

## Indicators of Social Aspects of Sustainable Development in Selected Nationwide Databases

### Wskaźniki społecznego wymiaru zrównoważonego rozwoju w wybranych ogólnokrajowych bazach danych

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#### Abstract

The aim of the article is to present indicators of the social pillar of sustainable development used in databases that come from large nationwide social science surveys conducted consistently over decades. For this purpose, the following research projects were selected: the American General Social Survey (GSS), the British Social Attitudes (BSA), the German General Social Survey (ALLBUS), and the Polish General Social Survey (PGSS). A Human Wellbeing Index (HWI) developed by the World Conservation Union (IUCN) was adopted as a conceptual basis, in its version put forward by Robert Prescott-Allen. The article includes a compilation of indicators which describe selected aspects of the social pillar of sustainable development and which are used in all of the research projects mentioned.

**Key words:** sustainable development, indicators, Human Wellbeing Index, GSS, BSA, ALLBUS, PGSS

#### Streszczenie

Celem artykułu jest ukazanie wskaźników społecznego filaru zrównoważonego rozwoju, które stosowane są w bazach danych będących efektem prowadzenia dużych, ogólnokrajowych sondaży społecznych, realizowanych od dziesięcioleci. Dla ilustracji wybrano następujące projekty badawcze: amerykański General Social Survey (GSS), brytyjski British Social Attitudes (BSA), niemiecki German General Social Survey (ALLBUS) i polski Polish General Social Survey (PGSS). Za podstawę koncepcyjną przyjęto Human Wellbeing Index (HWI) wypracowany przez The World Conservation Union (IUCN), w wersji zaproponowanej przez Roberta Prescott-Allena. Artykuł zawiera zestawienie wskaźników niektórych aspektów społecznego filaru zrównoważonego rozwoju dostępnych w każdym z wymienionych projektów badawczych.

**Słowa kluczowe:** rozwój zrównoważony, wskaźniki, Human Wellbeing Index, GSS, BSA, ALLBUS, PGSS

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#### Introduction

Three pillars of sustainable development are commonly distinguished: environmental, economic, and social (Pawłowski, 2008). An extensive body of theoretical, methodological and research literature exists on the first two pillars, while the social dimension has been neglected in all these aspects. Methodological aspects that come into play when attempting to measure sustainability indicators by means of empirical studies are specific to each of the

three pillars, although some common points can be identified (e.g. the indicators of attitudes towards the natural environment, which combine the issues of environment protection and sociology).

The purpose of this article is to identify indicators of the social pillar of sustainable development that are used in large nationwide social science surveys designed for long-term continuous observation of the most important trends in demography, economy and sociology. This is done on the basis of the following research projects (the year in brackets refers to the

year when the collection of data was started): the GSS (1972), the ALLBUS (1980), the BSA (1983), and the PGSS (1992). The projects of this kind enable frequent and regular monitoring of key indicators connected with the social pillar of sustainable development. Obviously, it is not possible to have a large set of such indicators in cross-sectional social science surveys, which have their distinct goals. However, researchers of sustainable development can use them along with those of other disciplines, trying to find what can be learned from a wide variety of variables.

### Dimensions and elements of the social aspect of sustainable development

Indicators of the social pillar of sustainable development may theoretically constitute diverse and quite capacious sets. Hence, some way of ordering this potential diversity is necessary. To do so, it is crucial to conceptualise, and subsequently operationalise the concept of *social pillar of sustainable development*. At this point the conceptualization of the concept will be discussed, while the operationalisation will be dealt with in the section concerning indicators.

Theorists and practitioners of sustainable development now agree that it is necessary to develop synthetic measures that could be applied practically. One-number indicators should provide clear and accessible information on the progress made in implementing the policy of sustainable development, and serve as a source of information for continuous social control (Stanny, Czarnecki, 2011). Different attempts to describe and measure sustainable development have been made, one of them being the Common European Indicators of Sustainable Development, which were developed under the aegis of the European Commission, the European Environment Agency and the Expert Group and were empirically tested in 2001-2003. Worthy of mention is also the work of the United Nations Commission on Sustainable Development (CSD), which involved selecting and testing of 58 indicators, including the ones that describe the social dimension of sustainable development. The World Economic Forum put forward the Environmental Sustainability Index (ESI), which is a compilation of 68 indicators for 148 countries. Partial indicators were grouped into 5 components and 20 key indicators, including the social ones. A still different proposal is the Human Wellbeing Index (HWI). It was developed by the World Conservation Union (IUCN) and consists of 88 indicators for 180 countries. They are aggregated there into two sub-indexes – human wellbeing and ecosystem wellbeing. The first one is a collection of indicators related to population, health, wealth, knowledge, culture and justice, while the latter includes indicators concerning land, water, air, biodiversity, and resource use (Stanny, Czarnecki, 2011).

