

Plan B 4.0 - Supporting Data for Chapter 9

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GRAPH: World Grain Production and Consumption, 1960-2009

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GRAPH: Milk Production in India and the United States, 1961-2007

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GRAPH: World Animal Protein Production, 1961-2007

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GRAPH: World Soybean Production, 1964-2009

[World Fertilizer Consumption, 1950-2008](#)

GRAPH: World Fertilizer Consumption, 1950-2008

A full listing of data for the entire book is on-line at:

http://www.earthpolicy.org/index.php?/books/pb4/pb4_data

This is part of a supporting dataset for Lester R. Brown, **Plan B 4.0: Mobilizing to Save Civilization** (New York: W.W. Norton & Company, 2009). For more information and a free download of the book, see Earth Policy Institute on-line at www.earthpolicy.org.

Undernourishment in the World and in Selected Groups and Regions, 2009

Group or Region	Undernourished People in 2009 Millions	Share of Population Percent
Developed Countries	15	1
Developing Countries	1,002	18
Asia and the Pacific	642	17
Latin America and the Caribbean	53	9
Near East and North Africa	42	9
Sub-Saharan Africa	265	34
World	1,017	15

Note: Data are projections.

Source: Compiled by Earth Policy Institute from U.N. Food and Agriculture Organization (FAO), "More People Than Ever are Victims of Hunger," background note (Rome: June 2009); share of population calculated using U.N. Population Division, *World Population Prospects: The 2008 Revision Population Database*, at <http://esa.un.unpp>, updated 11 March 2009.

This is part of a supporting dataset for Lester R. Brown, **Plan B 4.0: Mobilizing to Save Civilization** (New York: W.W. Norton & Company, 2009). For more information and a free download of the book, see Earth Policy Institute on-line at www.earthpolicy.org.

Undernourishment in the World, 1969-2009

Year(s)	Number of Undernourished People Millions
1969 - 1971	878
1979 - 1981	853
1990 - 1992	845
1995 - 1997	825
2000 - 2002	857
2004 - 2006	873
2008	915
2009 *	1,017

Note: 2009 is a projection.

Source: Compiled by Earth Policy Institute (EPI) with data for 1969-2006 from U.N. Food and Agriculture Organization (FAO), "Hunger," at www.fao.org/hunger/en, viewed 26 October 2009; data for 2008 and 2009 from FAO, "1.02 Billion People Hungry," at www.fao.org/news, 19 June 2009.

This is part of a supporting dataset for Lester R. Brown, **Plan B 4.0: Mobilizing to Save Civilization** (New York: W.W. Norton & Company, 2009). For more information and a free download of the book, see Earth Policy Institute on-line at www.earthpolicy.org.

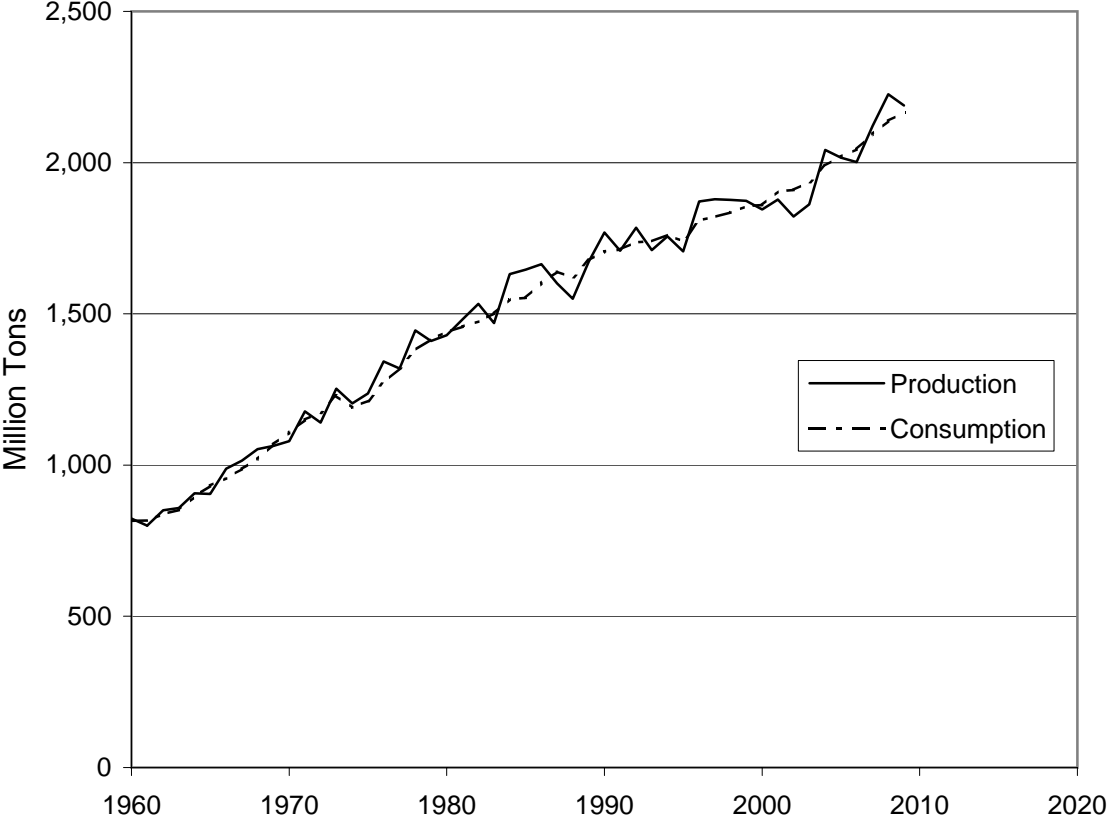
World Grain Production and Consumption, 1960-2009

