

Appendix

DATA SOURCES AND CALCULATION OF THE GLOBAL HUNGER INDEX

THE GLOBAL HUNGER INDEX IS CALCULATED AS FOLLOWS

- (1) $GHI = (PUN + CUW + CM)/3$
 with GHI: Global Hunger Index
 PUN: proportion of the population that is undernourished (in %)
 CUW: prevalence of underweight in children under five (in %)
 CM: proportion of children dying before the age of five (in %)

All three index components are expressed in percentages and weighted equally. Higher GHI values indicate more hunger. The index varies between a minimum of 0 and a maximum of 100. However, the maximum value of 100 would only be reached if all children died before their fifth birthday, the whole population were undernourished, and all children under five were underweight.

Likewise, the minimum value of zero does not occur in practice, because this would mean there were no undernourished in the population, no children under five who were underweight, and no children who died before their fifth birthday.

GHI	Number of countries with GHI	Index components		
		Indicators	Reference years	Data sources
1990	95	Percentage of undernourished in the population ¹	1990-1992 ²	FAO 2006 and authors' estimates
		Prevalence of underweight in children under five	1988-1992 ³	WHO 2006 ⁴ and authors' estimates
		Under-five mortality	1990	UNICEF 2006
2008	120	Percentage of undernourished in the population ¹	2002-2004 ²	FAO 2006 and authors' estimates
		Prevalence of underweight in children under five	2001-2006 ⁵	WHO 2006 ⁴ and authors' estimates
		Under-five mortality	2006	UNICEF 2006

Notes: 1 Proportion of the population with calorie deficiency.

2 Average over a three year period.

3 Data collected from the year closest to 1990; where data for 1988 and 1992, or 1989 and 1991, was available, an average was used. The authors' estimates are for 1990.

4 Based on the World Health Organization (WHO) Child Growth Standards, which were revised in 2006 (for more information, see WHO 2006).

5 The latest data gathered in this period by authors.

The calculation of GHI scores is restricted to developing countries and countries in transition for which measuring hunger is considered most relevant. The table above provides an overview of the data sources for the Global Hunger Index.

The first column indicates the reference year of the GHI and the second column specifies the respective number of countries for which the Index can be calculated.

