



Washington, D.C. September 17, 2021.

Gwen W. Collman, Ph.D.
Acting Deputy Director
National Institute of Environmental Health Sciences
Research Triangle Park, NC 27709

Re: NIH Climate Change and Human Health RFI. Notice Number (NOT-ES-21-009)

Dear Dr. Collman,

We thank you for the opportunity to provide information on behalf of the National Family Farm Coalition (NFFC). The National Family Farm Coalition (NFFC) is a 35-year-old organization representing thousands of independent family farmers, ranchers, and fishermen throughout the United States.

Many of our members have been engaged on multiple research projects, or are researcher themselves, and coincide with the priorities identified by NIH for human health and climate change. Our members not only had practicing research experience, but more importantly are research practitioners of conservation and human health.

I. Innovative Research that Addresses Climate Change and Human Health

In agriculture we have seen and engaged in many innovations, but unfortunately, a good amount of them have backfired on our environment and health and it is extremely important that we avoid the same mistakes or fall into the false promises of industrial agriculture (Food First, 2019).



The current proposals in agriculture to increase carbon markets and genetically modified organisms are not going to benefit our members and we strongly oppose development research in these fields. Carbon markets will continue to be a risk investment for agriculture because the structure benefits large producers, incentivize polluters, and increases the farmland cost and operations (Bryant, 2019; Michellowa, et al. 2019; Pierce, 2017; Sheng, et al. 2018). On the other hand, genetically modified seeds and now animals are against our members' interest, health, and safety (Van Eenennaam, et al. 2019). The Green Revolution of the past continues to provide e negative impacts to our health and to the future health of our families.

NFFC would like to see NIH supporting innovative studies that assess risks of new technologies in agriculture with independent researchers not linked with agroindustry funds. In addition, there is a growing demand for local and sustainable agricultural production that had been poorly studied. The positive impact of sustainable agricultural systems is well documented on the production of healthy soils and carbon capture (Adegneye, et al. 2020; Blaser, et al.2018; Chaterjee, et al. 2018; Chavarria, et al. 2018; Lipper and Zimmerman, 2018), but there are not well linked studies on the health of communities or the potential for their expansion. The semantics of sustainable agriculture is complicated, and the public should benefit from a well-documented taxonomy of these practices: organic, regenerative, agroecology, sustainable, and permaculture, to mention some.

II. Scientific Infrastructure to Address Human Health and Climate Change



The Civic Society has had to innovate to analyze and map their environmental risks. That

is unacceptable. While “public” academic institutions are gradually increasing their overhead costs using the amount of public funds to leverage their competitive ranks, communities received very limited benefits of their research processes and results.

Rural communities are among the hardest hit with the lack of infrastructure in general, and it is irreconcilable for environmental reasons that many academic institutions spend significant amounts of funds to travel between rural and urban communities to conduct research.

Because sustainable (or organic) agriculture increases healthy soils, reduces green gases, and has potential health benefits, we believe that these practices should receive support to build infrastructure for research purposes. We hope NIH designates specific funds to invest in rural locations.

III. Research and Community Partners to Address Environmental Justice and Foster Resilience

The investment, procedures, and structure do not allow for a good interaction of most academic institutions with communities. I have worked with multiple institutions, particularly with University of Florida, where I completed my PhD, and the number of researchers engaged in community partnership is extremely limited.

Academic grants are not a good incentive for academic personnel to increase



community-based participatory research projects or to address environmental justice problems when their system is already unfair and biased. NIH should work in the capacity that some researchers have been able to generate in some community organizations so they can lead these types of research and hire the experts to facilitate the studies.

While some institution had commitments to Environmental Justice, like Florida Agriculture and Mechanic University or Georgetown University, most land-grant universities maintain close ties with conventional agriculture corporations that cause harm to the environment and producer health. In addition, some of their practices have had questionable social or environmental justice issues. For example, University of Florida opposed calls to engage in good food purchasing practices by blocking procurement practices that benefit growers and workers (Ivanov, 2021); the University of California at Davis shamefully patented an indigenous corn from Oaxaca (Pskowski, 2019).