Year	Production	Consumption
	Million Tons	
1960	824	815
1961	800	817
1962	850	838
1963	858	852
1964	906	896
1965	905	932
1966	988	957
1967	1,014	988
1968	1,052	1,020
1969	1,063	1,069
1970	1,079	1,108
1971	1,177	1,150
1972	1,141	1,174
1973	1,253	1,230
1974	1,203	1,190
1975	1,237	1,212
1976	1,342	1,273
1977	1,319	1,320
1978	1,445	1,380
1979	1,410	1,416
1980	1,429	1,440
1981	1,482	1,458
1982	1,533	1,475
1983	1,469	1,501
1984	1,632	1,549
1985	1,646	1,553
1986	1,664	1,601
1987	1,601	1,640
1988	1,550	1,620
1989	1,673	1,677
1990	1,768	1,706
1991	1,709	1,713
1992	1,785	1,737
1993	1,711	1,739
1994	1,756	1,762
1995	1,707	1,739
1996	1,872	1,809
1997	1,879	1,821
1998	1,876	1,835
1999	1,874	1,856
2000	1,845	1,860
2001	1,878	1,905
2002	1,822	1,910
2003	1,862	1,935
2004	2,042	1,990
2005	2,017	2,020
2006	2,002	2,044
2007	2,121	2,095
2008	2,226	2,138
2009	2,189	2,166

Source: U.S. Department of Agriculture, *Production Supply and Distribution* , electronic database at www.fas.usda.gov/psdonline, updated 10 July 2009.

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World Grain Production and Consumption, 1960-2009



Source: USDA

World Average Grain Yields, 1950-2009

Year	Yield
	Tons per Hectare
1950	1.06
1951	1.08
1952	1.14
1953	1.15
1954	1.12
1955	1.17
1956	1.21
1957	1.22
1958	1.20
1959	1.32
1960	1.29
1961	1.26
1962	1.33
1963	1.32
1964	1.38
1965	1.39
1966	1.51
1967	1.52
1968	1.57
1969	1.58
1970	1.63
1971	1.75
1972	1.73
1973	1.82
1974	1.74
1975	1.75
1976	1.87
1977	1.85
1978	2.03
1979	1.99
1980	1.98
1981	2.02
1982	2.14
1983	2.07
1984	2.29
1985	2.30
1986	2.34
1987	2.33
1988	2.25
1989	2.40
1990	2.54
1991	2.46
1992	2.57
1993	2.50
1994	2.56
1995	2.50
1996	2.66

1997	2.72
1998	2.73
1999	2.80
2000	2.77
2001	2.82
2002	2.79
2003	2.80
2004	3.06
2005	3.00
2006	2.98
2007	3.07
2008	3.21
2009	3.15

Source: 1950-1959 from Worldwatch Institute, *Signposts 2001*, CD-ROM (Washington, DC: 2001); 1960-2009 from U.S. Department of Agriculture, *Production, Supply and Distribution*, electronic database, at www.fas.usda.gov/psdonline, updated 10 July 2009.

