

James Hansen on Negative Emissions: Desperately needed, but not the technofixes

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Negative emissions technology that works: peasant agriculture cools the planet! Nicole McConvery/Flickr CC

James Hansen and 11 other climate scientists have just released a new report "[Young People's Burden: Requirement of Negative CO2 Emissions](#)". In it they outline how the only way to have any hope of stabilising greenhouse gas emissions in the atmosphere is to drastically reduce carbon emissions now, as well as drawing CO2 that's already in the atmosphere out of it, and storing it safely. This conclusion should not be misinterpreted as a call for negative emissions technologies and by implication a focus on carbon capture, and false climate solutions like bioenergy with carbon capture and storage (BECCS).

The paper actually comes out strongly against these technofix solutions. It says that negative emissions are desperately needed, but should focus on increasing the capacity of forests and soils to store carbon, instead of relying on unproven and hugely expensive technological solutions like BECCS. This makes total sense: draw carbon out of the atmosphere by making existing carbon sinks more effective. This would involve allowing natural ecosystems to regenerate, protecting forests, promoting agro-ecology and peasant farming.

Conversely, BECCS, CCS, and direct air capture of CO2 aim to create a new carbon sink below the Earth's crust, at the expense of existing forests and soils. This makes no sense, is doomed to technological failure, and only lets polluters off the hook.

One small issue with the paper is it's hesitant support for biochar as a means of increasing soil carbon. Biochar as a climate mitigation strategy has been widely discredited, and it really is time respected climate scientists stopped

taking it seriously.