

CONSERVATION

through having

SMALLER FAMILIES

N. STEWART
1982

Revised 2012

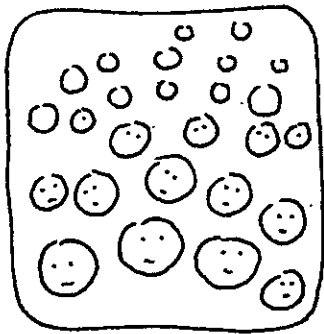
'... fine, accurate and persuasive. I hope it is well distributed and I am very happy to commend it enthusiastically.'

- Professor Charles Birch

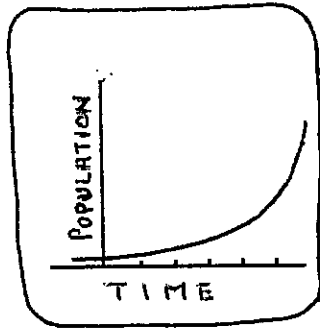
NOTE: The only way of population control endorsed by the author is a voluntary, mutually agreed reduction in family size. Such a reduction is put forward as a responsible course of action, in order to care for nature. - NS 2012 AD

Contact details: Nola STEWART email: nst332769@bigpond.com

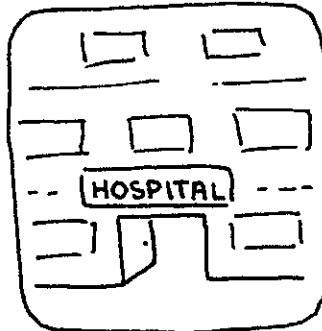
Part A - MONEY



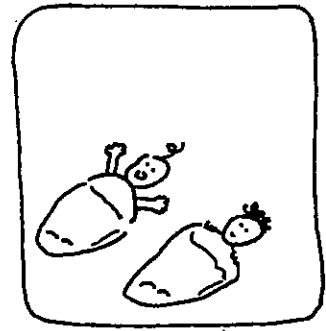
Are there more people on Earth than is helpful for the planet? Most probably 'Yes'...



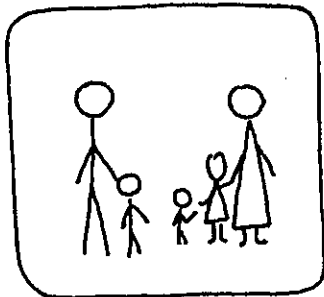
World population is increasing



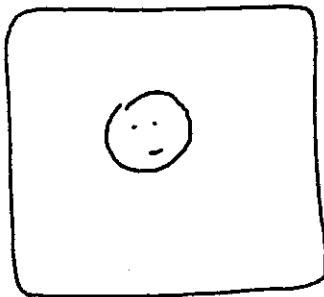
Better medical care means that people now live longer.



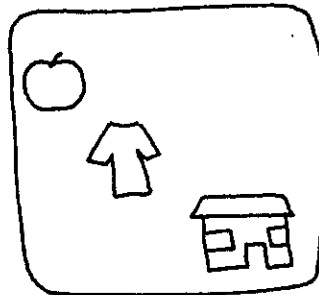
Babies which once might have died as infants....



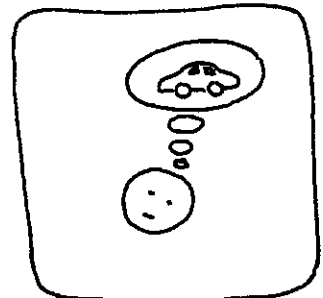
.... now live to produce families of their own.



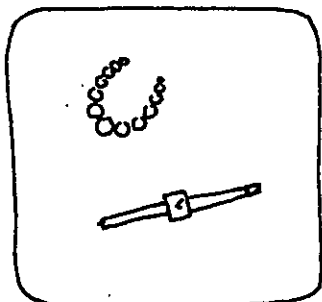
Each living person has 'needs' which the Earth must supply...



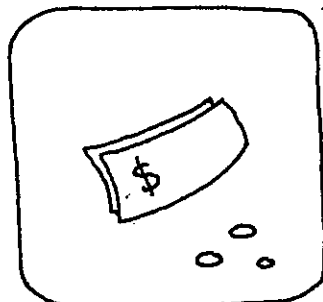
FOOD, CLOTHING, SHELTER and ENERGY SUPPLIES are the basic needs.



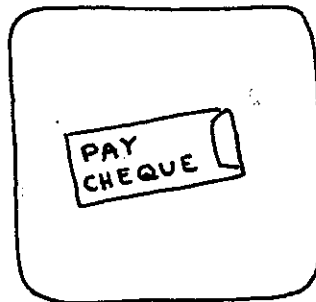
Each person also has 'wants' which the Earth supplies...



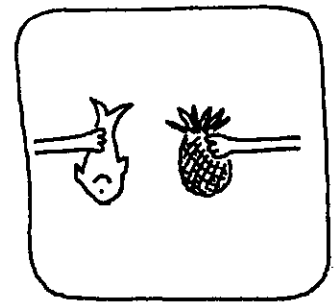
Luxury items, and collectors' items are some of these.



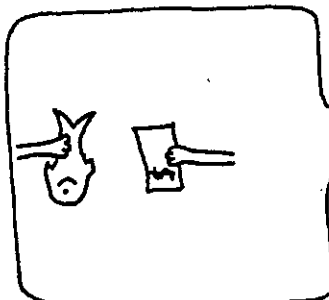
Money is usually the key to these things.



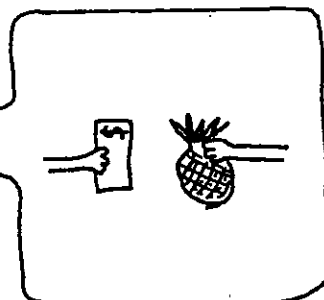
But where does the money come from?



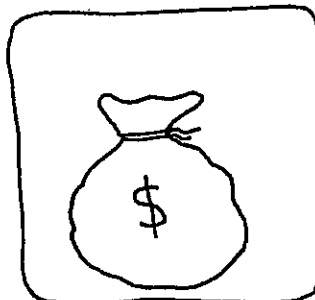
Trade existed before there was money.



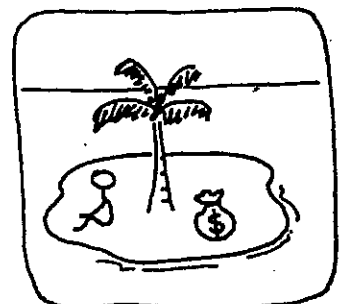
Money was developed as a convenient way of selling ...



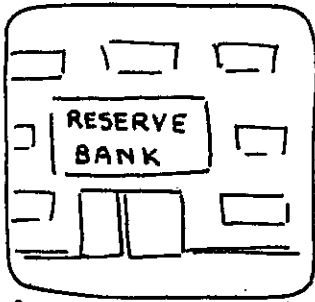
.... and buying things.



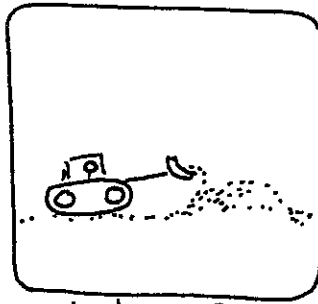
But money by itself is useless...



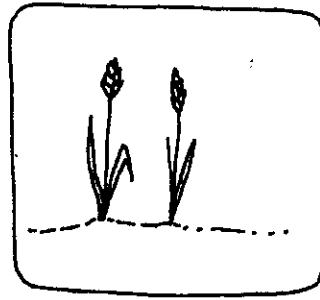
... without things to spend it on.



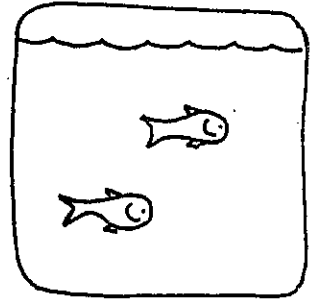
And money cannot be circulated unless it is backed by...



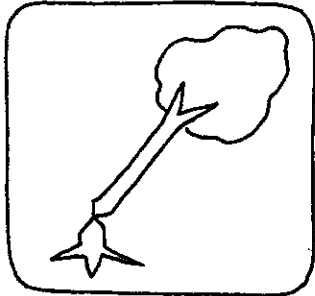
production from the ground e.g. mining...



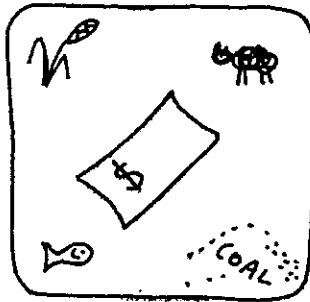
or from the soil, e.g. agriculture



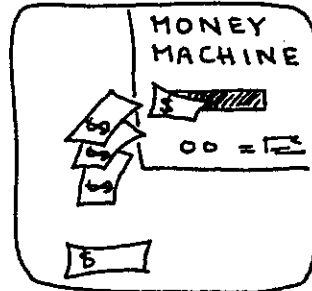
or from the sea, e.g. fishing



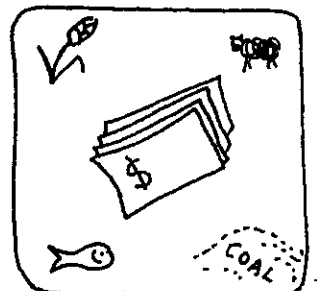
or from the bush, e.g. forestry.



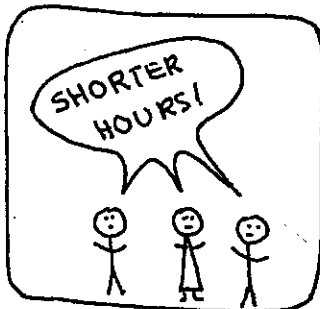
So, money has to be backed by production.



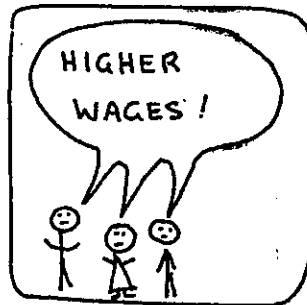
If a government prints money for nothing, it will cause inflation,



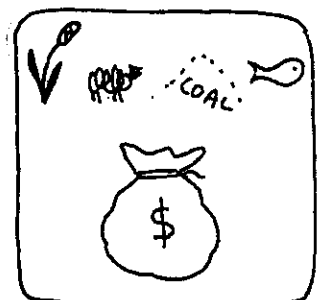
because there is more money, but not more goods to buy with it.



