

Flash-EB 290 Feb 2010 ZA5223

Flash Eurobarometer 290
February 2010

Attitudes of Europeans towards the issue
of biodiversity (wave 2)

Basic questionnaire

The GALLUP Organization

FLASH 290 - BIODIVERSITY

Q1. Have you ever heard the term “biodiversity”?

[ONLY ONE ANSWER POSSIBLE]

- I've heard of it and I know what it means 1
- I've heard of it but I do not know what it means 2
- I have never heard of it 3
- [DK/NA] 9

[INTERVIEWER READ OUT:]

“**Biological diversity - or biodiversity - is the term given to the variety of life on Earth (like plants, animals, oceans etc) which forms the web of life of which we are an integral part...**”

Q1. Avez-vous entendu parler du terme “biodiversité” ?

[UNE SEULE REPONSE POSSIBLE]

- Je l'ai déjà entendu et je sais ce que cela signifie 1
- Je l'ai déjà entendu mais je ne sais pas ce que cela signifie 2
- Je ne l'ai jamais entendu 3
- [NSP/SR] 9

[ENQUETEUR LIRE:]

“**Diversité biologique - ou biodiversité - est le terme qui désigne la variété de la vie sur Terre (comme les plantes, les animaux, les océans, etc), qui forme la trame de la vie dont nous sommes partie intégrante ...**”

Q2. Can you please tell me what the phrase “loss of biodiversity” means to you?
[DO NOT READ OUT, JUST CODE, MULTIPLE ANSWERS ALLOWED]

- Decline in natural habitats/less variety/-in general01
- Forests will disappear /decline02
- Certain animals and plants are disappearing/ will disappear03
- Certain animals and plants are/will become endangered.....04
- Loss of natural heritage like nature parks/endemic species/ natural landscapes, basically the natural environment that you can relate to in your country.....05
- Change of the climate.....06
- Problems with the clean air, water / CO2 emissions.....07
- Problems for the economy / Loss of material wealth ..08
- Less opportunities for tourism09
- Loss of potential for producing medicines, food and fuel.....10
- Problems in my garden.....11
- Don't care about this issue12
- Others13
Please specify:.....
- [DK/NA].....99

Q2. Pouvez-vous me dire ce que l'expression “perte de la biodiversité” signifie pour vous ?
[NE PAS LIRE, SIMPLEMENT CODER, PLUSIEURS REPONSES POSSIBLES]

- Diminution des habitats naturels/moins de variétés/-en général01
- Les forêts vont disparaître / diminution02
- Certains animaux et plantes sont en train de disparaître / vont disparaître03
- Certains animaux et plantes sont/vont être menacés04
- Perte du patrimoine naturel, comme les parcs naturels / les espèces endémiques /les paysages naturels, en gros, ce que vous désignez par environnement naturel dans votre pays.....05
- Changement du climat06
- Problèmes avec les gaz épurés, l'eau / les émissions de CO2.....07
- Problèmes pour l'économie / Perte de la richesse matérielle ..08
- Moins de possibilités pour le tourisme09
- Perte de potentiel pour la production des médicaments, des aliments et de carburant.....10
- Problèmes dans mon jardin11
- Ne se soucie pas de cette question12
- Autres.....13
Merci de préciser:
- [NSP/SR]99

Q3. How informed do you feel about the loss of biodiversity?

[ONLY ONE ANSWER POSSIBLE]

- Very well informed 4
- Well informed 3
- Not well informed 2
- Not informed at all 1
- [DK/NA] 9

Q4. I will read some statements to you why it can be important to halt the loss of biodiversity, and please tell me how much do you agree or disagree with them:

[ONE ANSWER PER LINE]

- Very much agree 4
 - Rather agree 3
 - Rather disagree 2
 - Very much disagree 1
 - [DK/NA] 9
- A. It is a moral obligation – because we have a responsibility to look after nature 1 2 3 4 9
- B. Our well being and quality of life is based upon nature & biodiversity as it provides pleasure and recreation 1 2 3 4 9
- C. Biodiversity is indispensable for the production of goods such as food, fuel and medicines 1 2 3 4 9
- D. Europe will get poorer economically as a consequence of the loss of biodiversity 1 2 3 4 9
- E. Biodiversity is essential to tackling climate change 1 2 3 4 9

Q3. Dans quelle mesure avez-vous le sentiment d'être informé sur la perte de la biodiversité ?

