

OUR ECOLOGICAL FOOTPRINT

REDUCING HUMAN IMPACT ON THE EARTH

*Verena Meyer
M Ed Environmental Education
Thesis*

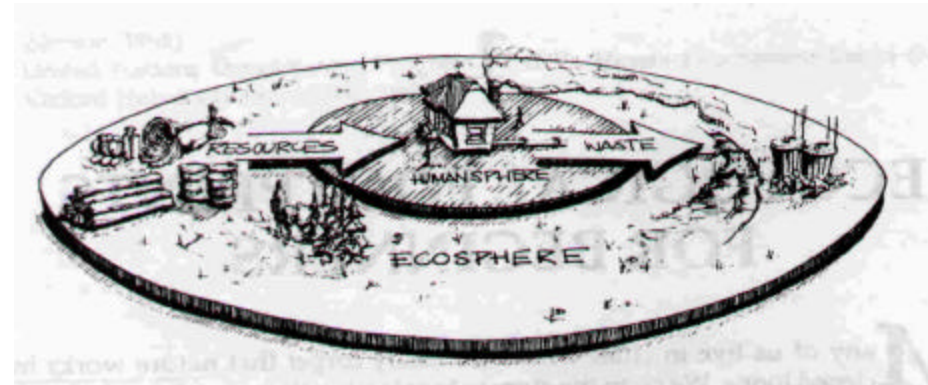
What is the Ecological Footprint?

- The measure of the load imposed by a given population or individual on nature. It represents the land area necessary to sustain current levels of resource consumption and waste discharge by that population or individual



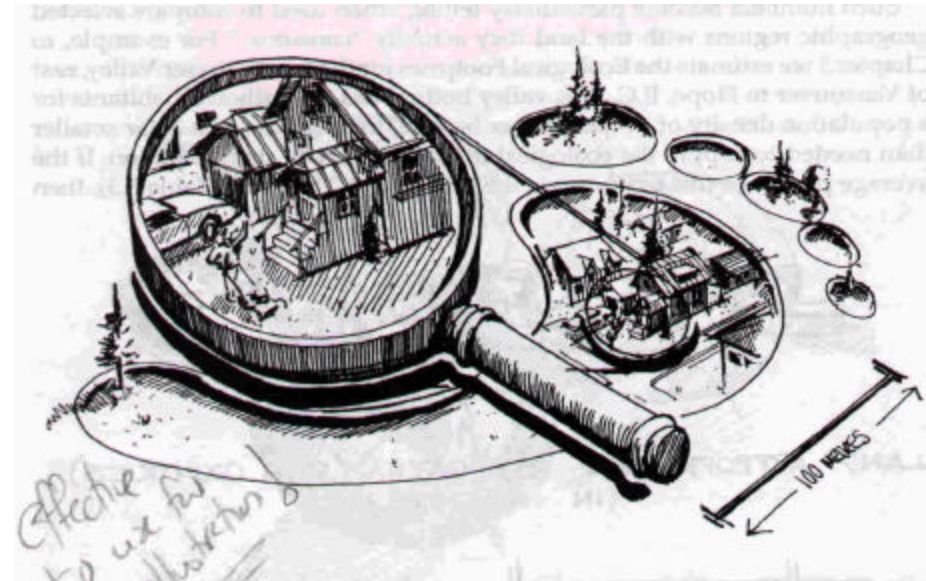
We are part of nature

- Nature supplies material requirements for life, absorbs our wastes and provides life support services such as climate stabilization, all of which make Earth hospitable for people