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DATA UNDERLYING THE CALCULATION OF THE GLOBAL HUNGER INDEX

Country	Proportion of undernourished in the population (%)		Prevalence of underweight in children under 5 years (%)		Under 5 mortality rate (%)		GHI	
	1990-92	2002-04	1988-92	2001-06	1990	2006	1990	2008
Afghanistan	-	-	-	28.1	26.0	25.7	-	-
Albania	12.9	6.0	14.0 ***	11.3 ***	4.5	1.7	10.5	6.3
Algeria	5.0	4.0	10.4 ***	10.2	6.9	3.8	7.4	6.0
Angola	58.0	35.0	35.4 ***	27.5	26.0	26.0	39.8	29.5
Argentina	2.0	3.0	4.6 ***	3.3	2.9	1.6	<5	<5
Armenia	-	24.0	4.8 ***	4.2	5.6	2.4	-	10.2
Azerbaijan	-	7.0	14.1 ***	15.4 ***	10.5	8.8	-	10.4
Bahrain	-	-	17.7 ***	13.6	1.9	1.0	-	-
Bangladesh	35.0	30.0	47.0 ***	38.8	14.9	6.9	32.3	25.2
Belarus*	-	4.0	14.4 ***	1.3	2.4	1.3	-	<5
Benin	20.0	12.0	29.8 ***	18.4	18.5	14.8	22.8	15.1
Bhutan	-	-	-	-	16.6	7.0	-	-
Bolivia	28.0	23.0	8.9	6.1	12.5	6.1	16.5	11.7
Bosnia and Herzegovina	-	9.0	6.8 ***	1.6	2.2	1.5	-	<5
Botswana	23.0	32.0	21.3 ***	9.3 ***	5.8	12.4	16.7	17.9
Brazil	12.0	7.0	5.7 ***	3.7	5.7	2.0	7.8	<5
Bulgaria	-	8.0	6.6 ***	2.5	1.8	1.4	-	<5
Burkina Faso	21.0	15.0	33.6 ***	35.2	20.6	20.4	25.1	23.5
Burundi	48.0	66.0	30.7 ***	30.7 ***	19.0	18.1	32.6	38.3
Cambodia	43.0	33.0	42.6 ***	28.4	11.6	8.2	32.4	23.2
Cameroon	33.0	26.0	19.0 ***	15.1	13.9	14.9	22.0	18.7
Central African Republic	50.0	44.0	28.8 ***	22.6 ***	17.3	17.5	32.0	28.0
Chad	58.0	35.0	34.4 ***	33.9	20.1	20.9	37.5	29.9
Chile	8.0	4.0	0.9 ***	1.0 ***	2.1	0.9	<5	<5
China	16.0	12.0	14.3 ***	6.8	4.5	2.4	11.6	7.1
Colombia	17.0	13.0	8.4 ***	5.1	3.5	2.1	9.6	6.7
Comoros	47.0	60.0	20.4 ***	20.4 ***	12.0	6.8	26.4	29.1
Congo, Dem. Rep.	31.0	74.0	24.9 ***	33.6	20.5	20.5	25.5	42.7
Congo, Rep.	54.0	33.0	14.2 ***	11.8	10.3	12.6	26.2	19.1
Costa Rica	6.0	5.0	2.7 ***	0.5 ***	1.8	1.2	<5	<5
Côte d'Ivoire	18.0	13.0	24.9 ***	20.2	15.3	12.7	19.4	15.3
Croatia	-	7.0	1.3 ***	0.9 ***	1.2	0.6	-	<5
Cuba	8.0	1.0	12.6 ***	14.7	1.3	0.7	7.3	5.5
Djibouti	53.0	24.0	-	25.6	17.5	13.0	-	20.9
Dominican Republic	27.0	29.0	8.4	4.2	6.5	2.9	14.0	12.0
Ecuador	8.0	6.0	6.6 ***	6.2	5.7	2.4	6.8	<5
Egypt, Arab Rep.	4.0	4.0	12.8 ***	5.4	9.1	3.5	8.6	<5
El Salvador	12.0	11.0	11.1	6.1	6.0	2.5	9.7	6.5
Eritrea	-	75.0	-	34.5	14.7	7.4	-	39.0
Estonia	-	3.0	3.5 ***	2.8 ***	1.6	0.7	-	<5
Ethiopia	73.7 ***	46.0	38.0 ***	34.6	20.4	12.3	44.0	31.0
Fiji	10.0	5.0	25.8 ***	15.1 ***	2.2	1.8	12.7	7.3
Gabon	10.0	5.0	14.7 ***	8.8	9.2	9.1	11.3	7.6
Gambia, The	22.0	29.0	18.0 ***	11.5 ***	15.3	11.3	18.4	17.3
Georgia	-	9.0	-	-	4.6	3.2	-	-
Ghana	37.0	11.0	24.1	18.8	12.0	12.0	24.4	13.9
Guatemala	16.0	22.0	24.1 ***	17.7	8.2	4.1	16.1	14.6
Guinea	39.0	24.0	25.3 ***	22.5	23.5	16.1	29.3	20.9
Guinea-Bissau	24.0	39.0	21.1 ***	23.4 ***	24.0	20.0	23.0	27.5
Guyana	21.0	8.0	14.0 ***	11.5	8.8	6.2	14.6	8.6
Haiti	65.0	46.0	27.4 ***	18.9	15.2	8.0	35.9	24.3
Honduras	23.0	23.0	19.5 ***	8.6	5.8	2.7	16.1	11.4
India	25.0	20.0	60.9 ***	43.5	11.5	7.6	32.5	23.7
Indonesia	9.0	6.0	29.8	24.4	9.1	3.4	16.0	11.3
Iran, Islamic Rep.*	4.0	4.0	13.6 ***	6.5 ***	7.2	3.4	8.3	<5
Iraq	-	-	-	7.1	5.3	4.6	-	-
Jamaica	14.0	9.0	6.7 ***	3.1	3.3	3.1	8.0	5.1
Jordan	4.0	6.0	4.8	3.6	4.0	2.5	<5	<5
Kazakhstan	-	6.0	5.0 ***	3.5	6.0	2.9	-	<5
Kenya	39.0	31.0	21.8 ***	16.5	9.7	12.1	23.5	19.9
Kuwait	24.0	5.0	12.2 ***	4.3 ***	1.6	1.1	12.6	<5
Kyrgyz Republic	-	4.0	3.7 ***	2.7	7.5	4.1	-	<5
Lao PDR	29.0	19.0	39.0 ***	35.4 ***	16.3	7.5	28.1	20.6
Latvia	-	3.0	2.8 ***	5.1 ***	1.8	0.9	-	<5
Lebanon	2.0	3.0	9.6 ***	3.4	3.7	3.0	5.1	<5

