Activities at UMBC:

**Baltimore Field School:** The Baltimore Field School is a planning intensive focusing on building collaborative public humanities projects developed with community partners. Sponsored by The Andrew W. Mellon Foundation, the project seeks to create a model of ethical humanities research and teaching in Baltimore and cities like it. During 2021, we will focus on programming, a week-long summer institute, and a fall convening. The Baltimore Field School is committed to anti-racist and decolonial models of engagement working with communities in Baltimore.

**Interdisciplinary Consortium for Applied Research in the Environment (ICARE):** A cross-sector network of environmental scientists and engineers committed to increasing the diversity of the environmental workforce and engaging the community in local environmental research. As part of ICARE programming, master’s degree seeking students take a 1-credit course on engaging communities in environmental research.

**SACNAS chapter:** UMBC has an active SACNAS group with over 100 members. It is co-advised by a faculty member and a staff member from the Graduate School.

**NOAA Office of Education:** UMBC is a university partner in two NOAA Cooperative Science Centers that provide academic and research support to underrepresented minority undergraduate and graduate students in STEM and Social Sciences, with the intention to diversify NOAA’s workforce.

*Unlearning Racism in Geoscience (URGE; www.urgeoscience.org)* is a community-wide journal-reading and policy-design curriculum to help Geoscientists unlearn racism and improve accessibility, justice, equity, and inclusion (AJEDI) in our discipline. **URGE**'s primary objectives are to (1) deepen the community’s knowledge of the effects of racism on the participation and retention of black, brown, and indigenous people in Geoscience; (2) use the existing literature, expert opinion, and personal experiences to develop anti-racist policies and strategies; and (3) share, discuss, and modify anti-racist policies and strategies within a dynamic community network and on a national stage. By meeting these objectives, we hope that Geoscience departments and societies will be able to implement a well-researched crowdsourced group of anti-racist policies.

**Deliverable 4 - Policies for Working with Communities of Color**

Education is essential but action is also imperative for achieving the objectives of URGE. Therefore, each topic is paired with concrete deliverables for the individual pods to develop, draft, and share. This deliverable is *policies and plans for working with communities of color.*

Geosciences has strong roots in colonialism, with targeted expeditions that leverage local knowledge to accumulate valuable observations to be later analyzed and disseminated at home institutions with little to no collaboration or follow up with those previous contacts. The western
approach continues in present day science; it will take recognition and commitment to change. Examples in the Session 4 readings include Indigenous, Arctic, and/or other international communities, but exploitation can also occur in non-Indigenous domestic communities of color.

Building productive relationships takes time. Laying a foundation of awareness, feedback, and buy-in is a start, but true inclusion goes beyond a “seat at the table.” Approaching an issue from different perspectives, not just the western or academic standard, acknowledges that there are multiple ways of knowing. The time and effort invested upfront can lead to more meaningful and impactful results, for example considering language barriers to earthquake shaking accounts4, including perspectives of Indigenous communities in climate assessments and reports5, and addressing environmental racism through environmental justice6.

The discussion questions below may not all be relevant or applicable to your pod, but we encourage you to think about how these can be addressed in the organizations or institutions you interact with as well as the broader geoscience field.

If you are involved in research with communities of color, in the US or abroad, have you...

- Actively sought out local collaborators / liaisons / guides? Why or why not?

[Pod member: Holland] - Yes, I work with communities of color abroad (currently in Ecuador & Mozambique). I collaborate actively with scientists/researchers from institutions in these two countries (universities, NGOs), and we seek out local guides and field assistants (usually with some connection to communities who are part of the research) in the fieldwork.

[Pod member: Delgado] - Yes, research activities associated with the Atmospheric Lidar Group have been used to recruit underrepresented minorities. This allows to establish pipelines among the many Minority Serving Institutions in the field of Atmospheric Sciences and Meteorology. This was led by underrepresented faculty in the Joint Center for Earth Systems Technology. A total of 15 institutions are participating in a boundary layer processes initiative that involves HBCU, HSI and tribal colleges.

[Pod member: Biehler] - Yes, we engaged participants first by reaching out through churches and community organizations, and then through door-to-door surveys that identified additional community members interested in participating. We paid participants
each time they joined us after the initial brief (~5-10 min) survey. We also hired about 5 neighborhood liaisons and for a time met with them monthly to exchange information to be shared with the community. We did this because we wanted engagement to be genuine and to return information and benefits to the community. I want to be very honest that this process was difficult, we made many mistakes (this was my first community-engaged project), and we learned a lot.

- Were they included in the early development and/or proposal of the research or project itself, or added at a later stage?

  [Pod member: Holland]: Yes, the collaborators from universities/NGOs within both countries are included early in all stages of the research.

  [Pod member: Delgado]: Yes, they were involved in two NSF Mid-Scale Research Infrastructure proposals. In addition, UMBC is finalizing an academic agreement with Navajo Technical University to jointly pursue research, data analysis and educational activities for collaborative and transformative interdisciplinary research in the Natural Sciences, Engineering, and Social Sciences. UMBC atmospheric science faculty will be mentoring students from a recently established master program in Environmental Science at Sitting Bull College (tribal college in South Dakota).

  [Pod member Biehler]: The community participants were not involved at the early stages, although there were some existing community connections there from the beginning. As soon as the project began, community members were included, and we rapidly changed many aspects of the study as a result. This was one of the biggest learning experiences.

