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Auroville Green Practices

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The Pursuit of Sustainable Energy

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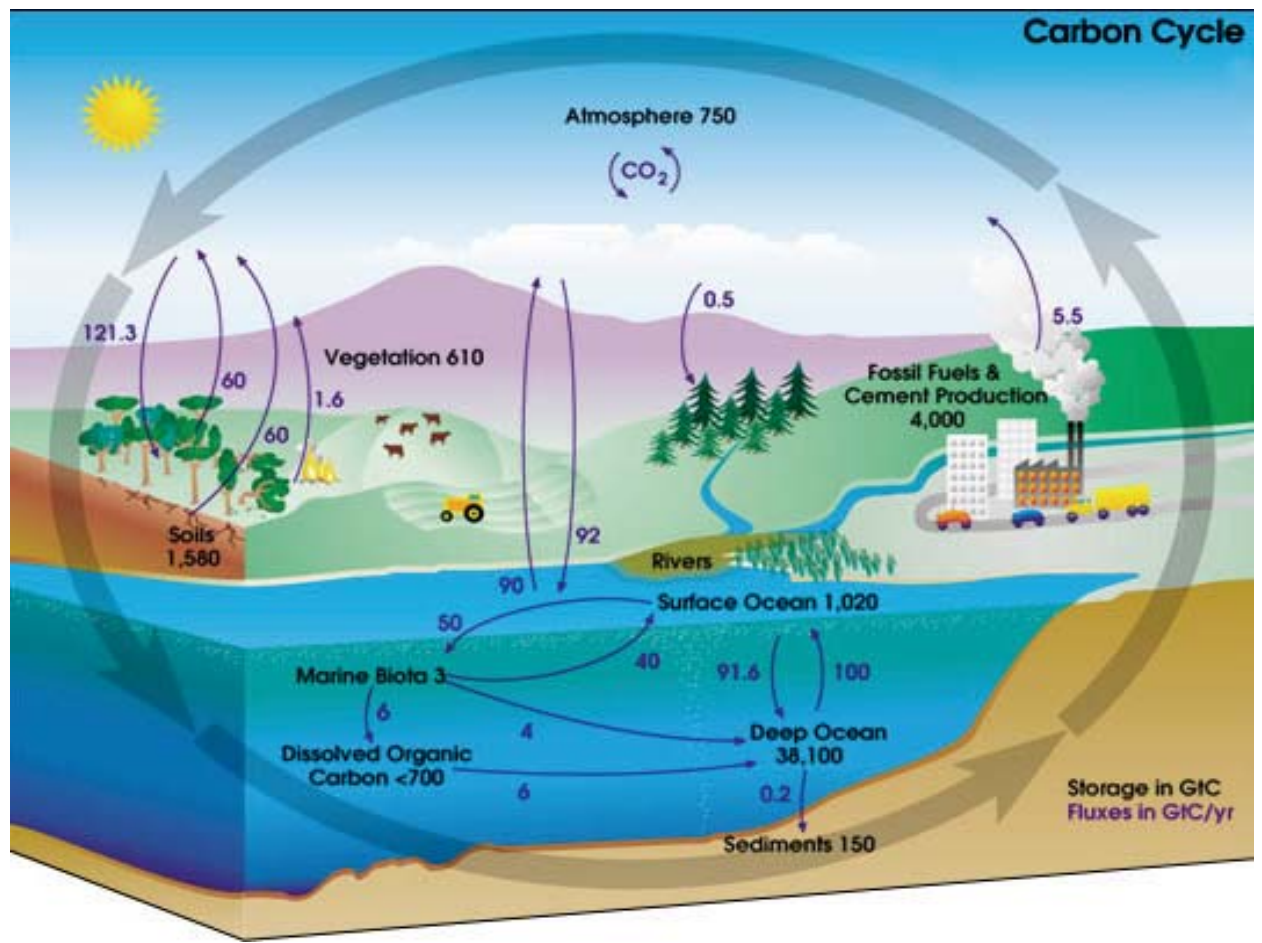
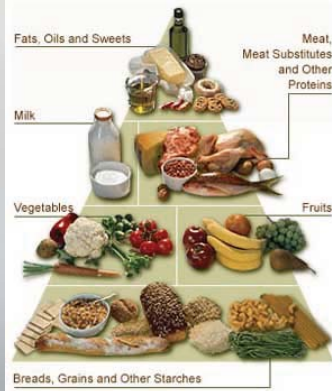
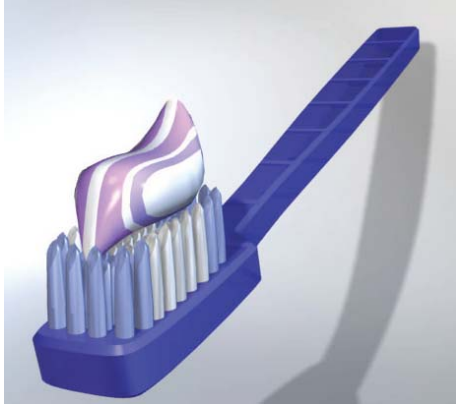
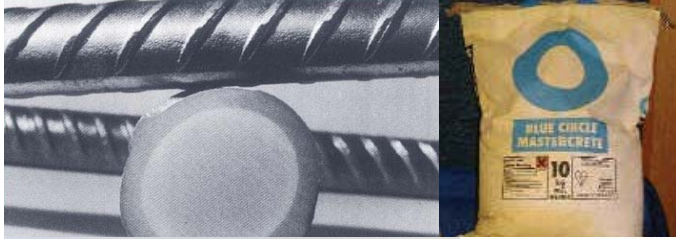
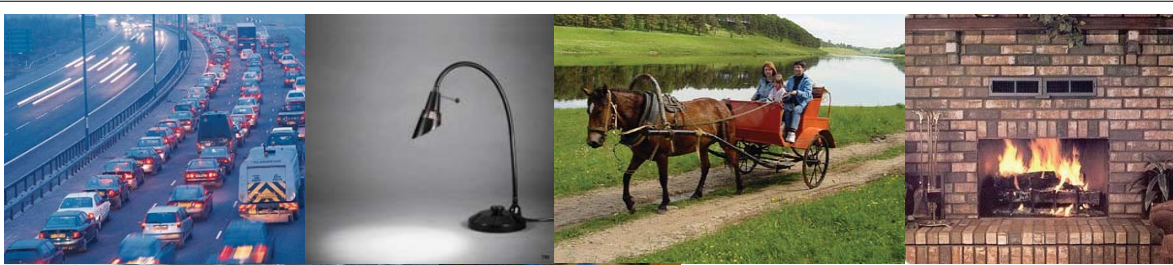
Principles

