

# **Title: Sustainable Development**

**Subject : Earth's Resources-towards  
sustainable use**

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**Energy conservation**

**Efforts of China**

**Environmental protection**

**New energy alternatives**

**Green buildings**

## **Harmony between man and the nature**

**"One development that meets the needs of the present jeopardizes the ability of future generations to meet their own needs."**

*(1987 - Dr. Gro Harlem Brundtland, Prime Minister of Norway)*

**"Sustainable development requires a change in behavior which protects people and the planet from every threat."**

*(Jacques Chirac, President of France, at the World Summit in Johannesburg in September 2002)*

### **Background**

The Earth provides us with a broad range of essential natural resources to our lives, including mineral resources such as water, metals and fossil fuels, which are important aspects of research and development in applied geology.

Faced with declining resources of oil, coal and gas, renewable energies are growing at a high speed in many countries and have become a political priority. But with the improvement of people's living standards in a country as populous as China or India, the energy demand in the world grows to a point where only renewable energy development is not enough, the overall energy consumption should also be reduced.

Faced with the major challenges (such as climate change, threats to biodiversity and water resources) which jeopardize the future of our planet, we need to find concrete and immediate solutions.

## What do we do in daily life?

### **1. The awareness of details in life can make a difference:**

- 1) Lower the thermostat of the living room at 1 ° C in the winter: a 7% decrease on the heating bill.
- 2) Turn off the screen display on appliances like TV, VCR or computer : a 10% decrease on power consumption.
- 3) Reduce the volume of water used per flush: 10000 litres of water will be saved in a year.
- 4) Drive smoothly and not too fast: a 40% decrease on fuel consumption, meanwhile, pollution and carbon dioxide emissions can be reduced.
- 5) Sort and recycle wastes, compost for the garden: raw material saved and pollution avoided.

*Actions like these, there are more. All the practice above contributes to sustainable development: start here !*

### **2. We can make choices for sustainable development at any point in our daily life :**

- 1) In our behavior (I move on foot, by bike or by bus? I monitor my consumption of water and electricity, or not?...);
- 2) In our investments (I choose a washer of low consumption and equipped with saving appliances, I can install a double-flush throughout and a tank to collect rainwater...);
- 3) In our supermarket shopping list (I take a basket, fill it with eco-food without unnecessary additives and environment-friendly products made

of or from renewable, recycled or recyclable materials...);

4) In major decisions (I'll redo the insulation of my apartment, I choose renewable energy to heat my house or water, I buy a car which is sensitive to the greenhouse gases released by the burning of the fuel...).

*Some of the choices take some extra money, but in the long run, they will actually save you a good sum. The benefit you get from it is far beyond what you pay for it! With the choices we make comes the natural consequence of a more comfortable environment and a better life.*

### **3. The workplace is a good place to amplify individual actions:**

- 1) Save energy, fuel and raw materials: It is important both at work and at home;
- 2) Limite both the nuisance and expense to go to work: using public transportations (bus or subway), walking or cycling with colleagues;
- 3) Reduce power consumption by turning off unnecessary powers of appliances (such as computers, copiers and printers) every evening. Avoid overconsumption of paper by using both sides and recycle them. And of course, limit excessive heating and cooling, etc.

*Start with the small matters in our daily life and make it effective, however, the cumulative effect of many small actions and daily choices is amazing. With our friends, our neighbors and our children, let's act together!*

## **Efforts of China**

China continues to play its active part and expand its influence in the field of sustainable development worldwide. After its accession to WTO,

it will not fail to play a creative role in the establishment of a global mechanism for balancing economy and environment and to protect the environment in a more effective way. For China, it is a great opportunity and important participation so as to enhance its sustainable development capacity.

The 17th Congress of the Chinese Communist Party came up with a new political strategy oriented unfolding around the concept of scientific development and harmonious society. Its objective is to create the conditions for sustainable development for 1.3 billion Chinese.

The reserves of fossil fuels will not last forever. The renewable energy resources become significant to ensure sustainable development. The biomass energy produced from the burning of plant stalks, wood or organic waste, solar, wind, geothermal energy and tidal energy at the edges of oceans, are all promising solutions.

According to statistics of China, new renewable energies abound in China. So far, biomass energy takes up 70% of the domestic energy consumption in rural areas and 50% of total consumption in China. Nevertheless, only 10% of potential water and wind energy has been exploited. With regard to solar, geothermal and tidal energy, less than 1% is currently generated from this total reserves. That's far from enough.

To make progress in the field of renewable and clean energy, technological skills are required. The world's leading technology in biofuels, produces ethanol and ether, which can improve the performance of gasoline engines and the burning of the fuel. By combining fossil energy with a different fuel, emissions of carbon monoxide are greatly reduced. " The CNOOC (China National Offshore Oil Corp) will soon

complete the construction of China's first offshore wind power plant in the Bay of Bohai. Such technologies allow China to develop renewable energy in a more efficient and economical way, in the premise of reducing pollution and the quantity of waste. ", said the Director General, Fu Chengyu.

In order to achieve coordinated development between urban construction and environment, the Chinese government has commenced to promote the construction of the so-called "Green buildings". This new type of buildings consists of a combined clean and comfortable housing, working and living area to meet the requirement of a high level of resource utilization and the lowest possible depredation on the environment. To reduce pollution, these green buildings are built with construction materials transported by smaller vehicles. In addition, it makes use of facilities that can reduce water consumption. On the outside are installed devices that use solar energy.

As a matter of fact, the entire Chinese people has been engaged in the protection of the environment and preservation of its natural resources. The 29th Olympic Games is going to be held in Beijing in the summer 2008. This is the recognition of China' unremitting efforts on sustainable development. There is no doubt that it will go further on this path.

## **Summary**

Today, the dramatic increase in population as well as the shortage of resources, environmental degradation and ecological crisis has been a direct threat to human survival and development. The implementation of

sustainable development strategy has become the consensus of all mankind. Let us swing into action, do the small things in our daily life to save energy and protect the environment. With all the efforts, we will be able to create harmony between man and the nature, and a promising future for our children.