	0.195	-0.327	0.354	-0.134
Maldives	0.296	-0.514	0.047	0.860	-0.726	0.831	0.009
Mexico	0.179	-0.049	0.263	-0.114	-0.342	0.132	-0.143
Mongolia	0.103	-0.234	0.318	-0.077	0.222	0.291	0.081
Montenegro	-0.279	-0.458	0.409	-0.462	-0.567	0.087	-0.076
Morocco	0.099	-0.278	0.320	0.150	-0.437	0.385	-0.441
Netherlands	-0.688	1.277	-0.524	0.340	0.758	-0.655	0.645
New Zealand	-0.478	0.912	-0.929	0.298	1.063	-0.906	0.687
Nicaragua	0.338	-0.025	0.659	-0.561	-0.235	0.515	-0.297
Nigeria	-0.289	-0.674	0.424	-0.638	-0.076	0.682	-0.562
Norway	-0.748	0.988	-0.479	0.167	0.386	-0.457	-0.119
Pakistan	0.586	-0.697	0.737	-0.350	-0.735	0.629	-0.579
Peru	0.738	-0.319	0.189	-0.080	-0.307	0.356	-0.279
Philippines	0.255	-0.317	0.641	-0.057	-0.469	-0.102	-0.582
Poland	-0.158	-0.146	-0.180	0.010	0.582	-0.365	-0.252
Portugal	-0.065	-0.258	-0.087	-0.024	-0.474	-0.390	0.325
Puerto Rico	-0.007	0.081	-0.059	-0.212	0.372	0.023	0.120
Romania	0.269	-0.629	-0.120	-0.180	0.088	-0.034	0.199
Russia	0.138	-0.321	0.280	0.335	0.047	0.072	0.190

Continuation of Table 12b

Country	Social Isolation	Pro-Abortion	Rejecting the market economy	Pro Death Penalty	Upper-class rejection of egalitarianism	Younger generations	Lack of Resilience
Serbia	-0.165	-0.102	-0.171	-0.030	0.014	-0.007	0.375
Singapore	0.184	-0.028	-0.140	-0.015	0.384	-0.174	-0.018
Slovakia	-0.314	-0.295	-0.022	0.326	-0.287	-0.148	0.639
Vietnam	0.581	-0.407	0.266	0.459	-0.276	0.317	-0.410
Slovenia	-0.153	0.659	-0.427	0.486	0.188	-0.315	0.246
Zimbabwe	0.324	-0.671	0.422	-0.643	-0.425	0.393	-0.635
Spain	-0.466	0.451	0.157	0.515	-0.292	-0.176	0.462
Sweden	-0.925	1.324	-0.751	0.313	0.941	-0.810	-0.007
Switzerland	-0.489	1.086	-0.567	0.053	0.427	-0.477	0.332
Tajikistan	0.315	-0.782	0.865	-0.792	0.144	0.227	-0.552
Thailand	0.213	-0.228	0.516	-0.537	-0.222	-0.184	-0.307
Tunisia	0.162	-0.623	0.470	-0.236	-0.498	0.305	-0.630
Ukraine	0.101	-0.304	0.190	0.125	0.163	0.012	0.301
North Macedonia	-0.337	0.087	-0.232	-0.431	0.310	0.107	0.307
Egypt	0.641	-0.626	0.227	0.496	-0.304	0.452	-0.655
Great Britain	-0.390	0.644	-0.352	0.555	0.441	-0.693	0.391
United States	-0.234	0.434	-0.927	0.209	0.604	-0.177	0.357
Venezuela	0.338	-0.169	0.294	-0.037	-0.176	0.535	0.186

Our statistical analyses reveal some of the contradictions facing contemporary environmental movements in our conflict-prone world. While the factor loadings of belonging to a conservation, environmental, ecological and animal rights movement with resilience and opposition to the death penalty would be consistent with what one would expect from the late Ronald Inglehart's optimistic analysis of environmentalism as part of a value shift away from materialistic values towards enlightened, post-material values of highly developed societies with high levels of existential security, the factor loadings of belonging to a conservation, environmental, ecological and animal rights movement with values associated with demoralization, pro-abortion and upper-class rejection of egalitarianism show some of the contradictions and tendencies of decay that now characterize a good part of highly-industrialized Western countries. The link between trust in the environmental movement and support for social liberal democracy is encouraging, and our data also suggest that trust in the environmental movement is stronger among younger generations.