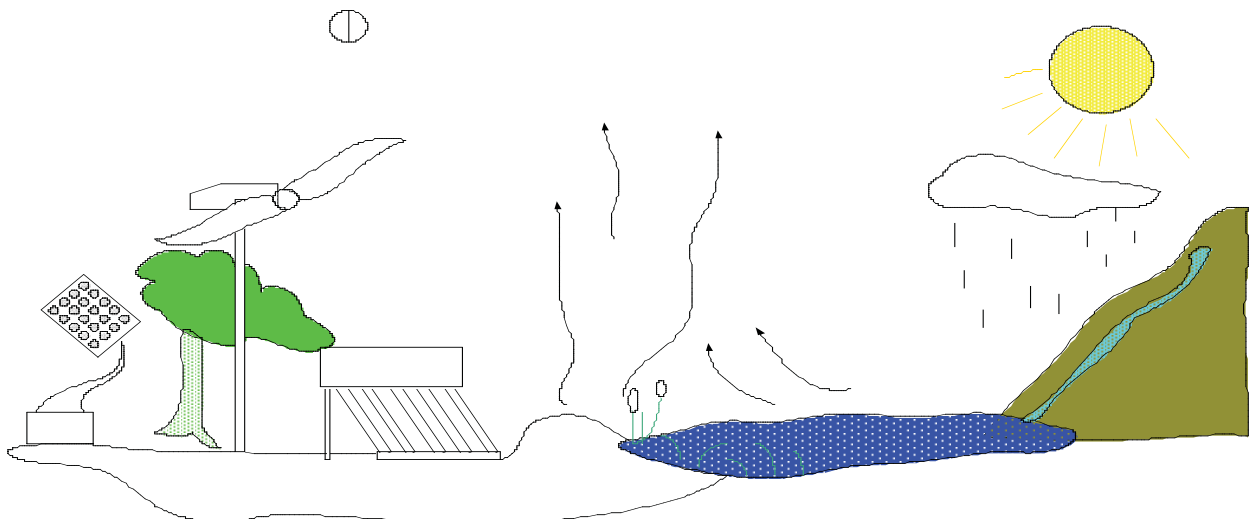
Solar Thermal

Solar Photovoltaic

Bio fuels

What do we need energy for?