Note: *** indicates author's estimates. For countries marked with an *, data underlying the GHI are unreliable.

Country	Proportion of undernourished in the population (%)		Prevalence of underweight in children under 5 years (%)		Under 5 mortality rate (%)		GHI	
	1990-92	2002-04	1988-92	2001-06	1990	2006	1990	2008
Lesotho	17.0	13.0	15.6 ***	16.6	10.1	13.2	14.2	14.3
Liberia	34.0	50.0	24.3 ***	21.9 ***	23.5	23.5	27.3	31.8
Libya*	-	1.0	6.2 ***	0.3	4.1	1.8	-	<5
Lithuania	-	1.0	8.8 ***	2.7	1.3	0.8	-	<5
Macedonia	-	5.0	6.0 ***	2.6 ***	3.8	1.7	-	<5
Madagascar	35.0	38.0	35.5	36.8	16.8	11.5	29.1	28.8
Malawi	50.0	35.0	24.4	18.4	22.1	12.0	32.2	21.8
Malaysia	3.0	3.0	23.4 ***	15.2 ***	2.2	1.2	9.5	6.5
Mali	29.0	29.0	34.9 ***	30.1	25.0	21.7	29.6	26.9
Mauritania	15.0	10.0	-	30.4	13.3	12.5	-	17.6
Mauritius	6.0	5.0	9.9 ***	8.5 ***	2.3	1.4	6.1	5.0
Mexico	5.0	5.0	13.9	3.4	5.3	3.5	8.1	<5
Moldova	-	11.0	4.7 ***	3.2	3.7	1.9	-	5.4
Mongolia	34.0	27.0	11.8 ***	4.9	10.9	4.3	18.9	12.1
Morocco	6.0	6.0	8.1	9.9	8.9	3.7	7.7	6.5
Mozambique	66.0	44.0	33.2 ***	21.2	23.5	13.8	40.9	26.3
Myanmar*	10.0	5.0	33.0 ***	29.6	13.0	10.4	18.7	15.0
Namibia	34.0	24.0	21.5	12.9 ***	8.6	6.1	21.4	14.3
Nepal	20.0	17.0	48.7 ***	38.8	14.2	5.9	27.6	20.6
Nicaragua	30.0	27.0	12.3 ***	7.8	6.8	3.6	16.4	12.8
Niger	41.0	32.0	41.0	39.9	32.0	25.3	38.0	32.4
Nigeria	13.0	9.0	35.1	27.2	23.0	19.1	23.7	18.4
North Korea*	18.0	33.0	15.9 ***	17.8	5.5	5.5	13.1	18.8
Oman	-	-	15.9 ***	5.8 ***	3.2	1.2	-	-
Pakistan	24.0	24.0	39.0	31.3	13.0	9.7	25.3	21.7
Panama	21.0	23.0	5.9 ***	1.4 ***	3.4	2.3	10.1	8.9
Papua New Guinea	-	-	24.1 ***	23.8 ***	9.4	7.3	-	-
Paraguay	18.0	15.0	2.9	6.5 ***	4.1	2.2	8.3	7.9
Peru	42.0	12.0	8.8	2.4	7.8	2.5	19.5	5.6
Philippines	26.0	18.0	24.5 ***	20.7	6.2	3.2	18.9	14.0
Qatar	-	-	17.3 ***	18.1	2.6	2.1	-	-