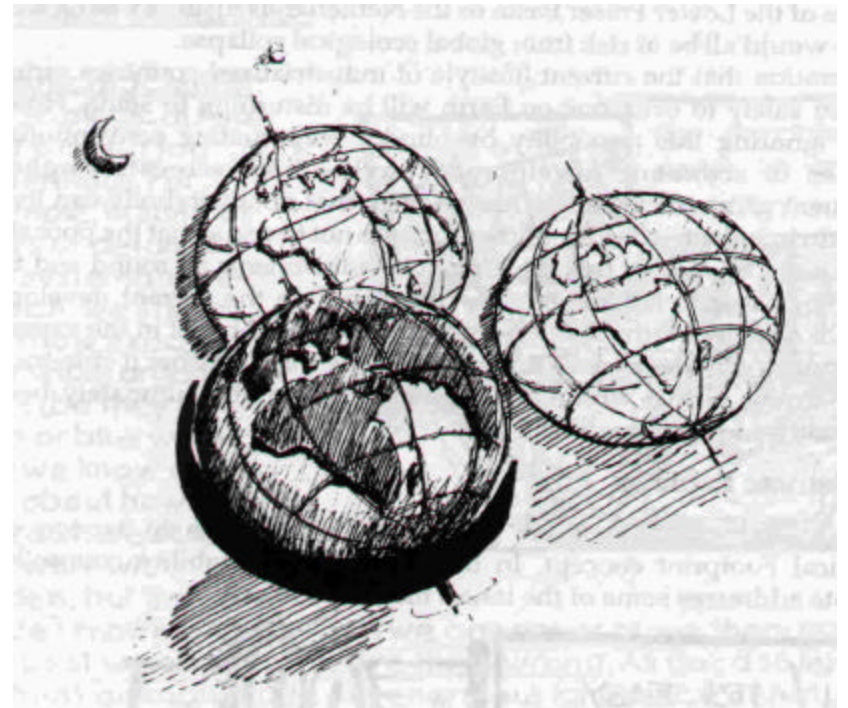
The current situation

- The average South African Footprint measures 30 000 m² per capita
- We have available 10 000 m² per capita
- Thus, a deficit of 20 000 m² per capita



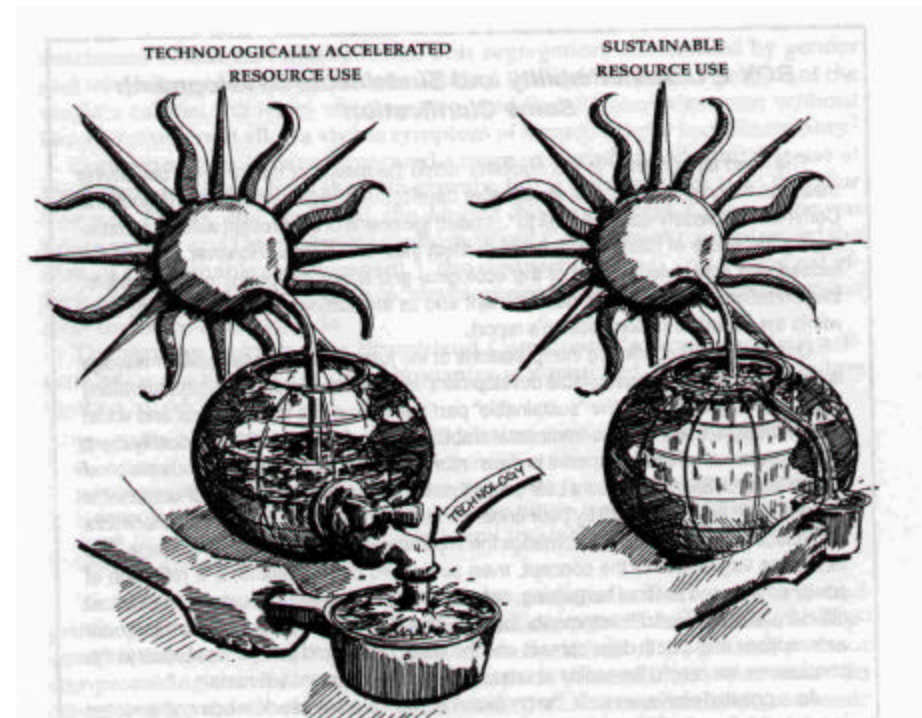
THUS, WANTED URGENTLY!!!

- If everybody live like today's South Africans, it would take at least two additional planet Earths to produce the resources, absorb the wastes, and otherwise maintain life-support. Unfortunately, good planets are hard to find..... Do you have one we can use???