In terms of the contradictions between today's environmental movements and the political cultures of advanced Western democracies, it is also worth noting that social distrust and acceptance of gender equality are positively re-

lated, and that there are some interesting correlations of the ‘lack of resilience’ component, centred on the unwillingness to fight for one's country, with the following components, which tend to confirm conservative interpretations of global value change (Tausch, Heshmati, and Karoui 2014), highlighting the fact that there is also a significant decline in values in the leading Western countries:

Distrust	0.128
Secularism	0.340
Acceptance of gender equality	0.304
Pro-abortion	0.292
Pro-death penalty	0.327

In the following analysis, we attempted another factor analysis focusing on

• Membership: Belonging to conservation, the environment, ecology, animal rights;

- No confidence: The Environmental Protection Movement;
- Democracy: Governments tax the rich and subsidize the poor;
- Democracy: Religious authorities interpret the laws;
- Democracy: People choose their leaders in free elections;
- Democracy: People receive state aid for unemployment;
- Democracy: Civil rights protect people's liberty against oppression;
- Democracy: Women have the same rights as men;
- Democracy: The state makes people's incomes equal;
- Democracy: People obey their rulers;
- Gender;
- Year of birth;
- Highest educational level attained – Respondent: ISCED-code one digit

as a ‘microscopic close-up’ of the reality of environmental movements today. All statistical quality indicators, including the Bartlett test of sphericity, confirm the good and reliable statistical quality of our analysis, which explains 58.822 % of the total variance. For the sake of simplicity, we present only the structure matrix of the promax factor analysis, where all factors with an eigenvalue greater than 1.0 are reported in Table 13, and the country factor scores in Table 14. The results in Table 14 are indicated by the factor scores of factor 3, the environmental movement, with the civil societies of the following 20 countries at the top:

1. Indonesia;
2. Thailand;
3. Kenya;
4. Malaysia;
5. Philippines;
6. Colombia;
7. Ethiopia;
8. Puerto Rico;

9. Nicaragua;
10. Tajikistan;
11. Iran;
12. Zimbabwe;
13. Nigeria;
14. Switzerland;
15. Myanmar;
16. Taiwan ROC;
17. New Zealand;
18. Sweden;
19. United States;
20. Vietnam.

The other factor analysis results broadly confirm our earlier analyses, but we should emphasize very clearly that in the current world crisis there is a religious authoritarian redistributive trend that combines (factor loadings $>.400$)

- Democracy: Religious authorities interpret laws;
- Democracy: People obey their rulers;
- Democracy: The state equalizes people's incomes;
- Democracy: Governments tax the rich and subsidize the poor.

The civil societies that correspond to this factor are found especially in

1. Bangladesh;
2. Pakistan;
3. Myanmar;
4. Indonesia;
5. Ethiopia;
6. Vietnam;
7. Morocco;
8. Iraq;
9. Tajikistan;
10. Zimbabwe;
11. Jordan;
12. Libya;
13. Philippines;
14. Iran;
15. Nigeria;
16. Maldives;
17. Egypt;
18. Kazakhstan;
19. Argentina;
20. Tunisia.

Fig. 5 further highlights our research results.

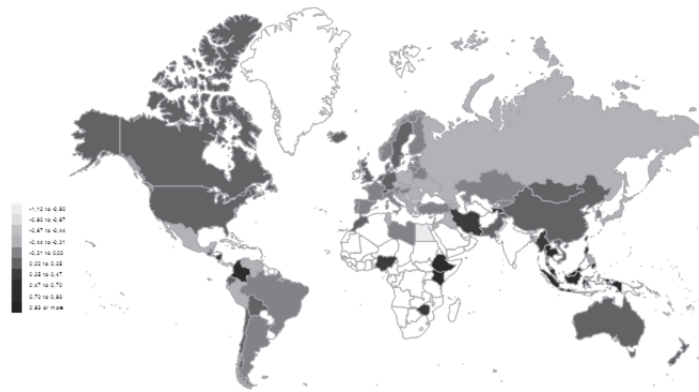


Fig. 5. Environmental protection movement

Table 13. Promax factor analysis of democracy, environmentalism, gender and generations