- Were any local collaborators included as authors on presentations and/or Papers?

  [Pod member: Holland]: Yes, for each paper the research team has published, in-country collaborators were co-authors (and are always named as co-authors on presentations).

  [Pod member Biehler]: Community participants were included as authors of presentations including a community photography exhibit, but so far no co-authored academic publications.

• Actively sought to include local students in your research? Why or why not?

[Pod member: Holland]: Yes, we try to include local university students in fieldwork and analysis. For instance, I currently am a mentor for a MSc student at the national university in Mozambique (UEM) tied to fieldwork there. Thus far, this involvement of local students is only tied to those from the national university, and I recognize this could involve further outreach to students who are more directly tied to the communities where we actually conduct fieldwork/research.

[Pod member Biehler]: Local elementary, middle, and HS students were included in the research

• Sought to build trust and form long-term connections and collaborations with local institutions if your project is multi-year / ongoing? Why or why not?

[Pod member: Holland]: The research team tied to Ecuador has been in place for more than a decade. Our collaboration with in-country researchers has been for this long, and we have returned to conduct research with the same communities during this time. One thing I would say is that we feel (and communities have expressed) a desire to have more action-oriented research engagement with communities, and this is a direction I hope we can move in with the next phase of the work. But we do return relatively regularly to meet with community members and relay the results of the research analysis, communicate on what messages we have relayed to the ministry of environment, etc.
[Pod member Biehler]: The project was ongoing for about 7 seasons and we sought to build relationships throughout this time.

[Pod member: Delgado]: The MOU between UMBC and Navajo Technical University has the intention to grow and strengthen the interdisciplinary academic and research opportunities and experiences between both institutions. The MOU is for 5 years with the intention of long lasting renewals.

○ Were previous negative interactions, whether from inside or outside of your organization, addressed in the plans for building these connections and trust?

[Pod member Biehler]: There was a need to (re-)build trust amid and after exploitation by other researchers. This was not explicit in the proposal but developed in the course of the first year of the project.

- Shared data and findings with the local/regional community in a way that is more accessible? (i.e., translating into different languages). Why or why not?

[Pod member Holland]: Yes, each time we return to the study area, we would communicate first on results of previous research and invite feedback from community members. This would all be done in Spanish. We also communicate findings regularly to the government ministry that manages the conservation programs.

[Pod member Biehler]: Yes, this occurred especially through community meetings -- both meetings organized by us, and regular meetings and community events where we brought information and activities.

- Educated yourself and your group/team about local politics, culture, customs, and knowledge, including the history of colonialism / settler colonialism in the region? Why or why not?

[Pod member Biehler]: Yes, this was a huge part of the study itself; we wanted to understand the relationship of the ecosystem not just to demographic categories but to the history of racist segregation and disinvestment histories of the community, and community members’ own existing resources and organizations that were already addressing needs and political struggle there.

[Pod member Holland]: Yes, this has been an important part of our team’s learning process together. We also work closely with leaders from communities in the region to better understand local politics and relationships within the region.
- Was sufficient time allocated to the process of working within the community’s governance, customs, and priorities?

[Pod member Biehler]: Somewhat. This was a big learning experience. I think we worked well with some of the community organizations and churches, but there were some divisions among community members that we were unable to bridge. I don’t think we caused any further division or tension, we just didn’t reach as many people as we might have.

- Is respecting culture and customs included as part of your code of conduct? *This will be addressed in Session 6 as well.*

- Acknowledged local communities / Indigenous tribes in your research results?

[Pod member Biehler]: Yes, we always acknowledged the community members who opened their space and shared their knowledge with us. [Pod member Holland]: Yes, we recognize and thank the communities who participated in the research within our publications (without naming, for protection).

- Included local communities in your broader impacts in a meaningful way that builds on the community’s identified needs and concerns?

[Pod member Biehler]: Yes, though it took some time (about a year) to understand those needs and concerns. In general, I don’t think conventional researchers plan for this time. [Pod member Holland]: This is an area we’d like to focus more on--- each time we connect with communities, they are more vocal and specific about needs and concerns that they’d like our assistance with (or connections/network to leverage). It is something that is difficult to balance within the context of research work, but a form of outreach and ongoing connection we’d like to improve upon.

- Did these efforts leverage community members, and was that work compensated appropriately?

[Pod member Biehler]: We paid all community members who participated beyond the initial ~5-10 minute survey.


- Considered and prioritized research questions and research locations based on needs of local communities, in addition to how impactful they are seen within academia?

[Pod member Biehler]: Again, this happened after the initial year during which we came to understand those needs much better

[Pod member Holland]: Yes, the concerns and perceptions of community members tied to policies/programs really guides the next set of questions we focus on as a group.

_Pods may have members from a range of career stages and involvement in the development and execution of research projects, and pod members may have different experiences or different perspectives when responding to these questions. Consider this in the summary document and focus on capturing responses that are representative of the range in your pod._

Pods should upload a summary document of previous interactions with communities of color as well as plans for an improved process to the URGE website by 3/19/2021. We also encourage pods to post on their organization’s website, and share over social media (#URGEoscience and @URGEoscience). Sharing deliverables will propagate ideas, foster discussion, and ensure accountability.