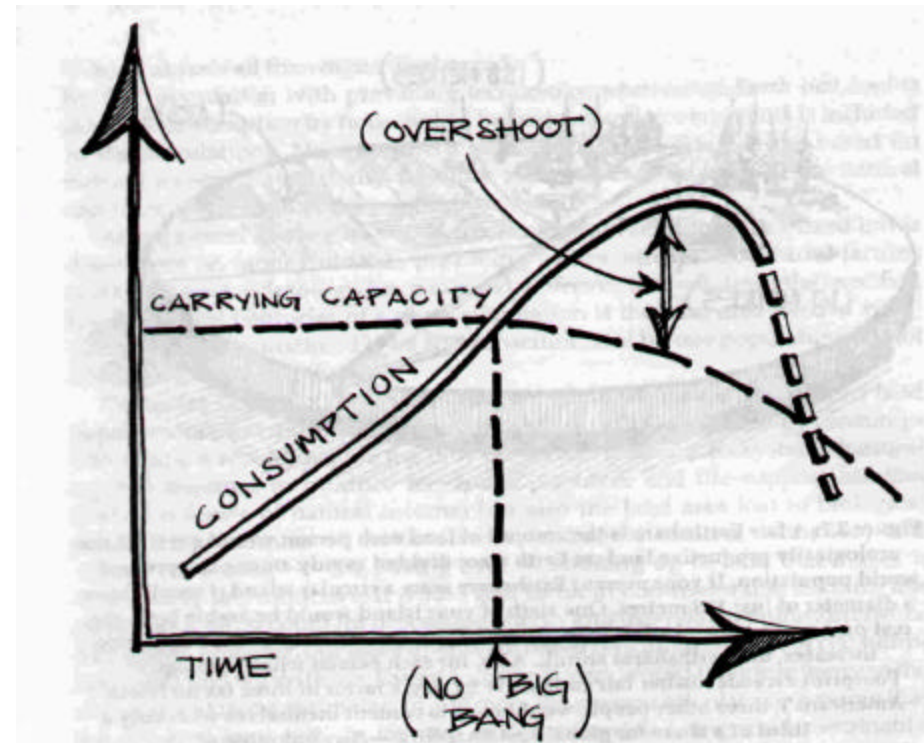
Sustainable use: the water bucket analogy

- Bucket of water filled at fixed rate
- Balanced withdrawal
- Nature (bucket) replenished by the sun
- Not used more rapidly than replenished
- Exploiting far beyond sustainable levels



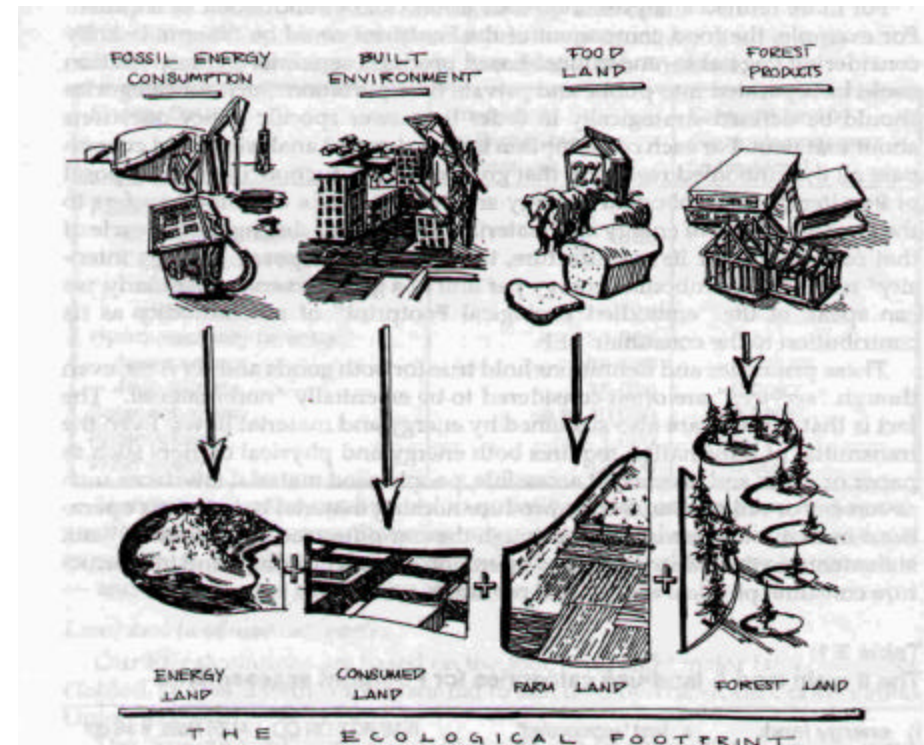
Overshooting!!!!