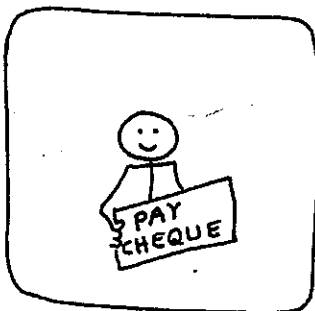
Inflation is also caused when people get the same money for producing less



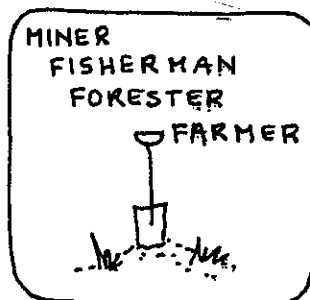
... or when they get more money without producing more.



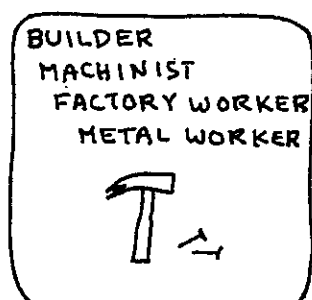
Whatever its value, money represents the productivity of the Earth.



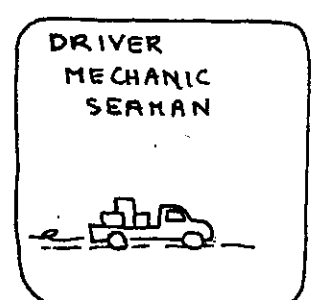
Think about where your money comes from...



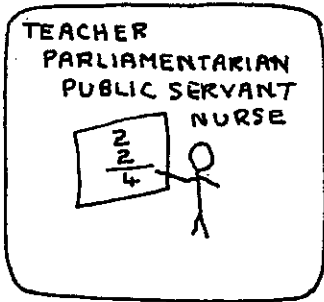
Some people have jobs which are directly related to the Earth's provision.



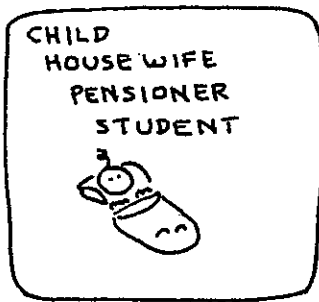
The jobs of others depend on the raw materials which the Earth supplies.



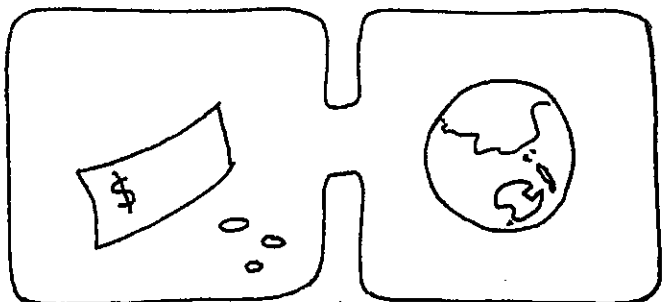
Still more people have work in service industries related to goods produced from the Earth.



Some people's salaries come from the taxes which are paid by others.

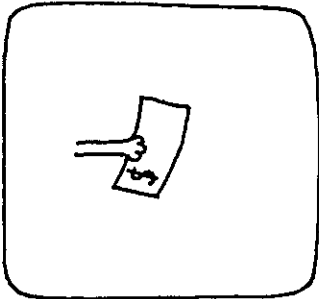


Some people depend on the work of others for their financial support.



When we trace our money back to where it came from originally...

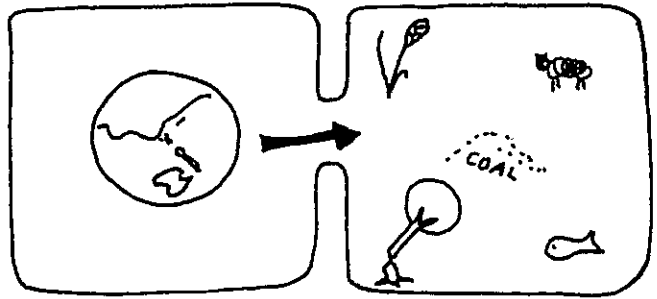
... we will find it is from the productivity of the Earth.



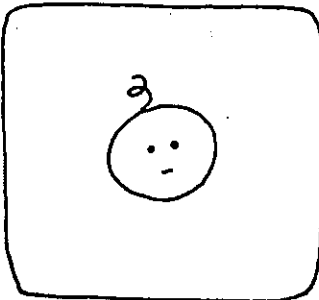
And what will we exchange it for?



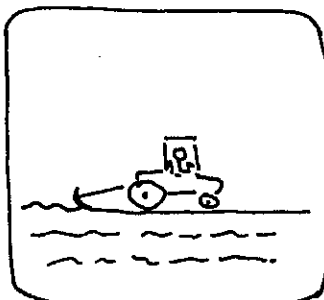
We will spend it on GOODS and SERVICES...



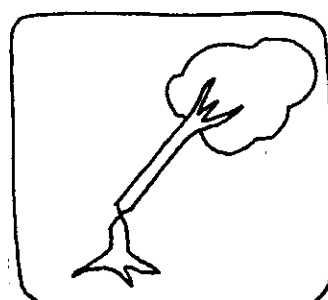
... all of which flow from the productivity of the Earth.



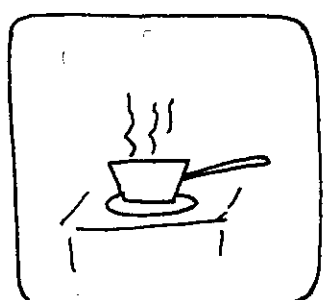
Each child needs the support of Earth for all its life.



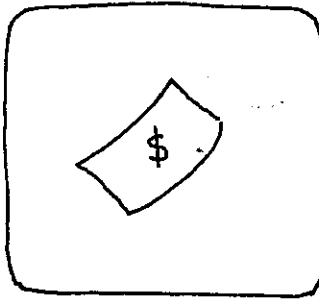
It needs some land to be under production to give it food and clothes.



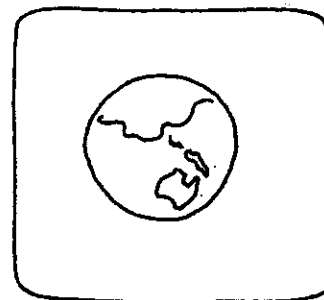
Trees will be cut down to provide housing, furniture, books, food packaging.



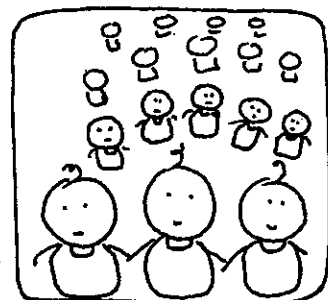
Each child also needs a source of energy, for cooking, lighting, and to produce manufactured things.



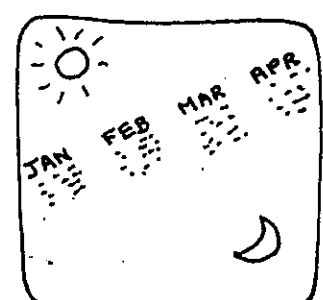
The parents' income, and later the child's income, will provide its needs and wants.



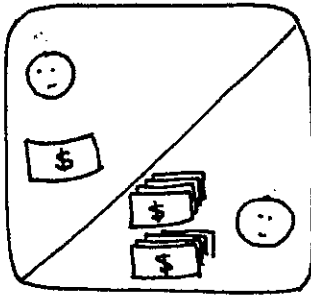
...But if we trace that income back to its origin, it is the Earth that supports the child....



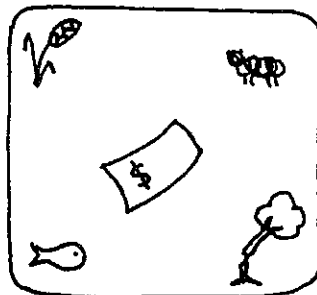
(...and every child...)



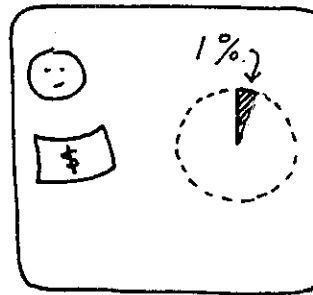
every day, 365 days a year, for the whole of its life.



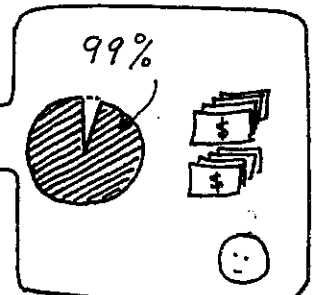
Some people have a small amount of financial support, while others have a lot.



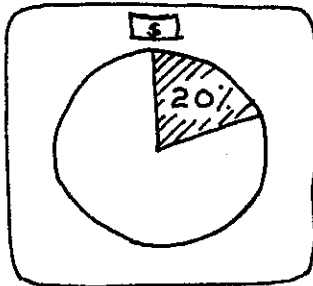
Since money represents the productivity of the Earth,



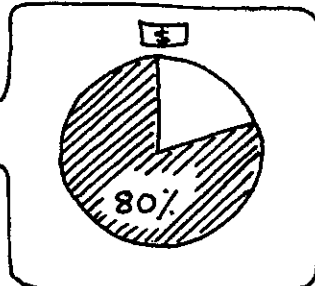
This means that a small part of the Earth supports some people (1% for HALF the population).



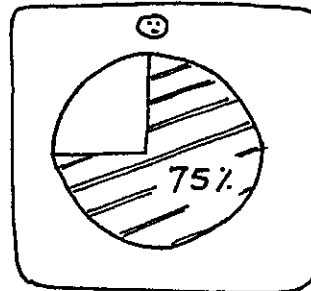
... while a comparatively LARGE part supports the rest (99% for the other HALF).



