Global warming is an awfully dark cloud, but every cloud has a silver lining. The large quantities of CO$_2$ becoming available on the market, thanks to carbon capture, must be useful for something other than beverages! By studying environmental problems caused by human activities and studying the chemistry of CO$_2$, one can find applications of waste CO$_2$ that can ameliorate those problems. CO$_2$ can be used as a feedstock, a solvent, or a modifier of the properties of solvents, solutes, and surfaces. Using CO$_2$ as a modifier, even though it does not permanently sequester the CO$_2$, increases the efficiency and reduces the environmental impact of many different processes and products. Examples of the widely varying problems that could be addressed by using CO$_2$ as a modifier include the following:

- nearly half of worldwide use of organic solvents is in paints and coatings, because water-based coatings are inferior.
- about 1/3 of the world’s rubber crop is thrown away every year due to coagulation before processing, so that the environmental impact of the remaining natural rubber is increased by 50%
- 1/3 of the world population is suffering from fresh water shortages and yet industries are seeking more places to discard their wastewater.

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