- Overshooting is growth beyond carrying capacity
- No big bang as harvest still increase, money income rises
- Indication of ecological stress, but all else seems normal
- Eco-catastrophe and population crash



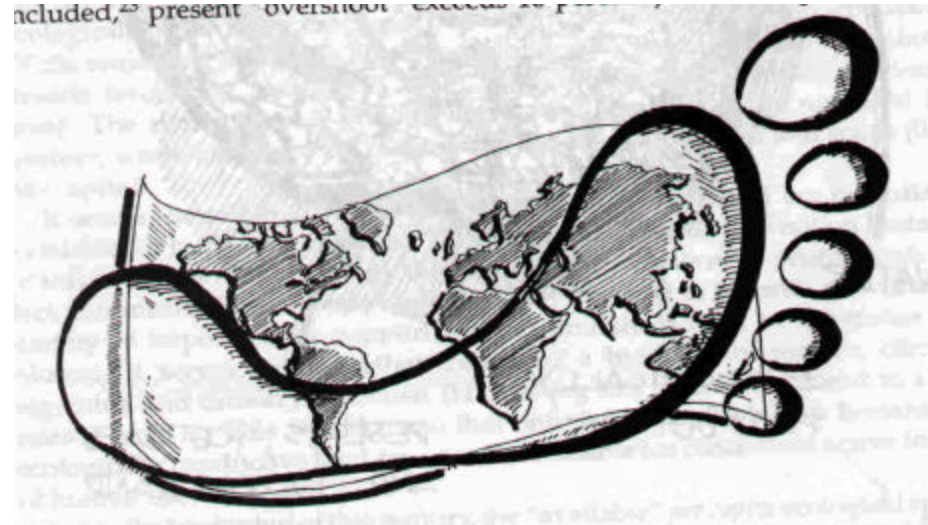
Converting consumption into land area

- Production and use of goods and service depends on various types of ecological productivity
- Converted to land area equivalents
- Food, housing, transportation, consumer goods, services



Reality of humanities current Ecological Footprint

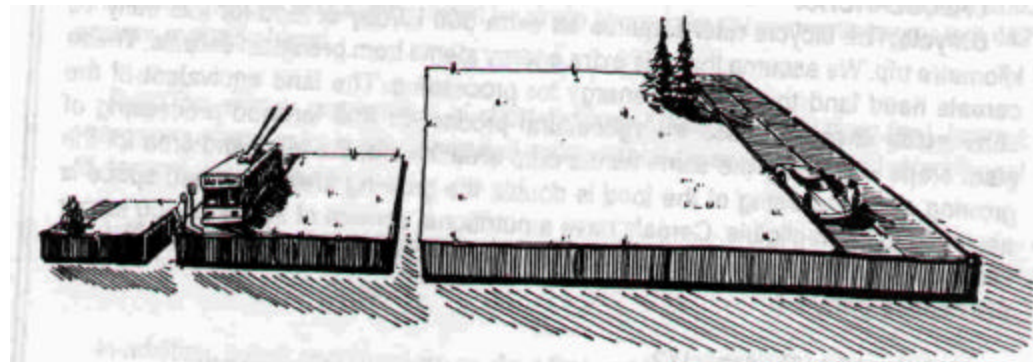
- 30% larger than nature can sustain in the long run
- Consumption exceeds natural income by 30%
- Wealth depletion
- Lavish part by the wealthy today means a hefty bill for everyone tomorrow



