

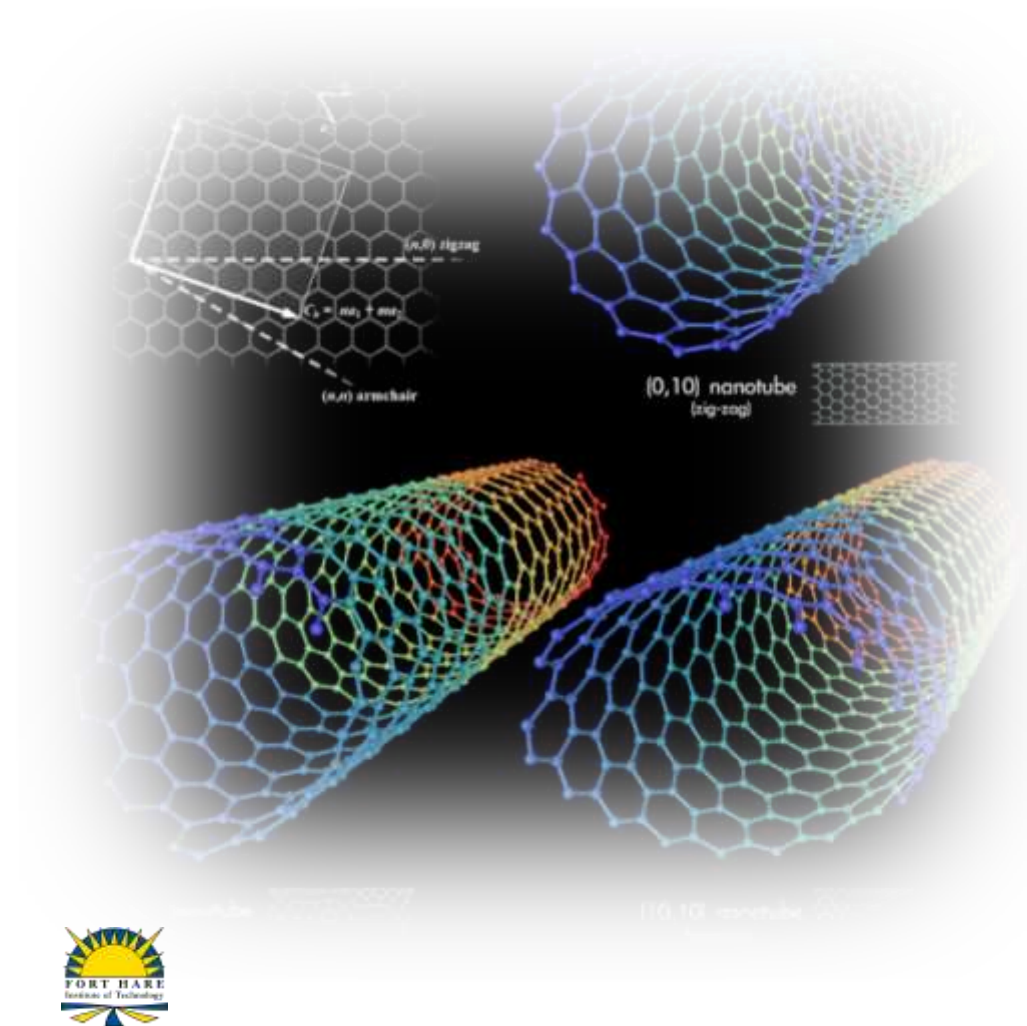
Climate change and the green economy

THE IMPORTANT ROLE OF TOUR GUIDES IN MITIGATION

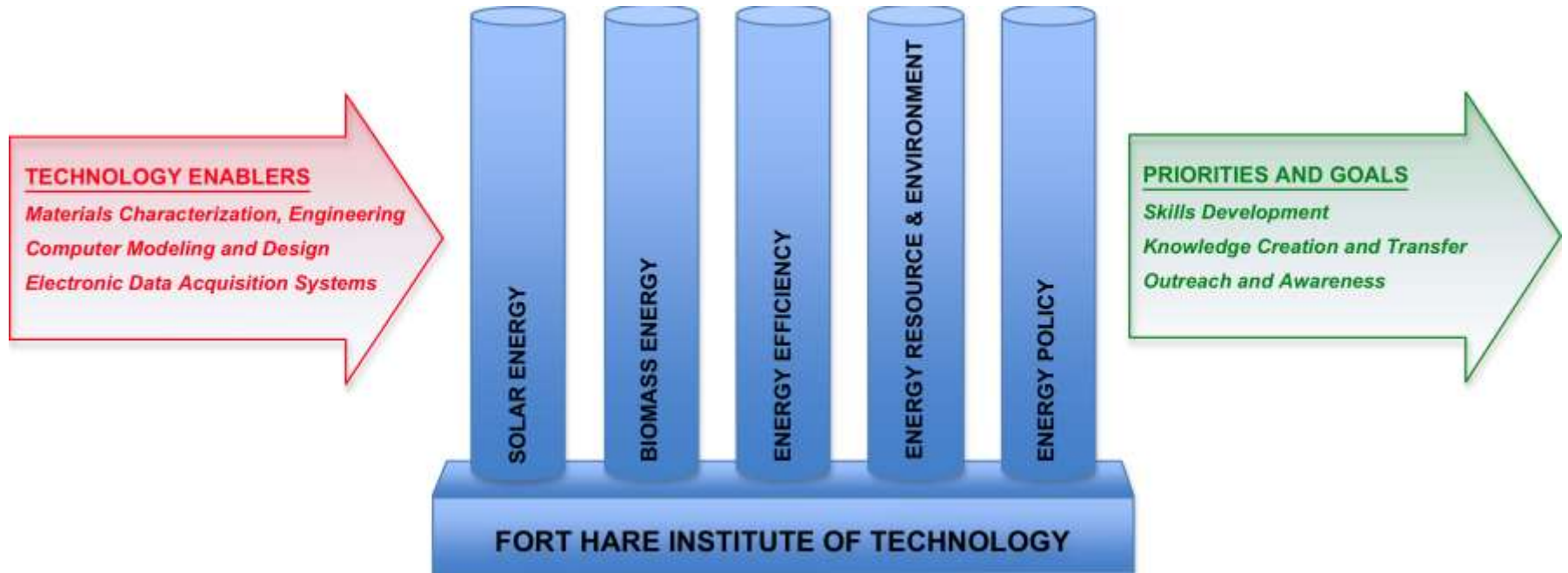


University of Fort Hare
Together in Excellence

Prof. Sampson Mamphweli
University of Fort Hare
Institute of Technology



OVERVIEW OF RESEARCH AT FHIT



IS CARBON NOT GOOD?