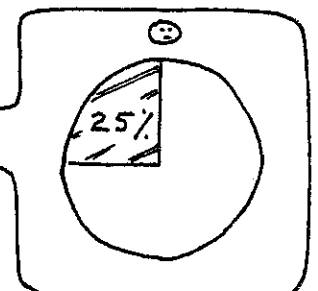
20% of Earth's resources go to the UNDERDEVELOPED countries & societies (e.g. rural China)



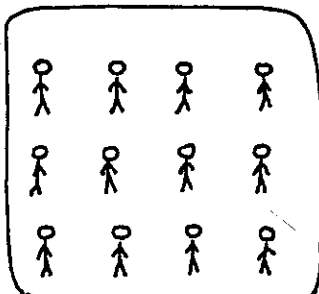
80% of Earth's resources go to the DEVELOPED countries e.g. U.S.A., Japan and industrial China.



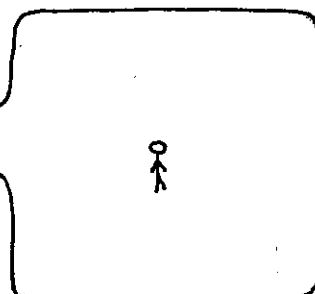
But 75% of Earth's population is in the underdeveloped areas



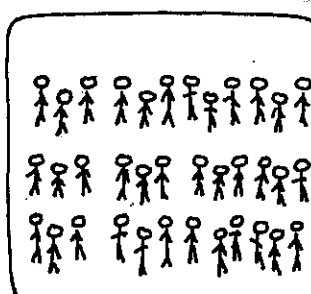
and only 25% in the developed areas



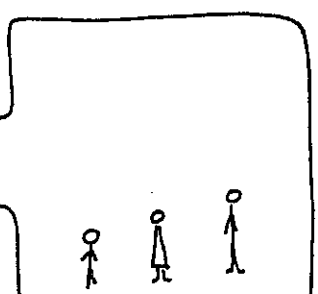
So it can be worked out that 12 children in an underdeveloped country...



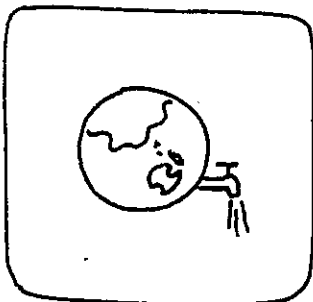
...use about as much of the Earth's resources as one child in a developed country...



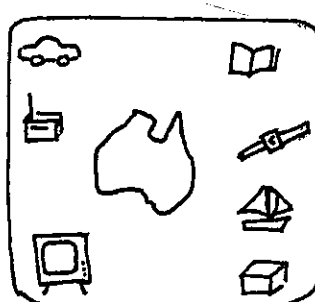
And it would take 36 children in an underdeveloped country...



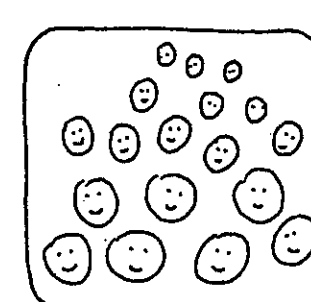
...to use as much as a 'small' western family of 3 children, for example.



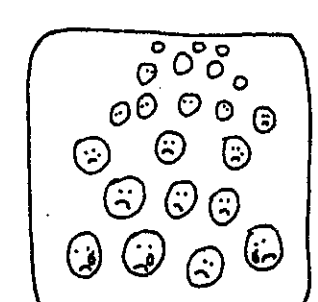
The Earth's resources are running out...



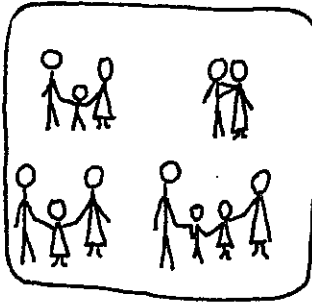
mostly to developed places; to keep the people at a high living standard.



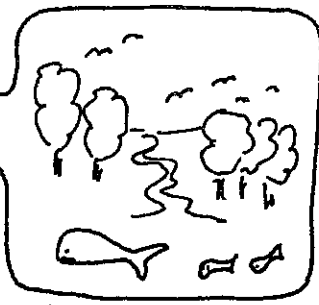
What can we all do about it...



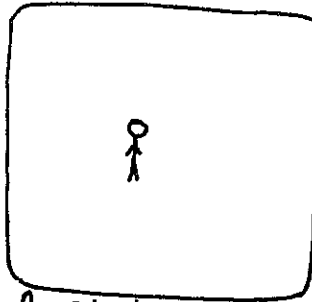
...to prevent suffering by future generations?



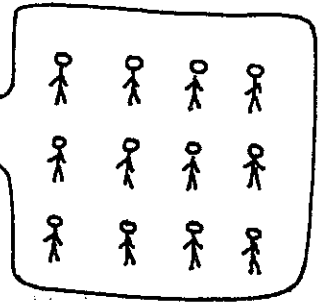
If we choose to have smaller families...



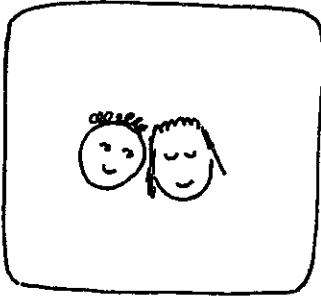
...this would help to save the Earth's resources and its beauty.



A reduction of one child in a developed country is equivalent to...



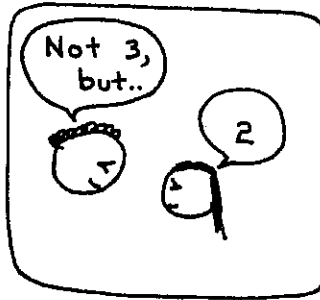
... a cut back of 12 children in an underdeveloped country, in saving Earth's resources.



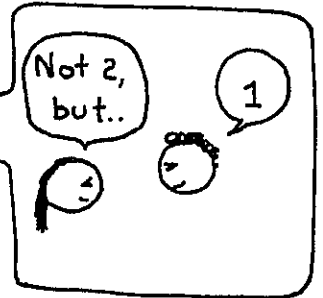
Are you planning a family?



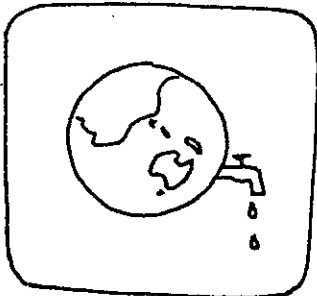
And are you conservation-minded?



To cut back on your planned family



... by even 1 or maybe 2 children..



helps to save Earth's resources in the future

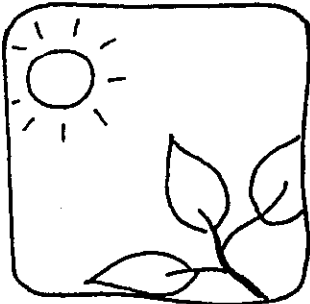
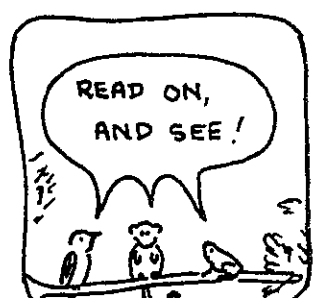
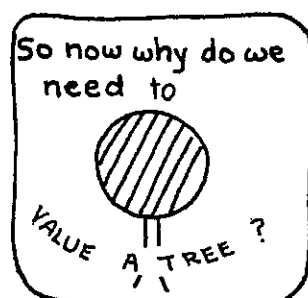
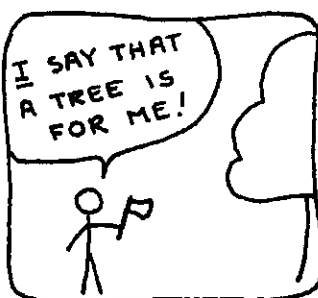
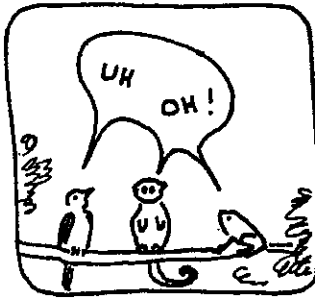
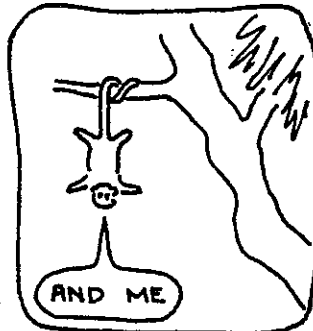
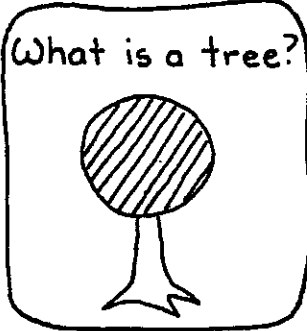


and is a very conservation-minded thing to do.

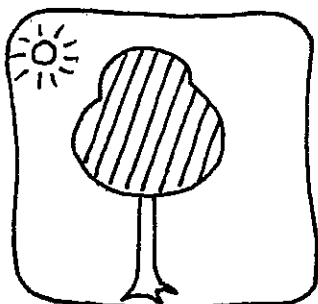
AUTHOR: Please see 'NOTE on Cover page.

Part B -

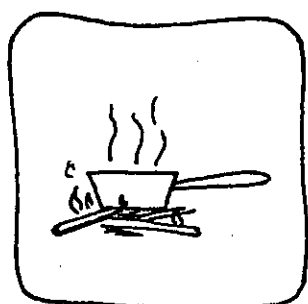
FORESTS



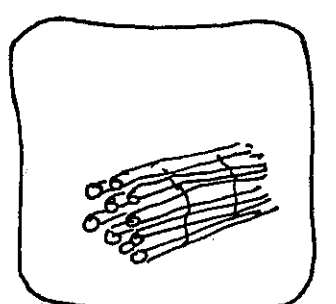
Trees, like other plants, capture energy from the Sun.



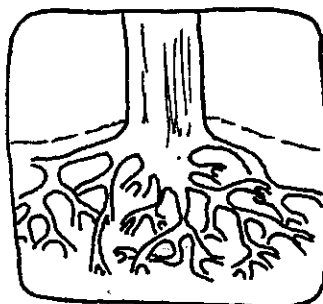
This energy is stored within the body of the tree.