Romania	3.1	1.8	7.4 ***	3.5 ***	3.1	1.8	<5	<5
Russian Federation	-	3.0	7.0 ***	1.4 ***	2.7	1.6	-	<5
Rwanda	43.0	33.0	24.3	18.0	17.6	16.0	28.3	22.3
Saudi Arabia	4.0	4.0	12.3 ***	6.1 ***	4.4	2.5	6.9	<5
Senegal	23.0	20.0	28.3	14.5	14.9	11.6	22.1	15.4
Serbia and Montenegro	-	9.0	-	1.8	2.8	0.8	-	<5
Sierra Leone	46.0	51.0	22.3 ***	18.6 ***	29.0	27.0	32.4	32.2
Slovak Republic	-	7.0	1.4 ***	1.7 ***	1.4	0.8	-	<5
Somalia	-	-	-	32.8	20.3	14.5	-	-
South Africa	5.8 ***	4.4	10.3 ***	9.4 ***	6.0	6.9	7.4	6.9
Sri Lanka	28.0	22.0	26.2 ***	21.8 ***	3.2	1.3	19.1	15.0
Sudan*	31.0	26.0	30.4 ***	26.7 ***	12.0	8.9	24.5	20.5
Suriname	13.0	8.0	14.2 ***	10.5 ***	4.8	3.9	10.7	7.5
Swaziland	14.0	22.0	15.1 ***	14.7 ***	11.0	16.4	13.4	17.7
Syrian Arab Republic	5.0	4.0	20.0 ***	8.5	3.8	1.4	9.6	<5
Tajikistan	-	56.0	10.3 ***	14.9 ***	11.5	6.8	-	25.9
Tanzania	37.0	44.0	25.1	16.7	16.1	11.8	26.1	24.2
Thailand	30.0	22.0	22.0 ***	7.0	3.1	0.8	18.4	9.9
Timor-Leste	11.0	9.0	-	40.6	17.7	5.5	-	18.4
Togo	33.0	24.0	21.2	19.7 ***	14.9	10.8	23.0	18.2
Trinidad and Tobago	13.0	10.0	7.5 ***	4.1 ***	3.4	3.8	8.0	5.9
Tunisia	1.0	1.0	8.5	1.6 ***	5.2	2.3	<5	<5
Turkey	2.0	3.0	8.4 ***	3.5	8.2	2.6	6.2	<5
Turkmenistan	-	7.0	5.9 ***	7.1 ***	9.9	5.1	-	6.4
Uganda	24.0	19.0	19.7	19.0	16.0	13.4	19.9	17.1
Ukraine	-	3.0	2.8 ***	1.0	2.2	2.4	-	<5
United Arab Emirates	4.0	-	-	-	1.5	0.8	-	-
Uruguay	7.0	2.0	6.3 ***	6.0	2.3	1.2	5.2	<5
Uzbekistan	-	25.0	9.6 ***	4.4	7.4	4.3	-	11.2
Venezuela, RB	11.0	18.0	10.7 ***	3.1 ***	3.3	2.1	8.3	7.7
Vietnam	31.0	16.0	35.5 ***	20.2	5.3	1.7	23.9	12.6
Yemen, Rep.	34.0	38.0	44.1 ***	41.3	13.9	10.0	30.7	29.8
Zambia	48.0	46.0	21.2	23.3	18.0	18.2	29.1	29.2
Zimbabwe	45.0	47.0	8.0	14.0	7.6	10.5	20.2	23.8

Note: *** indicates author's estimates. For countries marked with an *, data underlying the GHI are unreliable.