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World Grain Yields, Annual Percent Increase by Decade, 1950-2009

Decade	Average Annual Increase Percent
1950-1960	1.9
1960-1970	2.4
1970-1980	2.0
1980-1990	2.5
1990-2000	0.9
2000-2007	1.4

Source: Compiled by Earth Policy Institute, with 1950-1959 data from Worldwatch Institute, *Signposts 2001*, CD-ROM (Washington, DC: 2001); 1960-2009 from U.S. Department of Agriculture, *Production, Supply and Distribution*, electronic database, at www.fas.usda.gov/psdonline, updated 10 July 2009.

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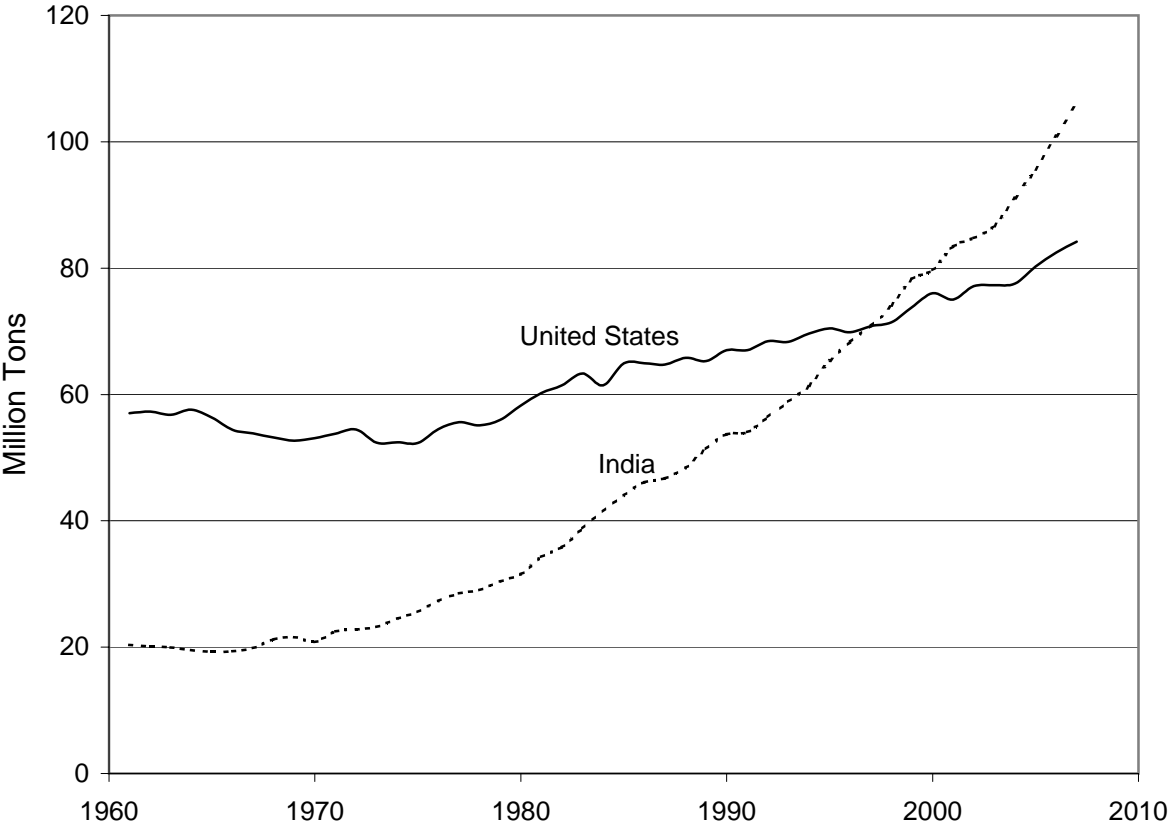
Milk Production in India and the United States, 1961-2007

