

THE FOREST CYCLE - PIECE BY PIECE

A lasting idea



A sustainable cycle

The forest derives its energy from the sun. By a process of photosynthesis, solar energy is converted together with carbon dioxide and water into "fuel" for the growth of trees. This process makes the forest into a renewable source of raw materials, the main products of which are wood fibres and energy. Wood fibres are used for manufacture of paper products. If the used products are recycled as waste-paper, the fibres can be used several times. If paper waste is burned, the liberated energy can be put to good use. Paper is a biofuel which can reduce the need for fossil fuels such as oil and coal. Regardless of whether paper waste is burned or is allowed to decompose on a refuse dump, it will emit carbon dioxide to the atmosphere. The forest, however, recaptures the carbon dioxide for reuse in the photosynthesis process. The circle is thus closed and a new cycle can begin.

A lasting idea

Forestry and the forest products industry represent a global line of business with a sustainable industrial system and growing markets, and matched to tomorrow's needs. To Sweden and her forest products industry, it is a self-evident challenge to remain a natural part of this development.

Faith in the future is strong, even though last year was one of the darkest in the history of this industry. Despite beneficial foreign exchange rate adjustments and increasing deliveries, the profitability of our industry was decidedly unsatisfactory. The prevailing situation, with depressed prices and global excess capacity, is expected to improve only slowly in years to come.

A sustainable industrial system

The major environmental event in 1992 was the UN conference in Rio. How should the world be oriented towards sustainable development in which resource-creating production is combined with counteracting various global environmental threats?

It is abundantly clear that forestry and the forest products industry are probably the only large-scale industrial system capable of meeting the sustainable development objectives of the Rio conference. The forest-based industrial system, with its renewable raw materials and recyclable products, is in balance with the major natural cycles that control our climate and our environment.

The most important future issue on our Earth is how the growing need for raw materials and energy can be met within the framework of renewable systems.

Against this background, forestry and forest-based industrial activities will play a much greater role in tomorrow's communities than we could ever imagine today.

All of the pieces are needed

Today's environmental debate lacks a comprehensive overview. It deals with only one problem at a time. The waste issues dominate today, and recycling is the standard answer. Recycling is undeniably good. But recycling at any cost merely increases the impact on the environment and the economy, without benefit to the consumer and society at large.

The serious long-term problems are the exploitation of non-renewable raw materials, the use of fossil fuels and the climatic issue. The waste problem has been given disproportionate prominence.

In the case of paper products, the problem is entirely manageable by increased materials recycling for new paper products or increased incineration of waste for energy generation to replace the use of fossil fuels.

The lasting growth potential of the forest is the motor powering the entire system.

Wisely managed forests are not in conflict with ecological consideration. The Swedish forest is growing much faster than the rate at which it is being used. There is no need to economize on the use of wood and paper products - at any rate not if the reason is to

save the forest.

Newly produced virgin wood fibre from the forest is constantly needed to maintain the performance and quality of new, demanding products and of products based on recycled waste-paper. If harvesting in all Nordic forests were to stop one year on New Year's Day, the whole European forest industry system would collapse by Midsummer.

Paper products are needed

Paper products are useful. Hygiene paper, printing paper and packages meet important human needs, convey information and culture, effectively solve handling and transport problems, save raw materials and money.

The image problem of paper products is that almost all of its useful functions have already been served by the time the products reach the consumer. To the consumer, paper quickly turns to waste which is regarded as a serious problem without actually being one.

It would be difficult to imagine a resource-creating industrial system that would be better able to meet tomorrow's demands for overall sustainability in terms of conservation of raw materials, handling of waste and balance with the major global environmental issues. So we can go on using wood and paper with a clear conscience.

Dr. Jan Remröd
Director General

A SUSTAINABLE CYCLE

The raw material is renewable. The production system meets strict environmental demands. The products are harmless and can be recovered. So the most important demands for sustainable production are met. Paper fits well into today's recycling society.

In actual fact, the sustainable cycle comprises a puzzle made up of several integrated pieces and processes. The first piece is the forest in which energy from the sun interacts with the growing trees in a perpetual process. This process converts the forest into a constantly renewable raw material.

The second piece is the products. Low-resource production, materials recycling and energy recovery are the important elements. Recycling enables us to efficiently use the products, fibres and stored energy of the forest. At the same time, the waste is minimized.

This entity is in balance with the global environment. But local problems remain to be solved in certain areas. The production of pulp and paper gives rise to air- and waterborne emissions. A great deal has already been done to minimize this, and ecologically balanced mills are now in the course of development.

The vital aspect is **that the sustainable cycle makes it possible to supply people with useful products and the energy they need, but without wasting the Earth's resources.**