The International Food Policy Research Institute (IFPRI) was founded in 1975. Its mission is to provide policy solutions that reduce poverty in developing countries, achieve sustainable food security, improve health and nutrition, and promote environmentally friendly agricultural growth. To achieve these goals, the Institute focuses on research as well as capacity strengthening and policy communication. It works closely with national agricultural research and nutrition institutions and regional networks in developing countries. The Institute also engages in wide-ranging dialogue so that the new scientific insights generated by its research results can be integrated into agricultural and food policies and can raise public awareness regarding food security, poverty, and environmental protection. IFPRI is funded by governments, international and regional organisations, and private foundations, many of which are members of the Consultative Group on International Agricultural Research (www.cgiar.org). This association consists of 15 international agricultural research centres that work closely with national agricultural research systems, governments, NGOs, and the private sector.



OUR VISION

All the people of this world shall lead an independent life in dignity and justice – free from hunger and poverty. Deutsche Welthungerhilfe (German Agro Action) was founded in 1962 as the national committee of the “Freedom from Hunger Campaign” set up by the United Nations’ Food and Agriculture Organisation (FAO). Today, it is one of Germany’s largest non-governmental organisations. Non-profit-making, non-denominational and politically independent, the organisation is run by a board of honorary members under the patronage of the President of the Federal Republic of Germany. Its work is funded by private donations and public grants.

WHAT WE WANT

- Welthungerhilfe campaigns worldwide for human rights, sustained development, a guaranteed food supply and conservation of the environment. We regard our work as successful when people improve their living conditions to such an extent that they can enjoy a secure livelihood without outside aid.
- As citizens of a wealthy country, we bear a responsibility for making sure we do not only pay lip-service to the idea of solidarity with the poorest members of the human race. For this reason, together with partners from the world of politics, media and schools, we campaign for fairer co-operation with countries in the developing world.
- We use the funds entrusted to us sparingly and effectively. The work of our staff is characterised by commitment, experience and competence.

HOW WE WORK

- We provide help from one set of hands by means of rapid humanitarian aid in acute crisis regions. Where hunger and poverty are chronic, we cooperate closely with local partners on long-term projects.
- As part of this process we provide support for the landless, for small-scale farmers, women, children and young people; and for people who need start-up aid in order to lead their lives in justice and dignity.
- We fund our work from private donations and public grants. We have received the “seal of approval” from Germany’s Central Institute for Social Issues (DZI) for the cost-effective and transparent way we use our funds.
- Levels of control such as internal auditing, evaluation or regular reports from projects ensure that funds are used correctly.



OUR IDENTITY – WHO WE ARE

Concern Worldwide is Ireland's largest non-governmental organisation, dedicated to the reduction of suffering and working towards the ultimate elimination of extreme poverty. We work in 30 of the world's poorest countries and have over 4,000 committed and talented staff.

OUR MISSION – WHAT WE DO

Our mission is to help people living in extreme poverty achieve major improvements in their lives, which last and spread without ongoing support from Concern. To this end, Concern will work with the poor themselves, and with local and international partners who share our vision, to create just and peaceful societies where the poor can exercise their fundamental rights. To achieve this mission we engage in long-term development work, respond to emergency situations, and seek to address the root causes of poverty through our development education and advocacy work.

OUR VISION – FOR CHANGE

A world where no-one lives in poverty, fear or oppression; where all have access to a decent standard of living and the opportunities and choices essential to a long, healthy and creative life; a world where everyone is treated with dignity and respect.