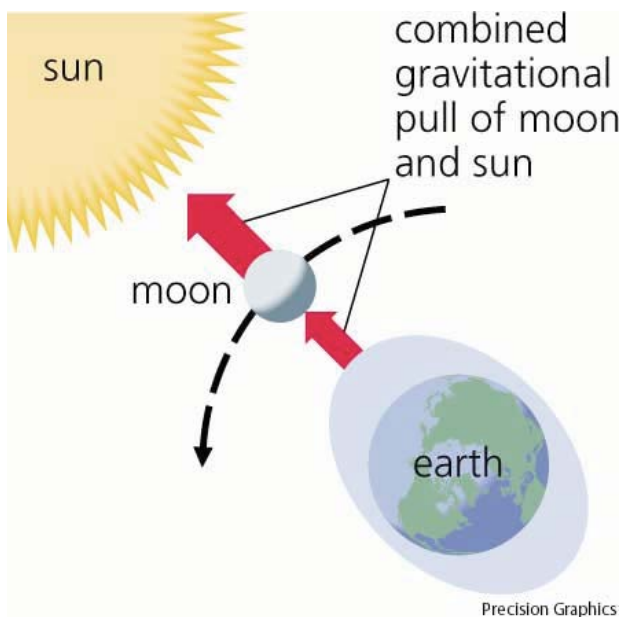


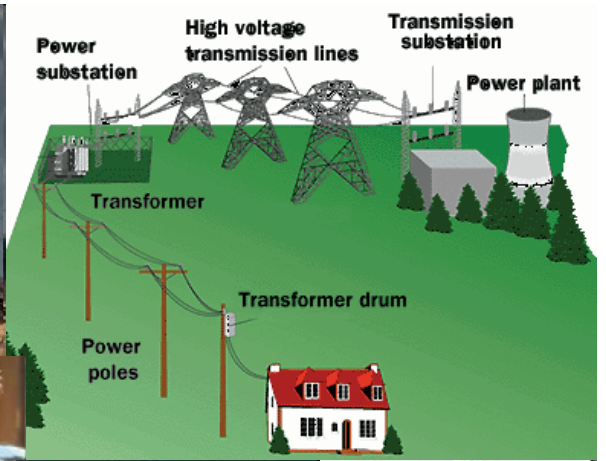


Capturing Solar energy

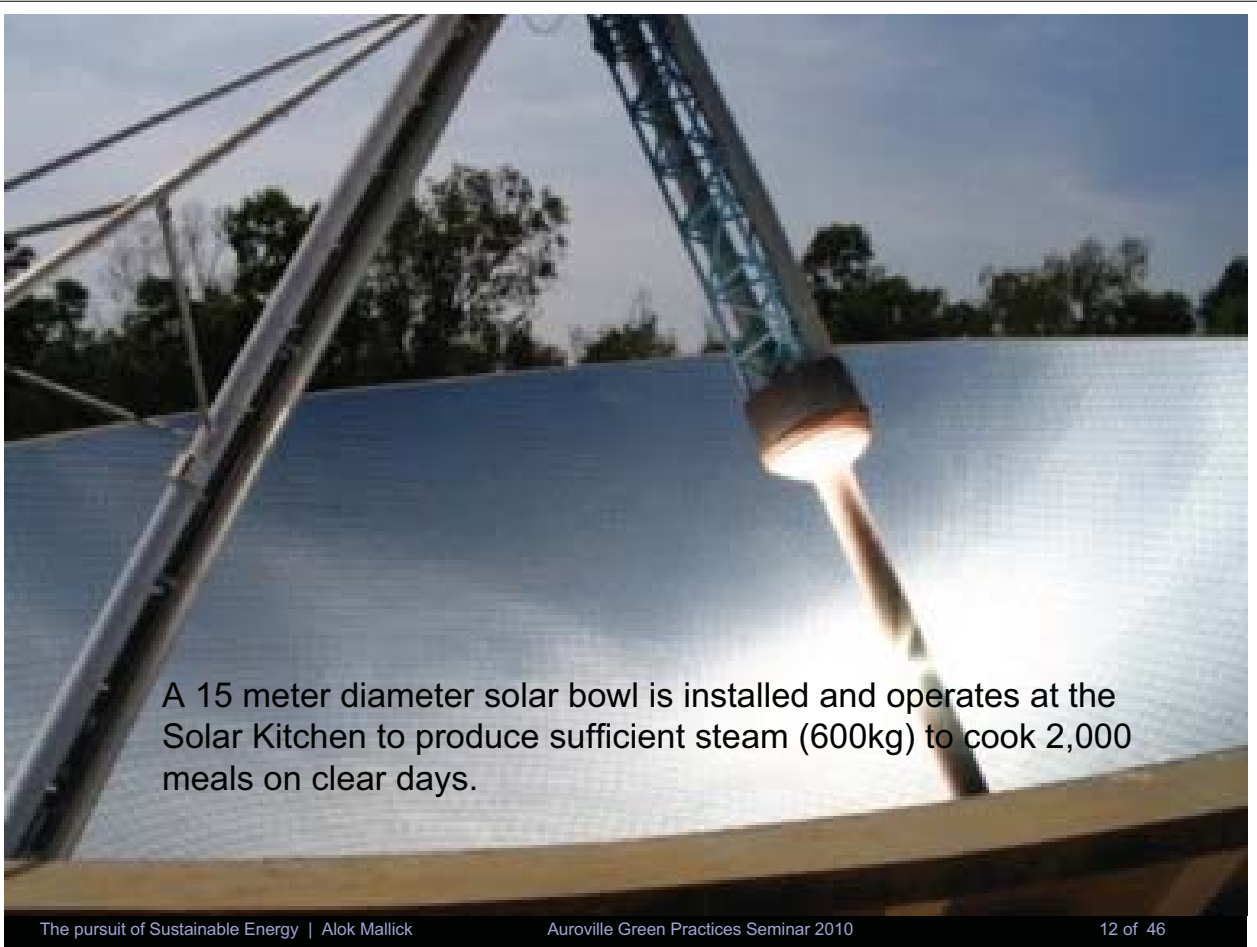
- Terrestrial plants convert solar energy with a mean efficiency of 0.1% by photosynthesis.
- Aquatic plants convert solar energy with a mean efficiency of 15 to 50%
- Photo voltaic captures only 18% solar energy, the world record for PV is 32%
- Solar thermal collectors are able to capture up to 98% of solar energy

