

Global food waste/loss

Water

1 950 300 000 000 gallons per %

8 590 844 818 308 liter per %

Earth (soil)

60 676 000 hectare per %

149 933 661 acres per %

606 760 000 000 m² per %

6 531 110 284 442 ft² per %

Labour hours

34 320 000 000 hours per %

Fuel

1 200 000 tons of diesel per %

Revenue

32 505 000 dollars per %

29 760 765 euro per %

CO₂

113 619 000 CO₂ tonnes per %

Electricity

5 069 910 megawatts (MW) per %

Sources and equations listed below

It is estimated that 30% (or 1.3 billion tonnes) gets wasted ¹
1 300 000 000 tons wasted x4.334 = 4 330 000 000 made in total.

Water

How much water per ton

45 trillion **gallons** if 1.3 billion ton waste² x4.333
x4.334 = 195 030 000 000 000 (total food production)

195 030 000 000 000 x 1%
= 1 950 300 000 000

1 950 300 000 000 gallons per %
8 590 844 818 308 liter per %

Earth

According to estimates from the Food and Agricultural Organization of the United Nations,, produced but uneaten food occupies almost 1.4bn hectares of land, representing almost **30%** of the world's agricultural land area.³

1 400 000 000 hectar x4.334 = 6 067 600 000 (total food production)

x 1% = 60 676 000

60 676 000 hectar per %
149 933 661 acres per %
606 760 000 000 m² per %
6 531 110 284 442 ft² per %

Labour

Global food production 3.9 billion ton
43% of global working population works as farmers⁴
1.2 billion farmers. **Assuming** 260 working days and average 11 hour shift.

11 x 260 = 2860 hours a year

2860 x 1 200 000 000 = 3 432 000 000 000

3 432 000 000 000 x 1% = 34 320 000 000

34 320 000 000 hours per %

¹ http://www.imeche.org/docs/default-source/reports/Global_Food_Report.pdf

² <http://www.npr.org/blogs/thesalt/2013/06/06/189192870/when-you-waste-food-youre-wasting-tons-of-water-too>

³ <http://www.theguardian.com/sustainable-business/2014/oct/17/tackle-food-waste-global-consumption-conundrum>

⁴ <http://data.worldbank.org/topic/agriculture-and-rural-development>

Fuel

3.1% of total global energy consumption, divided by 2.5% in developed countries and 0.6% in developing countries. All of this contributes to a global consumption by agriculture of approximately 120 million tonnes of diesel fuel annually.⁵

$$120\,000\,000 \times 1\% = 1\,200\,000$$

1 200 000 tons of diesel per %

Revenue

Around the world some 1.3 billion tonnes of food waste is produced annually, at a direct economic cost of some \$750 billion, according to a new report by the UN's Food and Agricultural Organisation (FAO).⁶

$$750\,000\,000 \times 4.334 = 3\,250\,500\,000 \text{ (total food production)}$$

$$3\,250\,500\,000 \times 1\% = 32\,505\,000$$

32 505 000 dollars per %

29 760 765 euro per %

USD/EUR exchange rate: 0.9156 at 2015-03-26

CO₂

Each year, food that is produced but not eaten is adding 3.3bn tonnes of greenhouse gases to the planet's atmosphere.⁷

$$3\,300\,000\,000 \times 3.443 = 9\,900\,000\,000 \text{ (total food production)}$$

$$11\,361\,900\,000 \times 1\% = 113\,619\,000$$

113 619 000 CO₂ ton per %

Electricity

World electricity consumption per year in **GWh 20.279.640**⁸

Agricultural consumption **2.50%**⁹

$$20.279.640 \times 0.025 = 506\,991 \text{ GWh per year}$$

$$506\,991 \times 1\% = 5069$$

5069910 megawatts (MW) per %

⁵ http://www.imeche.org/docs/default-source/reports/Global_Food_Report.pdf

⁶ <http://www.waste-management-world.com/articles/2013/09/food-waste-costing-the-earth-and-750-billion-per-year.html>

⁷ <http://www.aljazeera.com/news/europe/2013/09/2013911105929363197.html>

⁸ http://en.wikipedia.org/wiki/Electric_energy_consumption

⁹ http://en.wikipedia.org/wiki/Electric_energy_consumption