	Support of liberal democracy	Religious authoritarian current	Environmental protection movement	Elderly and high educated people	Female factor
Membership: Belonging to conservation, the environment, ecology, animal rights	-0.110	0.011	0.751	0.070	-0.155
No confidence: The Environmental Protection Movement	-0.110	-0.085	-0.740	-0.014	-0.175
Democracy: Governments tax the rich and subsidize the poor	0.459	0.477	0.025	-0.124	0.036
Democracy: Religious authorities interpret the laws	-0.212	0.710	0.038	0.009	0.049
Democracy: People choose their leaders in free elections	0.765	-0.024	-0.024	-0.003	-0.042
Democracy: People receive state aid for unemployment	0.650	0.285	-0.042	-0.142	0.099
Democracy: Civil rights protect people's liberty against oppression	0.754	0.089	0.025	0.028	-0.016
Democracy: Women have the same rights as men	0.740	-0.027	0.011	-0.016	0.058
Democracy: The state makes people's incomes equal	0.369	0.642	0.000	-0.095	0.154
Democracy: People obey their rulers	0.108	0.668	0.068	-0.019	-0.043
Sex	-0.003	0.016	0.007	-0.004	0.961
Year of birth	-0.151	0.193	0.071	0.800	0.052
Highest educational level attained – Respondent: ISCED-code one digit	0.192	-0.366	0.008	0.661	-0.097

Table 14. Factor scores of democracy, environmentalism, gender and generations

Country (ISO 3166-1 Numeric code)	Support of liberal democracy	Religious authoritarian current	Environmental protection movement	Elderly and high educated people	Female factor
Indonesia	-0.374	0.995	0.930	-0.131	-0.013
Thailand	-1.074	-0.113	0.824	-0.489	-0.064
Kenya	-0.848	0.098	0.778	0.709	-0.165
Malaysia	-1.473	0.370	0.585	0.162	0.009
Philippines	-0.568	0.672	0.505	-0.338	0.103
Colombia	-0.930	-0.247	0.481	0.142	-0.168
Ethiopia	0.158	0.888	0.476	0.208	-0.051
Puerto Rico	0.250	-0.283	0.384	-0.002	0.134
Nicaragua	-0.655	0.139	0.379	0.216	-0.010
Tajikistan	0.111	0.726	0.378	0.389	-0.067
Iran	0.110	0.661	0.317	0.397	0.040
Zimbabwe	-0.064	0.701	0.314	-0.021	-0.026
Nigeria	-0.389	0.609	0.300	0.203	-0.149
Switzerland	0.473	-0.512	0.276	-0.085	-0.079
Myanmar	0.080	1.005	0.269	-0.195	0.164
Taiwan ROC	0.219	-0.249	0.265	-0.026	-0.041
New Zealand	0.279	-0.884	0.244	-0.169	-0.112
Sweden	0.493	-0.677	0.231	-0.131	-0.172
United States	-0.037	-0.583	0.210	0.440	-0.316
Vietnam	0.060	0.872	0.185	0.135	0.266
Pakistan	-0.132	1.291	0.179	-0.020	-0.116
Ecuador	-0.730	0.025	0.169	0.124	0.000
Denmark	0.511	-0.515	0.169	-0.128	-0.084
Macao SAR	-0.026	-0.287	0.155	0.258	0.147
Chile	-0.309	0.112	0.143	0.013	-0.086
Iceland	0.679	-0.197	0.141	-0.093	-0.061
Australia	0.202	-0.796	0.139	-0.078	-0.020
Great Britain	0.156	-0.421	0.128	-0.230	0.007
Canada	0.288	-0.341	0.124	0.338	-0.149
China	0.302	0.237	0.122	-0.298	0.258
Hong Kong SAR	-0.087	-0.437	0.103	-0.350	0.006
Netherlands	0.351	-0.747	0.099	0.054	-0.173