Tidal Power





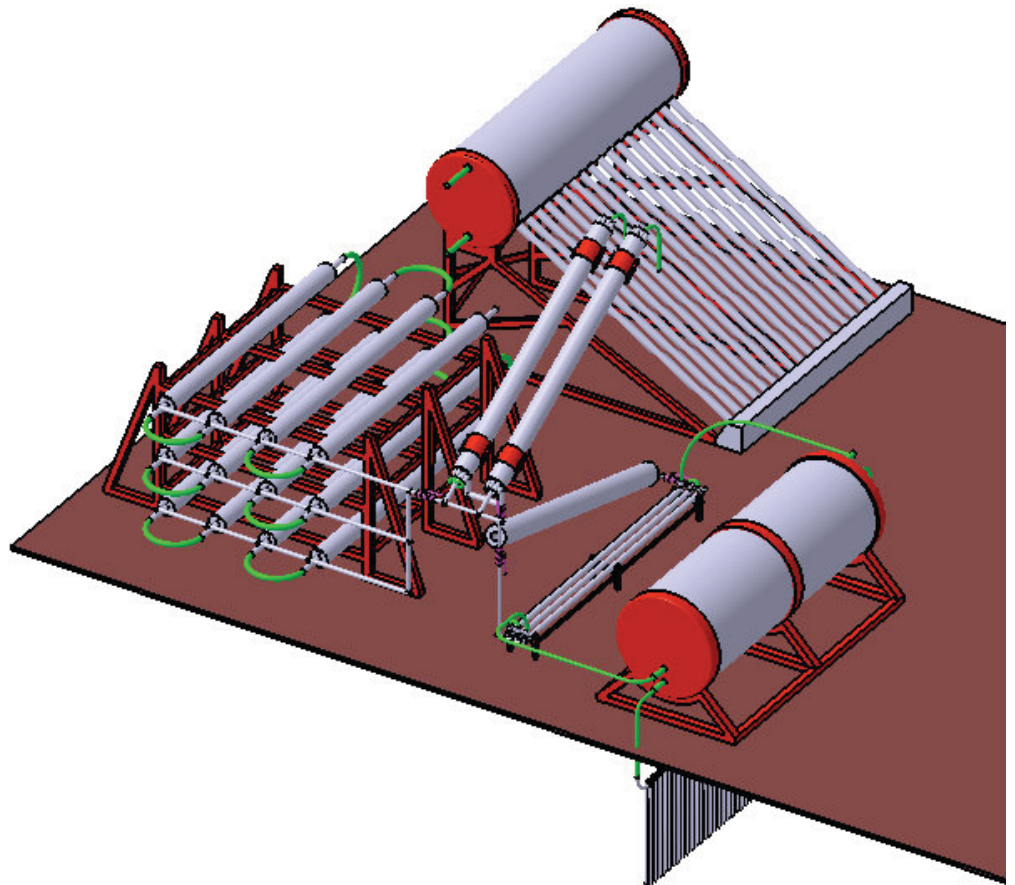
Solar Thermal



A 15 meter diameter solar bowl is installed and operates at the Solar Kitchen to produce sufficient steam (600kg) to cook 2,000 meals on clear days.





