



Sustainable Management:

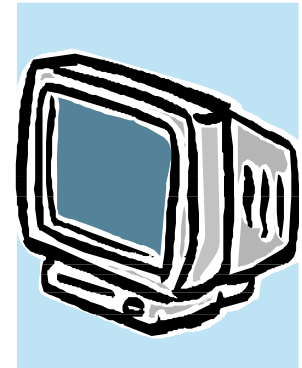
Mindset – Values – Action

Today is a regular day:

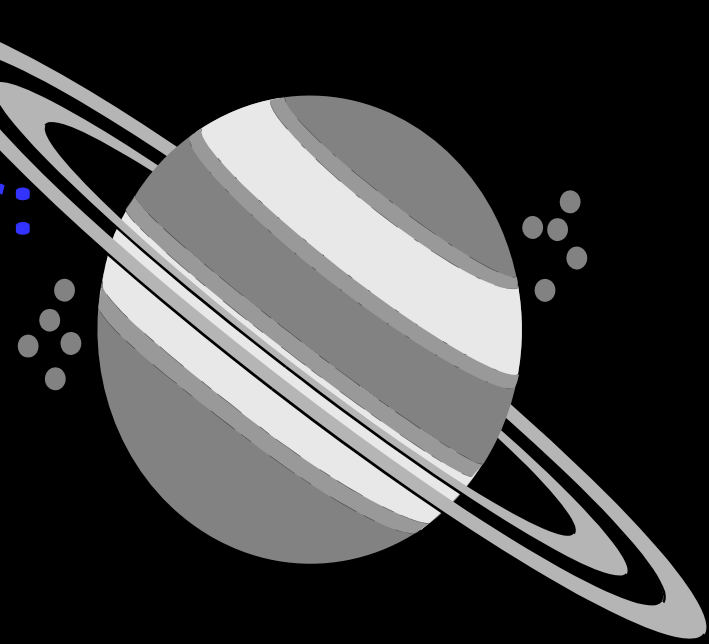
- Population increases by 260,000
- 100,000 die from hunger
- 8,000 children die from avoidable diseases
- 140 varieties of animals and plants go extinct
- 50,000 ha forests are cleared
- 5,500 t FCHC are emitted to the atmosphere
- 70,000 000 t CO₂ are emitted additionally

The production of just one PC:

- Needs appr. 16 – 19 tons of resources (a car needs appr. 28 tons)
- Appr. 700 different substances, appr. 3,000 l water and 2.000 kWh electricity
- During production appr. 60 kg of hazardous waste is generated (FCHW and acids)
- Life time of individual parts is up to 20 years, the pc however is replaced after 2 to 4 years