Example

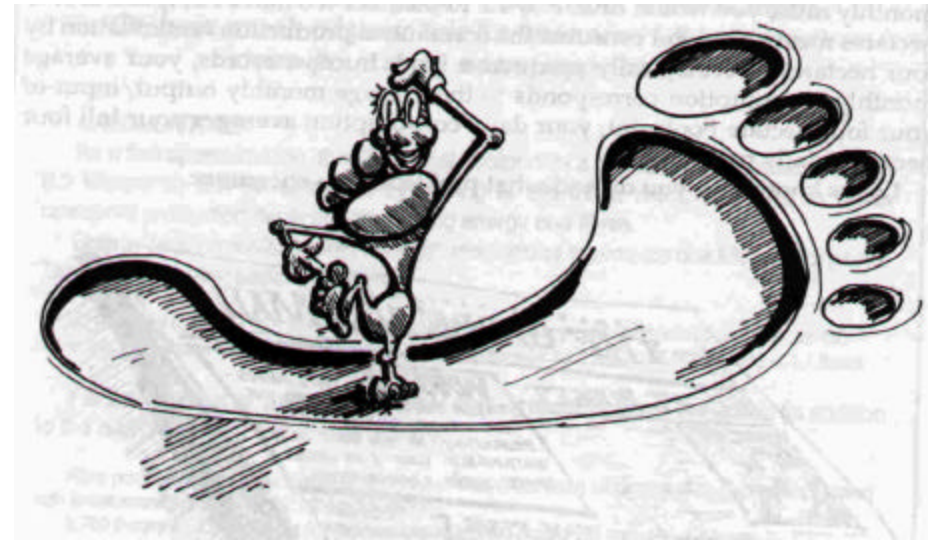
Ecological Footprint for transport

- 10 km to work or school
 - Bicycle = 122 m²
 - Buses = 301 m²
 - Cars = 1 442 m²



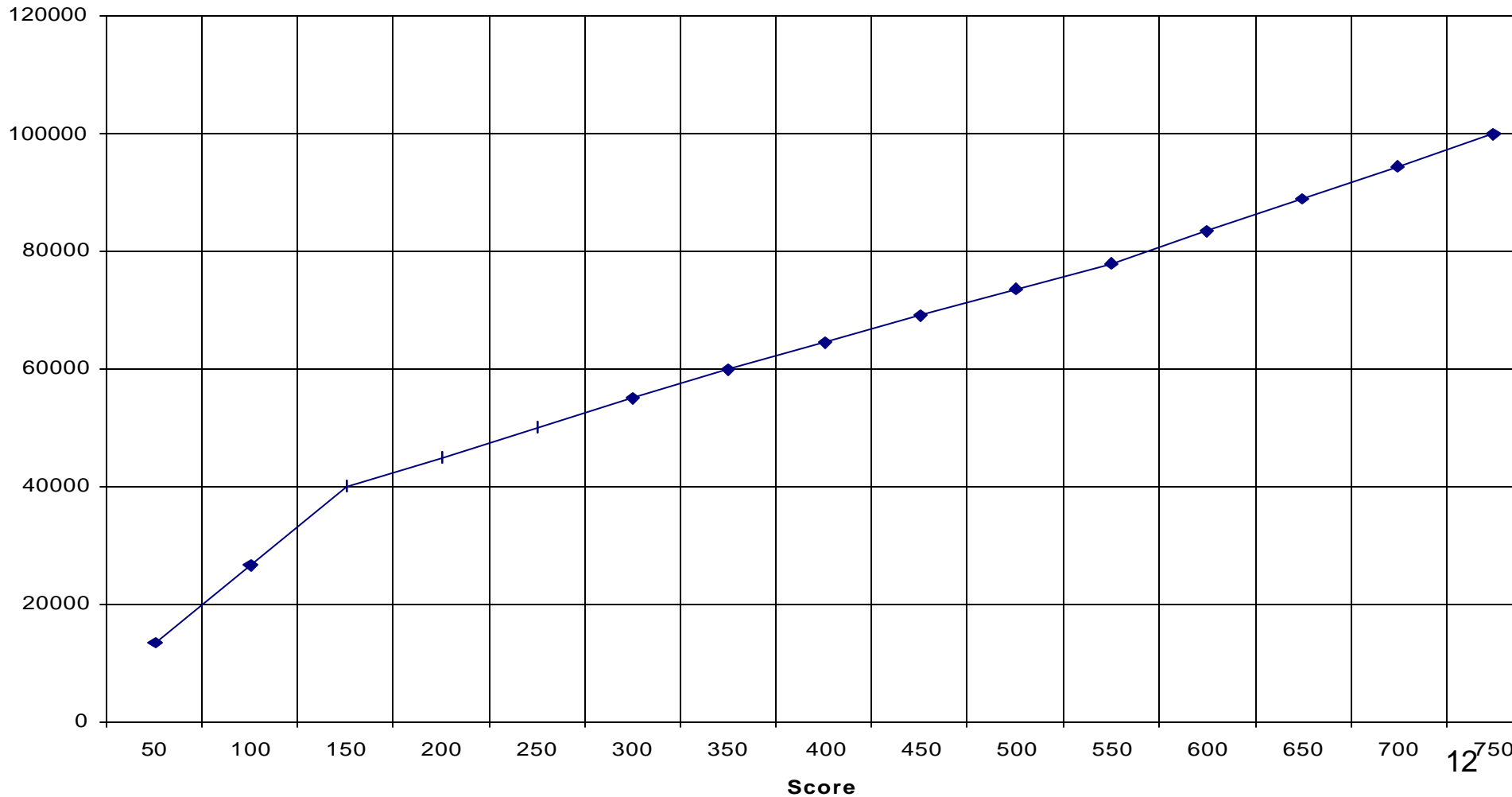
Your Ecological Footprint!!!!

