Asia Plywood Company

Environmental Sustainability Concerns in Wood Production

by Arthur Iinuma

Wood, We Need it More Than We Know.

Wood products are hard to ignore, they are all around us, from the frame of your house, to the table you sit at, there is no doubt that wood is of immense value. Unfortunately it's sheer flexibility in the number of applications it is used for, means that it is one of the most sought out resources in the world.

Wood comes to us in the form of various species of trees, each having their own desirable characteristics depending on where they grow throughout the world. But trees are not just useful for building resources, they serve as habitats for various species within their ecosystems, provide life for countless living organisms, and work as scrubbers of the worlds carbon-dioxide - a dangerous greenhouse gas, that has become increasingly significant in today's global warming debacle.

It is then, no surprise, that the source of our wood products are an integral part of our ecosystem and a living resource that we should strive to protect and preserve with all our efforts.

Problems in the Timber Industry as it is Related to Environmental Sustainability.

A problem that exists today is the sheer profits earned in the timber industry by the various loggers, manufacturers and vendors. Further to this, an unfortunate oversight is that most of the logging and manufacturing is performed in countries where trees are abundant, but strict enforcement and regulations against their harvest is not. Without control, the rate of deforestation not only surpasses our ability to rebuild these forests, but threatens the delicate balance of our world's ecosystems and our very lives.

Sourcing from wood production mills throughout poorly regulated areas such as Russia or China causes significant on-going effects not only to the timber trade industry but the more important global environment. Documented cases have occurred where woods have been illegally marked as certified or from approved sources, or where wood products have been labeled as species other than their actual contents. Illegally harvested woods are cheap to acquire and therefore present an unfair competitive advantage against mills who log from approved sources and according to the regulations set by the local authorities. In addition, their reduced cost promotes strong demand from the top wood consuming countries such as the United States and the United Kingdom further supporting the use of illegally harvested timber.

Asia Plywood Company is one of the largest plywood manufacturers in Malaysia, and is fully aware of the ecological impact of it's wood production businesses. Timber logging is aggressively controlled in Malaysia and annual forest concessions are granted where sustainability

is adequate or where regions have been earmarked for future development. In addition, our use of woods certified by the Malaysian Timber Certification Council (MTCC) and the Forest Stewardship Council (FSC) ensures compliance and support of environmental sustainability programs despite increased costs of obtaining imported woods from FSC certified forests.

Glues Used in Wood Production.

Another source of potential environmental impact is the use of formaldehyde based glues in wood production. Formaldehyde is an important constituent in the manufacturing of moisture resistant permanent resins and is widely used in other industrial and chemical applications. Although the amount used in wood production is nominal compared with worldwide consumption (about 46 billion tons annually), the growing health concern is directly related to the reprocessing of wood products (such as sanding or lamination) after their initial manufacture.

Asia Plywood Company follows the strict criteria set by the world's safety agencies for glues used in its manufacturing process. The glues we have been using exceed both CARB Phase 1 and 2 requirements, and meet Japan's stringent JIS/JAS (F****) specifications. We use phenolic-based resins and other certified low-formaldehyde-emission (LFE) adhesive products in an effort to support environmentally neutral wood glues.

Standards	Maximum Formaldehyde Content (ppm)
European E1	0.75
U.S. OSHA	0.75
U.S. ANSI	0.30
German E1	0.106
CARB Phase 1	0.08
Japan JIS/JAS (F*)**	0.098
European E0	0.07
CARB Phase 2	0.05
Japan JIS/JAS (F**)**	0.04
Outdoor Air	0.03

Wood Production Efficiency – It Matters.

While sourcing of certified woods is of importance, many fail to realize that the efficiency of the wood production itself is also of significant concern. Smaller, less capitalized mills use cheap, poor quality and inferior machinery in order to maximize profit with reduced start up costs. Unfortunately these machines are less efficient, using more power and having a significantly reduced recovery rate (produce more wood waste). Larger, well capitalized mills such as Asia Plywood Company, use expensive machinery with high wood recovery, and with increased mill size, offer greater overall efficiency in manufacture with better recovery of waste. Unfortunately these smaller mills are more abundant (especially throughout China) and make up the bulk of total wood production, often at the expense of the environment.

The Future of the Wood Production Industry as a Whole.

The wood industry is mindful of the growing environmental concerns and Asia Plywood Company specifically can appreciate the efforts of many 'green' non-profit groups. The awareness generated by these organizations has forced a trend in the wood industry that will continue to progress and influence the ways various wood products are manufactured. Engineered woods such as plywood and medium-density fiberboard, maximize the usefulness of timber used and advancements in engineered wood technology and manufacturing processes are already having significant environmental impacts.

One company has even successfully used polystyrene balls to replace a percentage of wood chips and bonding them with special resins to decrease the overall use of wood without sacrificing the function of the product itself, and also significantly reducing weight, having a large scale impact on reduced fuel consumption throughout the transportation lifecycle.

Global Impact

To this end it is important that the various members of this industry be well adept to the current efforts by environmental preservation agencies and be fully invested and committed to the support of the forest rejuvenation programs and the worlds efforts against illegal harvesting.

Asia Plywood Company continues to monitor global initiatives relevant within the wood industry and will continue to support these programs as they advance and grow in the near future.

About the author – Arthur Iinuma holds a Bachelors in Biology from the College of Natural and Agricultural Sciences at the University of California, Riverside. He has performed extensive research in Plant Sciences and Environmental Ecology and currently serves as the Global Sales Director at Asia Plywood Company. Please contact our company to learn more about its participation in environmental sustainability programs or visit our website at www.asiaplywoodcompany.com