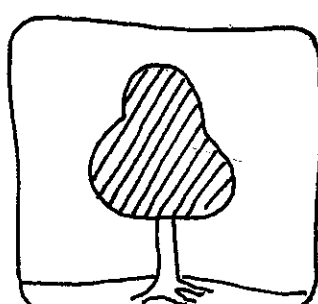
The energy can be released as heat when firewood is burnt.



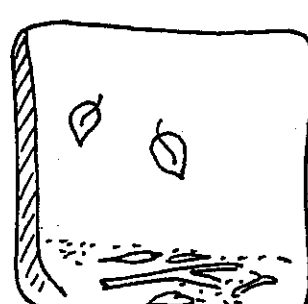
Many trees are cut to use as fuel in the poorer countries.



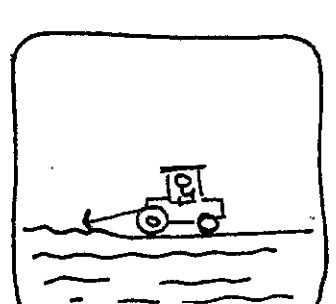
Tree roots collect mineral salts from the ground.



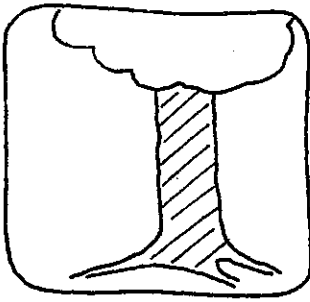
These minerals become part of the structure of the tree.



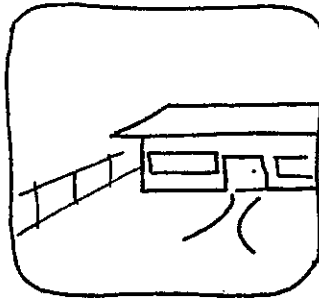
When leaves and branches fall and rot, they return minerals to the topsoil in humus.



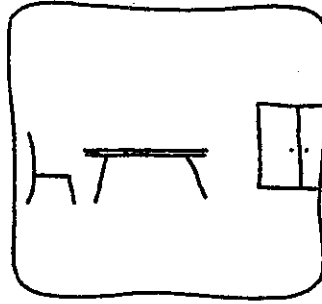
Forests are cleared for agriculture, to use the good soil which trees make.



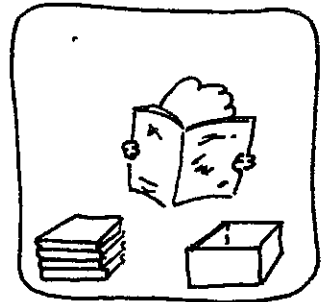
Tree trunks are made of strong fibres, which is why trees have many uses.



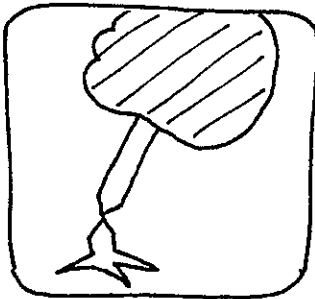
Timber goes into building houses, fences etc.



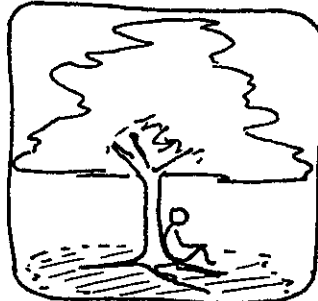
More timber is used for making furniture



And more trees are used to make paper and cardboard for books, newspapers, packaging etc.



So 3 main reasons why trees are cut are; **ENERGY**, **AGRICULTURE**, and **WOOD FIBRE**.



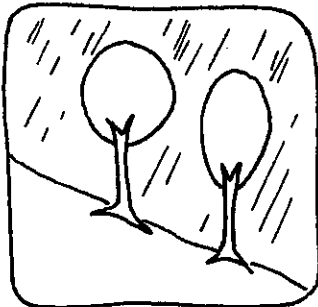
Living trees provide us with other (incalculable) economic benefits, e.g. they give shade,



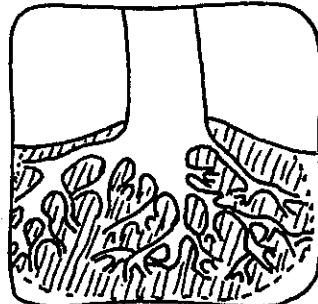
also Oxygen and take CO_2 from the air, storing Carbon in the tree itself and in soil.



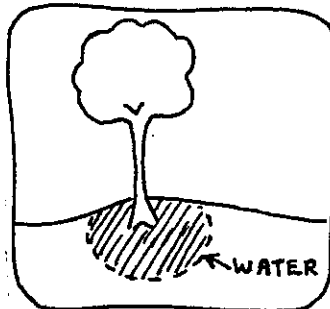
Forests contribute to weather cycles which bring rain.



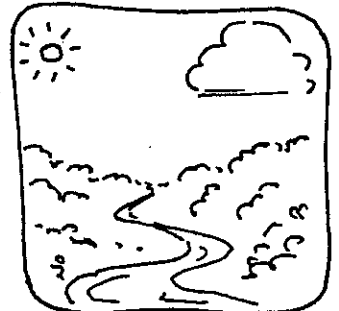
Tree roots hold soil and prevent erosion.



Tree roots also act like a large sponge, holding water in the soil...



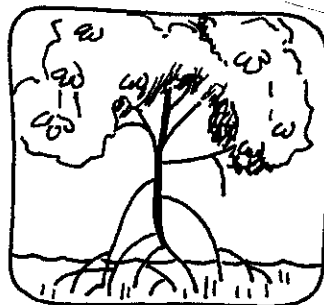
This water is released slowly after rain has fallen...



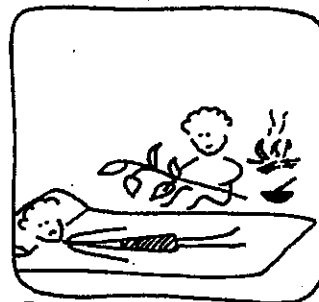
To give a clear, clean supply of fresh water for springs, rivers and dams.



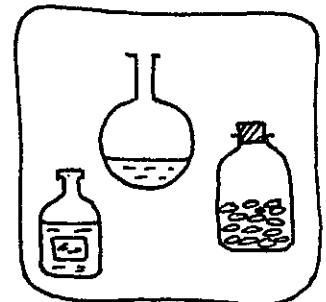
Trees are 'home' to many forms of wildlife.



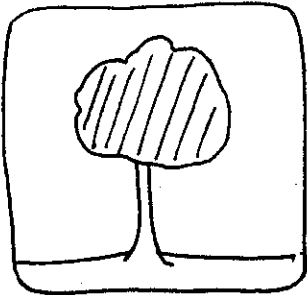
Mangroves provide a breeding place for fish and other forms of life in coastal waters.



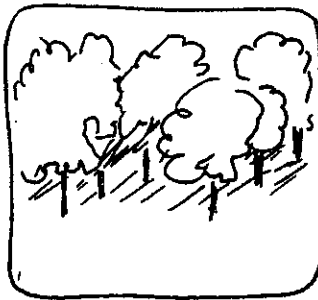
The medical properties of some trees have been known for centuries...



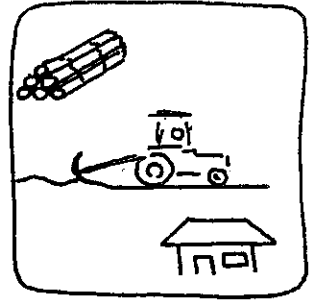
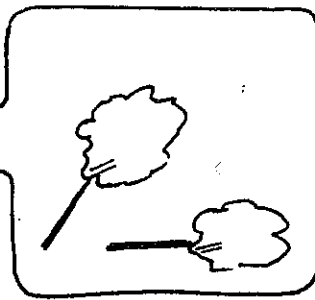
And many modern drugs can be extracted from trees, especially those in tropical forests.



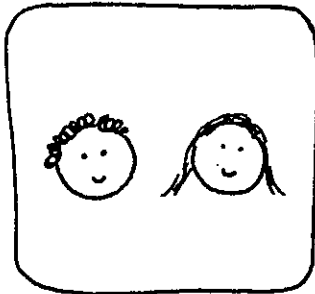
So there are many good reasons why a living tree is useful to people and animals.



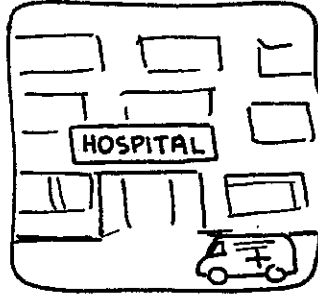
However, the forests of the Earth are being cut down faster today than ever before...



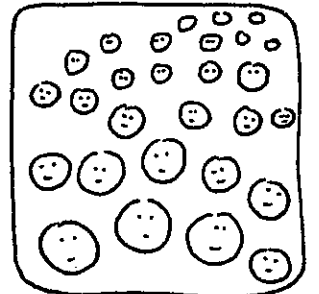
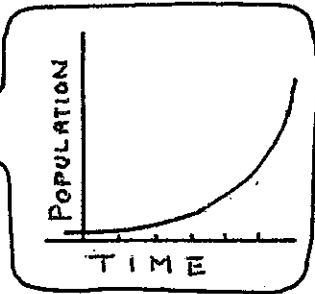
To supply our need for fuel, good soil and timber products.



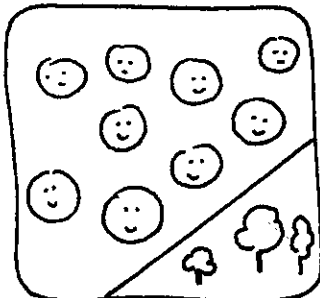
It is PEOPLE who use all these things.