Continuation of Table 14

Country (ISO 3166-1 Numeric code)	Support of liberal democracy	Religious authoritarian current	Environmental protection movement	Elderly and high educated people	Female factor
Bolivia	-0.337	0.291	0.085	0.240	-0.115
Germany	0.709	-0.787	0.043	-0.241	-0.031
Mongolia	-0.726	-0.080	0.038	0.647	-0.099
Cyprus	0.217	0.104	0.035	0.327	-0.102
Morocco	-0.155	0.808	0.033	0.037	0.013
Bangladesh	0.223	1.545	0.008	-0.160	0.107
Slovenia	0.234	-0.560	-0.004	-0.224	0.025
Maldives	-0.419	0.577	-0.008	0.170	0.057
Argentina	0.085	0.475	-0.039	-0.217	0.029
Kazakhstan	-0.191	0.484	-0.046	0.404	0.116
Andorra	0.558	-0.105	-0.057	-0.108	-0.021
France	-0.079	-0.278	-0.058	-0.300	0.020
Brazil	-0.103	-0.204	-0.069	-0.102	0.091
South Korea	-0.159	-0.058	-0.071	0.000	0.037
Finland	0.487	-0.238	-0.076	-0.187	-0.040
Norway	0.552	-0.387	-0.076	-0.015	-0.018
Kyrgyzstan	-0.160	0.372	-0.091	0.465	0.213
Austria	0.585	-0.524	-0.095	-0.383	0.176
Spain	0.215	0.189	-0.095	-0.452	0.116
Libya	-0.414	0.686	-0.117	0.573	-0.271
Estonia	0.319	-0.427	-0.123	-0.196	0.152
Latvia	-0.022	-0.331	-0.129	-0.009	0.254
Hungary	0.125	-0.159	-0.162	-0.206	0.057
Italy	0.383	0.134	-0.163	-0.484	0.051
Lithuania	0.297	-0.081	-0.185	-0.108	0.236
Portugal	0.121	0.093	-0.193	-0.681	0.193
Belarus	0.165	-0.053	-0.194	0.279	0.065
Turkey	-0.272	0.338	-0.194	-0.176	0.095
North Macedonia	0.174	-0.277	-0.217	0.151	-0.055
Mexico	-0.832	-0.037	-0.236	-0.102	-0.138
Slovakia	-0.258	-0.100	-0.238	-0.340	0.230
Azerbaijan	0.234	0.015	-0.266	0.047	0.046
Japan	0.250	-0.928	-0.266	-0.220	-0.120

Continuation of Table 14

Country (ISO 3166-1 Numeric code)	Support of liberal democracy	Religious authoritarian current	Environmental protection movement	Elderly and high educated people	Female factor
Czechia	-0.255	-0.760	-0.292	-0.171	-0.066
Peru	-0.355	0.164	-0.293	0.180	-0.098
Jordan	-0.366	0.700	-0.304	-0.054	-0.129
Russia	0.169	0.294	-0.311	0.260	0.090
Georgia	-0.148	-0.250	-0.319	-0.019	0.135
Tunisia	-0.332	0.395	-0.320	-0.223	0.011
Venezuela	-0.542	0.097	-0.322	0.252	0.005
Poland	0.223	-0.538	-0.331	-0.095	-0.070
Ukraine	0.358	0.108	-0.336	0.332	0.136
Greece	0.505	-0.105	-0.342	-0.443	-0.001
Romania	0.113	0.077	-0.367	-0.227	0.021
Armenia	-0.080	0.000	-0.397	0.211	0.055
Croatia	0.265	-0.314	-0.412	-0.211	0.091
Montenegro	-0.432	0.159	-0.415	-0.132	-0.028
Bosnia and Herzegovina	0.203	0.040	-0.428	-0.222	0.144
Iraq	-0.173	0.764	-0.434	0.085	-0.100
Serbia	-0.022	-0.374	-0.494	0.112	-0.032
Bulgaria	0.341	-0.645	-0.538	-0.316	-0.014
Lebanon	-0.350	0.145	-0.620	0.126	-0.079
Albania	0.507	-0.316	-0.628	-0.294	0.230
Egypt	-0.232	0.570	-0.895	0.189	-0.322

Perspectives and General Conclusions

Our analysis has revealed the following dramatic trends:

- 1) Environmentalism is increasingly part of the political reality of the global South, especially in East and Southeast Asia.
- 2) Environmentalism thrives in an atmosphere of trust.
- 3) The Arab world, the Orthodox world and the orbit of the European Union are (no longer) at the centre of the expansion of the environmental movement.
- 4) Some partial correlations (with the Human Development Index and its squared constant) with our macro-societal data support these claims.

