

ARC Analysis* of Artificial Trees

The Artificial trees option should be pursued vigorously and urgently, to determine if it is technically viable. Given the key facts of the report "geo-engineering giving us the time to act?" by The Institution of Mechanical Engineers <http://www.imeche.org/NR/rdonlyres/448C8083-F00D-426B-B086-565AA17CB703/0/IMechEGeoengineeringReport.pdf>

“Key Facts

- Artificial trees would be several thousand times more effective at removing CO2 compared with natural trees
- Five to ten million ‘trees’ could remove the current global annual non-energy production CO2 emissions
- Leveraging emerging CCS (Carbon Capture and Storage) infrastructure will lead to economies of scale
- Each tree would cost about \$20,000.”

Total cost of the trees required to remove the current global annual non-energy production CO2 emissions is estimated at between US\$100 billion and US\$200 billion. This compares with:

* Global military expenditure in 2008 that is estimated to have totalled US \$1,464 billion. (<http://www.sipri.org/yearbook/2009/05>).

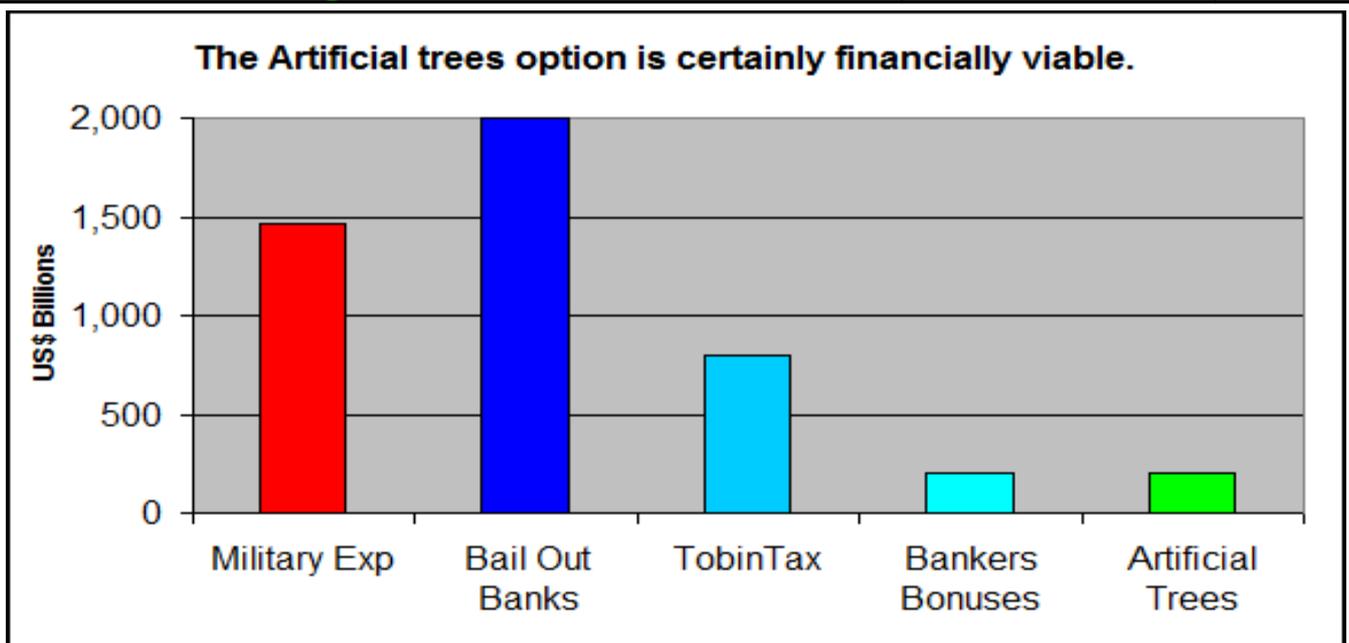
* During the last quarter of 2008, central banks purchased US\$2,000 billion of government debt and troubled private assets from banks. (Wikipedia)

* The global currency market was US\$3,200 billion a day in 2007, or US\$800,000 billion per annum. A Tobin Tax of 1% would yield US\$8,000 billion per year. (Wikipedia)

* About US\$20bn per year (US\$200bn over 10 years) is paid in bonuses to 'bankers' in the Financial Sector.

The Artificial trees option is certainly financially viable.

Expenditure Comparisons	Code	US\$ billion
Global military expenditure in 2008	Military Exp	1,464
Cost to bail out banks last quarter of 2008	Bail Out Banks	2,000
Tobin Tax 0.1% per Year	TobinTax	800
Bonuses to 'bankers' over 10 Years	Bankers Bonuses	200
Total cost to remove global annual CO2 emissions	Artificial Trees	200



* ‘ARC analysis’ involves a comparison of the world’s human and economic resources spent on the Military and armaments with that spent on providing true Human Security. www.arcuk.org