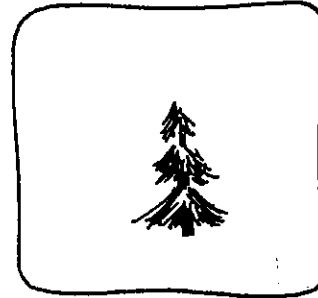
Now that we have improved medical care through health education, drugs, injections, surgery etc., the world population is increasing,



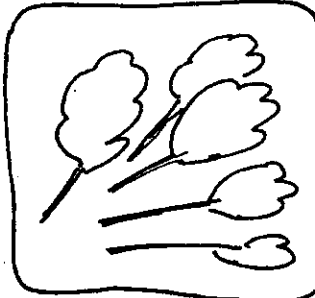
and so there are more people in the world than ever before.



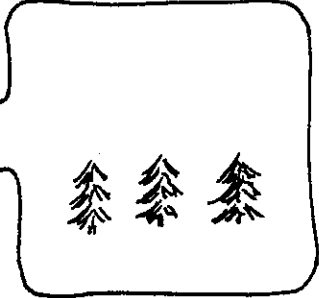
More people....
.... fewer trees.
What can we do?



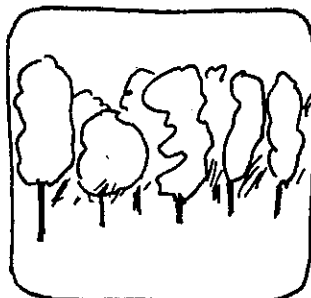
What about reforestation-planting new trees?



Reafforestation is not keeping up with forest destruction...



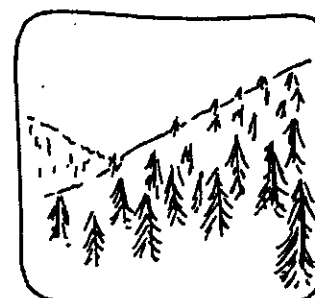
... and the newly planted trees are usually different from the types being cut.



As forests are cleared, many types of trees are in danger of extinction...



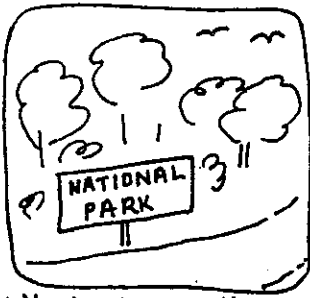
and with them would go the many forms of wildlife which depend on their own types of trees.



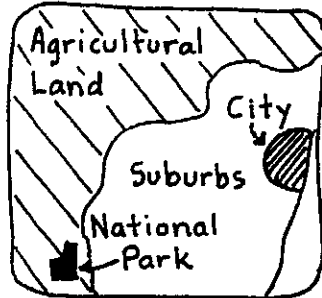
Reafforestation can supply some of our future needs for fuel and wood fibre,



But without the natural forests we would lose thousands of plant and animal species.



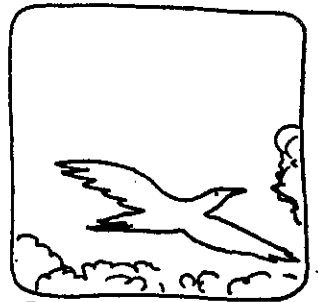
What about the National Parks - areas set aside to preserve nature?



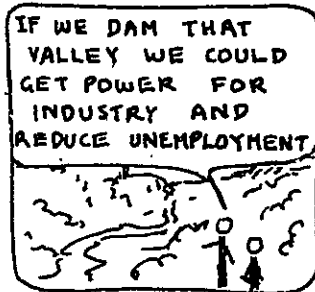
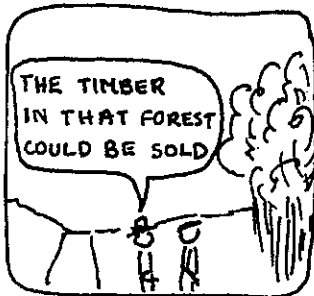
National Parks are only small areas because people want most of the land for other purposes.



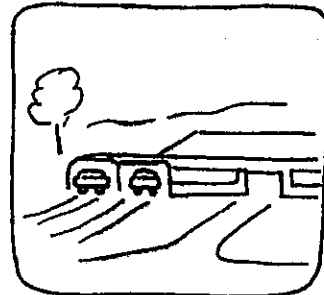
National Parks are important to many people because of the relaxation that the natural environment gives.



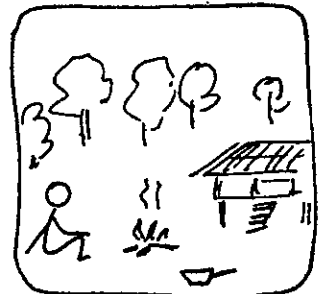
They are also very valuable as refuges for wildlife.



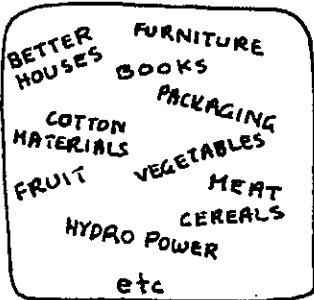
However as the population grows, there is pressure against setting aside reserves which are large enough to safeguard nature.



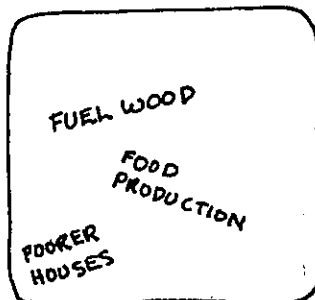
Countries with a high standard of living, e.g. Japan, Australia, U.S.A. - use up forests faster



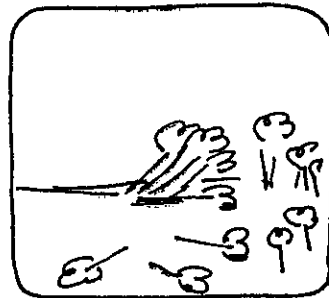
... than countries having a low standard of living



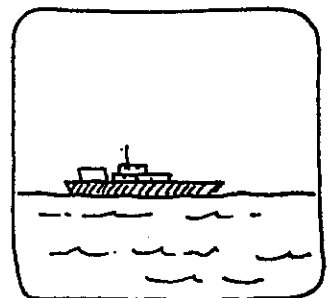
Because they use more timber and agricultural products and more energy...



... than those with a low living standard



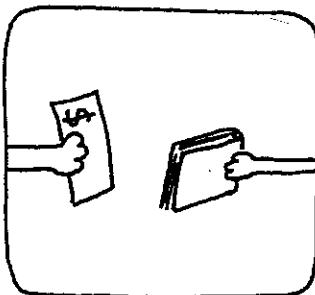
Forests in one country may pay for the high living standard of another country...



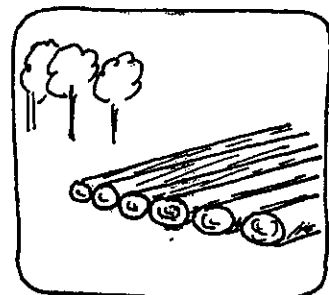
Since trade between countries includes timber and agricultural products.



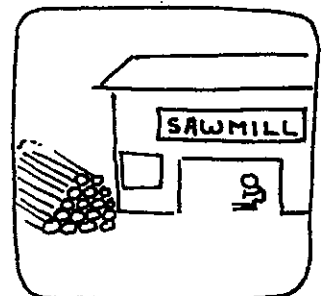
What about ways of conservation such as wasting less, cutting down on the use of timber products, re-cycling etc?



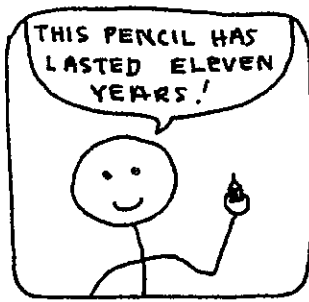
It is true that if people are willing to buy timber products, there will be someone who is willing to sell them...



And the more timber that can be sold, the more trees will be cut down to sell.



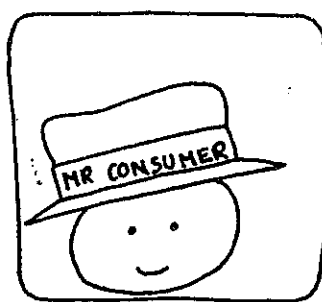
This is the basis of employment in the timber industry.



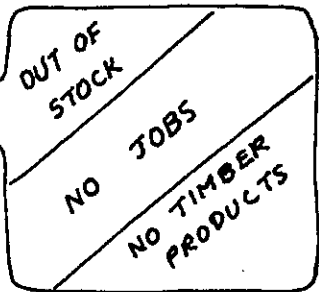
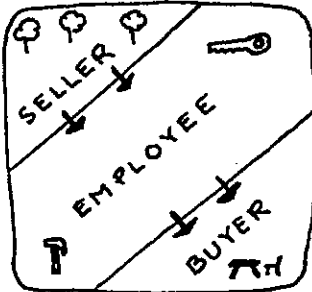
So, even small efforts at conserving timber products can help save trees.



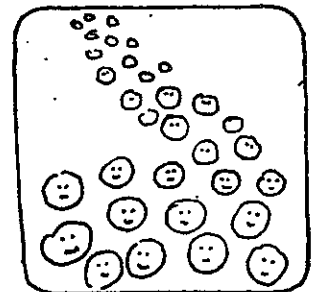
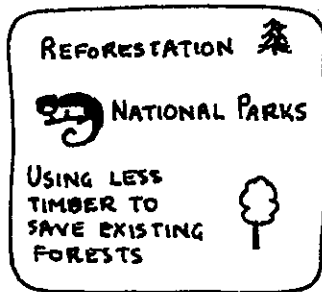
Does this mean the supplier of timber products may suffer? Yes...



It means that the Consumer now has a slightly lower standard of living because he uses less. And it means that the Supplier gets a little less money from selling timber products. So he too has a lower living standard.

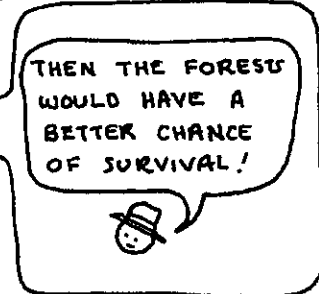
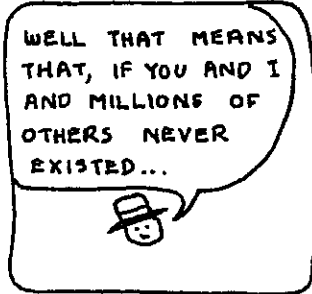


In fact 3 groups benefit from timber sales; the SELLER (landowner, government) the EMPLOYEE, or worker in the timber industry, and the BUYER of timber products. But if we continue to use up forests, we will run out of trees, jobs & timber products.

