

## A QUANTITATIVE COMPARISON OF THE CARBON IN THE BIOMASS AND COAL BEDS OF THE WORLD

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*Calculations indicate the quantity of carbon contained in the coal beds of the world is 4.9 times greater than that in the present biomass on the earth, but only 1.4 times that which would be present if all land area were as productive as the tropical forests of today. The order of magnitude of these comparisons supports the creationist's position.*

Coal will probably become increasingly important with regard to meeting the energy needs of the world population. The great abundance of coal has been estimated at  $7.39 \times 10^{12}$  metric tons. Of this quantity, about 52% is bituminous, 41% subbituminous and lignite, and 7% anthracite coals.<sup>1</sup>

One might question whether the biomass, the accumulated living organic matter, present on the earth at the time of the Noachian flood could have been sufficient to form such large amounts of coal. A comparison of the amount of carbon in the biomass and coal beds of the world may be of value.

### Amount of Carbon in World Biomass

The biomass of the world has been estimated at  $1.86 \times 10^{12}$  dry metric tons.<sup>2</sup> Various analyses of dry organic matter show it to be about 49% carbon,<sup>3</sup> indicating the biomass present on the earth would supply  $9.11 \times 10^{11}$  metric tons of carbon.

However, the vegetation on the earth is assumed to have been much more luxuriant before the flood, and fossils found in coal indicate tropical-like conditions must have prevailed. Assuming all the earth's land surface were as productive as the tropical forests of today, a biomass of  $6.62 \times 10^{12}$  metric tons, or  $3.24 \times 10^{12}$  metric tons of carbon, is calculated.<sup>4</sup>

### Amount of Carbon in World Coal Beds

Using average amounts of carbon in coal (69% for bituminous, 45% for subbituminous and lignite, and 92% for anthracite coals),<sup>5</sup>  $4.49 \times 10^{12}$

metric tons of carbon are contained in the coal beds of the world. It should be pointed out that there may be double the amount of coal in the world as has been estimated, or there may be less than half that amount.<sup>6</sup> The order of magnitude of these figures, nevertheless, is of interest.

### Comparison of Carbon in Biomass and Coal Beds

Dividing the carbon found in coal beds by that available in the biomass ( $4.49 \times 10^{12} / 9.11 \times 10^{11}$ ) indicates the coal beds contain 4.9 times the carbon found in the present biomass. Assuming the earth's surface before the flood were as productive as our tropical forests of today, however, coal beds contain only 1.4 times the carbon of this potential biomass ( $4.49 \times 10^{12} / 3.24 \times 10^{12}$ ). This figure is particularly interesting to the creationist, especially when it is remembered that data used are based on rough estimates and more land area may have been present before than after the flood. Also, the pre-diluvial lands may have been even more productive than the tropical forests of today.

### References

- <sup>1</sup>Bengtson, N. A. 1939. The mineral fuels (in) Our natural resources and their conservation. A. E. Parkins and J. R. Whitaker, Editors. John Wiley & Sons, N. Y., p. 432.
- <sup>2</sup>Smith, R. L. 1974. Ecology and field biology. Second Edition. Harper & Row, N. Y., p. 38.
- <sup>3</sup>Kormondy, E. J. 1969. Concepts of ecology. Prentice-Hall, Englewood Cliffs, N. J., p. 21.
- <sup>4</sup>Calculated, using table in Smith, *Op. cit.*, p. 38.
- <sup>5</sup>Miller, E. W. 1965. The mineral fuels (in) Conservation of natural resources. G-H. Smith, Editor. John Wiley & Sons, N. Y., pp. 354-357.
- <sup>6</sup>Whitcomb, J. C., Jr., and H. M. Morris. 1964. The Genesis flood. The Presbyterian and Reformed Pub. Co., Philadelphia, p. 162.

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