

SAVING ENERGY WITH THE EARTH CHARTER

ENERGY IS ESSENTIAL FOR ALMOST EVERYTHING WE DO.

TO HEAT, TO COOL, TO DRIVE, TO COOK...

HOWEVER - MOST OF OUR ENERGY IS DEVELOPED FROM RESOURCES THAT ARE RUNNING OUT.

IMAGINE YOURSELF WITHOUT ENERGY - YOU WOULD HAVE A COMPLETELY DIFFERENT LIFESTYLE.

SO WHAT DOES THE EARTH CHARTER SAY ABOUT THIS?

EARTH CHARTER PRINCIPLE 7:

**ADOPT PATTERNS OF PRODUCTION, CONSUMPTION, AND REPRODUCTION
THAT SAFEGUARD EARTH'S REGENERATIVE CAPACITIES,
HUMAN RIGHTS, AND COMMUNITY WELL-BEING.**

SO WHY IS THIS PRINCIPLE IMPORTANT?

GLOBALLY, OUR TOTAL ENERGY CONSUMPTION IS OVER 10 MILLION THOUSAND METRIC TONES OF OIL EQUIVALENT (2001) PER YEAR

ON AVERAGE – RESIDENTIAL ENERGY USE PER CAPITA IS 312.5 KG OIL EQUIVALENT PER PERSON

GLOBAL ENERGY USE HAS RISEN BY ALMOST 70% DURING THE LAST 30 YEARS AND IS PREDICTED TO INCREASE BY 2% EVERY YEAR FOR THE NEXT 15 YEARS.

THE AMOUNT OF OIL CONSUMED WORLDWIDE IN A SINGLE YEAR TOOK NATURE A MILLION YEARS TO CREATE.

IT IS ESTIMATED THAT OIL RESERVES COULD RUN OUT IN 60 YEARS.

RISING ENERGY COSTS MAKE US INCREASINGLY ENERGY AWARE THAT FUEL SOURCES ARE RUNNING OUT.

FOSSIL FUELS ARE DEPLETED AT A RATE THAT IS 100,000 TIMES FASTER THAN THEY ARE FORMED.

THE SUPPLY OF TRADITIONALLY USED FUELS IS **EXHAUSTIBLE**

WE KNOW THAT:

WE MUST STOP THIS TREND OF EXCESSIVE ENERGY CONSUMPTION AND TAKE RESPONSIBILITY AS INDIVIDUALS

IT IS ESSENTIAL TO REDUCE OUR DEPENDENCE ON THE EARTH'S EXHAUSTIBLE NATURAL RESOURCES NOW

ENERGY SAVING CALLS FOR BOTH GLOBAL AND INDIVIDUAL SOLUTIONS

“IT IS UP TO US AS INDIVIDUALS TO DO WHAT WE CAN, HOWEVER LITTLE THAT MAY BE.
JUST BECAUSE SWITCHING OFF THE LIGHT ON LEAVING THE ROOM SEEMS INCONSEQUENTIAL,
IT DOES NOT MEAN THAT WE SHOULD NOT DO IT”

THE 14TH DALAI LAMA, RELIGIOUS LEADER

...THAT WE WASTE A LOT OF ENERGY?

- ENERGY IS WASTED BY:
- USING APPLIANCES INEFFICIENTLY
- NOT USING ENERGY EFFICIENT APPLIANCES
- LIVING AND WORKING IN POORLY INSULATED BUILDINGS
- DRIVING INEFFICIENT CARS

THE **BIGGEST** ENERGY USERS ARE LIGHTING, REFRIGERATORS, HEATING & COOLING APPLIANCES

SMALL APPLIANCES ADD UP TO NEARLY **1/3** OF A HOME'S ELECTRICITY CONSUMPTION – MANY OF THESE USE ENERGY EVEN WHEN THEY HAVE BEEN TURNED OFF.

LEAKY DUCTS CAN **DECREASE** THE OVERALL EFFICIENCY OF HEATING AND COOLING SYSTEMS BY AS MUCH AS **20%**

...THAT THERE ARE ENERGY EFFICIENT APPLIANCES?

RESIDENTIAL APPLIANCES CONSUME **90%** OF ALL ENERGY USED IN THE **U.S.** RESIDENTIAL SECTOR.

THE AVERAGE HOUSEHOLD COULD CUT **1/3** TO **1/2** OF ITS CURRENT ENERGY BILL BY SWITCHING TO ENERGY-EFFICIENT APPLIANCES

AN ENERGY-EFFICIENT COMPACT FLUORESCENT LAMP (CFL) USES AT LEAST **66%** LESS ENERGY THAN STANDARD INCANDESCENT BULBS FOR THE SAME LIGHTING LEVEL – AND LAST **10** TIMES LONGER!

THE TYPICAL AMERICAN HOUSEHOLD CAN SAVE ABOUT **\$400** PER YEAR IN ENERGY BILLS WITH ENERGY EFFICIENT PRODUCTS (*THAT CARRY THE ENERGY STAR*).

...HOW MUCH ENERGY IS USED ON THE ROAD?

