

***Proposed:* Decarbonization R&D Laboratory**

A “moonshot” refers to a *large* R&D initiative that is implemented over a relatively short period of time. In theory, multiple moonshots could be done to reduce the cost of global decarbonization. They would probably focus on areas that are currently not being worked on, and have potential for significant impact.

One might proceed with the following steps for each moonshot: (a) establish goal, (b) write several page summary, (c) pay researchers approximately \$10K each to write proposals to implement that described in summary, (d) spend several million dollars on initial R&D, and (e) proceed with more proposals and more money if project appears technically and economically feasible. In other words, moonshots would probably begin at the million dollar level, before spending more money. New green infrastructure is likely to cost 100 trillion dollars globally over several decades. Therefore, spending additional billions of dollars on additional R&D, to save trillions, is reasonable.

To get started, it is proposed that a gov't or foundation allocate \$1M to support the writing of 50 to 100 R&D proposals over one year. They would describe R&D that implements moonshots identified in a Decarbonization R&D Laboratory business plan. For an example open-source plan, see www.APlanToSaveThePlanet.org/Lab

After the initial \$1M proposal writing year, the lab is potentially supported with \geq \$100M/year of funding. Researchers use this to do R&D and write more proposals, to bring in more money from foundations and national governments.

A nation can put money into R&D or brute-force decarbonization. An example of R&D would be to accelerate the development of commercial fusion power. An example of brute-force decarbonization would be to place solar panels on the roof of the public library. If one compares the amount of CO₂ reduced globally per dollar spent with each of these, R&D would probably do better. In other words, if a nation has a fixed budget to minimize sea level rise 200 years from now, using their brains might do more than their muscles.

In summary, consider exploring multiple R&D moonshots with \$1M.