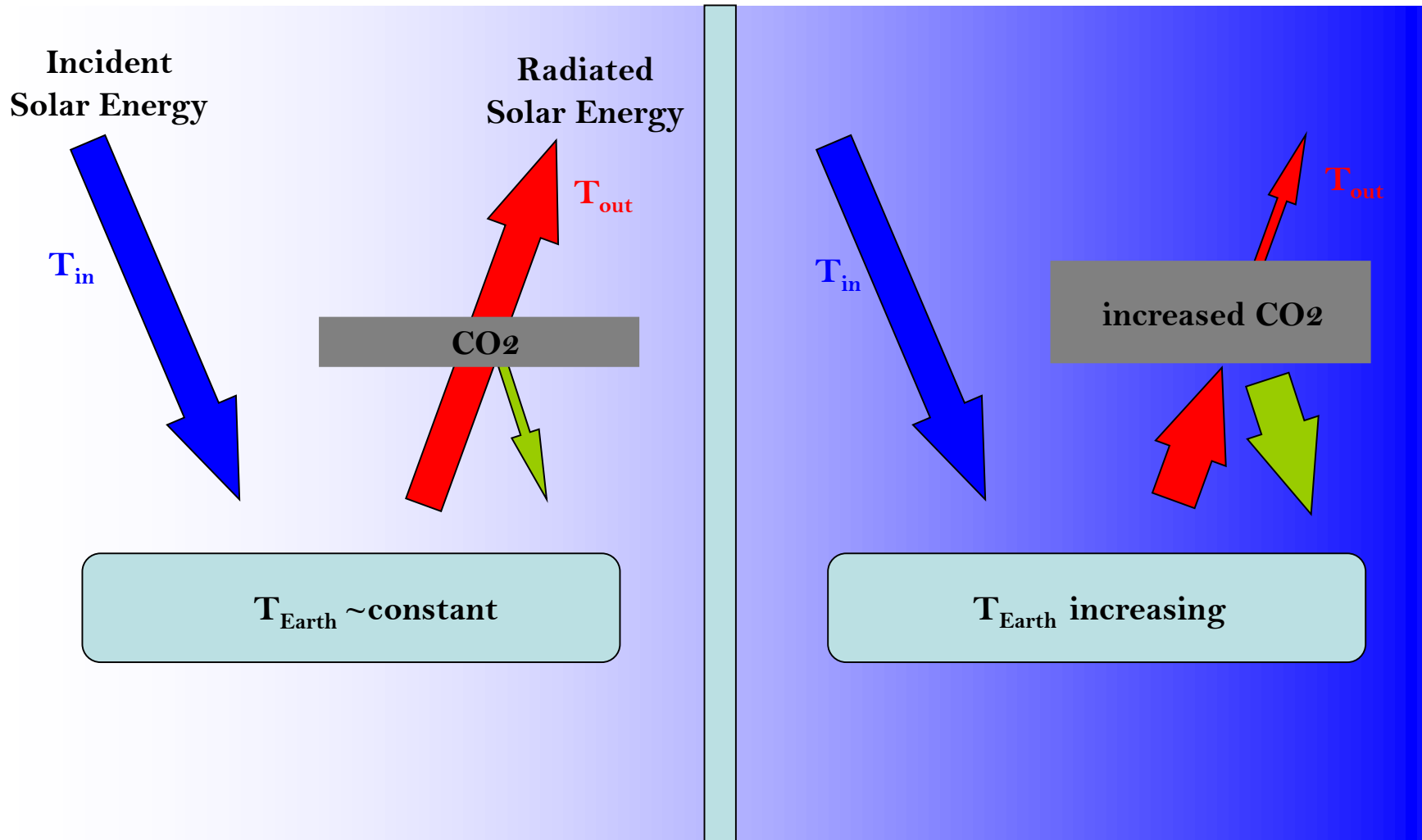


WHO ARE THE CARBON CRIMINALS?

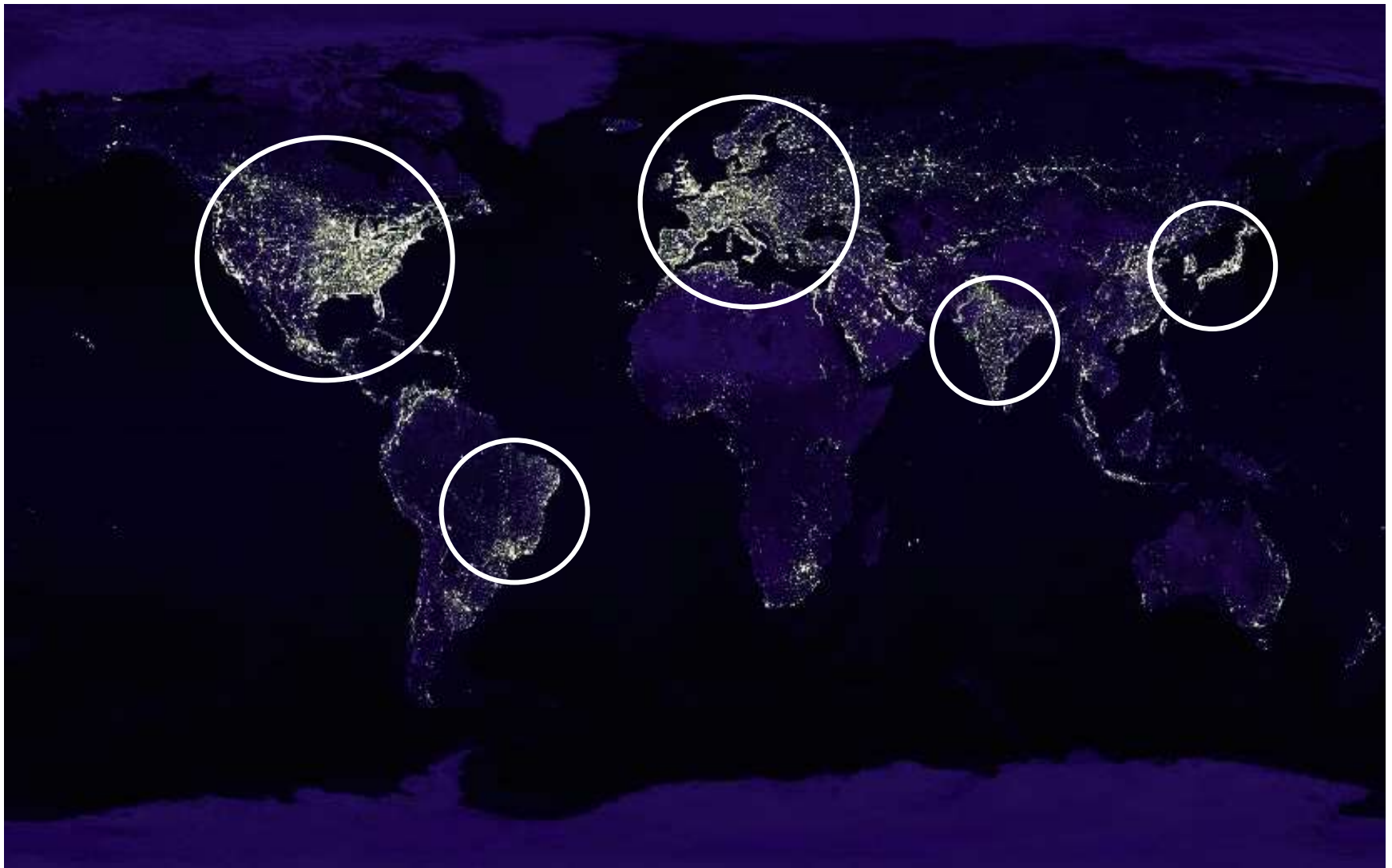
- **Who are the carbon criminals?**
 - People who extract carbon-based fuels?
 - People selling this fuel to the public?
 - The consumers of this fuel?
- **Let us first set the stage...**