SWITCHING FROM A **20MPG** CAR TO A **40MPG** CAR WILL SAVE YOU APPROXIMATELY **\$3,000** IN FUEL COSTS OVER THE CAR'S LIFETIME (**100,000** MILES)

MILES PER GALLON	CO2 EMISSIONS (TONS/LIFETIME)
20	50
40	25

A **5KM (3ML)** CAR JOURNEY EMITS **10X MORE CO2** PER PASSENGER THAN A BUS AND **25X MORE** THAN A TRAIN

GLOBAL PASSENGER CAR PRODUCTION **3.2%** IN 2005 TO **45.6** MILLION UNITS.

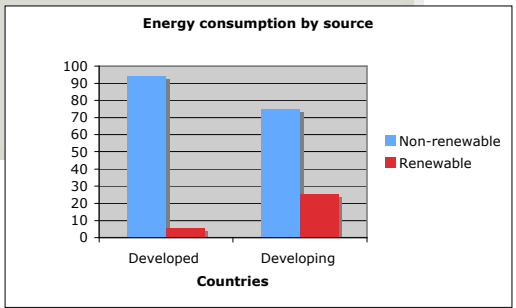
...THAT THERE ARE ALTERNATIVE FORMS OF ENERGY?

WIND, SOLAR, GEOTHERMAL, BIOMASS, HYDROELECTRIC POWER ARE STILL NOT WIDELY USED. **WHY?** GOVERNMENTS' ENERGY POLICIES FAVOUR TRADITIONAL ENERGY SOURCES. THERE IS A LACK OF CAPITAL INVESTMENT, RESEARCH FUNDING AND AWARENESS CAMPAIGNS ON ALTERNATIVE SOURCES..

SOLAR WATER HEATERS CAN POTENTIALLY SAVE **50%** TO **85%** ANNUALLY

WE NEED THESE ALTERNATIVE RENEWABLE ENERGY SOURCES NOW.

WITHIN **15** YEARS, RENEWABLE ENERGY COULD BE GENERATING ENOUGH ELECTRICITY TO POWER **40** MILLION HOMES AND OFFSET **70** DAYS OF OIL IMPORTS.



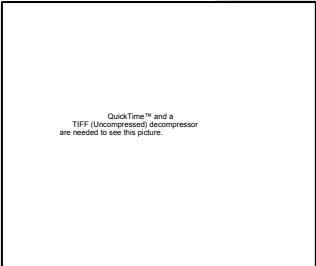
THE EARTH CHARTER PRINCIPLE 7B STATES THAT ONE NEEDS TO:

ACT WITH RESTRAINT AND EFFICIENCY WHEN USING ENERGY, AND RELY INCREASINGLY ON RENEWABLE ENERGY SOURCES SUCH AS SOLAR AND WIND.

SO WHAT CAN YOU DO AS AN INDIVIDUAL...

...TO USE ENERGY EFFICIENTLY?

TURN OFF AND UNPLUG APPLIANCES



TURN OFF LIGHTS WHEN YOU LEAVE A ROOM



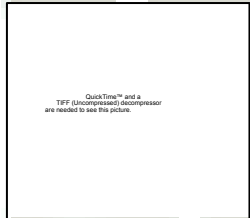
TAKE ADVANTAGE OF SUNLIGHT – THE CHEAPEST AND MOST ENERGY EFFICIENT FORM OF LIGHTING AND HEATING



**WASH AND DRY ONLY FULL LOADS
LINE DRY YOUR CLOTHES ETC
USE COLD WATER TO WASH**

**INSULATE WATER HEATER AND PIPES
TURN DOWN TEMPERATURE OF WATER HEATER TO WARM
LIMIT HOT SHOWERS TO 10 MINUTES**

**KEEP THERMOSTAT AT A CONSTANT AND COMFORTABLE TEMPERATURE
TURN THERMOSTAT DOWN OR OFF WHEN OUT OR SLEEPING
CLEAN AND REPLACE FILTERS REGULARLY
SEAL WINDOW AND DOOR LEAKS AND INSULATE WELL**



....TO REDUCE TRAFFIC, SAVE PETROL & LOWER POLLUTION??

**WALK OR BIKE – NO POLLUTION, SAVE MONEY AND GET FIT!
CAR POOL – ITS MORE FUN TRAVELLING WITH PEOPLE!
USE PUBLIC TRANSPORTATION – BUS, TRAIN, BOAT, ETC – VERY CHEAP!
BUY “GREEN” CARS AND KEEP THEM IN GOOD CONDITION
DRIVE EFFICIENTLY – SUDDEN ACCELERATION AND BRAKING = HIGH FUEL USAGE = MORE POLLUTION
CUT DRIVING MILES – ONLY USE YOUR CAR WHEN NECESSARY – TAKE MULTIPURPOSE TRIPS**



...TO BE MORE ENERGY EFFICIENT IN THE HOME? (OR SOMETHING?)