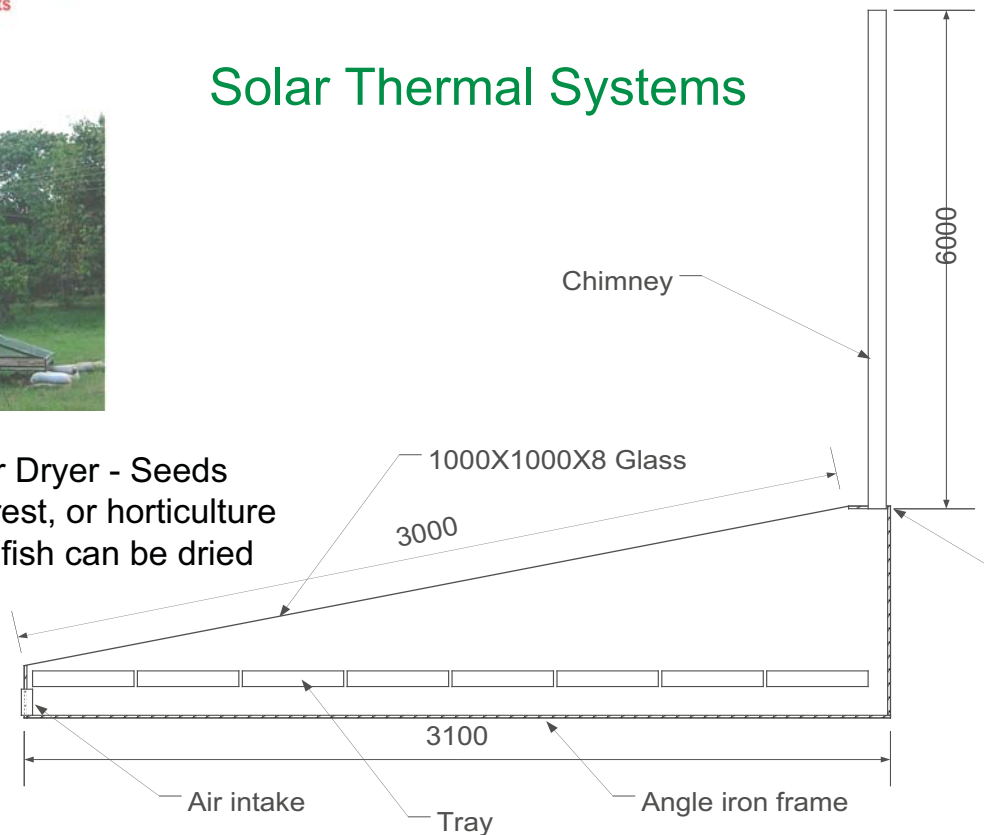




2300 Watts

Solar Thermal Systems

Passive Solar Dryer - Seeds from farm, forest, or horticulture plots or even fish can be dried



Wind Power



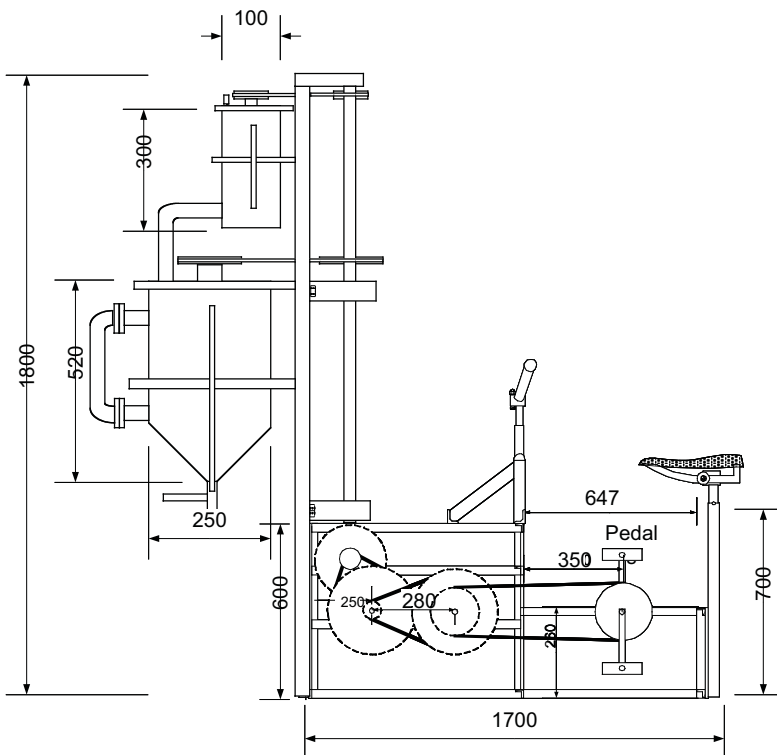
Solar photovoltaic

Solar Photovoltaic Systems



Aurore received Ashden Award (Green Oscar)

Bio Fuel



Pedal/Motor powered Biodiesel Reactor





Biodiesel Vehicle in the making

Wonder seed *Jatropha carcus*

Density of plantation: 1100 to 3300 plants/ha.