Year	India	United States
	Million Tons	
1961	20.4	57.0
1962	20.1	57.3
1963	19.9	56.8
1964	19.5	57.6
1965	19.2	56.3
1966	19.4	54.4
1967	19.9	53.9
1968	21.2	53.2
1969	21.6	52.7
1970	20.8	53.1
1971	22.5	53.8
1972	22.8	54.4
1973	23.2	52.4
1974	24.5	52.4
1975	25.6	52.3
1976	27.3	54.5
1977	28.5	55.6
1978	29.0	55.1
1979	30.4	56.0
1980	31.6	58.2
1981	34.3	60.2
1982	35.8	61.5
1983	38.8	63.3
1984	41.5	61.4
1985	44.0	64.9
1986	46.1	64.9
1987	46.7	64.7
1988	48.4	65.8
1989	51.4	65.3
1990	53.7	67.0
1991	54.1	67.0
1992	56.4	68.4
1993	58.9	68.3
1994	61.4	69.7
1995	65.4	70.4
1996	68.4	69.9
1997	70.9	70.8
1998	74.1	71.4
1999	78.2	73.8
2000	79.7	76.0
2001	83.4	75.0
2002	84.8	77.1
2003	86.7	77.3
2004	91.1	77.5
2005	95.6	80.3
2006	100.9	82.5
2007	106.1	84.2

Source: Compiled by Earth Policy Institute from U.N. Food and Agriculture Organization, *FAOSTAT*, electronic database, at faostat.fao.org, updated June 2009.

This is part of a supporting dataset for Lester R. Brown, **Plan B 4.0: Mobilizing to Save Civilization** (New York: W.W. Norton & Company, 2009). For more information and a free download of the book, see Earth Policy Institute on-line at www.earthpolicy.org.

Milk Production in India and the United States, 1961-2007



Source: FAO

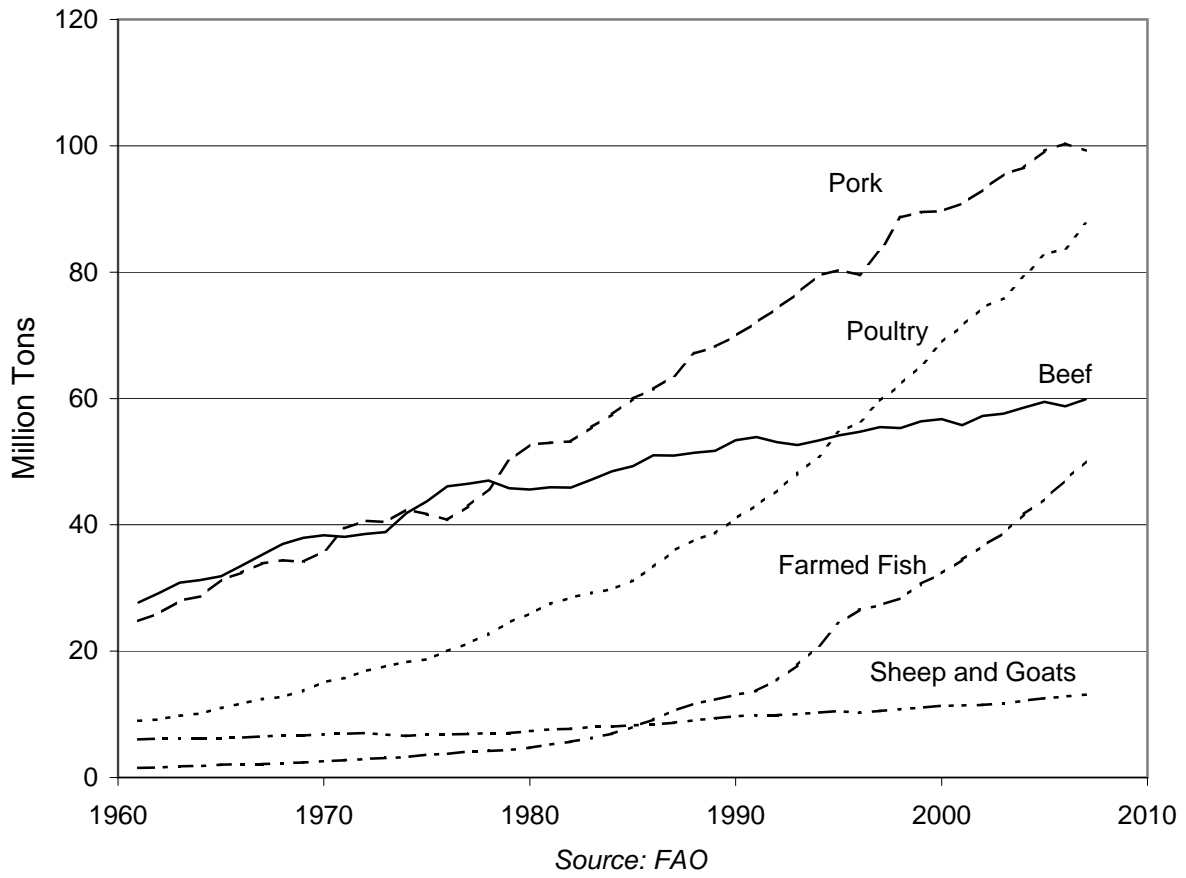
World Animal Protein Production, 1961-2007