[UNE SEULE REPONSE POSSIBLE]

- Très bien informé 4
- Bien informé 3
- Pas bien informé 2
- Pas du tout informé 1
- [NSP/SR] 9

Q4. Je vais vous lire certaines déclarations concernant la raison pour laquelle il peut être important de mettre fin à la perte de la biodiversité. Veuillez me dire dans quelle mesure vous êtes d'accord ou non avec celles-ci:

[UNE SEULE REPONSE PAR LIGNE]

- Tout à fait d'accord 4
 - Plutôt d'accord 3
 - Plutôt pas d'accord 2
 - Pas du tout d'accord 1
 - [NSP/SR] 9
- A. C'est une obligation morale, parce que nous avons une responsabilité de prendre soin de la nature 1 2 3 4 9
- B. Notre bien-être et notre qualité de vie est basé sur la nature et la biodiversité en tant que fournisseur de plaisir et de loisirs 1 2 3 4 9
- C. La biodiversité est indispensable pour la production de marchandises tels que les aliments, le carburant et les médicaments 1 2 3 4 9
- D. L'Europe sera plus pauvre économiquement en conséquence de la perte de la biodiversité 1 2 3 4 9
- E. La biodiversité est essentielle pour combattre le changement climatique 1 2 3 4 9

Q5. How serious is the decline and possible extinction of animal species, flora and fauna, natural habitats and ecosystems in your [COUNTRY]? It is a...?

And how serious is the problem in Europe? It is a..?

Finally, how serious is the problem globally? It is a..?

[ONE ANSWER PER LINE]

- Very serious problem 4
- A fairly serious problem..... 3
- Not a serious problem or..... 2
- Not a problem at all..... 1
- [DK/NA]..... 9

A. In your country?..... 1 2 3 4 9

B. In Europe?..... 1 2 3 4 9

C. And globally?..... 1 2 3 4 9

Q6. Do you think that the decline and possible extinction of animal species, flora and fauna, will have an impact on you personally?

[ONLY ONE ANSWER POSSIBLE]

- Yes, I am already affected by the loss of biodiversity..... 1
- Yes, it will have an effect on me, but not now, later
on..... 2
- No, not on me personally but on my children..... 3
- No, it will not have an effect 4
- [DK/NA]..... 9

Q5. Dans quelle mesure la diminution et la possible disparition d'espèces animales, de la flore et de la faune, des habitats naturels et des écosystèmes en [PAYS] est-elle sérieuse? Est-ce ...?

Et quelle est la gravité du problème en Europe ? Est-ce... ?

Pour terminer, quelle est la gravité du problème à l'échelle planétaire ? Est-ce... ?

[UNE SEULE REPONSE PAR LIGNE]

- Un problème très grave 4
- Un problème assez grave 3
- Pas un problème grave ou 2
- Pas un problème du tout..... 1
- [NSP/SR] 9

A. Dans votre pays ?..... 1 2 3 4 9

B. En Europe ?..... 1 2 3 4 9

C. Et à l'échelle mondiale ? 1 2 3 4 9

Q6. Pensez-vous que la diminution et la disparition éventuelle des espèces animales, de la flore et de la faune, auront un impact sur vous personnellement ?

[UNE SEULE REPONSE POSSIBLE]

- Oui, je suis déjà affecté par la perte de la biodiversité..... 1
- Oui, cela aura un effet sur moi, mais pas maintenant, plus tard..... 2
- Non, pas sur moi personnellement mais sur mes enfants 3
- Non, cela n'aura pas d'effet 4
- [NSP/SR] 9

Q7 I will read out a list to you. Please tell me, from the following list, what threatens biodiversity the MOST?

[READ OUT – ROTATE – ONE ANSWER ONLY]

- Intensive farming, deforestation and over-fishing 1
- Pollution of air / water (seas, rivers, lakes, etc.) 2
- Man made disasters (e.g. oil spills, industrial accidents, etc.) 3
- Plants and animals introduced into our ecosystems (that are not normally found in a region or country) 4
- Climate change 5
- Land use change and development (e.g. roads, housing, industry, conversion of natural areas into farmland etc.) 6
- [Others] 7
- [DK/NA] 9

Q7. Je vais vous lire une liste. Veuillez me dire, parmi la liste suivante, ce qui menace le PLUS la biodiversité ?