- You calculated your footprint (see returned questionnaires)
 - EM = 132 (1006200 m²)
 - WC = 117 (821800 m²)
 - Total = 1828000 m² (1828 k m²) for 51 students!!!!

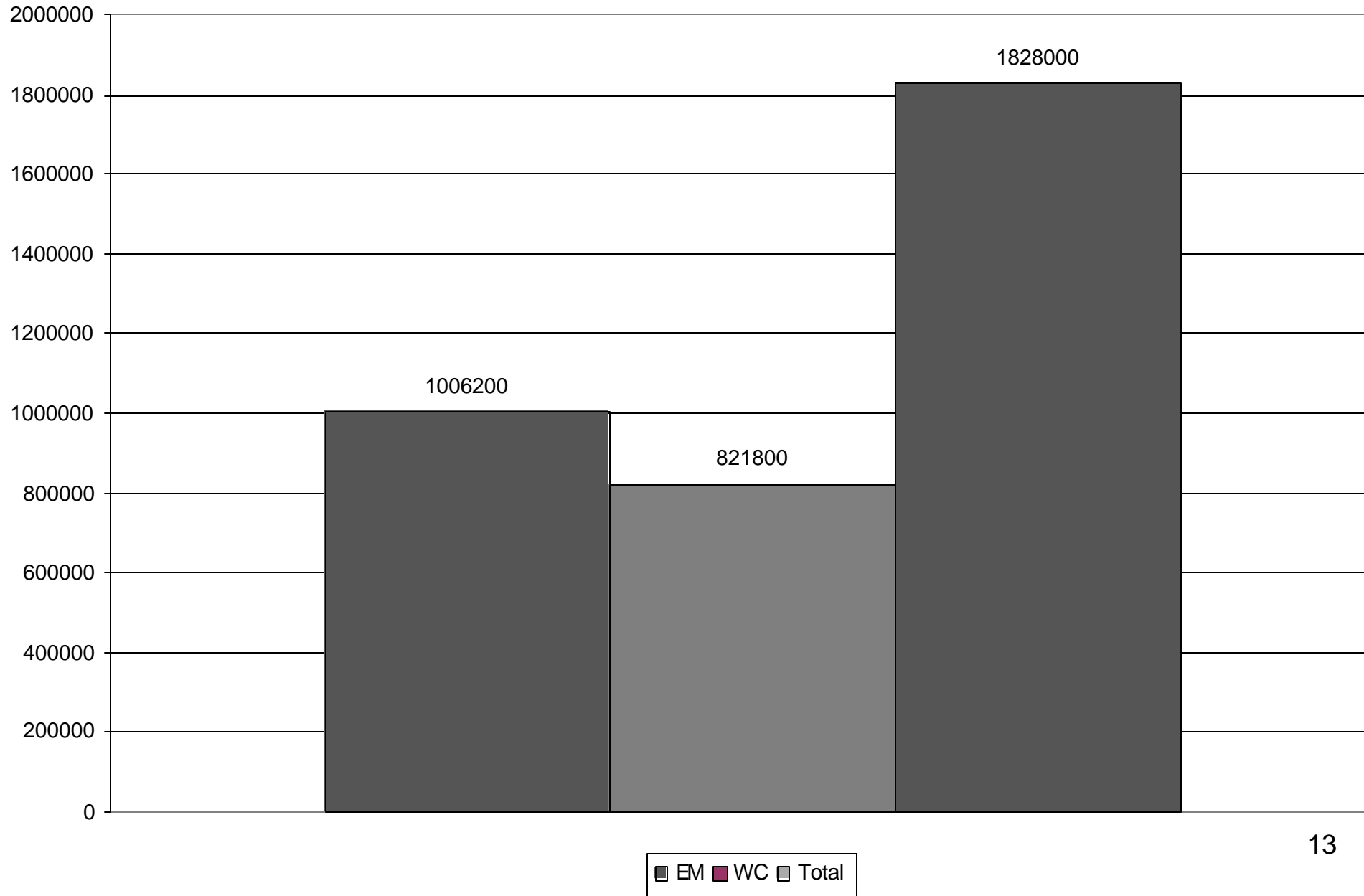


What is your land area needed!!??