The HWI is a realistic measure of socio-economic conditions and covers many aspects of human wellbeing. It incorporates five dimensions (health and population, wealth, knowledge and culture, community, and equity), which can be further split into the following 10 elements (Prescott -Allen, 2001), presented in table 1.

Table 1. Dimensions and elements of the Human Wellbeing Index (Prescott-Allen, 2001)

Health	People enjoy long lives in good health
Population	while keeping their numbers within the bounds of human and natural resources.
Household wealth	Individuals and households have the material goods and income to secure basic needs and decent livelihoods,
National wealth	and the community has the resources to support enterprise and maintain prosperity.
Knowledge	People have the knowledge to innovate and cope with change, live well and sustainably, and fulfill their potential,
Culture	with avenues for spiritual growth, creativity; and self-expression.
Freedom and governance	Human rights are fully respected, and individuals are free to choose how decisions are made and who should make them. Decision-making bodies are open, clean, and effective
Peace and order	Communities coexist peacefully and protect their members from crime and violence.
Household equity	Benefits and burdens are shared fairly among households and groups
Gender equity	and between males and females.

### Databases

The GSS (General Social Survey) gathers data on contemporary American society in order to monitor and explain trends in attitudes, behaviours and attributes. It has been conducted since 1972. The GSS contains a standard core of demographic and behavioural questions, as well as topics of special importance for the functioning of modern society. Among the topics covered are: civil liberties, crime and violence, tolerance, morality, national spending priorities, social mobility, and many others. The GSS is one of the best sources of data on the attitudes and trends in the United States. It allows researchers to examine the structure and functioning of society as a whole, as well as the role played by subgroups, and to compare the United States with other nations. Its aim is to provide easy access to high quality data that can be used by researchers, students, policy makers, and others. The experience of the GSS serves other large research studies; for example, the ALLBUS (Die Allgemeine Bevölkerungsumfrage der Sozialwissenschaften), which has been conducted since 1980 to examine trends and consequences of social changes in Germany, or the PGSS (Polish General

Social Survey) conducted since 1992. Both the ALLBUS and PGSS are based on the GSS. The British Social Attitudes (BSA) survey began in 1983, and has been conducted every year since then, with the exception of the years 1988 and 1992<sup>1</sup>.

Research samples in these studies are highly representative for national populations, randomly selected, and consist usually of 1500-2500 respondents each year<sup>2</sup>.

### Indicators

The research projects mentioned above share many common features, also in regard to indicators of the social aspect of sustainable development. All of them include indicators of such elements as: health, household wealth, and knowledge. Some contain also indicators of peace and order, as well as those of gender equity. On the other hand, indicators of the following elements are not included: population and national wealth (these are available from official statistics), culture, freedom and governance, as well as household equity. So it is possible to obtain information on 3 to 6 elements from databases alone, or on 8 to 10 indicators from official statistics.

Each of the listed elements of the social aspect of sustainable development is represented in the databases by some indicators. The biggest number of indicators are available for household wealth and health (from 3 to 8). There are slightly fewer indicators for knowledge (from 3 to 5), and much fewer for peace and order, household equity, and gender equity (1-2).

Table 2. Number of indicators in a given research project

Measured element	Project (database)			
	GSS	ALLBUS	BSA	PGSS
Health	3	8	3	3
Household wealth	5	8	3	7
Knowledge	4	3	2	5
Peace and order	1	-	-	-
Household equity	2	-	-	-
Gender equity	1	-	-	1
Total	16	19	8	16

It should be emphasized that the indicators' scopes combined do not cover in full the scope of any element, even in the case of household wealth and

health, not to mention the remaining ones – in particular peace and order, household equity and gender equity. Hence, the choice of indicators is necessarily arbitrary. This is a drawback of using secondary rather than primary data. On the other hand, the information obtained in this way comes from nationwide surveys and covers a considerable period of time.