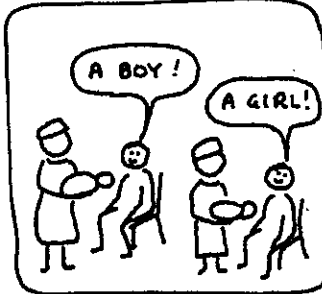


So, these 3 ways of saving forests are useful: they are, REFORESTATION NATIONAL PARKS CONSERVATION...

...But as population increases, there are more consumers of timber products. So, more trees will be cut down.



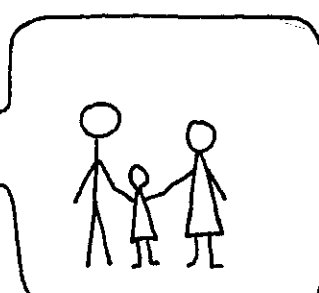
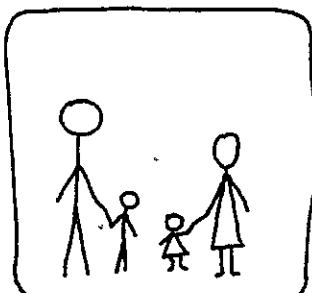
So it comes to this... our high population is making demands on Earth's ecosystems that are too great, and that is why the forests are disappearing.



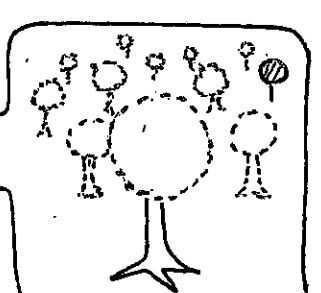
We were not responsible for our own existence...



But we are responsible for the number of children we add to the world's population.

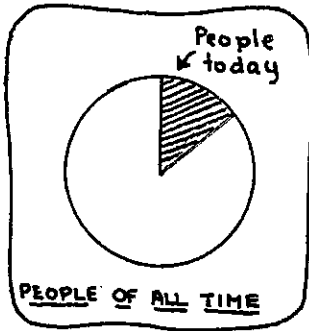


If couples choose to have small families; two or fewer than two children, then this will help reduce population pressure on forests...

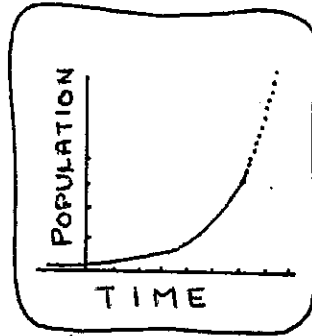


And future generations won't miss out on understanding the value of trees, forests and wildlife.

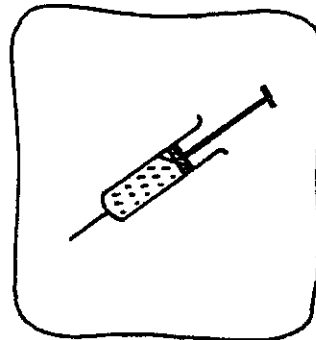
Part C - PEOPLE



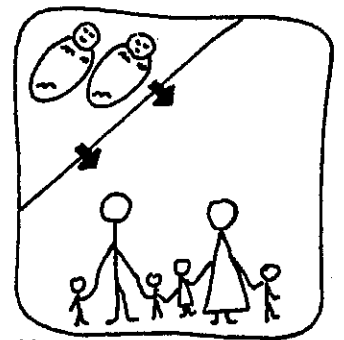
More than 10% of all the people who have ever lived are alive today and depend on the Earth for resources.



World population is increasing. It may pass 9 billion by the middle of the 21st Century.



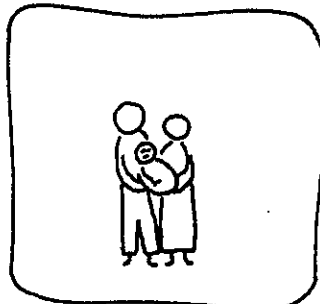
The main cause of population increase is better medical care.



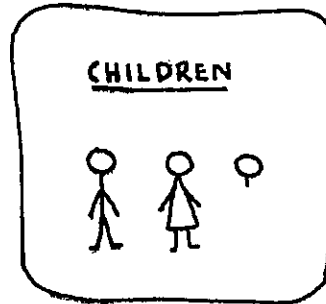
More babies survive to adulthood and produce families of their own.



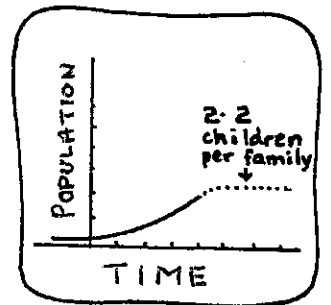
If we accept modern medical care - and we all do - then we must also accept the responsibility that goes with it...



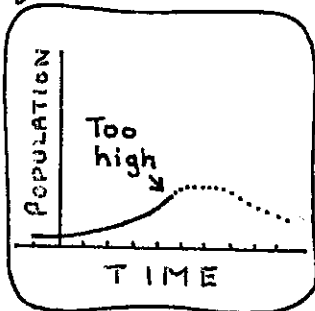
To have only a small number of children, to counter balance our improved survival rate.



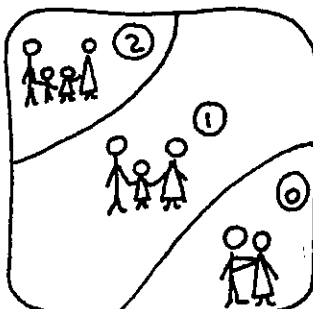
Statistics vary, but it has been said that 2.2 children per family would keep the world's population...



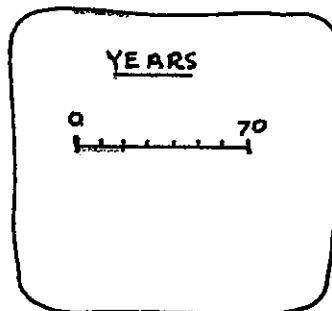
at its present level, given the medical care available to us today.



There are many indications that the world population is now too high. So, to reduce it...



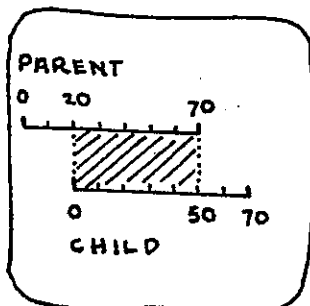
2, 1 or 0 children in a family are responsible choices for married couples to make.



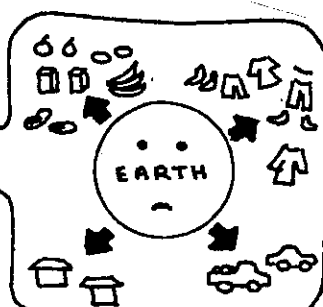
Secondly... In a country having good medical care, a person may expect to live for about 70 years.



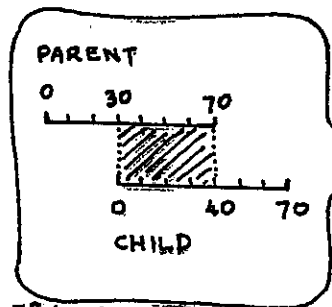
The Earth must supply all his needs every day of his life for 70 years.



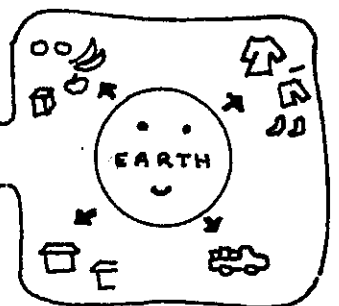
If a person becomes a parent when he is about 20 years old, then...



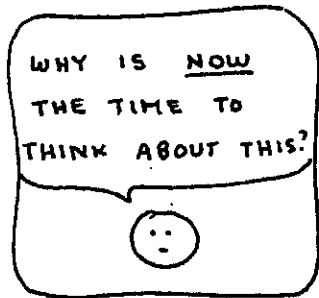
Earth must support parent and child together for 50 years or so.



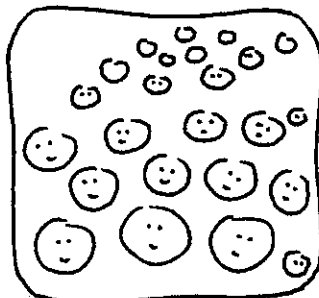
If he becomes a parent later, e.g. at 30, Earth supports parent and child together for a shorter time.



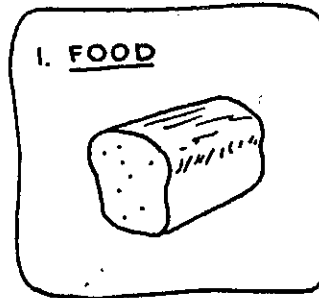
So, having children later in married life means Earth does not have to support so many people at once.



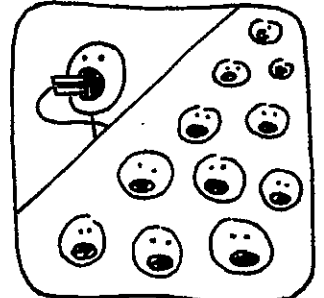
Why is it important to talk now about having smaller families and about having children later in married life?



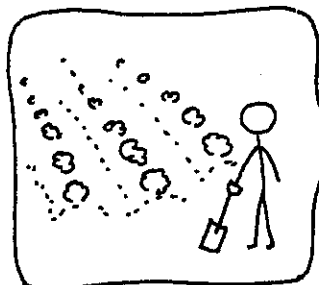
There are many reasons why we can see Earth's population is too high and now is the time to bring it down.



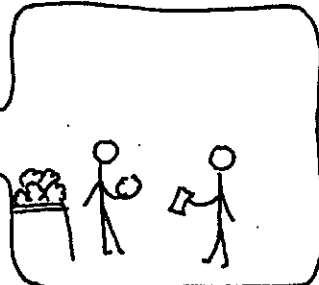
The first reason is food...