[LIRE – FAIRE UNE ROTATION – UNE SEULE REPONSE POSSIBLE]

- Agriculture intensive, déforestation et sur-pêche 1
- Pollution de l'air / eau (mers, rivières, lacs, etc.) 2
- Catastrophes causées par l'homme (ex : marées noires, accidents industriels, etc.) 3
- Plantes et animaux introduits dans nos écosystèmes (qui ne sont pas normalement présents dans une région ou un pays) 4
- Changement climatique 5
- Changement et développement de l'utilisation des sols (ex : routes, logements, industrie, conversion des espaces naturels en terres agricoles, etc.) 6
- [Autres] 7
- [NSP/SR] 9

Q8. What measure to protect biodiversity should the European Union take as a priority?

[READ OUT – ROTATE – ONE ANSWER ONLY]

- Increase the areas where nature is protected in Europe 1
- Create financial rewards (e.g. for farmers) for nature conservation 2
- Introduce stricter regulation for economic sectors that impact nature 3
- Allocate more financial resources to nature protection in Europe 4
- Promote research on the impact of biodiversity loss 5
- Better inform citizens about the importance of biodiversity 6
- [Other] 7
- [None] 8
- [DK/NA] 9

Q8. Quelle mesure devrait prendre en priorité l'Union Européenne pour protéger la biodiversité ?

[LIRE – FAIRE UNE ROTATION – UNE SEULE REPONSE POSSIBLE]

- Augmenter les zones où la nature est protégée en Europe 1
- Créer des récompenses financières (par exemple pour les agriculteurs) pour la conservation de la nature 2
- Introduire une réglementation plus stricte pour les secteurs économiques qui ont un impact sur la nature 3
- Allouer davantage de ressources financières pour la protection de la nature en Europe 4
- Promouvoir la recherche sur l'impact de la perte de la biodiversité 5
- Mieux informer les citoyens sur l'importance de la biodiversité 6
- [Autre] 7
- [Aucune] 8
- [NSP/SR] 9

Q9. Have you heard of the Natura 2000 network?

[ONLY ONE ANSWER POSSIBLE]

- I've heard of it and I know what it is 1
- I've heard of it but I do not know what it is 2
- I have never heard of it 3
- [DK/NA] 9

Q9. Avez-vous entendu parler du réseau Natura 2000 ?

[UNE SEULE REPONSE POSSIBLE]

- J'en ai entendu parler et je sais ce que c'est 1
- J'en ai entendu parler mais je ne sais pas ce que c'est 2
- Je ne l'ai jamais entendu 3
- [NSP/SR] 9

Q10. What do you think are the two most important roles of nature protection areas, such as those included in Natura 2000 - Europe's largest network of nature protection areas?

[READ OUT– ROTATE– TWO ANSWERS POSSIBLE]

- To protect endangered animals and plants.....1
- To stop the destruction of valuable areas – land and sea.....2
- Promote nature-friendly land-use,3
- To stimulate eco-tourism and recreational opportunities,4
- To safeguard nature's role in providing clean air and water,5
- [Other],7
- [None of these],8
- [DK/NA],9

Q11. Sometimes economic development results in damage or destruction of nature protection areas, such as Natura 2000 sites.

Which of the following statements comes closest to your opinion?

[ONLY ONE ANSWER POSSIBLE]

- This is acceptable because economic development takes precedence.....1
- This should be prohibited because these are our most important nature areas,2
- This is only acceptable for developments of major public interest and if damage is fully compensated for,3
- [DK/NA],9

Q10. Selon vous, quels sont les deux rôles les plus importants au niveau des zones naturelles protégées, tels que ceux inclus dans Natura 2000 - le plus grand réseau européen de zones naturelles protégées ?

[LIRE– FAIRE UNE ROTATION– DEUX REPONSES POSSIBLES]

- Protéger les animaux et les plantes menacés.....1
- Arrêter la destruction des zones précieuses - terre et mer,2
- Promouvoir l'utilisation du sol respectueuse de la nature.....3
- Stimuler l'éco-tourisme et les opportunités de loisirs,4
- Pour préserver le rôle de la nature en tant que fournisseur d'air et d'eau purs.....5
- [Autre],7
- [Aucun de ceux-ci],8
- [NSP/SR],9

Q11. Parfois, le développement économique engendre des dommages ou la destruction de zones naturelles protégées, tels que les sites Natura 2000.

Laquelle des affirmations suivantes est la plus proche de ce que vous pensez ?