Below a list of indicators grouped by elements and databases is presented. Rather than referring to variable names or codes, relevant questions from questionnaires are given (some of them are slightly modified due to their original broader context).

#### Health:

#### GSS

- Would you say your health in general is excellent, good, fair, or poor?
- Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy, or not too happy?
- Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

#### ALLBUS

- How often did it occur during the past four weeks that, due to physical health problems, you accomplished less than you wanted to at work or in everyday tasks?
- How often did it occur during the past four weeks that, due to mental health or emotional problems, you accomplished less than you wanted to at work or in everyday tasks?
- Here we have a list of common illnesses. Please tell me which of these illnesses or health problems you have been suffering from for at least 12 months or which ones you suffer from chronically?
- If you think back on the past three months: for what reason or reasons have you seen a doctor in the past three months?
- In total, how often have you seen a doctor in the past three months?
- What about receiving in-patient treatment in hospital in the past twelve months? Have you been admitted to hospital for any over-

<sup>1</sup> The most up-to-date measuring tools that are available were used: the 2016 GSS, the 2015 BSA, the 2014 ALLBUS (a newer version is available in German, but the English translation comes from 2014), and the 2010 PGSS (there is no more recent version). The list of indicators was reconstructed on the basis of the tools mentioned above. This is important as the content of the databases changes

(slight as these changes are). For example, the 1992-1998 PGSS included an indicator for the peace and order element, which was the same as the one used in the GSS, but in the surveys from 2010, this indicator was no longer used.

<sup>2</sup> Only the basic information is provided here. More details on these projects are available on their websites.

night treatment once or several times in the past twelve months (excluding admission for reasons of childbirth)?

- In total, how many nights did you spend in hospital in the past twelve months?
- Do you smoke? If yes how many cigarettes or other tobacco products do you smoke per day?

#### BSA

- Do you have a long-standing physical or mental health condition or disability? By long-standing, I mean anything that has lasted at least 12 months or that is likely to last at least 12 months?
- Does this condition or disability have a substantial adverse effect on your ability to carry out normal day-to-day activities?
- Have you ever been told by a doctor or other health professional, that you personally have had one or other of the specific mental health problems?

#### PGSS

- Would you say your health in general is excellent, good, fair, or poor?
- Have you received in-patient treatment in hospital in the past twelve years ?
- Have you been incapable of carrying out your job or everyday tasks due to illness or injury in the past twelve months?

#### Household wealth:

#### GSS

- Compared with American families in general, would you say your family income is: far below average, below average, average, above average, or far above average?
- During the last few years, has your financial situation been getting better, getting worse, or has it stayed the same?
- In which of these income groups did your total family income, from all sources, fall last year before taxes?
- In which of income groups did your earnings all sources for 2015 fall? That is, before taxes or other deductions?
- We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not satisfied at all?

#### ALLBUS

- How high is your own net monthly income? By this I mean the amount remaining after

deductions for tax and social security contributions.

- How high is the total net monthly income of your household? By this I mean the amount remaining after deductions for tax and social security contributions.
- Would you say that your household's current total income is: very much lower than what you need, somewhat lower than what you need, roughly what you need, somewhat more than what you need, very much more than what you need?
- This is a list of sources of income a household may receive. Please specify all the sources of income that apply to your household.
- And which of these sources of income is the main source of income in your household?
- Just assuming you wanted to sell this property: How much money would you have left over roughly after paying off any debts you might have on your property. Please estimate as exactly as possible
- The next question deals with the accommodation you/your family live in. Which of the categories on the card applies to you/your family?
- How large is your flat/house approximately?

#### BSA

- Which is the main source of income for you (*and your spouse / partner*) at present?
- Which of the letters on this card represents the total income of your household from all sources before tax?
- Which of the letters on this card represents your own gross or total earnings, before deduction of income tax and national insurance?

#### PGSS

- Taking into account the last 12 months, what was your average monthly net income (earnings) from your current job?
- Compared with Polish families in general, would you say that your family's income is: far below average, slightly below average, average, slightly above average, or far above average?
- Taking into account the last 12 months, what was your household's monthly income from all sources? Please give the average monthly income after taxes.
- Do you think that the total income of your household compared to your needs is: very much lower than what you need, slightly lower than what you need, roughly what

you need, somewhat more than what you need, or well above than what you need?