We suggest that besides supporting more nontraditional academic institutions, NIH should make an intensive evaluation of the applicant's commitment to social and environmental justice, their overhead practices, their fairness in the design and funds of these institutions to their community partners, and even the investment they have in their portfolios.

The Teachers Insurance and Annuity Association of America-College Retirement Equities Fund is a Fortune 100 financial services organization that is the leading provider of financial services in the academic, research, medical, cultural, and governmental fields. TIAA-CREF is becoming an enemy of our farmers and ranchers. TIAA-CREF has been rapidly swallowing up farmland, both in the U.S. and abroad, leading it to become one of the world's



most insatiable leaders of land grabs.

In 2010, TIAA ramped up its agricultural investment strategy by purchasing the Westchester Group, the world's most lucrative agricultural asset manager. With over \$3 billion in farmland assets, Westchester has acquired over 400 farms in the United States, Australia, South America and Europe. In the U.S., Westchester owns 125,000 acres in 12 different states; in Australia over 250,000 acres; and 262,000 acres in Brazil, where it has partnered with Cosan, the country's largest sugar cane producer, to form Radar Propriedades Agrícolas (WAAM, 2011).

IV. Rapid Research Response Capacity to Address Human Health and Climate Change

There are many problems that need to be addressed here. The principal, as was mentioned, the systematic financial problem of higher education institutions: overhead costs, overwhelming administration and not good ratio student/research/professor, bureaucracy, their overzealous protection for liability, and poor incentives for researchers to engage in this kind of proposals.

As previously noted, the current structure of most universities is not to serve the community, but to serve their own financial and infrastructure growth. Universities are less a place to serve the society but a business that serves the administrators. It is as simple as seeing the salaries of their bureaucracy and the salaries and benefits of their academic staff. In addition, NIH can also compare the rates in which the academic professional compared to community partners and understand why the building capacity of grassroot organizations, who usually respond to



disasters, do not have the capability to conduct research practices.

Research is an important part for preparedness, prevention, and response practices dealing with disasters, but we would argue that there is a far distance between the capabilities of researchers and communities. Farming is suffering the consequences of their growth and structure in the way it pollutes and in the way it is impacted by climate change. Moreover, it put the people engaged in this activity at risk.

For all the previous reasons we recommend the NIH to invest in building rapid response research capabilities outside academic institutions and in the hands of first responders. With the proper technical support, the investment of the taxpayer money will be in better hands and will be more impactful if it goes to not traditional institutions.

V. Diverse Workforce to Address Human Health and Climate Change

The NFFC strongly supports BIPOC communities and professionals; we unfortunately see that the diversity plans of many universities, particularly those founded already from discriminatory institutions use the term as a euphemism of intentions and not with the real intention of fostering BIPOC professionals.

As expressed before, NFFC would like to see NIH commitment to diversity and direct public service by investing directly in alternative organizations with research capabilities. For example, the Rural Training and Research Center of the Federation of Southern Cooperatives, the Agroecology Research-Action Collective, or all the historic Black



Universities.

VI. Translation and Dissemination of Research Findings and Health Protective Strategies

NFFC farmers, ranchers, and fishery folk workers would appreciate that researchers would be recognized by their institution for the rapid translation of their research. Because the system compensates greatly for the peer-review system, many of the valuable discoveries of researchers stay in professional journals that are of very little use to us.

The problem is not just the delay to reach the sector, but that the specificity of the publications, and even the cost to get access to them is such that they become useless knowledge by the time they reach farm practitioners. As we mentioned at the start of our comments, field and sea workers' knowledge should not be dismissed but nurtured.

