

TECHNOLOGY

U. S. Is Paper World

The average person in the U.S. uses nearly a quarter ton of paper each year, whereas in some countries the average is less than found in a single box of tissues.

By BILL WEST

► OURS IS a paper world.

Man fells millions of trees each year and grinds them into thousands of different paper products.

We are aware of paper in its obvious forms, such as newspapers, magazines, grocery bags and writing paper, but paper also turns up in unlikely places—toys, cars, dresses and space vehicles.

If you are an average American paper user, every year you use 457 pounds of paper—almost a quarter ton.

On the other hand, the average person in some countries uses less paper a year than is found in a single box of facial tissues.

The United States leads the world in paper consumption. Canada is second with a yearly per capita rate of about 280 pounds. Next comes Sweden with 270 pounds; United Kingdom, 235 pounds; Netherlands, 228 pounds; Denmark, 207 pounds, and Switzerland, 205 pounds.

In the range of 100 to 200 pounds are Australia, Norway, New Zealand, West Germany, Finland, Belgium, France, Japan, Iceland, Eire and Austria.

USSR Low on Scale

A typical Russian uses a mere 34.8 pounds of paper a year despite the fact the USSR controls about 26% of the world's forest area. Lack of technological progress in paper making is believed to be the reason. A U.S. forester, just returned from Russia, said he saw many telephone booths but few phone books.

About 60 countries, representing a total combined population of some 1.7 billion persons, use less than ten pounds of paper per person per year. Most of these countries lack forests, generally have low educational levels and are poor.

Even if they had adequate forests, it is doubtful they would become heavy users of paper.

Paper consumption seems to be linked, more than anything else, to the educational levels of a country. The less developed nations are showing some gains in the use of paper products, but these increases are for the most part small. However, these countries are important potential markets for paper products, a fact not being overlooked by European and U.S. paper producers.

Several newly emerging African nations show a desire to become self-sustaining in the paper field. Swaziland, with a per capita rate of half a pound a year, dedicated its first pulp mill in 1961. Still it must export its pulp to the United Kingdom and Western Europe because it lacks paper-making mills.

Sudan has opened three new paper mills within the past two years. They turn out wrapping papers, folding boxes and corrugated containers, plus tons of cellulose. Because Sudan is relatively treeless, the mills there use cotton stalks, papyrus and scrap paper as raw materials.

Uganda is making plans for its first paper mill. Nigeria is beginning a study aimed at future development of a pulp and paper industry. In 1962 a Nigerian official toured several U.S. tree farms and paper mills to study some of our methods of forest management and mill operation.

But in all of Africa, the per capita paper consumption rate each year is about four pounds.

Many new African nations are ignoring their opportunities in the paper-making field even though they have abundant wood or other suitable pulping materials available, such as esparto grass, cotton stalks, papyrus and bamboo.

Morocco exports nearly 100,000 tons of esparto grass yearly to paper mills in Spain, France and Scotland. The grass, which is used in making very fine papers, is not used commercially by U.S. paper mills. The Somali Republic is testing banana fibers in hopes of finding ways to use this material in paperboard.

In Asia, Saudi Arabia has a per capita consumption rate of about two-thirds of a pound of paper a year. This figure includes tons of Kraft paper imported and used to wrap and insulate miles of oil pipeline. The oil-rich kingdom has no forests.

U.S. Rate Increasing

In the U.S., paper consumption has been increasing at the rate of about six pounds a person a year. To meet this growing demand, paper and pulp companies have in the last six years invested more than \$4.2 billion in new plants and equipment, a good part for major technological changes.

These changes have ranged from new hardwood pulping developments to computer operation of paper and paperboard machines. Paper and pulp capacity is expected to increase at the rate of about three percent for the next several years.

Forest industry firms are protecting their plant investments by underwriting several major reforestation programs, the best known of which is the American Tree Farm System. This program is designed both to maintain a wood supply for useful products and to help meet the nation's need to conserve wildlife, water and soil.

Some 27,000 tree farms, more than 64 million acres of well-managed privately owned timberlands, are helping to cover the countryside with green trees.



American Forest Products Industries, Inc.

PAPER MOUNTAIN—A sample of the hundreds of pounds of paper used each year by a typical U.S. family is shown in this posed photograph.

Another forestry education program being sponsored by industry is the Busy Acres campaign. It is aimed at persuading owners of idle lands to plant trees. A free how-to-do-it forestry booklet is used to get the conservation message across.

Ten states now have Busy Acres programs and several more will launch them soon. Some landowners who start with the Busy Acres program go on to become certified tree farmers. All states except Alaska and Hawaii now have Tree Farm programs, which are administered locally by volunteer members of the forest industry.

These programs cost industry millions, but they have played a large part, especially the Tree Farm program, in improving the country's timber position. Latest figures show the nation is now growing about 60% more wood than is being harvested and lost to fire, insects and diseases. In some states insects and diseases destroy more wood yearly than is harvested for use.

Another major program that has helped to insure future wood supplies is industry's 23-year-old Keep America Green campaign for forest fire prevention. In 1962 forest fire losses were down to about four million acres. Before the keep-green program got fully off the ground, the nation was losing nearly 30 million acres of trees yearly from fires.

American Forest Products Industries, Inc., which sponsors Keep America Green as well as Tree Farms, Busy Acres and 4-H forestry award programs, has found that nine out of every ten forest fires are caused by man's carelessness.

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