WHAT IS GLOBAL WARMING?



GLOBAL ENERGY CONSUMPTION



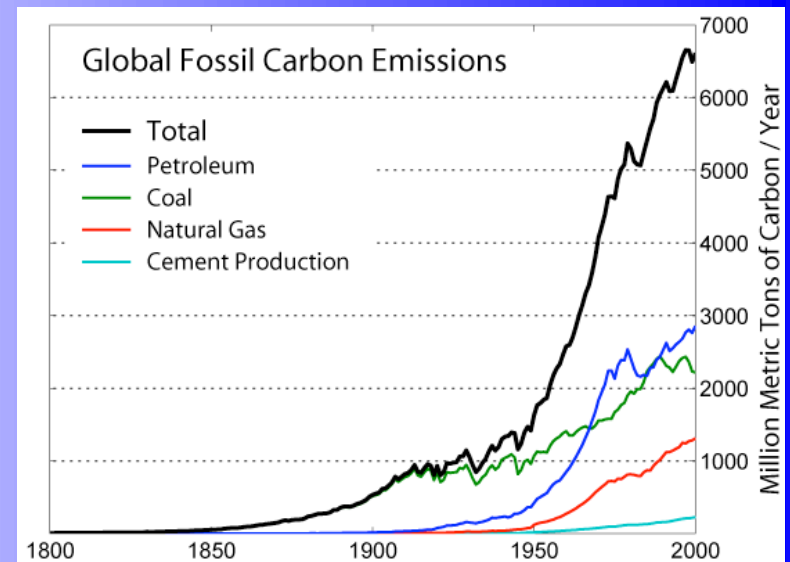
HISTORIC GHG EMISSIONS

- **Perceived reasons for global warming**

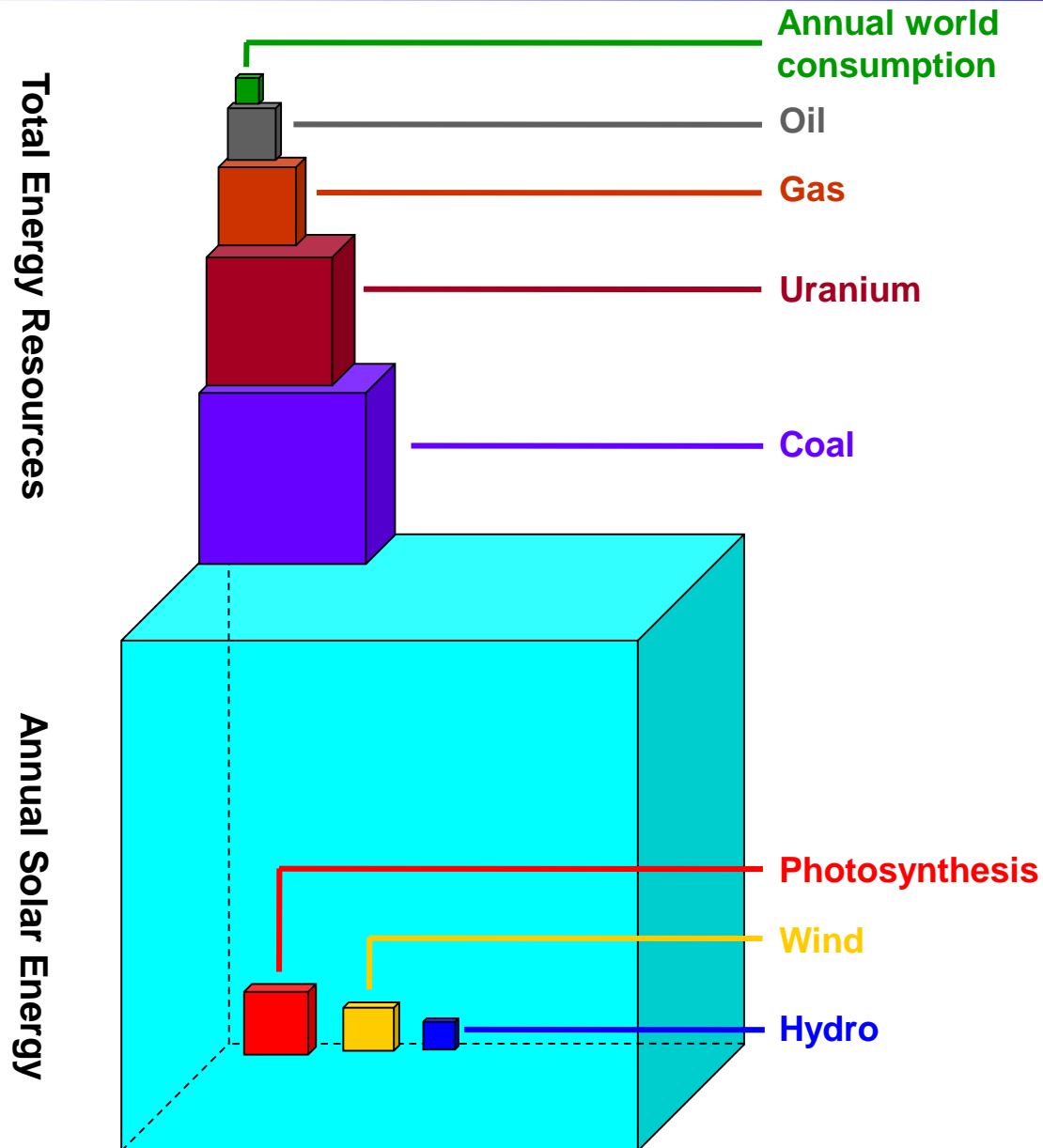
- Some believe that global warming is a cyclic event attributed to the *grand maximum* of solar activity.
- Expectation is that the earth will start to cool...soon.

- **Actual scientific recordings**

- Suggest increase in T coincides with increase in CO₂.
- Increase corresponds to industrial evolution of 1750.