“There is only a perspective seeing, only a perspective ‘knowing’; and the more effects we allow to speak about one thing, the more eyes, different eyes, we can use to observe one thing, the more complete our ‘concept’ of this thing, our ‘objectivity’, be.” Friedrich Nietzsche

We can keep building ivory towers, we need to feed grassroot initiatives.

Antonio Tovar PhD
Policy Associate
National Family Farm Coalition
110 Maryland Av. NE Apt. 307
Washington, D.C. 20002
antonio@nffc.net



References

1. Adegbeye, M. J., Reddy, P. R. K., Obaisi, A. I., Elghandour, M. M. M. Y., Oyebamiji, K. J., Salem, A. Z. M., ... & Camacho-Díaz, L. M. (2020). Sustainable agriculture options for production, greenhouse gasses and pollution alleviation, and nutrient recycling in emerging and transitional nations-An overview. *Journal of Cleaner Production*, 242, 118319.
2. Blaser, W. J., Oponng, J., Hart, S. P., Landolt, J., Yeboah, E., & Six, J. (2018). Climate-smart sustainable agriculture in low-to-intermediate shade agroforests. *Nature Sustainability*, 1(5), 234-239.
3. Bryant, G. (2019). *Carbon markets in a climate-changing capitalism*. Cambridge University Press.
4. Chatterjee, N., Nair, P. R., Chakraborty, S., & Nair, V. D. (2018). Changes in soil carbon stocks across the Forest-Agroforest-Agriculture/Pasture continuum in various agroecological regions: A meta-analysis. *Agriculture, ecosystems & environment*, 266, 55-67.
5. Chavarria, D. N., Pérez-Brandan, C., Serri, D. L., Meriles, J. M., Restovich, S. B., Andriulo, A. E., ... & Vargas-Gil, S. (2018). Response of soil microbial communities to agroecological versus conventional systems of extensive agriculture. *Agriculture, Ecosystems & Environment*, 264, 1-8.
6. Food First, (2019) Agriculture the Next Battleground for Climate Justice <https://foodfirst.org/publication/agriculture-the-next-battleground-for-climate-justice/>
7. Ivanov, D. (2021), With New Food Contract on the Line for vendors Pressure Mounts on UF Administrators, *The Alligator*, <https://goodfoodpurchasing.org/with-new-food-contract-on-the-line-for-vendors-pressure-mounts-on-uf-administrators/>
8. Lipper, L., & Zilberman, D. (2018). A short history of the evolution of the climate smart agriculture approach and its links to climate change and sustainable agriculture debates. In *Climate smart agriculture* (pp. 13-30). Springer, Cham.
9. Michaelowa, A., Shishlov, I., & Brescia, D. (2019). Evolution of international carbon markets: lessons for the Paris Agreement. *Wiley Interdisciplinary Reviews: Climate Change*, 10(6), e613.
10. Pskowski, M. (2019), Indigenous Maiz: Who Owns the Rights to Mexico's Wonder Plant, *Yale 360*, <https://e360.yale.edu/features/indigenous-maize-who-owns-the-rights-to-mexicos-wonder-plant>
11. Pearse, R. (2017). *Pricing carbon in Australia: Contestation, the state and market failure*. Routledge.
12. Sheng, Y., Jackson, T., & Lawson, K. (2018). Evaluating the benefits from transport infrastructure in agriculture: a hedonic analysis of farmland prices. *Australian Journal of Agricultural and Resource Economics*, 62(2), 237-255.
13. Van Eenennaam, A. L., Wells, K. D., & Murray, J. D. (2019). Proposed US regulation of gene-edited food animals is not fit for purpose. *npj Science of Food*, 3(1), 1-7.
14. Westchester Agricultural Asset Management. "Global Thoughts" Newsletter. Winter 2011. Vol. 1
15. <http://wgimglobal.com/sites/default/files/assets/newsletter/final-nwsltr-12-5-11-1-revised.pdf>