Year	Beef	Pork	Poultry	Farmed Fish	Sheep and Goats
Million Tons					
1961	27.7	24.7	9.0	1.5	6.0
1962	29.2	26.1	9.2	1.6	6.2
1963	30.9	28.0	9.8	1.8	6.2
1964	31.3	28.7	10.1	1.8	6.2
1965	31.9	31.3	11.0	2.0	6.2
1966	33.6	32.4	11.7	2.1	6.3
1967	35.3	33.9	12.4	2.1	6.5
1968	37.0	34.4	12.8	2.3	6.7
1969	37.9	34.1	13.7	2.4	6.7
1970	38.3	35.8	15.1	2.6	6.8
1971	38.1	39.4	15.7	2.7	7.0
1972	38.5	40.6	16.8	3.0	7.0
1973	38.8	40.5	17.6	3.1	6.8
1974	41.9	42.4	18.3	3.3	6.6
1975	43.7	41.7	18.7	3.6	6.8
1976	46.1	40.8	20.0	3.7	6.8
1977	46.5	42.9	21.2	4.1	6.9
1978	47.0	45.6	22.7	4.2	7.0
1979	45.8	50.1	24.6	4.3	7.0
1980	45.6	52.7	26.0	4.7	7.3
1981	46.0	53.0	27.5	5.2	7.6
1982	45.9	53.2	28.5	5.7	7.7
1983	47.2	55.5	29.2	6.2	8.0
1984	48.5	57.5	29.8	6.9	8.1
1985	49.3	60.0	31.2	8.0	8.3
1986	51.0	61.5	33.3	9.2	8.3
1987	50.9	63.6	35.9	10.6	8.7
1988	51.4	67.1	37.6	11.7	9.1
1989	51.7	68.2	38.6	12.3	9.4
1990	53.4	69.9	41.0	13.1	9.7
1991	53.9	72.1	43.1	13.7	9.9
1992	53.1	74.3	45.4	15.4	9.9
1993	52.6	76.6	48.1	17.8	10.0
1994	53.3	79.4	50.8	20.8	10.3
1995	54.2	80.3	54.6	24.4	10.5
1996	54.7	79.6	56.2	26.6	10.2
1997	55.4	83.3	59.6	27.3	10.5
1998	55.3	88.7	62.2	28.3	10.8
1999	56.4	89.5	65.3	30.7	11.0
2000	56.8	89.7	68.9	32.3	11.3
2001	55.8	90.9	71.5	34.5	11.4
2002	57.2	93.1	74.4	36.7	11.5
2003	57.6	95.5	75.9	38.7	11.7
2004	58.6	96.5	79.2	41.7	12.1
2005	59.5	99.2	82.7	44.1	12.6
2006	58.8	100.3	83.8	47.1	12.8
2007	59.9	99.2	87.6	50.0	13.1

Source: Compiled by Earth Policy Institute from FAO, *FAOSTAT*, electronic database, at faostat.fao.org, updated June 2009, and FAO, *FISHSTAT Plus*, electronic database, at www.fao.org/fishery/statistics/software/fishstat, updated February 2009.