[UNE SEULE REPONSE POSSIBLE]

- Ceci est acceptable parce que le développement économique est prioritaire,1
- Cela devrait être interdit parce que ce sont nos zones naturelles les plus importantes.....2
- Ce n'est acceptable que pour des développements d'intérêt public majeurs et si les dommages sont totalement indemnisés,3
- [NSP/SR],9

Q12. Would you say that you personally make an effort to protect biodiversity?
[ONLY ONE ANSWER POSSIBLE]

- Yes, I do 1
- Yes, but I would like to do even more 2
- No, because I do not know what to do..... 3
- No, for other reasons 4
- [Other] 8
- [DK/NA]..... 9

D1. Gender

[DO NOT ASK - MARK APPROPRIATE]

- [1] Male
- [2] Female

D2. How old are you?

- [__][__] years old
- [00] [REFUSAL/NO ANSWER]

D3. How old were you when you stopped full-time education?

[Write in THE AGE WHEN EDUCATION WAS TERMINATED]

- [__][__] years old
- [99] [REFUSAL/NO ANSWER]
- [01] [NEVER BEEN IN FULL TIME EDUCATION]
- [00] [STILL IN FULL TIME EDUCATION]

Q12. Diriez-vous que vous faites personnellement un effort pour protéger la biodiversité ?
[UNE SEULE REPONSE POSSIBLE]

- Oui, je le fais..... 1
- Oui mais je souhaiterais en faire plus 2
- Non, parce que je ne sais pas quoi faire 3
- Non, pour d'autres raisons..... 4
- [Autre] 8
- [NSP/SR] 9

D1. Sexe

[NE PAS DEMANDER - NOTER COMME APPROPRIE]

- [1] Homme
- [2] Femme

D2. Quel âge avez-vous?

- [__][__] ans
- [00] [REFUS/PAS DE REPONSE]

D3. Quel âge aviez-vous quand vous avez terminé vos études à temps plein?

[Noter l'âge de fin d'études]

- [__][__] ans
- [99] [REFUS/PAS DE REPONSE]
- [01] [Jamais suivi des études à temps plein]
- [00] [Toujours en train de poursuivre des études à temps plein]

| | |
|---|---|
| D4. | As far as your current occupation is concerned, would you say you are self-employed, an employee, a manual worker or would you say that you are without a professional activity? Does it mean that you are a(n)... |
| <i>[IF A RESPONSE TO THE MAIN CATEGORY IS GIVEN, READ OUT THE RESPECTIVE SUB-CATEGORIES]</i> | |
| - Self-employed | |
| → i.e. : - farmer, forester, fisherman11 - owner of a shop, craftsman12 - professional (lawyer, medical practitioner, accountant, architect,...)13 - manager of a company14 - other15 | |
| - Employee | |
| → i.e. : - professional (employed doctor, lawyer, accountant, architect)21 - general management, director or top management22 - middle management23 - Civil servant24 - office clerk25 - other employee (salesman, nurse, etc...)26 - other27 | |
| - Manual worker | |
| → i.e. : - supervisor / foreman (team manager, etc...)31 - Manual worker32 - unskilled manual worker33 - other34 | |
| - Without a professional activity | |
| → i.e. : - looking after the home41 - student (full time)42 - retired43 - seeking a job44 - other45 | |
| - [Refusal]99 | |

| | |
|--|---|
| D4. | Concernant votre emploi actuel, êtes vous indépendant, employé, ouvrier ou sans activité professionnelle? Cela veut-il dire que vous êtes un(une)... |
| <i>[SI UNE REPONSE EST DONNEE A LA CATEGORIE PRINCIPALE, LIRE LES SOUS CATEGORIES RESPECTIVES]</i> | |
| - profession libérale/ indépendant | |
| → i.e. : - agriculteur, sylviculteur, pêcheur11 - commerçant, artisan12 - profession libérale (avocat, médecin, comptable, architecte,...)13 - Dirigeant d'entreprise14 - Autre15 | |
| - Employé (e) | |
| → i.e. : - Cadre employé (médecin sous convention, avocat, comptable, architecte)21 - Direction générale, directeur ou direction supérieure22 - Cadre moyen23 - Fonctionnaire24 - employé(e) de bureau25 - Autre salarié (commercial, infirmière etc...)26 - Autre27 | |
| - Ouvrier | |
| → i.e. : - superviseur/agent de maîtrise (chef d'équipe, etc...)31 - Ouvrier32 - Ouvrier non qualifié33 - Autre34 | |
| - Sans activité professionnelle | |
| → i.e. : - Femme/ Homme au foyer41 - Etudiant (temps plein)42 - Retraité43 - Demandeur d'emploi44 - Autre45 | |
| - [Refus]99 | |

D6. Would you say you live in a ...?

