

# **Weathering Approaches (Enhanced) for Carbon Dioxide Sequestration for mitigation of climate change and ocean acidification.**

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### *1. Definition of the subject*

The aim of enhanced weathering is to capture CO<sub>2</sub> by the carbonation of silicates, or by dissolution of these silicates during which the greenhouse gas CO<sub>2</sub> is converted to bicarbonate in solution. Research in this field is still focused on increasing the rate of reaction, but the required additional technologies add considerably to the cost of the process. In this chapter the focus is on the optimization of the weathering conditions, by selecting the most reactive abundantly available minerals, grinding them and spread the grains over land. Thereafter nature takes its course.

Since its formulation in the late nineties, more and more people realize that this simple and natural approach may well turn out to be one of the most promising and environmentally friendliest ways to counteract climate change and ocean acidification.