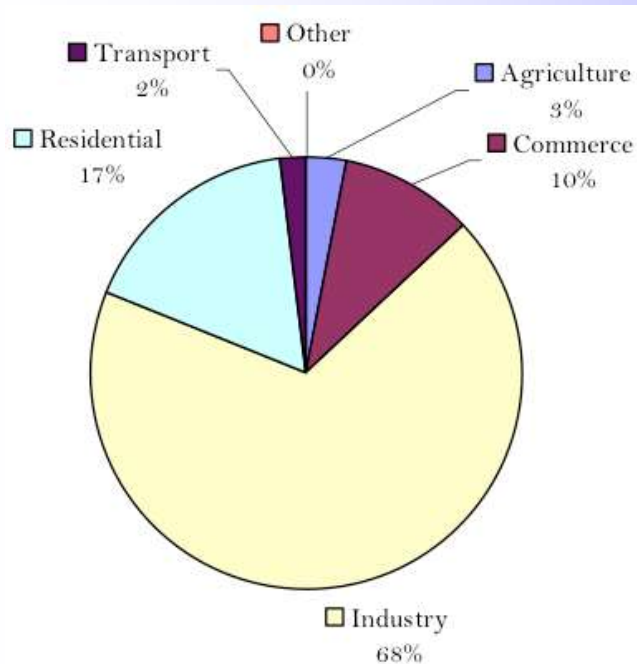


GLOBAL ENERGY RESOURCES



ENERGY MIX IN SOUTH AFRICA

- Primary energy in South Africa
 - Coal is the primary energy source (more than 90)%.
 - Renewables/green energy less than 0.5%.



- Electricity demand by sector
 - Industry demands 68% of electricity.
 - Residential sector 17%.

IMPACT OF GLOBAL WARMING

- CLIMATE CHANGE
 - Rise in global temperature
 - Uncharacteristic and unpredictable weather conditions
 - Extreme weather phenomenon such as rising sea levels, floods, heat waves, droughts.
 - Loss of food
 - Loss of shelter
 - Damage to property.
 - Loss of life (species extinction)



IMPACT OF GLOBAL WARMING

- Flooding



IMPACT OF GLOBAL WARMING

- Droughts

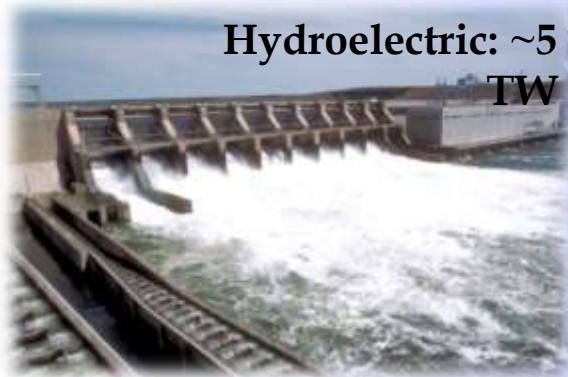


IMPACT OF GLOBAL WARMING

- Heat Waves



RENEWABLE ENERGY RESOURCES



CARBON CRIMINALS

- Who are the carbon criminals?
 - Knowing the effect of carbon...
 - Knowing the available resources...
 - **Continuing without intervention...**



- Carbon criminals are the people who convinced and encourage us to deal in:
 - Carbon emission allowances.
 - Carbon trading and carbon offsets.
- **But what about us!?**

INDIVIDUAL CARBON FOOTPRINT

- We are by nature carbon criminals, wasteful and selfish.
- Being conscious about our lifestyle, we can reduce the carbon equivalent for which we are responsible.
- In our daily lives we easily switch on lights, stoves, heaters, throw away glass, plastic, cans and papers.
 - Leaving a 1 kW air conditioner on results in 12 kWh = **13 500 g** of C.
 - Changing habits in transportation, building usage, can reduce your carbon footprint.