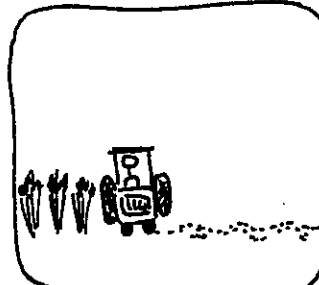
Each person needs food to live. Many people will need a large amount of food to live.



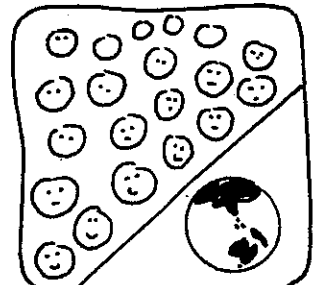
Whether we grow our own food,



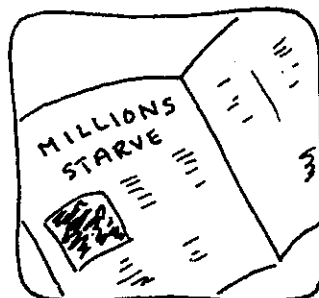
or whether we buy food grown by others,



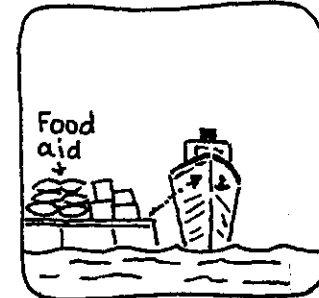
a certain area of Earth is under agriculture to give us our daily food.



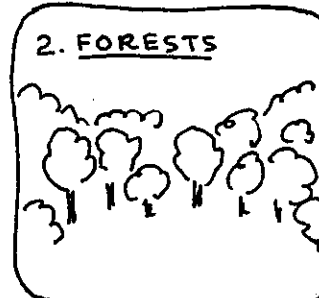
Earth's population is getting bigger, but Earth is not getting any bigger.



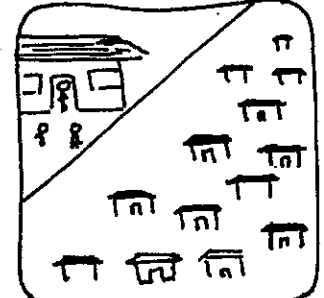
When food runs out in certain places, there is widespread suffering, because there are more people to suffer...



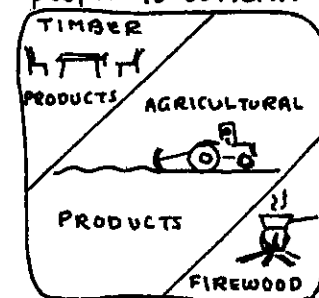
and the ability of rich nations to help out is reduced as their own populations' requirements increase.



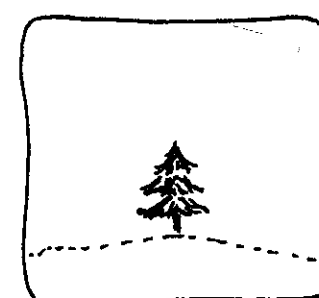
The second reason is the disappearance of the forests.



Each person needs timber products. Many people will need a large quantity of timber products.



The forests are being cut down to supply people with timber products, firewood and good agricultural soil.



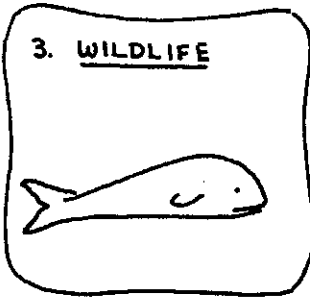
Trees grow slowly. Natural regrowth and tree plantations are not keeping pace with the amount of forest destroyed.



People need forests. They contribute to our needs for fresh air, clean water and the beauties and variety of nature.

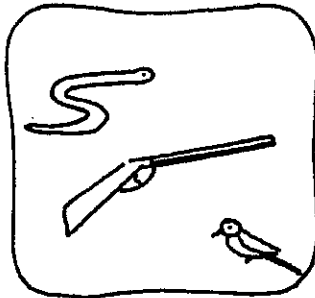


So the disappearance of the world's forests shows that the Earth is already over-populated.

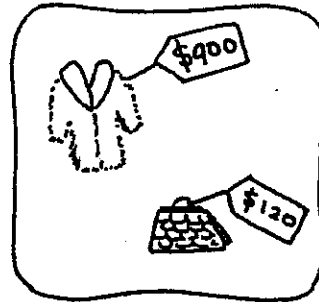


3. WILDLIFE

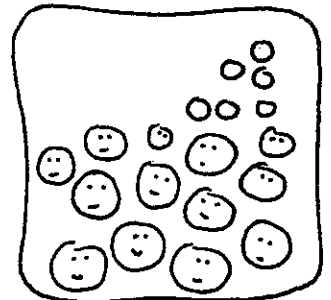
A third reason we can say Earth is overpopulated is the disappearance of wildlife.



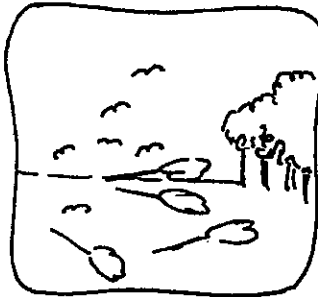
Some are hunted for food, others for fur, feathers, tusks, horns, skins, teeth, oil, or just for sport.



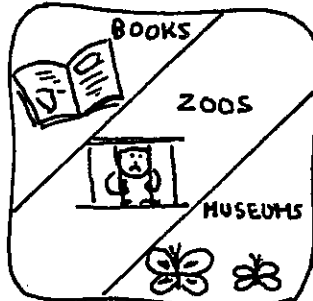
As long as there is a market for these animal products, there will be those who will kill wildlife to supply the market.



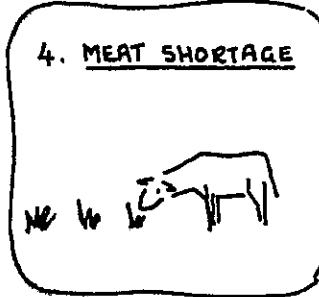
The increasing number of people filling shops and market places are the ones who buy wildlife products.



Also, many types of animals are getting fewer in number by destruction of their place to live; in particular, the forests.

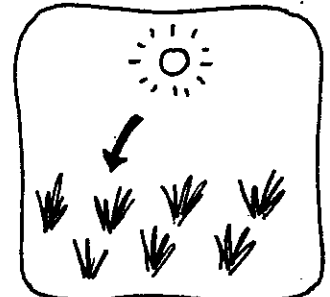


In a few years, the only evidence of some living things may be found in books, zoos and museums.

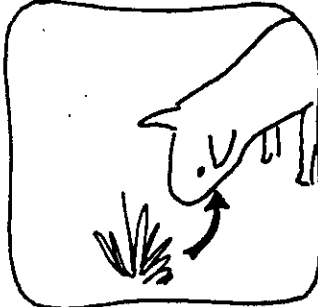


4. MEAT SHORTAGE

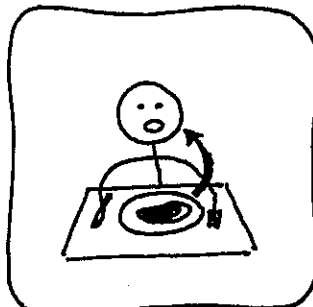
Another reason why we can say Earth is over-populated is the short world supply of meat, such as beef.



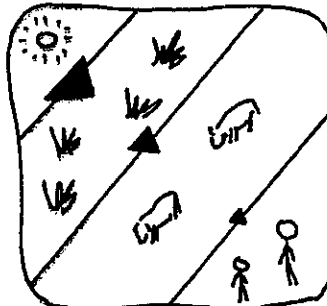
A fixed amount of sun's energy reaches Earth each day. A small percentage only of this solar energy is captured by green plants.



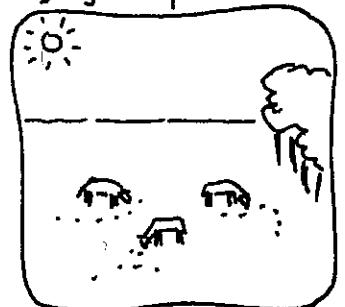
Some of this energy helps the plant grow and stay alive. A small amount only goes on to an animal that eats it,



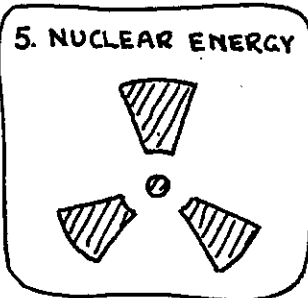
and a smaller amount to the person who eats animal meat. So, a fixed amount of Sun's energy can only give...



a fixed amount of meat from a given land area. Now, tropical forests in some countries are being cut down to raise cattle...



... to supply the market in developed countries which can no longer satisfy their own demand for meat.

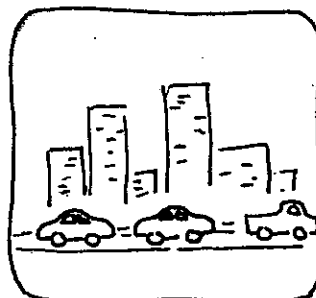


5. NUCLEAR ENERGY

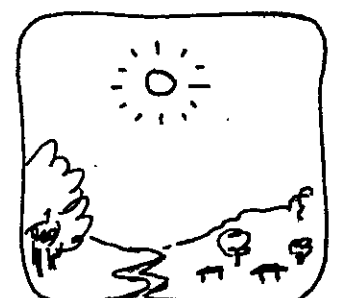
Increasing dependence on nuclear energy is another reason that we may say Earth's population is too great.



Each person needs a source of energy for lighting, cooking, heating, cooling, transport, and to help in industrial manufacture of goods.



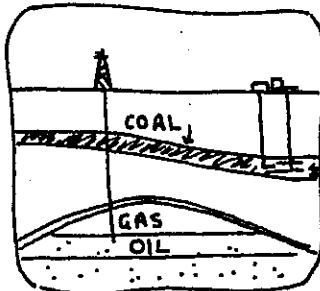
As population grows, energy needs get bigger and bigger.



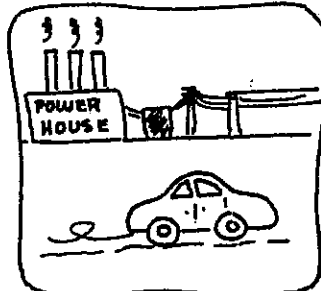
The Sun is Earth's main energy source and supplies us with a fixed daily ration of low power energy.



