A chessboard has 64 squares.

Grains of rice:

<table>
<thead>
<tr>
<th>1st square</th>
<th>2nd square</th>
<th>3rd square</th>
<th>4th square</th>
<th>5th square</th>
<th>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>16</td>
<td>64</td>
</tr>
</tbody>
</table>

$	ext{64th square} \quad 9.22 \times 10^{18}$ grains of rice

$2^{63} \approx 9$ billion billion

Total of rice on all squares:

$S_n = \frac{a_1 (1 - r^n)}{1 - r}$

$S_{64} = \frac{1(1 - 2^{64})}{1 - 2} = \frac{1 - 2^{64}}{-1} = 2^{64} - 1 \approx 1.84 \times 10^{19}$ grains

Total of rice on all squares:

$1.84 \times 10^{19}$ grains of rice

It takes approx. 40 grains of rice to cover 1 sq. inch.

[Uncooked, long grain rice]

So, how many sq. in are there on the surface of the Earth?

Surface area of a sphere: $A = 4 \pi r^2$

Earth: Radius $\approx 3950$ miles

$3950 \text{ mi} \times \frac{5280 \text{ ft}}{1 \text{ mi}} \times \frac{12 \text{ in}}{1 \text{ ft}} = 250,272,000 \text{ in.}$

Earth: $A = 4 \pi r^2 = 4 \pi (250,272,000 \text{ in.})^2 \approx 7.87 \times 10^{17}$ sq. in.

$7.87 \times 10^{17} \text{ sq. in.} \times \frac{40 \text{ grains rice}}{1 \text{ sq. in.}} \approx 3.15 \times 10^{19}$ grains of rice

$3.15 \times 10^{19} = 3,150,000,000,000,000,000 = 3.15$ billion billion

Conclusion: It takes $3.15 \times 10^{19}$ grains of rice to cover the Earth. It takes $9.22 \times 10^{18}$ grains to cover the land (30% of Earth).