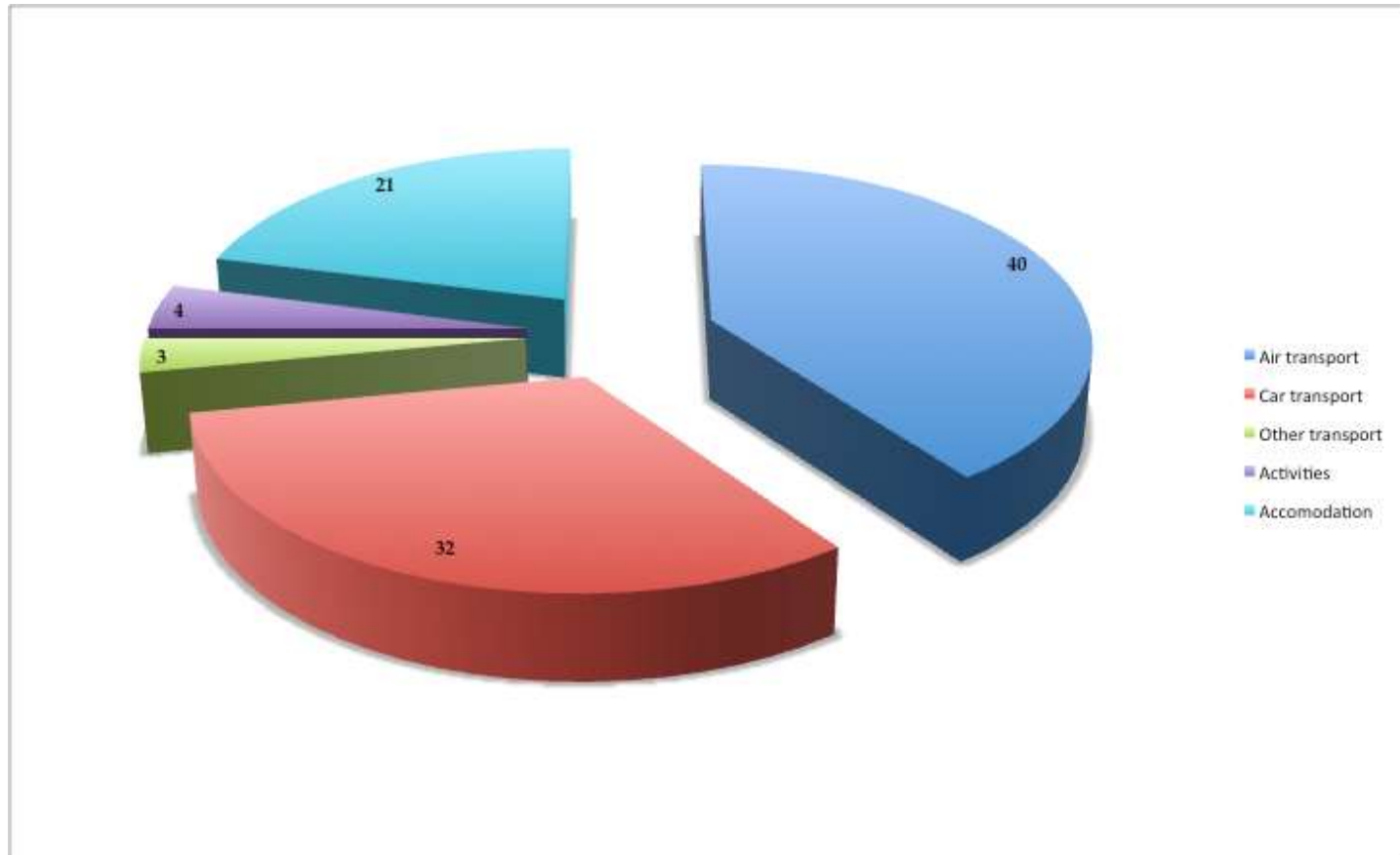
SUSTAINABLE WORLD AND OUR CARBON LEGACY

- Sustainable World
 - Development meets the needs of the present...
 - Without compromising the ability for future generations to meet their own.
- Individual carbon legacy
 - Lifetime emission **1 644 000 kg** of carbon.
 - Your child and their children will have an emission of **9 441 000 kg** of carbon.
 - Becoming more energy efficient and by recycling, you can reduce your emission by **388 000 kg!**



TOURISM CONTRIBUTION TO GLOBAL WARMING

- % CO₂ emissions contribution by sectors in tourism: Source: UNWTO/UNEP, 2008



SUSTAINABLE TOURISM

- *"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities"*

Sustainable tourism should:

- 1) Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
- 2) Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
- 3) Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

UNEP and UNWTO, 2005



THE ROLE OF TOUR GUIDES

- Tour guides are the foot soldiers in nature conservation and environmental management.
- About 95% of tourists believe everything they hear from tour guides.
- Tourists always remember what the tour guides tell them particularly young tourists.
- People are most likely going to practice what they practiced in tourist destinations at home especially if they enjoyed their stay at the holiday destination.
- Environmental awareness can only be effective if the word is spread by tour guides.
- Tour guides can change the mindset of people by simply informing them about the impact of small interventions such as switching off the lights before leaving the room or switching off the TV and air conditioner.



IF YOU IDENTIFY A PROBLEM AND FAIL TO SOLVE IT YOU
BECOME THE BIGGER PROBLEM...Prof Sampson
Mamphweli, UFH.