- metropolitan zone 1
- other town/urban centre 2
- rural zone 3
- [DK/NA] 9

D6. Diriez-vous que vous vivez ...?

- zone métropolitaine 1
- autre ville/centre urbain 2
- zone rurale 3
- [NSP/SR] 9

Flash EB Series #290

Attitudes of Europeans towards the issue of biodiversity

Survey conducted by The Gallup Organization
Hungary upon the request of Directorate-
General Environment



Survey co-ordinated by
Directorate General Communication

This document does not represent the point of
view of the European Commission.
The interpretations and opinions contained in it
are solely those of the authors.

THE GALLUP ORGANISATION

Survey details

This general population survey “*Attitudes of Europeans towards the issue of Biodiversity in the 27 Member States*” (No 290) was conducted for the European Commission, Environment Communication & Governance Unit.

Telephone interviews were conducted in each country, with the exception of the Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania and Slovakia where both telephone and face-to-face interviews were conducted (70% webCATI and 30% F2F interviews). Note: Flash Eurobarometer surveys systematically include mobile phones in samples in Austria, Finland, Italy, Portugal and Spain.

Telephone interviews were conducted in each country between the 08/02/2010 and the 12/02/2010 by the following institutes:

| | | | |
|----------------|----|--------------------|---------------------------------------|
| Belgium | BE | Gallup Europe | (Interviews: 08/02/2010 - 12/02/2010) |
| Czech Republic | CZ | Focus Agency | (Interviews: 08/02/2010 - 12/02/2010) |
| Denmark | DK | Hermelin | (Interviews: 08/02/2010 - 12/02/2010) |
| Germany | DE | IFAK | (Interviews: 08/02/2010 - 12/02/2010) |
| Estonia | EE | Saar Poll | (Interviews: 08/02/2010 - 12/02/2010) |
| Greece | EL | Metroanalysis | (Interviews: 08/02/2010 - 12/02/2010) |
| Spain | ES | Gallup Spain | (Interviews: 08/02/2010 - 12/02/2010) |
| France | FR | Efficience3 | (Interviews: 08/02/2010 - 12/02/2010) |
| Ireland | IE | Gallup UK | (Interviews: 08/02/2010 - 12/02/2010) |
| Italy | IT | Demoskopea | (Interviews: 08/02/2010 - 12/02/2010) |
| Cyprus | CY | CYMAR | (Interviews: 08/02/2010 - 12/02/2010) |
| Latvia | LV | Latvian Facts | (Interviews: 08/02/2010 - 12/02/2010) |
| Lithuania | LT | Baltic Survey | (Interviews: 08/02/2010 - 12/02/2010) |
| Luxembourg | LU | Gallup Europe | (Interviews: 08/02/2010 - 12/02/2010) |
| Hungary | HU | Gallup Hungary | (Interviews: 08/02/2010 - 12/02/2010) |
| Malta | MT | MISCO | (Interviews: 08/02/2010 - 12/02/2010) |
| Netherlands | NL | MSR | (Interviews: 08/02/2010 - 12/02/2010) |
| Austria | AT | Spectra | (Interviews: 08/02/2010 - 12/02/2010) |
| Poland | PL | Gallup Poland | (Interviews: 08/02/2010 - 12/02/2010) |
| Portugal | PT | Consulmark | (Interviews: 08/02/2010 - 12/02/2010) |
| Slovenia | SI | Cati d.o.o | (Interviews: 08/02/2010 - 12/02/2010) |
| Slovakia | SK | Focus Agency | (Interviews: 08/02/2010 - 12/02/2010) |
| Finland | FI | Norstat Finland Oy | (Interviews: 08/02/2010 - 12/02/2010) |
| Sweden | SE | Hermelin | (Interviews: 08/02/2010 - 12/02/2010) |
| United Kingdom | UK | Gallup UK | (Interviews: 08/02/2010 - 12/02/2010) |
| Bulgaria | BG | Vitosha | (Interviews: 08/02/2010 - 12/02/2010) |
| Romania | RO | Gallup Romania | (Interviews: 08/02/2010 - 12/02/2010) |

Representativeness of the results

Each national sample is representative of the population aged 15 years and above.