A plane meets the other:
„You do look bad!“



says the other:
„Yes, I suffer from homo sapiens“



The first one answers:
*„Don't worry,
this goes by!“*

GREEN PHILIPPINES

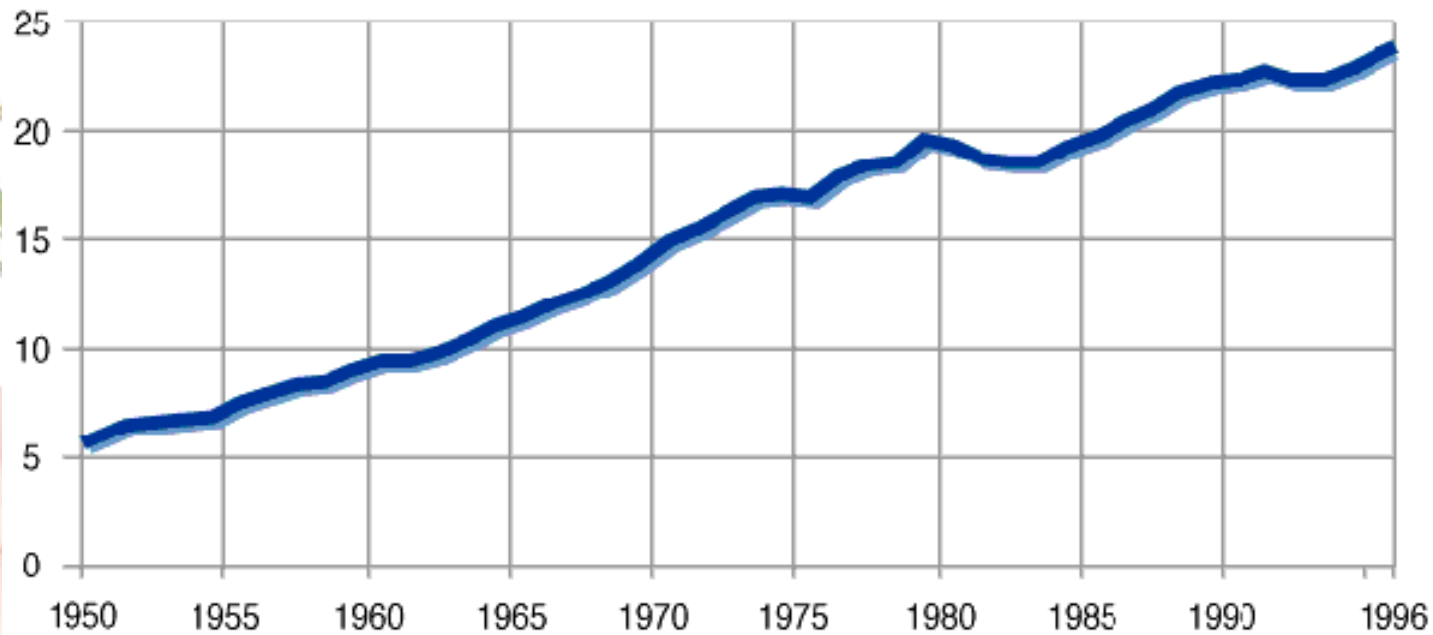
Greening the Philippine Industries with the **ECO**PROFIT Approach



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CO₂ Emissions world wide:

1 000 million tonnes CO₂/year



Do you know, that...