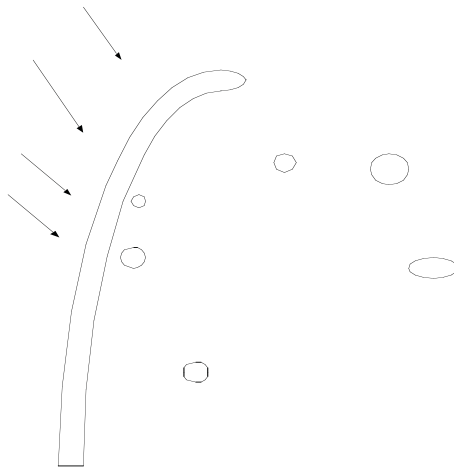
Gestation period: 5-8 months

Full production capacity of trees: reached in ~5years

Estimated seed production: 400kg to 12000 kg /ha/year

Better condition of the land, better survival and seed production

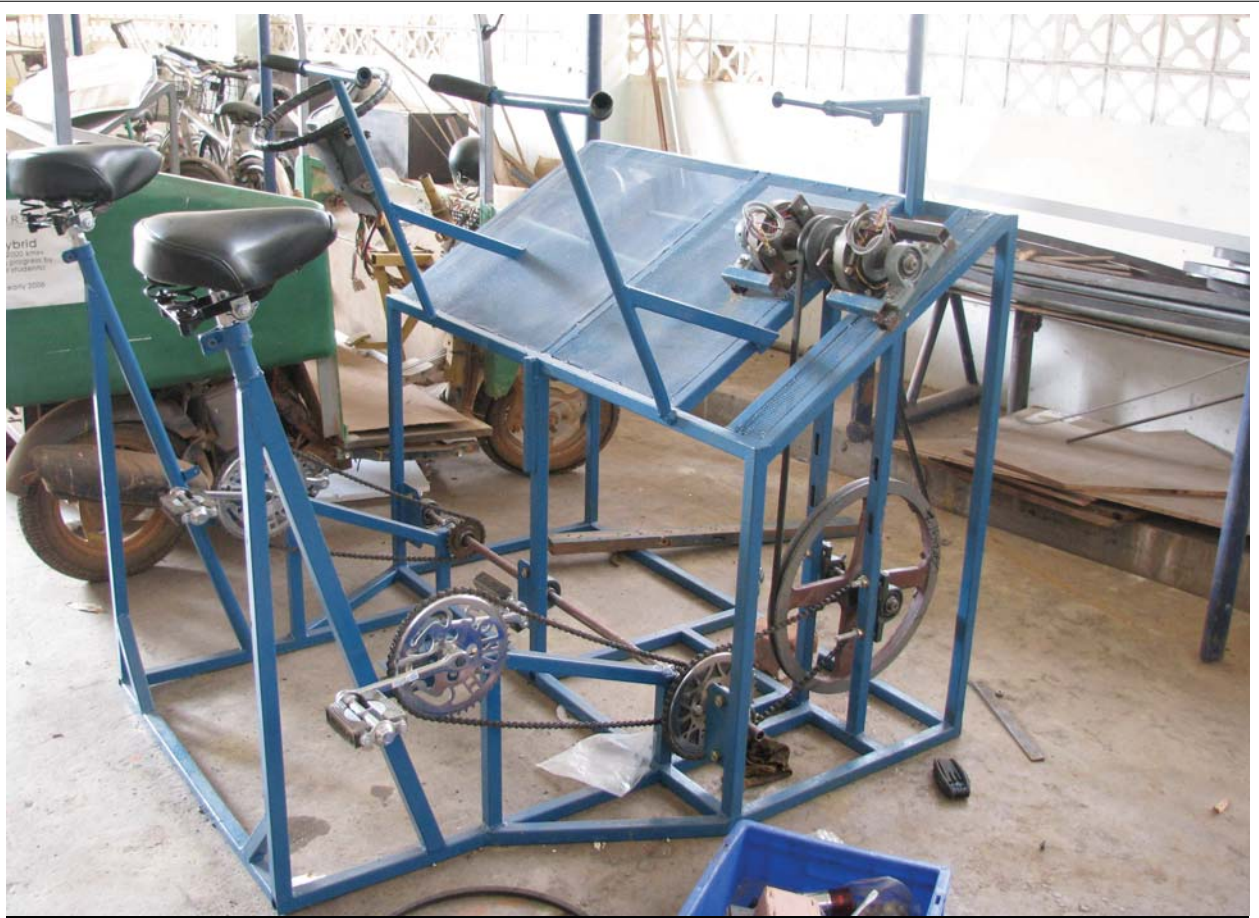
For average fuel consumption of 15litres/month per person, we will need 2000 to 3000 ha of land for plantation (925% to 38% of land in Auroville) for 2000 population.