Sample sizes

In each EU countries the target sample size was 1000 respondents, the table below shows the achieved sample size by country.

A weighting factor was applied to the national results in order to compute a marginal total where each country contributes to the European Union result in proportion to its population.

The table below presents, for each of the countries:

- (1) the number of interviews actually carried out
- (2) the population-weighted total number of interviews

Total interviews

| | Total Interviews | | | |
|--------------|-------------------------|-------------------|----------------------|------------------------------|
| | Conducted | % of Total | EU27 weighted | % of Total (weighted) |
| Total | 27129 | 100 | 27129 | 100 |
| BE | 1001 | 3.7 | 572 | 2.1 |
| BG | 1002 | 3.7 | 433 | 1.6 |
| CZ | 1005 | 3.7 | 573 | 2.1 |
| DK | 1010 | 3.7 | 288 | 1.1 |
| DE | 1002 | 3.7 | 4612 | 17 |
| EE | 1008 | 3.7 | 74 | 0.3 |
| EL | 1000 | 3.7 | 623 | 2.3 |
| ES | 1004 | 3.7 | 2474 | 9.1 |
| FR | 1008 | 3.7 | 3359 | 12.4 |
| IE | 1000 | 3.7 | 224 | 0.8 |
| IT | 1003 | 3.7 | 3306 | 12.2 |
| CY | 1004 | 3.7 | 42 | 0.2 |
| LV | 1001 | 3.7 | 128 | 0.5 |
| LT | 1000 | 3.7 | 185 | 0.7 |
| LU | 1002 | 3.7 | 25 | 0.1 |
| HU | 1009 | 3.7 | 555 | 2 |
| MT | 1003 | 3.7 | 22 | 0.1 |
| NL | 1001 | 3.7 | 872 | 3.2 |
| AT | 1011 | 3.7 | 456 | 1.7 |
| PL | 1012 | 3.7 | 2089 | 7.7 |
| PT | 1005 | 3.7 | 583 | 2.1 |
| RO | 1011 | 3.7 | 1187 | 4.4 |
| SI | 1000 | 3.7 | 113 | 0.4 |
| SK | 1014 | 3.7 | 294 | 1.1 |
| FI | 1003 | 3.7 | 285 | 1 |
| SE | 1009 | 3.7 | 492 | 1.8 |
| UK | 1001 | 3.7 | 3263 | 12 |

Questionnaires

1. The questionnaire prepared for this survey is reproduced at the end of this results volume, in English.
2. The institutes listed above translated the questionnaire in their respective national language(s).
3. One copy of each national questionnaire is annexed to the results (volume tables).

Tables of results

VOLUME A: COUNTRY BY COUNTRY

The VOLUME A tables present the European Union results country by country.

VOLUME B: RESPONDENTS' DEMOGRAPHICS

The VOLUME B tables present the European Union results with the following socio-demographic characteristics of respondents as breakdowns:

Volume B:

Sex (*Male, Female*)

Age (*15-24, 25-39, 40-54, 55 +*)

Subjective urbanisation (*Metropolitan zone, Other town/urban centre, Rural zone*)

Occupation (*Self-employed, Employee, Manual worker, Not working*)

Education (*-15, 16-20, 21+, Still in full time education*)

Sampling error

Surveys are designed and conducted to provide an estimate of a true value of characteristics of a population at a given time. An estimate of a survey is unlikely to exactly equal the true population quantity of interest for a variety of reasons. One of these reasons is that data in a survey are collected from only some – a sample of – members of the population, this to make data collection cheaper and faster. The “margin of error” is a common summary of sampling error, which quantifies uncertainty about (or confidence in) a survey result.

Usually, one calculates a 95 percent confidence interval of the format: survey estimate +/- margin of error. This interval of values will contain the true population value at least 95% of time.

For example, if it was estimated that 45% of EU citizens are in favour of a single European currency and this estimate is based on a sample of 100 EU citizens, the associated margin of error is about 10 percentage points. The 95 percent confidence interval for support for a European single currency would be (45%-10%) to (45%+10%), suggesting that in the EU the support for a European single currency could range from 35% to 55%. Because of the small sample size of 100 EU citizens, there is considerable uncertainty about whether or not the citizens of the EU support a single currency.