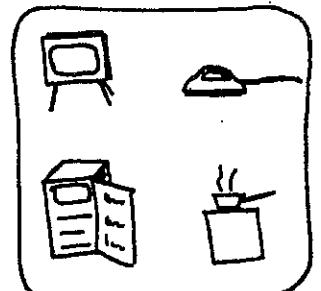
In ages past, the Sun's energy was captured by green plants living in prehistoric swamps.



The 'fossil fuels' - coal, gas and oil - formed from such prehistoric living material.



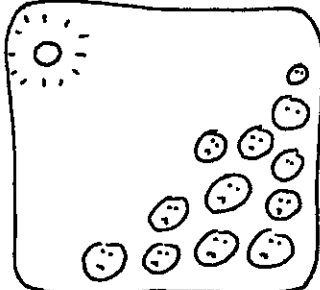
Fossil fuels are a 'bank' of solar energy which we use today for our main energy needs.



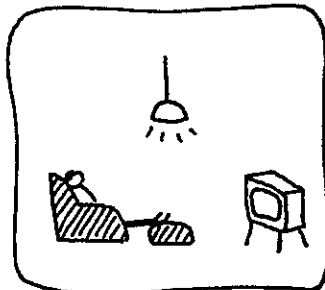
They are a medium power energy source and give the high living standard of some countries.



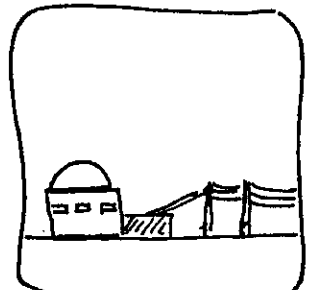
But what happens when the 'bank' of fossil fuels finishes?



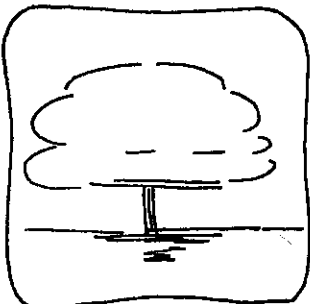
Will we be left with our low daily ration of solar energy and a high world population...



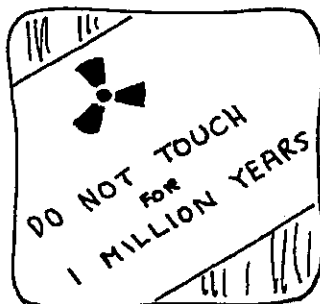
many of whom are used to a high standard of living requiring a large amount of energy?



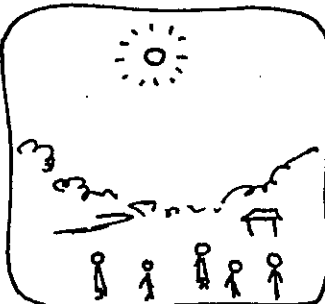
The 'energy crisis' is often given as the reason for turning to nuclear power, a high power energy source...



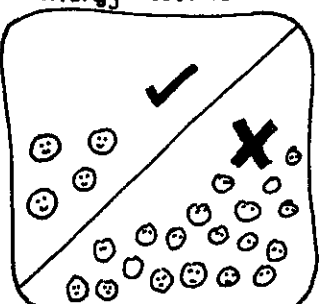
But nuclear power stations can make materials which may be used for atomic weapons,



and radioactive wastes from reactors stay dangerous for long periods of time.



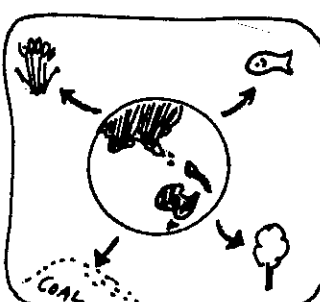
A sensible way is to reduce world population so that our daily solar energy ration is enough for our needs.



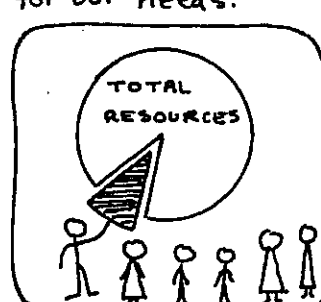
Alternative, safe low-power sources can keep a few people at a high living standard, but not many people at a high living standard.



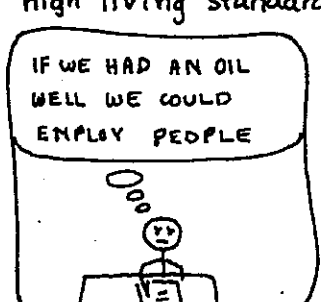
6. UNEMPLOYMENT
We may also look at the question of unemployment as 'too many people', rather than 'not enough jobs'.



All jobs depend originally on the productivity of the Earth in mining, forestry, fishing, agriculture.



Governments may decide how existing resources will be used and shared, e.g. through jobs...



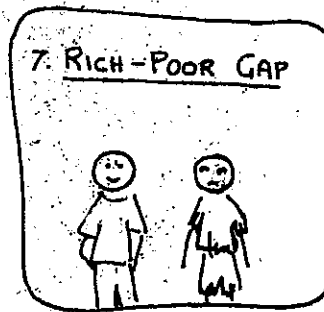
IF WE HAD AN OIL WELL WE COULD EMPLOY PEOPLE
...but a government cannot create new resources to give jobs as population increases.



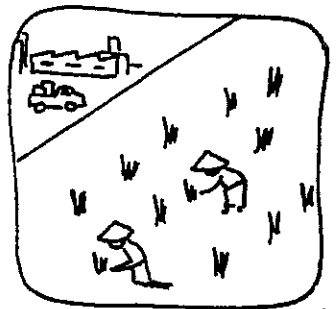
If a resource is used up, jobs depending on it will also run out.



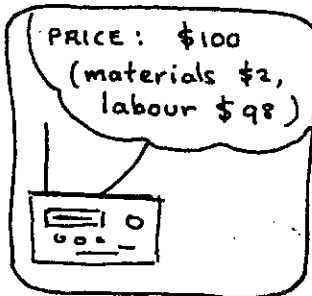
Unemployment is increasing world wide, so we may say there are now too many people for available jobs.



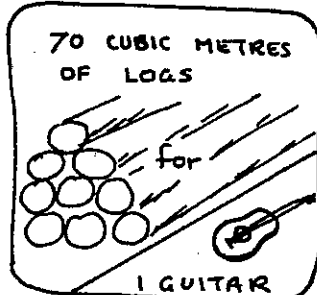
We can also say there are too many people in the world because the percentage of poor people is increasing.



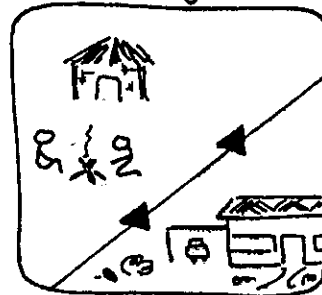
Developed societies with 25% of the world's people use 80% of world resources. Less developed societies have 75% of the people, but 20% of the resources.



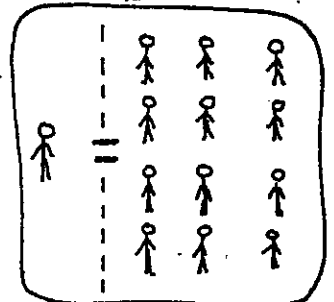
The price of a manufactured item is cost of raw materials plus labour costs for making, transporting and selling it, plus profit.



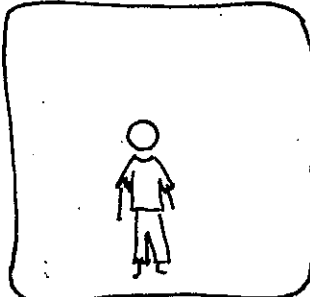
Underdeveloped countries must sell a lot of raw materials to buy back a small quantity of manufactured goods from developed countries.



Poverty in many countries is maintained by a flow of resources from less developed to more developed areas.



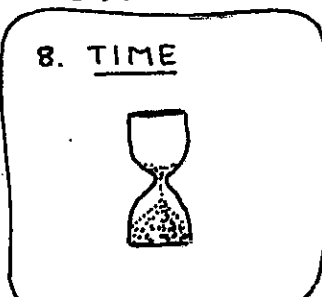
One person in a developed country uses as much of the world's resources as 12 people in an underdeveloped area.



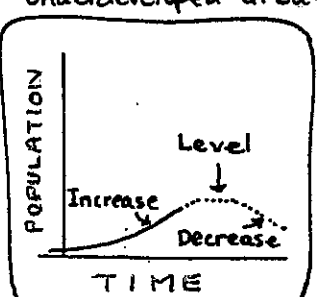
People in poor societies need to have smaller families because they do not earn much by selling their raw materials.



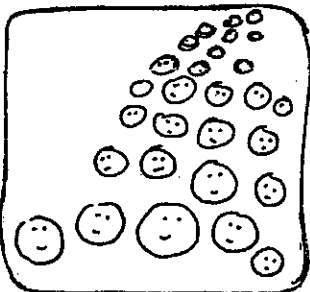
And people in rich societies need to have smaller families because most resources go to such places.



A final reason for saying there are too many people is that it takes time to make a change.



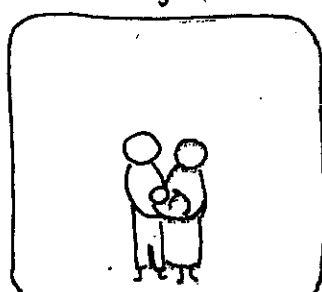
It takes time to bring about changes that would result in a voluntary decrease in world population.



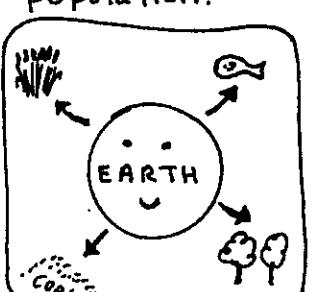
If world resources run low when population is high, then we can expect...



an increase in crime, warfare, famines and other kinds of suffering.



To choose only a small family at this stage in history is to contribute more than children to tomorrow's world...



It is to ensure that there will be enough resources available and the natural world can be protected.