- Please give some information about your housing. Under what terms are you living in your present flat/house?
- How big is your flat/house (in square meters)?
- How much money would you roughly have left after selling your flat/house and paying off any debts you might have on your property e.g. mortgage, loan?

Knowledge:

GSS

- Do you have any college degrees?
- What degree or degrees do you have?
- What is the highest degree you have earned?
- In what field was that degree?

ALLBUS

- What general school leaving certificate do you have?
- What vocational or professional training do you have?
- What type of university of applied sciences degree do you have? Please only tell me the highest qualification you have obtained.

BSA

- How old were you when you completed your continuous full-time education?
- Have you passed any of the examinations shown on this card?

PGSS

- What level of education have you completed until now?
- In what area (field, profession) did you get your education (at school/university)?
- Was it (or is it) a state, community, or private school/university?
- How many years in total did you spend at school (including university)? Please do not count years of study that you repeated, gap years and other breaks in your education, and skills improvement courses.
- What type of certificate, diploma, vocational or academic title did you receive at the end of your education?

Peace and order:

GSS

- Is there any area right around here – that is, within a mile – where you would be afraid to walk alone at night?

Household equity:

GSS

- Over the past five years, have you been discriminated against with regard to work, for instance when applying for a job, or when being considered for a pay increase or promotion?
- In your opinion, what was the main reason for the discrimination?

Gender equity:

GSS

- Is it much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family?

PGSS

- Should it be more important for a wife to provide such conditions that would facilitate developing successful professional career by her husband, or to develop her own professional career?

### Concluding remarks

In conclusion, let me present a few remarks of a more general nature. The first one concerns indicators. Indicators are very often, if not usually, selected on an arbitrary basis. This is also the case here. However, as Stefan Nowak writes, *from a range of indicators, we can often choose the one that suits us best to maximise a particular type of indicator*. When using ready databases, the choice of indicators is further limited to the variables that are available in a given survey. Therefore, the indicators selected are often narrower than their theoretical counterparts. However, indicators and their indicators are seldom equivalent in empirical studies, and it is often the case that *some phenomenon is treated as an indicator of a set of phenomena, of some syndrome understood in such a way that an indicator constitutes one of its elements* (Nowak, 2017). Hence, there is no choice but to accept this arbitrariness – at least in the secondary data.

Another issue concerns the sources of information. In the last years, there has been a growing tendency to use secondary research; analyses based on the data that come from large, nationwide surveys are becoming more popular, replacing primary research designed *from the scratch*. This approach seems to be a positive trend: although it involves sacrificing your own research ideas, it has considerable advantages: analyses are conducted on large random representative samples and advanced data analysis methods are employed. Moreover, large research projects are often carried out over many years, or even decades,

which enables to track trends over time. The disadvantage of this type of research is that it is (in many cases) limited to a few variables, those that are important for researchers in general and cross-sectional surveys.

Finally, the data for the environmental and economic pillars of sustainable development come mostly from official statistics or other desk research analyses. On the other hand, information for the social aspect must be obtained from empirical studies, with secondary data serving as a supplement (though often, quite a significant one). It is impossible to imagine the measurement of indicators of the social pillar without empirical social research, especially since datasets – unlike official statistics – are potentially dynamic. For example, apart from the information on household incomes that is obtained from them (this can be also obtained from reliable statistical documents), it is also possible to examine the factors influencing household income and how this affects other elements of the pillar. It is possible to develop multivariate models of dependency between variables, which no document can provide.

The following main conclusion can be formulated: if it is possible to collect a large amount of relatively reliable information (that also takes into account the dynamics of changes) on the environmental and economic pillars, then the social pillar requires information of the same type, i.e. reliable (derived from large samples of high representativeness) and presented over a period of time. Despite their obvious shortcomings connected with the incompleteness of the indicators we are interested in<sup>3</sup>, the importance of nationwide social science surveys carried out for decades, cannot be overestimated. However, what is necessary is the cooperation between sustainable development researchers, sociologists, demographers and economists responsible for the final set of varia-

bles. This cooperation could in time lead to increasing the number of indicators that are of interest to us.

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<sup>3</sup> Unfortunately, the ISSP Environment datasets which are of great value, are collected not frequently enough – only every 10 years. They contain much interesting data mainly

on social attitudes towards environmental protection and to a lesser degree, on the social pillar itself.