One unit of

**Causes CO₂
emissions of:**

1 litre light fuel

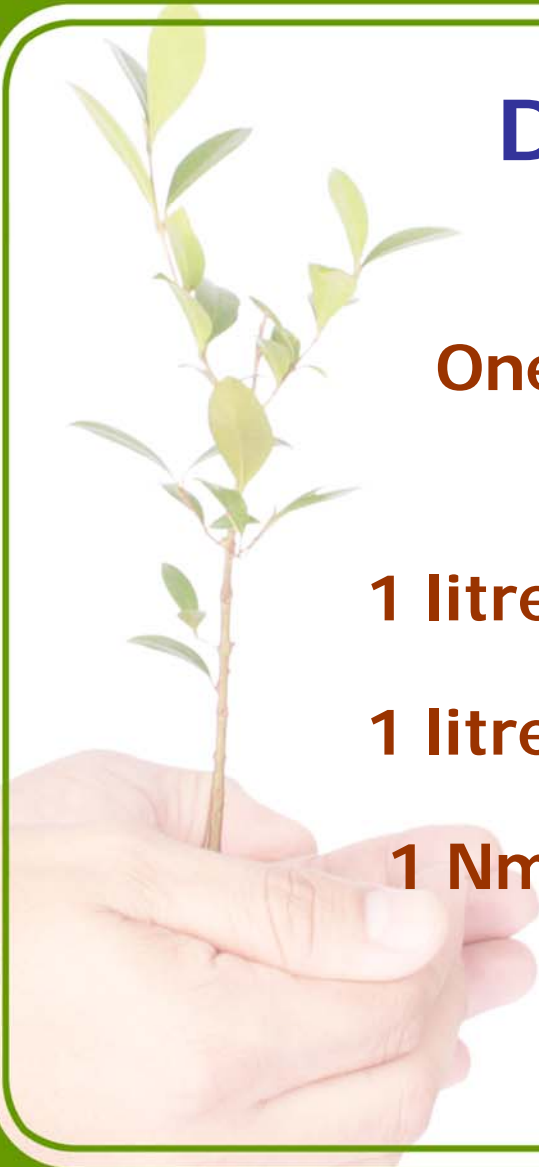
appr.. 3,2 kg/l

1 litre heavy oil

appr. 3,1 kg/l

**1 Nm³ natural
gas**

appr. 1,8 kg/Nm³



How much CO₂ does a beech filter?

(appr. 70 years,
appr. 15 m
crown diameter)

net appr. 2 kg/h
12 hours per day



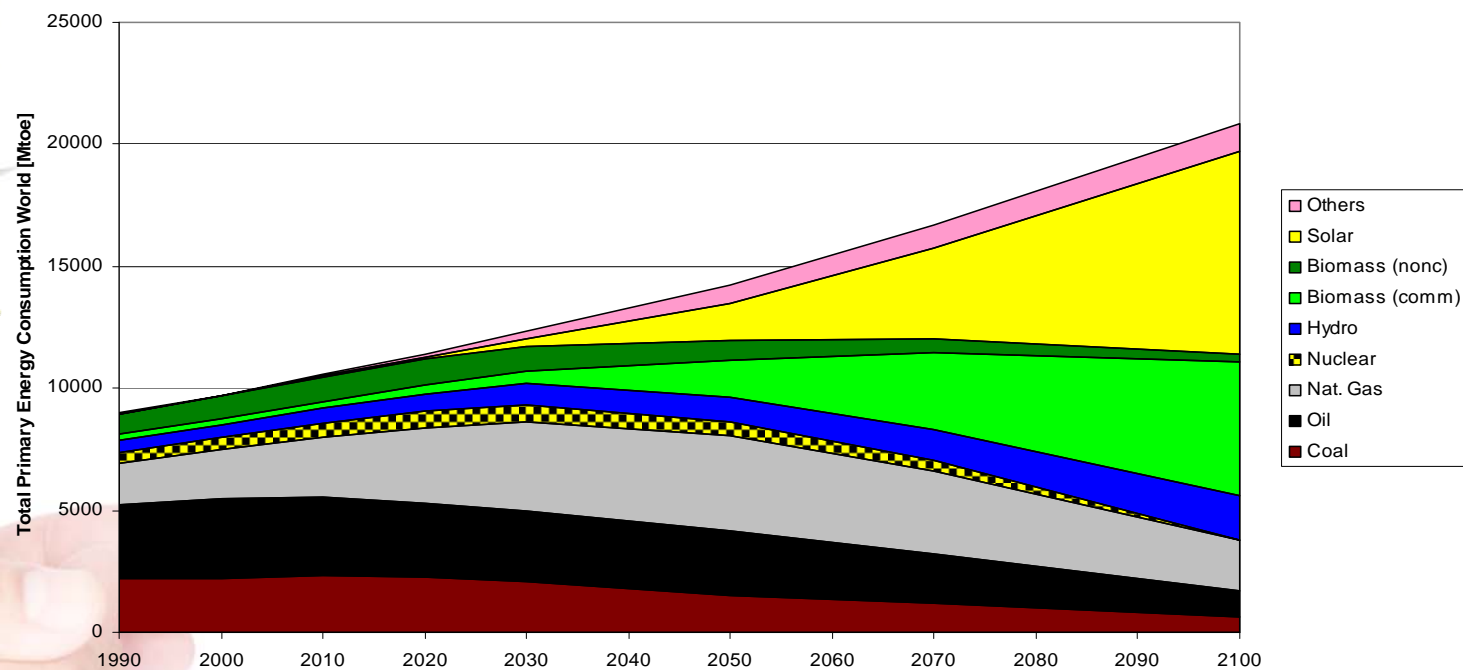
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Global change of energy supply: 40 % renewable until 2050