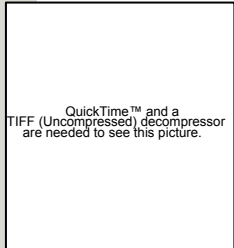
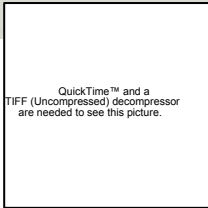
**WHEN BUYING NEW APPLIANCES PICK ENERGY EFFICIENT ONES AND SAVE ENERGY AND MONEY!
USE ENERGY-SAVING SETTINGS ON REFRIGERATORS, DISHWASHERS, WASHING MACHINES AND CLOTHES DRYERS
UPGRADE AGING, INEFFICIENT APPLIANCES WITH ENERGY EFFICIENT ONES**

THINK LONG TERM – A BUY ENERGY EFFICIENT



...TO SAVE OUR FUEL SOURCES

**GO RENEWABLE!
SWITCH TO A RENEWABLE ENERGY SOURCE TO POWER YOUR HOME AND VEHICLES – SOLAR, HYDRO, GEOTHERMAL, WIND, BIOMASS, BIODIESAL, ETHANOL, HYDROGEN, ETC...**



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SO IF YOU TAKE RESPONSIBILITY AS AN INDIVIDUAL – YOU ARE ACCEPTING A “CHANGE IN LIFESTYLE” WHICH ADHERES TO EARTH CHARTER PRINCIPLE 7 F

**ADOPT LIFESTYLES THAT EMPHASIZE THE QUALITY OF LIFE
AND MATERIAL SUFFICIENCY IN A FINITE WORLD**

IT IS A FINITE WORLD
LESS IS MORE AND ALL THAT
PROVE – WHO ARE WE TO PREACH?

EVERYONE IN THIS WORLD SHOULD CHANGE THEIR LIFESTYLE TO

- FOCUS ON QUALITY OF LIFE RATHER THAN QUANTITY
- ADOPT LIFESTYLE – CHANGE OR ADAPT TO DIFFERENT OPTIONS
- DOESN'T HAVE TO BE A BIG DEAL

YOU MAKE ASK - HOW CAN YOU HAVE QUALITY OF LIFE WITHOUT USING LOTS OF ENERGY?
(CONSUMPTION PATTERS ETC?)

BEING MORE DOES NOT MEAN HAVING MORE

WHAT DOES QUALITY OF LIFE MEAN?

EXAMPLES OF NO OR LESS ENERGY ACTIVITIES (DECISIONS THAT ARE EQUALLY ATTRACTIVE)

- WATCH A MOVIE AT HOME OR GO OUT?

AND ACTIVITIES THAT ARE NON-CONSUMPTION – E.G. SHOP LESS – REDUCE, REUSE, RECYCLE?

LINKS

WWW.EARTHCHARTER.ORG

WWW.GREENGUIDE.ORG

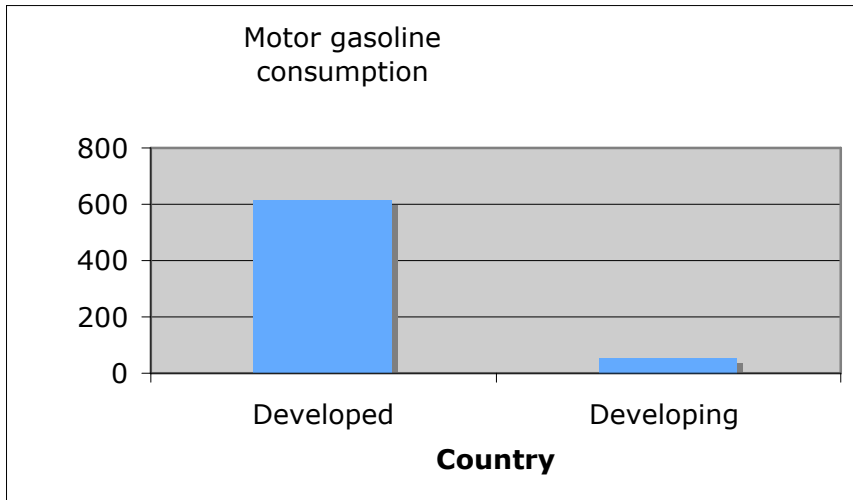
WWW.ENERGYSTAR.COM

DEVELOPED VS DEVELOPING COUNTRIES ENERGY CONSUMPTION

WORLDWIDE, SOME 2 BILLION PEOPLE ARE CURRENTLY WITHOUT ELECTRICITY. FOR THE 2 BILLION PEOPLE WITHOUT ACCESS TO ELECTRICITY, IT WOULD BE CHEAPER TO INSTALL SOLAR PANELS THAN TO EXTEND THE ELECTRICAL GRID.

THE WORLD BANK ESTIMATES THAT INVESTMENTS OF \$1 TRILLION WILL BE NEEDED IN THIS DECADE AND UPWARDS OF \$4 TRILLION DURING THE NEXT 30 YEARS TO MEET DEVELOPING COUNTRIES' ELECTRICITY NEEDS ALONE.

80% OF WORLD'S CARS ARE OWNED BY 20% OF THE GLOBAL POPULATION



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Per Capita Energy Consumption