Table 15. Partial correlations with the Factor Scores: 'Environmental protection movement'

HDI 2018 & HDI (2018) ²	Partial Corr Environmental Movement	Error <i>p</i>	df
Gallup poll about satisfaction: Education quality	0.809	<.001	77
Gallup poll about satisfaction: Health care quality	0.781	<.001	77
Gallup poll about satisfaction: Standard of living	0.759	<.001	77
Gallup poll about satisfaction: Efforts to deal with the poor	0.689	<.001	77
Gallup poll about satisfaction: Job	0.631	<.001	77
Gallup poll about satisfaction: Overall life satisfaction index	0.624	<.001	77
Gallup poll about satisfaction: Local labour market	0.603	<.001	77
Gallup poll about satisfaction: Freedom of choice	0.568	<.001	77
Distance to Belgium	0.514	<.001	76
Gallup poll about satisfaction: Trust in national government	0.400	<.001	74
Gender empowerment index value	0.399	0.003	51
Happy Planet Index, HPI	0.356	0.002	74
Share of Buddhists per total population	0.313	0.004	79
Share of Hindus per total population	0.308	0.005	79
DYN Human Development Index HDI 2010–2018	0.262	0.017	81
MENA countries	-0.240	0.029	81
EEA + EFTA	-0.308	0.006	76
Arab League	-0.324	0.003	81
Share of Orthodox Christians per total population	-0.355	0.001	79
Unemployment rate	-0.375	0.001	71
Total unemployment rate of immigrants (both sexes)	-0.522	<.001	76
Absolute latitude	-0.584	<.001	68

Fig. 6 finally draws the 'Kuznets Curve' of the Environmental Protection Movement and the Human Development Index:

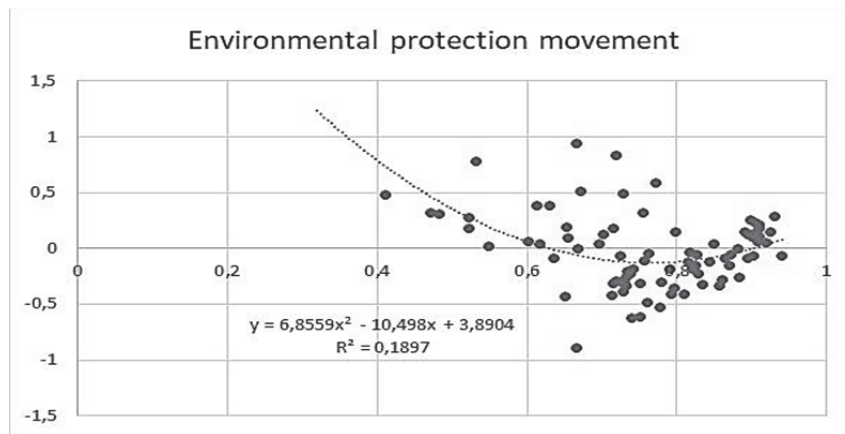


Fig. 6. The factor scores for 'Environmental Protection Movement' and the Human Development Index

Notes: x-axis: Human Development Index; y-axis: Factor Scores Environmental Protection Movement.

In the Appendix (see the Supporting Online Materials), we highlight the preferences for political parties in the world system and the strength of support for the Environmental Protection Movement.

References

- Abdi H. 2003.** Factor Rotations in Factor Analyses. *Encyclopedia for Research Methods for the Social Sciences* / Ed. by M. Lewis-Beck, A. Bryman, and T. Futing, pp. 792–795. Thousand Oaks, CA: SAGE.
- Abramson P., and Inglehart R. F. 2009.** *Value Change in Global Perspective*. University of Michigan Press.
- Alesina A., and Giuliano P. 2015.** Culture and Institutions. *Journal of Economic Literature* 53(4): 898–944.
- Alesina A., and La Ferrara E. L. 2000.** *The Determinants of Trust* (No. w7621). National bureau of economic research.
- Alesina A., and La Ferrara E. L. 2002.** Who Trusts Others? *Journal of Public Economics* 85(2): 207–234.
- Alesina A., Algan Y., Cahuc P., and Giuliano P. 2015.** Family Values and the Regulation of Labor. *Journal of the European Economic Association* 13(4): 599–630.
- Babones S. 2014.** *Methods for Quantitative Macro-Comparative Research*. Thousand Oaks, CA: Sage.
- Ballmer-Cao T. H., and Scheidegger J. 1979.** *Compendium of Data for World-System Analysis: A Sourcebook of Data Based on the Study of MNCs, Economic Policy and National Development*. Sociological Institute, University of Zurich.