Source: IIASA/WECC Global Energy Perspectives, 1998 (Scenario C1)

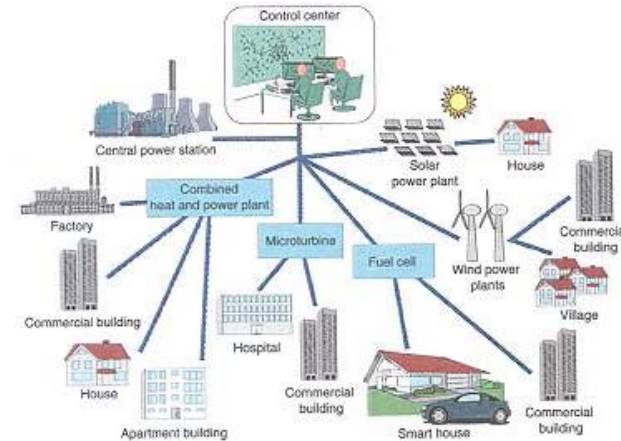
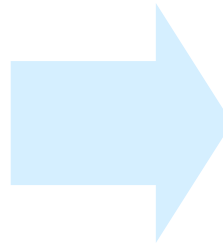
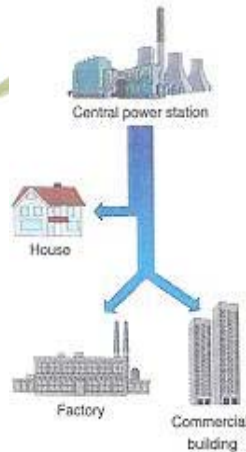
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Yesterday: centralized systems Tomorrow: regional systems



- ∅ No choice
- ∅ No competition
- ∅ No innovation
- ∅ High profits
- ∅ High transformation losses
- ∅ High prices

- ∅ choice
- ∅ Competition fueled by consumer
- ∅ Innovation
- ∅ Lower profits
- ∅ Generation close to consumer
- ∅ Changing prices

Sustainability:

is an

Economic system

Which fulfills the
needs of the present
generation without
compromising the
needs of future ones

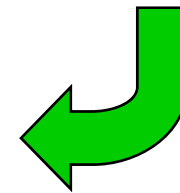
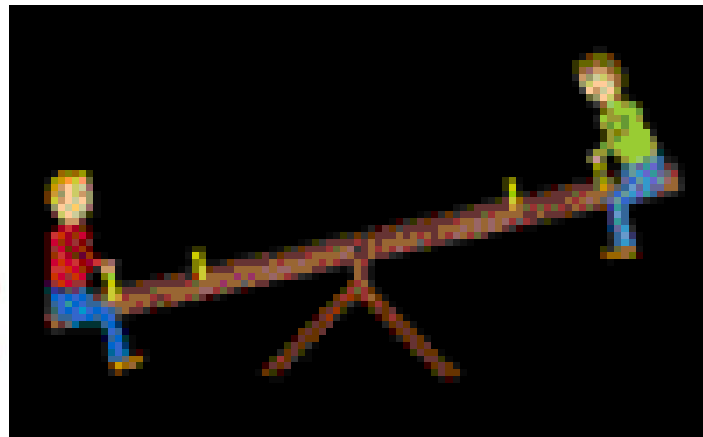


Syst. Sustainable development with the 3 „E“

- **Environmental integrity**
- **Economic efficiency**
- **Equity**

What is an Environmental Management ?

A idealistic balance point between
Environmental and Economic Goals



Sustainability:

Is a business strategy, which integrates economic, ecological, and societal criteria in an optimized way and by doing so creates competitive advantages

= economic success with values

(W. Autischer)

Ecology

Economy

Society

Sustainability-
Leaders

135.9%

Sustainability-
Laggards

83.3%

Quelle: K. Woltron, 2001