

# Free science and engineering in the global public interest

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<http://hexayurt.com>

## Is it working?

- 6.5 billion people
- 60 million die per year
- 25% to 50% from poverty
- *preaching to the choir*

[http://www.who.int/whr/2004/annex/topic/en/annex\\_2\\_en.pdf](http://www.who.int/whr/2004/annex/topic/en/annex_2_en.pdf)  
[http://www.wantedinrome.com/articles/complete\\_articles.php?id\\_art=850](http://www.wantedinrome.com/articles/complete_articles.php?id_art=850)

The Pentagon open source Hexayurt.com shelter



open source has no ideology, gets everywhere

## Poverty cluster

- water, fire smoke, food
- infant mortality, birth rate
- gordian knot of the world
- different way to see it?

## **Kinshasa on the Clyde**

- Glasgow Calton: 54 (m)
- Congo: avg life 54 (all)
- Dole \$10/d+health/ed/etc
- Congo income: \$8/day

data from wikipedia, not purchasing power parity adjusted

***Milton Friedman  
where is your god now?***

no offense, Patri :-)

## **Kerala India (60m)**

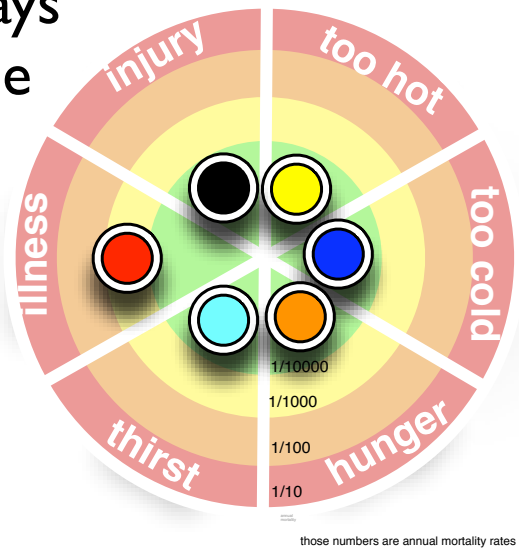
- 76y life expectancy
- 91% literacy on **\$1/day**
- democratically elected  
market communist govt.\*

\* not currently in power, but did land reforms

## **Analytical tools**

- mortality <> income
- mortality = infrastructure?
- *The Ghost Map* (London)
- Simple Crit Infra Maps

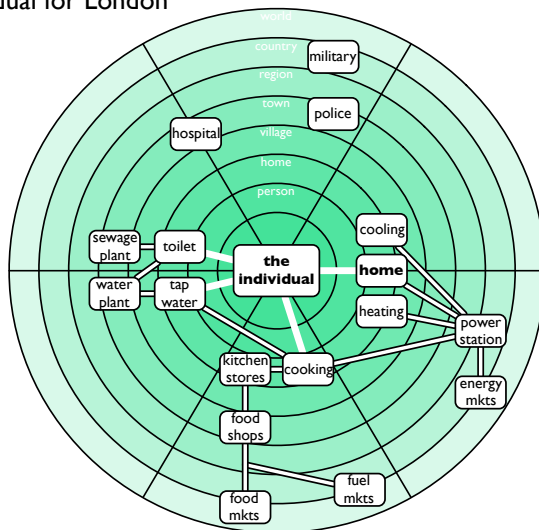
six ways  
to die



## Mortality-centric

- design - who is saved?
- budgeting - \$/life
- planning - goal mortality
- evaluation - count dead

simple critical infrastructure  
map / individual for London



## INFRASTRUCTURE

- clean water & a toilet
- a cookstove
- better farming
- **10-20m lives a year**

## Who owns it?

- Gasification stove tech
- Basic tech is public
- Philips patent a tweak
- *Never reached the mkt :-)*

## Internet Peasants?

- \$20 iPhone in 2020?
- nearly 7bn on internet
- 2bn with no toilet
- download toilet plan!!!

## Global Swadeshi

- *swa*: own    *desi*: land
- own knowledge own tech
- open source appropriate technology, like Linux

## Today's examples

- rope pumps: design to fix
- one acre fund: learn 2x ag
- water filters: clay, biosand
- toilets: sulabh, compost

## **and more...**

- stoves: nearly all open
- shelter: the hexayurt etc.
- *open infrastructure ecosystem*
- **how to spread it?**

## **Business models?**

- nobody will fund
- needs phones to scale
  - phones are inevitable
- universal basic education?

## **Demo villages**

- some already exist
- **live in your own gear**
- document, teach
- spread working examples

## **infrastructure- centric politics**

- use objective measures
- tech transfer is hard
- inevitable with phone/net
- translation is the big issue

# Appropedia.org

- well over 15k articles
- translation is starting
- ready for global network
- support One Big Wiki!

## Resources

- <http://appropedia.org> - everything
- <http://akvopedia.org> - just water
- <http://hexayurt.com> - my house
- <http://butteredsidedown.co.uk/scim.html> - simple critical infrastructure maps (open)
- <http://globalswadeshi.net> - a social network for those developing appropriate solutions