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THE GREENHOUSE EFFECT

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The "greenhouse effect" is a common term referring to the action of certain components of the atmosphere ("greenhouse gases") in absorbing some of the long wave radiation emitted by the Earth. This energy is therefore conserved in the Earth-atmosphere system, rather than being lost to space. It has been calculated that the natural greenhouse effect causes the mean surface temperature to be 33 degrees C higher than would be the case in its absence!

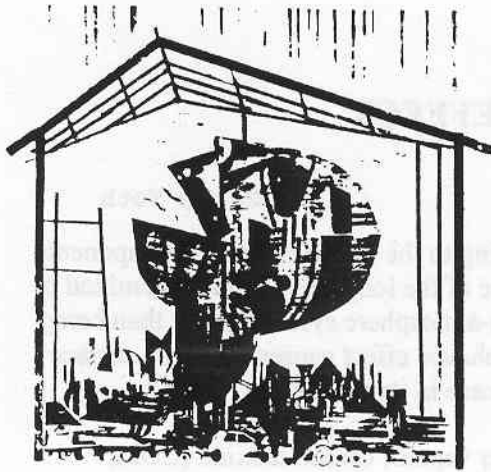
Five main greenhouse gases occur naturally: water vapour, carbon dioxide (CO₂), methane, nitrous oxide and ozone. In recent decades an anthropogenic or manmade greenhouse effect has been hypothesized, in which increasing temperatures measured around the world are related to increasing concentrations of CO₂ in the atmosphere, which are in turn caused by the burning of fossil fuels and also by ongoing deforestation. The link is difficult to prove conclusively, since the climate itself is variable to some degree. CO₂ is believed to be the main contributor to the warming, due to the large measured amount which is entering the atmosphere, and also by its persistence once there (its mean atmospheric residence time is on the order of hundreds of years). With each passing year, however, scientific evidence is increasing that the cause and effect link between increased greenhouse gases and higher average temperatures is indeed correct.

There exist several stamps which have as their subject the greenhouse effect. This article includes only those which are more or less directly related to the topic (often this means a specific mention of "greenhouse effect"). Others in which the link is indirect (e.g. those related to deforestation, or international climate conferences, or combustion of fossil fuels) have not been included here.

The author is aware of the following stamps which are directly related to the greenhouse effect:

Country	Scott #	date of issue	
Denmark	999	27/01/1994	Fig. 2
Great Britain	1465	15/09/1992	Fig. 1
Maldives	1444	21/11/1990	
	1516-17	10/03/1991	
Tuvalu	649-52	02/11/1993	Fig. 3
	652a SS4	02/11/1993	contains 649-52

The Maldives 1516-7 stamps are included in this list solely on the basis of their description in the Scott catalogue, which describes their subject as "global warming". The author has not personally examined them.



The Greenhouse Effect

A fragile ecology to bolster and heat,
our children's future at stake if we fail.



Fig 1. Great Britain FDC. Note that this reproduction is reduced to 80% of full size.



Fig. 2

The spade in this Danish stamp has no obvious relation to the subject of the greenhouse effect. However, the word for "spade" in Danish is apparently "spar", which also means "save" (possibly more or less the same word as the English "spare"). This stamp can then be interpreted as meaning "Save CO2", or more precisely "Save fossil fuels, and less CO2 will be emitted into the atmosphere".

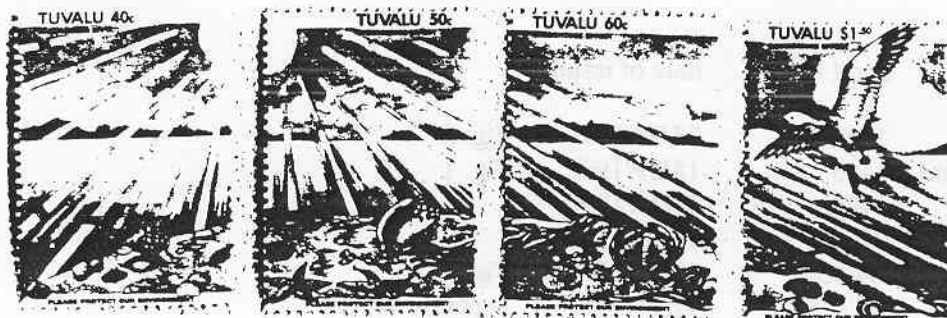


Fig. 3 Each stamp in this set of four is inscribed "Greenhouse Effect" at the top, and "Please Protect our Environment" at the bottom.

The author would be interested in hearing of any other stamps that should be added to this list.

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