EF score base line

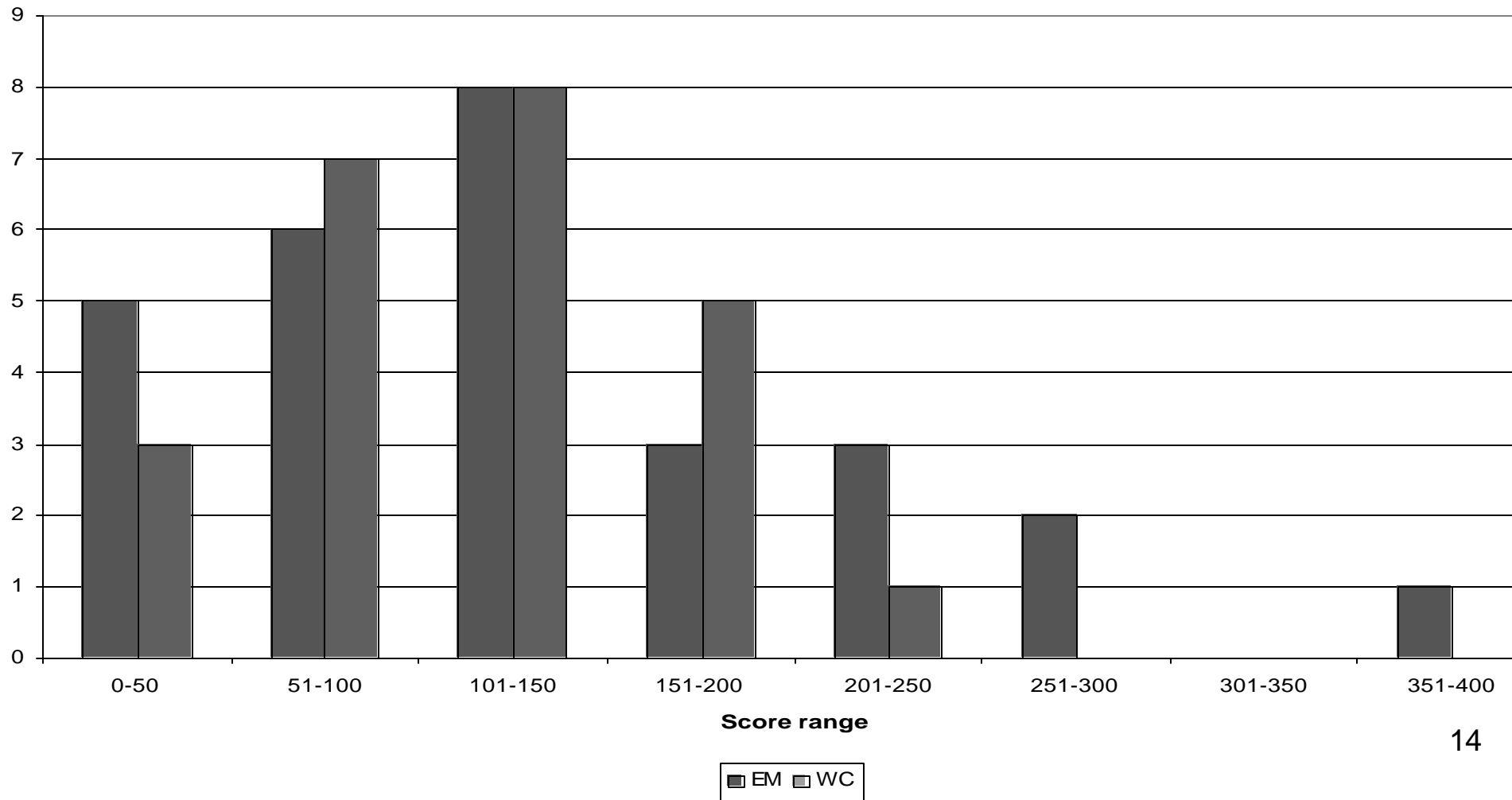


Land needed



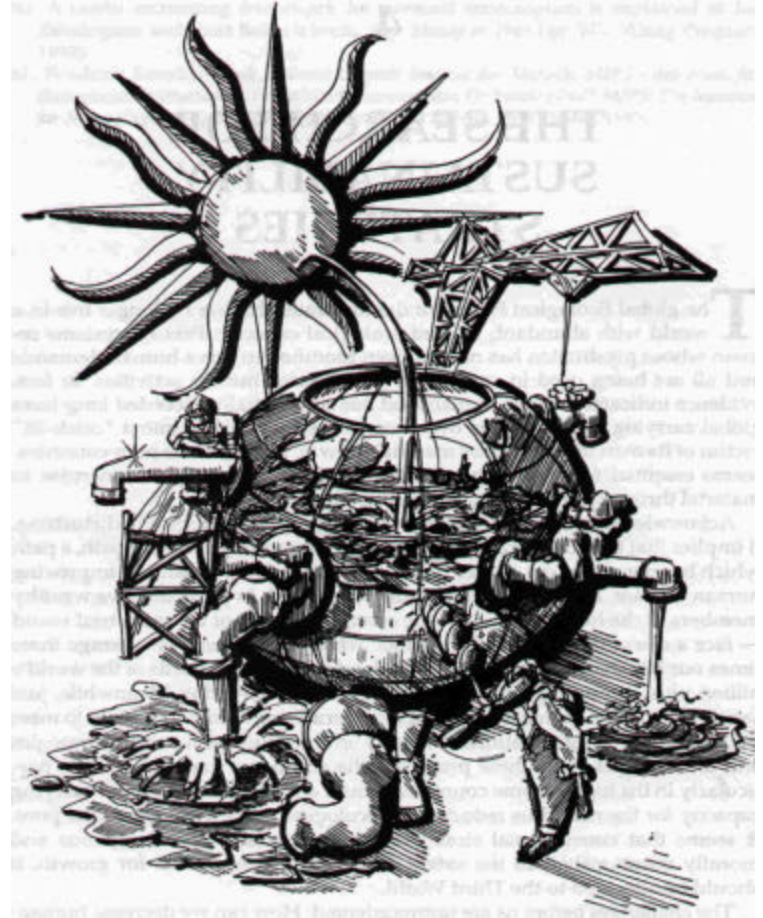
EM vs WC

Student scores



What to do....???!!!

- **Current strategies detract from sustainability, undermining both ecological and moral integrity. Any available space for material growth should be allocated to those whose basic needs are not being met.**
- **However there is a huge imbalance between poor and rich, while the Earth can sustain us all if this imbalance is restore – sustainable development!!!!**



Boiled frog syndrome!!

- A frog placed in slowly heating water will not notice the gradual but eventually lethal trend!!!
- Is this where we are heading with humanities ignorance and closed eye attitude????



Reducing our Ecological Footprint

- How????
- List some ideas...
- Will your decision or activity contribute to that goal??
- Let see, do the living more lightly profile again, but make some decisions how you would like to live to help to reduce the Ecological Footprint of South Africa and the world.