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World Animal Protein Production, 1961-2007



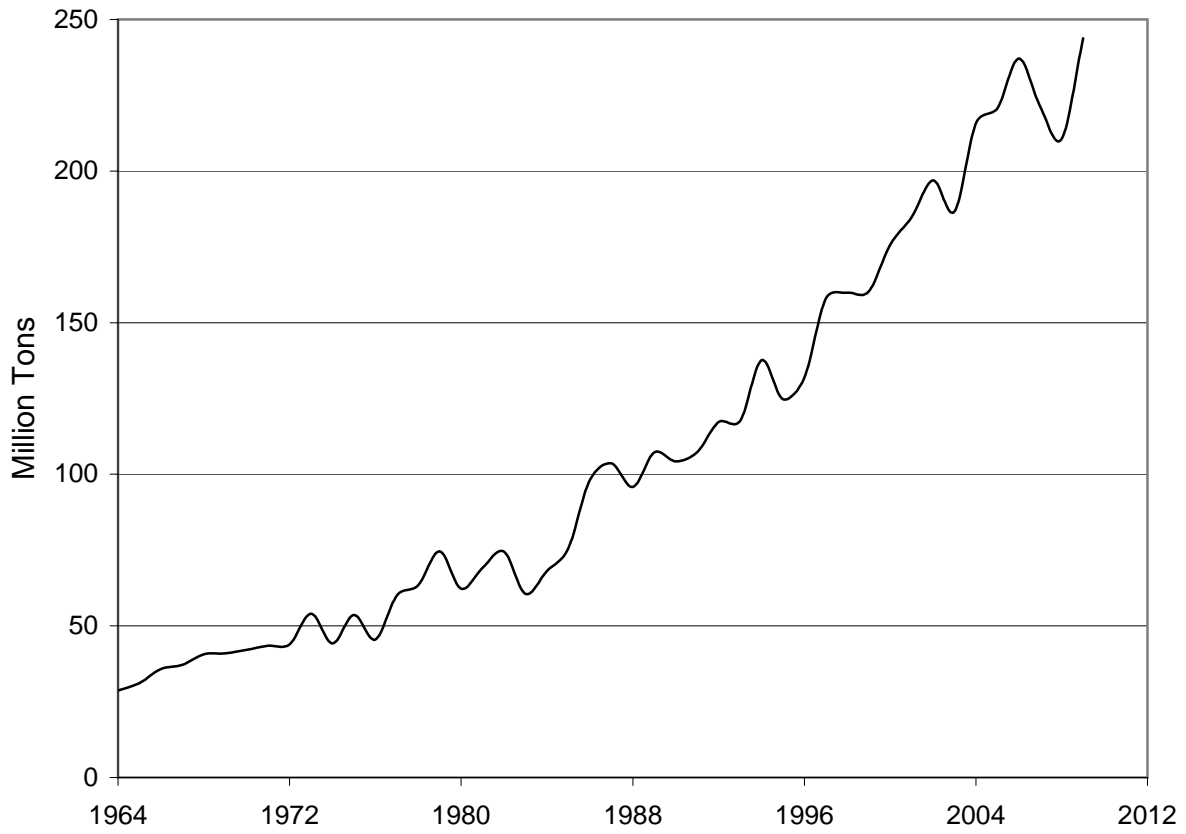
World Soybean Production, 1964-2009

Year	Production Million Tons
1964	29
1965	31
1966	36
1967	37
1968	41
1969	41
1970	42
1971	43
1972	44
1973	54
1974	44
1975	54
1976	45
1977	60
1978	63
1979	75
1980	62
1981	69
1982	75
1983	61
1984	68
1985	76
1986	98
1987	104
1988	96
1989	107
1990	104
1991	107
1992	117
1993	118
1994	138
1995	125
1996	132
1997	158
1998	160
1999	160
2000	176
2001	185
2002	197
2003	187
2004	216
2005	221
2006	237
2007	221
2008	211
2009	244

Source: U.S. Department of Agriculture, *Production, Supply, and Distribution*, electronic database, at www.fas.usda.gov/psdonline, updated 10 July 2009.