- Basilevsky A. T. 2009.** *Statistical Factor Analysis and Related Methods: Theory and Applications*. Vol. 418. New York, NY: John Wiley & Sons.
- Bornschier V. 1980.** Multinational Corporations and Economic Growth: A Cross-National Test of the Decapitalization Thesis. *Journal of Development Economics* 7(2): 191–210.
- Bornschier V. 1980.** Multinational Corporations, Economic Policy and National Development in the World System. *International Social Science Journal* 32(1): 158–172.
- Bornschier V. 1983.** World Economy, Level Development and Income Distribution: An Integration of Different Approaches to the Explanation of Income Inequality. *World Development* 11(1): 11–20.
- Bornschier V., and Ballmer-Cao T. H. 1979.** Income Inequality: A Cross-National Study of the Relationships between MNC-Penetration, Dimensions of the Power Structure and Income Distribution. *American Sociological Review* 44: 487–506.
- Bornschier V., and Chase-Dunn C. 1985.** *Transnational Corporations and Underdevelopment*. New York: Frederic Praeger.
- Braithwaite V. A., and Law H. G. 1985.** Structure of Human Values: Testing the adequacy of the Rokeach Value Survey. *Journal of Personality and Social Psychology* 49(1): 250–263.
- Brand U. 2015.** Brave Green World: The Green Economy Myths. *Luxemburg Argumente* 3. URL: <https://www.rosalux.de/publication/38457/beautiful-green-world.html>.
- Brand U. 2023.** Structural Limits to a Green Economy. *International Sociological Association, & International Sociological Association Forum*. URL: <https://futureswewant.net/ulrich-brand-green-economy/>.
- Brand U., and Lang M. 2015.** Entry ‘Green Economy’. *Encyclopedia of Global Environmental Politics and Governance* / Ed. by Ph. Pattberg, and F. Zelli, pp. 461–469. Cheltenham: Edward Elgar.
- Brenner P. S. 2016.** Cross-National Trends in Religious Service Attendance. *Public Opinion Quarterly* 80(2): 563–583.
- Browne M. W. 2001.** An Overview of Analytic Rotation in Exploratory Factor Analysis. *Multivariate Behavioral Research* 36(1): 111–150.
- Clauß G., and Ebner H. 1970.** *Grundlagen der Statistik für Psychologen, Pädagogen und Soziologen*. Volk und Wissen Volkseigener Verlag.
- Davidov E., Schmidt P., and Schwartz S. H. 2008.** Bringing Values Back in: The Adequacy of the European Social Survey to Measure Values in 20 Countries. *Public Opinion Quarterly* 72(3): 420–445.
- Dinda S. 2004.** Environmental Kuznets Curve Hypothesis: A Survey. *Ecological Economics* 49(4): 431–455.
- Dunlap R., and York R. 2008.** The Globalization of Environmental Concern and the Limits of the Post-Materialist Values Explanation: Evidence from Four Multinational Surveys. *The Sociological Quarterly* 49(3): 529–563.
- Dutcher D., Finley J. C., Luloff A. E., and Johnson J. B. 2007.** Connectivity with Nature as a Measure of Environmental Values. *Environment and Behavior* 39(4): 474–493.

