Salvation by waste

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If organic waste can be converted to “free” energy, clean water, (& raw materials) for small scale manufacturing/ mending etc. for communal use, then a sustainable community has been created. If the goods, services & crops made are used internally, then maybe a local token currency based on joules of alternative energy from small scale electricity, gas & solar power generation could be used to serve the communities sustainable needs. Maybe silver jewelry/tourist items (woolen blankets) sold for “export” might bring additional (dollar) revenue for purchase of essentials made elsewhere, hence medicines/ hospitalisation/ cell phones/silver from elsewhere would have to be purchased with dollars derived from surplus energy, crops, tourist revenue & welfare. The token currency could not be used for “externals”. Some kind of community bank linked to the power station/ gasifier plant could be set up which would create “municipal energy tokens” based strictly on “redeemable (alternative) energy”. Thus a baked/painted clay pot only for domestic use would be sold for a number of joule tokens. This would include the energy cost in creating the fired pot, as well as the energy cost of the person creating it (food/shelter ). Government oversight would be required as too many tokens would wreck the system. The tokens would be non negotiable externally. Problems that I have not been able to solve are “equivalency” for even if the system “worked” then the tokens would circulate beyond the community as a useable currency, even if prohibited. If war / currency collapse etc disables the currency, then a network of independent sustainable local currencies might work.

Hence an external energy source (sun), an ash pile & the contents of the chamber pot could be reborn as a lunar/martian colony filled with people & trees & crops etc. So given just a nitrogen & CO$_2$, atmosphere, abundant water (& enough sunlight), the number of humans sustained in this system would be limited by the number of photons hitting the planet's surface for the growing of crops, maybe in stacked glass towers. By monetizing fossil fuels you have the petrodollar - by monetizing the photon, whether captured in the waste stream, food or from solar panels, you have a sustainable economy. This scheme needs computer modelling.

Biography

Paul Comet is a Senior Inorganic Geochemist at Comet Environmental Consulting. He completed his PhD degree from University of Bristol, London in the year of 1983 and postdoctoral from Newcastle University in the year of 1985. His major interests are in developing sustainable economic frameworks for carbon fixation.

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