As a general rule, the more interviews conducted (sample size), the smaller the margin of error. Larger samples are more likely to give results closer to the true population quantity and thus have smaller margins of error. For example, a sample of 500 will produce a margin of error of no more than about 4.5 percentage points, and a sample of 1,000 will produce a margin of error of no more than about 3 percentage points.

Margin of error (95% confidence interval)

| Survey estimate | Sample size (n) | | | | | | | | | |
|-----------------|-----------------|-------|------|------|------|------|------|------|------|------|
| | 10 | 50 | 100 | 150 | 200 | 400 | 800 | 1000 | 2000 | 4000 |
| 5% | 13.5% | 6.0% | 4.3% | 3.5% | 3.0% | 2.1% | 1.5% | 1.4% | 1.0% | 0.7% |
| 10% | 18.6% | 8.3% | 5.9% | 4.8% | 4.2% | 2.9% | 2.1% | 1.9% | 1.3% | 0.9% |
| 25% | 26.8% | 12.0% | 8.5% | 6.9% | 6.0% | 4.2% | 3.0% | 2.7% | 1.9% | 1.3% |
| 50% | 31.0% | 13.9% | 9.8% | 8.0% | 6.9% | 4.9% | 3.5% | 3.1% | 2.2% | 1.5% |
| 75% | 26.8% | 12.0% | 8.5% | 6.9% | 6.0% | 4.2% | 3.0% | 2.7% | 1.9% | 1.3% |
| 90% | 18.6% | 8.3% | 5.9% | 4.8% | 4.2% | 2.9% | 2.1% | 1.9% | 1.3% | 0.9% |
| 95% | 13.5% | 6.0% | 4.3% | 3.5% | 3.0% | 2.1% | 1.5% | 1.4% | 1.0% | 0.7% |

(The values in the table are the margin of error – at 95% confidence level – for a given survey estimate and sample size)

The examples show that the size of a sample is a crucial factor affecting the margin of error. Nevertheless, once past a certain point – a sample size of 800 or 1,000 – the improvement is small. For example, to reduce the margin of error to 1.5% would require a sample size of 4,000.

Evaluation of the samples

The attached tables (after the Technical Report tables) provide a detailed insight to the within country weighting of the study. (For cross-country weights please refer to the table on previous page) The weighting of the dataset is a three-fold exercise.

In the *first step* we will apply the basic **selection probability weights**, primarily to avoid the overcoverage of households with multiple telephone lines. In the same step, we calculate the weights that corrects the estimations based on the merged **dual frame** samples, i.e., weights that deal with phone owners;

In the *second step*, on a country-by-country basis, a **nonresponse population weighting** was carried out. As nonresponse rates vary by social segments, the sample characteristics reflect such differences as well (i.e., there are usually less males and especially less young people in the samples than in the universe.) In this step, we compensated for the nonresponse bias that stems from the field execution process. The most advanced method for eliminating such deviations is the so-called *Raking Adjustment for Nonresponse* (raking). Gallup applied this method. This procedure performs iterative proportional fitting in contingency table analysis. This method is also used to deal with the problem of large variability of weights . when weighting classes are formed based on full cross-classification of the auxiliary variables, the result is a large number of weighting classes with unstable response rates.

However, one drawback is that raking assumes that the variables used for adjustment are independent. Raking works in the following way:

- 1) sets initial weight factor values in each cross-classification term to 1;
- 2) adjusts the weight factors of the first cross-classification term so the weighted sample is representative for the variables involved;
- 3) adjusts the weight factors for the next cross-classification term so the weighted sample becomes representative with respect to the variables involved (this might disrupt the representativeness with respect to the variables involved);
- 4) repeats this adjustment for all cross-classification terms;
- 5) repeats all steps until the factors do not change.

A common approach to weighting is to determine the sample weights adjusting for unequal probabilities of selection, revise these weights to compensate for different sub-class response rates, and finally modify the weights again to conform the weighted sample distribution for certain variables (e.g., age, gender, activity etc.) to the known population distributions of the same variables.

The following variables will be used in all national raking procedures (with categories levels used):

Age X Sex

male, 15-29
male, 30-49
male, 50 -64
male, 65+
female, 15-29
female, 30-49
female, 50 -64
female, 65+

Activity

Active worker
retired
Other non-active worker

Regions (NUTS2)

Please note that levels might be collapsed to achieve convergence or universe information is not available in the necessary detail.

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