- Fabrigar L. R., Wegener D. T., MacCallum R. C., and Strahan E. J. 1999.** Evaluating the Use of Exploratory Factor Analysis in Psychological Research. *Psychological Methods* 4(3): 272–299.
- Finch H. 2006.** Comparison of the Performance of Varimax and Promax Rotations: Factor Structure Recovery for Dichotomous Items. *Journal of Educational Measurement* 43(1): 39–52.
- Franzen A., and Vogl D. 2013.** Two Decades of Measuring Environmental Attitudes: A Comparative Analysis of 33 Countries. *Global Environmental Change* 23(5): 1001–1008.
- Hedges L. V., and Olkin I. 2014.** *Statistical Methods for Meta-Analysis*. New York, NY: Academic Press.
- Hendrickson A. E., and White P. O. 1964.** Promax: A Quick Method for Rotation to Oblique Simple Structure. *British Journal of Statistical Psychology* 17: 65–70.
- Hofstede G., Hofstede G. J., and Minkov M. 2010.** *Cultures and Organizations: Software of the Mind*. Revised and expanded 3rd ed. New York: McGraw-Hill.
- Inglehart R. F. 2009.** Postmaterialist Values and the Shift from Survival to Self-Expression Values. *The Oxford Handbook of Political Behavior*. DOI: 10.1093/oxfordhb/9780199270125.003.0012
- Inglehart R. F. 2018.** *Culture Shift in Advanced Industrial Society*. Princeton University Press.
- Inglehart R. F. 2020.** *Religion's Sudden Decline: What's Causing It, and What Comes Next?* New York: Oxford University Press.
- Inglehart R. F., and Baker W. E. 2000.** Modernization, Cultural Change, and the Persistence of Traditional Values. *American Sociological Review* 65(1): 19–51.
- Jorgenson A. 2012.** Are the Economy and the Environment Decoupling? A Comparative International Study, 1960–2005. *The American Journal of Sociology* 118(1): 1–44.
- Kline P. 2014.** *An Easy Guide to Factor Analysis*. London: Routledge.
- Knippenberg H. 2015.** Secularization and Transformation of Religion in Post-War Europe. *The Changing World Religion Appendix Map* / Ed. by B. D. Stanley, pp. 2101–2127. N. p.: Springer Netherlands.
- Liddle B. 2014.** Impact of Population, Age Structure, and Urbanization on Carbon Emissions / Energy Consumption: Evidence from Macro-Level, Cross-Country Analyses. *Population and Environment* 35(3): 286–304.
- McDonald R. P. 2014.** *Factor Analysis and Related Methods*. Psychology Press.
- Morrison D. F. 1976.** *Multivariate Statistical Methods*. New York: McGraw-Hill.
- Mulaik S. A. 2009.** *Foundations of Factor Analysis*. CRC Press.
- Müller G. P., and Bornschier V. 1988.** *Comparative World Data: A Statistical Handbook for Social Science*. Baltimore: Johns Hopkins University Press.
- Schwartz S. H. 2009.** *Cultural Value Orientations: Nature & Implications of National Differences*. The Hebrew University of Jerusalem, Israel Science Foundation Grant

- No. 921/02. URL: <http://blogs.helsinki.fi/valuesandmorality/files/2009/09/Schwartz-Monograph-Cultural-Value-Orientations.pdf>.
- Schwartz S. H. 2014.** Rethinking the Concept and Measurement of Societal Culture in Light of Empirical Findings. *Journal of Cross-Cultural Psychology* 45(1): 5–13.
- Suhr D. 2012.** Exploratory Factor Analysis with the World Values Survey. *Proceedings of the SAS Global Forum 2012 Conference*. Orlando, FL.
- Tabachnick B. G., and Fidell L. S. 2001.** *Using Multivariate Statistics*. Needham Heights, MA: Allyn & Bacon.
- Tausch A. 2012.** *International Macroquantitative Data*. Faculty of Economics, Corvinus University of Budapest. URL: http://www.uni-corvinus.hu/index.php?id=47854&tx_ttnews%5Btt_news%5D=0&tx_ttnews%5BbackPid%5D=31638&tx_ttnews%5BcalendarYear%5D=2012&tx_ttnews%5BcalendarMonth%5D=6&cHash=af8ef6888f7c9922b83b113f71c1ca32.
- Tausch A. 2019.** Migration from the Muslim World to the West: Its Most Recent Trends and Effects. *Jewish Political Studies Review* 30(1–2): 65–225. URL: <http://jcpa.org/article/migration-from-the-muslim-world-to-the-west-its-most-recent-trends-and-effects/> (with data definitions and sources); URL: https://www.academia.edu/37568941/Migration_from_the_Muslim_World_to_the_West_Its_Most_Recent_Trends_and_Effects.
- Tausch A., and Heshmati A. 2012.** *Globalization, the Human Condition, and Sustainable Development in the Twenty-First Century: Cross-National Perspectives and European Implications*. London – New York – Delhi: Anthem Press. URL: https://www.academia.edu/35044095/Globalization_the_human_condition_and_sustainable_development_in_the_21st_Century_Cross-national_perspectives_and_European_implications_Codebook_and_EXCEL_data_file.
- Tausch A., Heshmati A., and Karoui H. 2014.** *The Political Algebra of Global Value Change: General Models and Implications for the Muslim World*. Hauppauge, N.Y.: Nova Science Publishers.
- Yeşilada B. A., and Noordijk P. 2010.** Changing Values in Turkey: Religiosity and Tolerance in Comparative Perspective. *Turkish Studies* 11(1): 9–27.