

## A Way to Improve Recycling Potential of Fibers and to Achieve Circular Economy

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Even though the recycling of paper and paperboard is quite successful when compared to the recycling of other resources, there are many things to improve. Recovering the used paper and paperboard without contamination and sending it back to the papermill that produced it would enhance the recycling potential and efficiency of recovered fiber resources. Close collaboration between a paper and packaging company and a logistics company has made a big improvement in recycling and achieved the circular economy of fiber resources. It is time to find better ways to collaborate, thereby improving our capability to keep our planet green.

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### A Needless Loss of Value

Waste disposal is closely related to human life because it directly affects the environment in which we live. To keep our planet green, it is imperative to reduce the amount of wasted valuable resources such as paper, glass, and metal as much as possible. Even though paper is leading in recycling rates, it is true that some of the valuable and recyclable paper resources are still being disposed of by incineration or landfilling. It is also true that there is much to improve in paper recycling by collaborating with the business partners of the paper industry.

Landfilling, *i.e.*, burying the wasted paper resources in the ground and letting the material decompose by microorganisms should be the last thing to do with recyclable paper. Incineration is a somewhat more proactive way of disposing of waste papers because it is possible to recover thermal energy through the incineration process. Obviously, neither incineration nor landfill can be regarded as the best solution for the environment. It is well known that it is desirable to reduce the amount of wasted paper resources that are lost through these two methods as much as possible. In other words, we need to find better ways to improve today's paper recycling and keep our environment green.

### A Need for Collaboration

Much needs to be done to make paper recycling more effective and efficient in protecting our green planet. This includes technological innovations as well as the implementations of policies and strategies that support and promote paper recycling in eco-friendly ways. However, we should remember that technological improvement may start from such simple things as keeping the place of paper recycling cleaner and safer. It is a simple thing but often ignored or neglected. Because paper recycling goes through many steps, such as collection, sorting, baling, transporting, and weighing, all personnel or

companies should work together closely to prevent any contamination of the recycled papers, which irreversibly ruins the quality of recycled paper and causes a lot of trouble in the subsequent steps of recycling.

Improving the cleanliness of recycled papers is one of the most critical steps for recycling fiber resources. If we find a better way to send the fiber back to where it was made, while preserving the quality and cleanliness of fibers, we can achieve a huge improvement in paper recycling. This would allow us to minimize the down-cycling of the fiber resource and provide us an opportunity to make the same or similar products with the recycled fiber resources.

It is obvious that no matter how large or efficient the paper recycling company is, and no matter how hard everyone in the paper company works, the circular recycling of paper resources cannot be achieved without effort. This is because the circular economy of paper resources requires the participation of all players involved. A simple but close partnership between the paper industry and large consumers of corrugated containers, such as electronics, furniture, and logistics companies, can make a big difference in paper recycling if they work together.

### **An Example of Collaboration**

A good example of improving the cleanliness and papermaking potential of recycled fibers has been made in Korea, thanks to the close collaboration between Taelim Packaging Co. and CJ Logistics, which are respectively one of the largest packaging and logistics corporations in Korea, respectively. The collaboration provides the opportunities of producing papers with the right sizes, weights, and qualities at the right time and shipping the corrugated containers with specifications just right for the requirements of the Logistics Company. After the use of the corrugated boxes, the material is collected again and returned to the paper mill right away without going through the usual collection steps. Taelim then makes new containers with it and provides them again to CJ.

This practice improves the quality and cleanliness of the recovered paper, and thereby makes it possible to maintain the quality of the reproduced paper. If this type of collaboration between the paper-producing and consuming industries is widely adopted, the chance of using our valuable fiber resources much more efficiently while minimizing their deterioration of papermaking potential can be achieved, which contributes to achieving the circular use of papermaking fibers. It is time to collaborate. It is time to show that small collaborations can make a big difference.