Mr. Thomas Carpenter
Designated Federal Officer
EPA Science Advisory Board Staff Office (1400R)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Dear Mr. Carpenter:
I am writing as a past researcher of carbon cycle science, carbon accounting, and carbon flux from terrestrial ecosystems. I also served as a member of the EPA Panel on Biogenic Carbon Emissions that provided input on the first two draft Frameworks.

I believe that the *draft SAB review* of the EPA's Framework for Assessing Biogenic CO_2 Emissions from Stationary Sources summarizes the panel discussions and outcomes well, given the different scientific perspectives on a few of the issues. I generally support the logical conclusions of the *draft SAB review* on all five recommendations made on page 4 of the review document.

I would like to reiterate support, with additional explanation, for one of these findings. Key Finding number 2 is significant. The first framework tried to sum all the emissions (i.e., sum fluxes). This was not efficient and was prone to inaccuracies. The second framework switched to a stock-change approach, guided by methods of carbon accounting that have been implemented nationally and internationally. This type of approach coincides with approaches in the United States like the Forest Inventory Analysis. It is more straight forward and less prone to error. More importantly, it captures the overall changes in standing stock over a given region and a given time period. This finding is significant, because the change in standing stock due, for example, to a doubling in harvest over the US, may or may not be carbon neutral over a given time, depending on regrowth rates, land-use change, and rotation intervals. For example, if we double the national harvest, and if the harvest rates remain at that new level, the stock may theoretically decrease and remain lower until the harvest rates change again. Therefore, over the biophysical lifetime of the tree or forest stand, a tree or forest stand is carbon neutral in the long-term. However, over a landscape scale (e.g., sub-national or national), the impact of new forest policies may not be carbon neutral, even over the long-term. The stock-change approach would capture that reality, just as it does in the U.S. Forest Inventory Analysis program.

In conclusion, I think that the review of the SAB is sound and that regional BAFs for a number of biomass energy sources could be estimated in a relatively straight-forward manner by experienced researchers in core relevant disciplines, and done so by <u>not</u> including the complexities and highly uncertain factors that are interesting for complex research analyses but not necessarily fitting for regulatory frameworks.

Sincerely,

Tristram O. West, Ph.D.