The Solar Decathlon





Getting Around

In the Getting Around contest, student teams use electricity generated by their solar electric systems on their houses to charge their street-legal, commercially available electric vehicles. Points are awarded based on how many miles each team completes.





Nanogel is the lightest weight solid in the world with 5% solid and 95% air. With extremely small pores it is one of the best thermal insulators. Ideal for insulation, coatings, filtration and other applications.

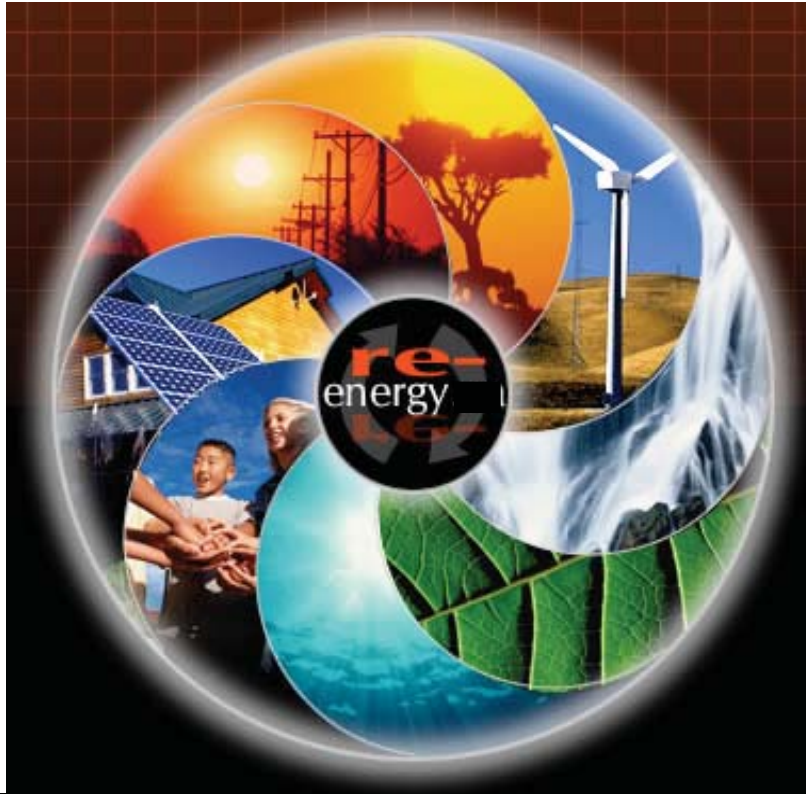








Judicial use of energy could be a solution to our demand



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