**Abstract**

By 2030, 60% of the global population will live in urban agglomerations (UN, 2005) and will continue drawing energy and other resources such as fresh water from distant areas. Odum (1989) describes cities as heterotrophic, parasitic ecosystems since they consume more energy than they produce. Walled medieval towns drew their energy resources from the surrounding farms, and even Amazonian tribal settlements depend on gardens and game outside the village. But modern cities now display retroactive heterotrophicity that extends back in time 300 million years as they tap fossil fuels that have their origins in carboniferous swamps and ancient oceans. As global energy consumption is expanding at a rate of at least 2.3% per year, requiring increasing exploitation of hitherto undeveloped ecosystems, this heterotrophicity has all the characteristics of a malignant process. The most significant characteristic of malignancy is uncontrolled growth. That is displayed in global energy use by urban populations.