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World Soybean Production, 1964-2009



Source: USDA

World Fertilizer Consumption, 1950-2008

Year	Fertilizer Consumption Million Tons
1950	14
1951	15
1952	15
1953	16
1954	17
1955	18
1956	20
1957	22
1958	23
1959	25
1960	27
1961	32
1962	34
1963	37
1964	41
1965	46
1966	51
1967	55
1968	59
1969	62
1970	68
1971	72
1972	78
1973	84
1974	81
1975	89
1976	97
1977	101
1978	108
1979	113
1980	116
1981	115
1982	115
1983	125
1984	131
1985	129
1986	133
1987	139
1988	144
1989	143
1990	137
1991	134
1992	125
1993	120
1994	122
1995	130
1996	134

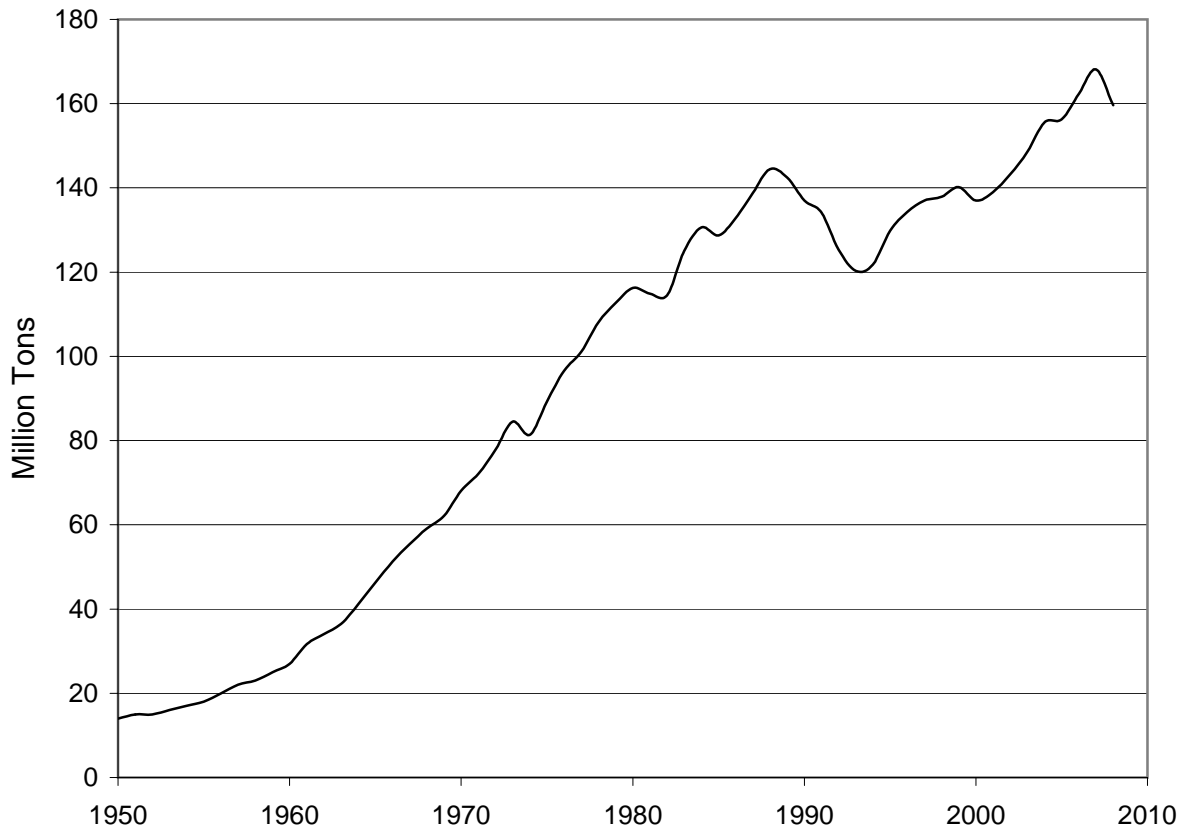
1997	137
1998	138
1999	140
2000	137
2001	139
2002	143
2003	149
2004	156
2005	156
2006	162
2007	168
2008	160

Note: Fertilizer data shown here have been updated since *Plan B 4.0* went to press.

Source: Historical data compiled by Worldwatch Institute from U.N. Food and Agriculture Organization, *Fertilizer Yearbook* (Rome: various years), and by Earth Policy Institute from International Fertilizer Industry Association (IFA), *IFADATA*, electronic database, at www.fertilizer.org/ifa/ifadata/search, retrieved 27 August 2009; current data from Patrick Heffer, *Medium-Term Outlook for World Agriculture and Fertilizer Demand 2008/09 – 2013/14* (Paris: IFA, June 2009), p. 25.

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World Fertilizer Consumption, 1950-2008



Source: FAO; IFA