



Emerging Partnerships, Research, and Capacity in the African Great Lakes¹

On June 21, 2018 as part of the IAGLR conference in Toronto, approximately 30 people convened for this discussion. The following questions were discussed:

Questions

1. Are there programs already in place that can help address research challenges, are they working, and what is needed to assist them?
2. What are some critical components or actions that should be included in developing a new collaborative process to stimulate and encourage research and research capacity on the African Great Lakes

The following major points were made. Detailed discussion notes follow this list.

Major Points

- There is interest from North American scientists in working on the African Great Lakes and the African Center for Aquatic Research and Education (ACARE) can help facilitate this work.
- ACARE could provide a conduit among African and North American and European institutions to provide advisors and employment/research opportunities for students and researchers.
 - o ACARE could provide information about existing collaborative programs.
 - o ACARE could facilitate student exchange programs through classroom and field experiences.
 - o ACARE could work with an entity such as United Nation University to create a degree program.
- ACARE must take care to strengthen existing institutions through collaborations, not weaken them by starting something new where infrastructure already exists.
- Lake Committee research priorities should be informed by multiple perspectives and should align with country goal/visions and policy priorities. Research and projects should align with these priorities.
- It's important to have multiple perspectives inform research priorities and that decisions are from a high level within an entity so that there is "buy-in" and ACARE converges, rather than divides.
- Overall, this needs to be about local empowerment, and not the global north. This is about building capacity and knowledge of Africans.
- ACARE should grow relationships with large donors and work together on the direction and focus for what they fund, so that research and projects aligned to priorities are funded.
- The time is now for ACARE to build on consensus established at the African Great Lakes Conference.
- What's next?
 - o Send notes to participants, as soon as possible.
 - o Follow-up on leads from IAGLR conference
 - o Establish a timeline with next steps for ACARE to proceed.

¹ ACARE (2018). Emerging Partnerships, Research, and Capacity in the African Great Lakes: A facilitated discussion. International Association of Great Lakes Research, Scarborough, Ontario.

Discussion Notes:

Bob Hecky has a sense there is interest from North American (NA) scientists to work in Africa. He wonders if ACARE can help facilitate this.

Bob Sterner agrees and states that a key barrier is getting started in Africa. He feels that by partnering with African colleagues, we could lower barriers to starting projects and more projects may get accomplished. The University of Minnesota's Large Lakes Observatory (LLO) wants researchers in NA to be able to conduct research on the AGLs in a shorter amount of time with reduced administrative barriers. There's a need for pre-existing contacts and local knowledge. ACARE could do a tremendous service to NA researchers. He also feels that this is just the right thing to do, ethically.

Ted Lawrence asked for specific tasks/roles for ACARE. Tony Vodacek stated that when graduate students at African universities are seeking advisors, ACARE could provide a conduit for advertising this need. Currently he's supervising two students at University of Rwanda. He's done this through contacts he developed, but ACARE could help this happen for others. Ted said that visiting NA researchers can help employ local students/researchers. Kevin Obiero said that for Africans, getting opportunities in NA/Europe also requires connections to build academic relationships and cultivate ideas. He started his PhD through connections he had.

Scott Sowa stated that barriers include money, and knowledge of existing programs which can facilitate starting a new venture. He mentioned the Yangtze Program, which might be a simpler type of program. The Nature Conservancy (TNC), academics, and federal agencies (Eco Partnership) are all involved. Alfred Achieng's COTRA model was mentioned as an example. Ted said that it's easy to overlook great collaborative programs that aren't well advertised.

ACTION: ACARE to investigate the Yangtze Program and Eco Partnership.

An attendee asked about the possibility of student exchange programs and Ted said this could be a good component of ACARE. Canada has a model for sharing biology field courses among Ontario universities, which allow instructors to get critical mass to run field courses. A professor could hold a class on the African Great Lakes (AGL) (term or short course), and could also have African students come to NA for short course. In the future, there's the possibility of a degree program, e.g., through United Nation University (UNU).

Stephanie Guildford stated concerns about starting a new initiative separate from existing educational institutions, because if we want to grow capacity we want to strengthen, not weaken, existing institutions. It may be better to strengthen collaborations among universities. Ted replied that he had been thinking about a brick and mortar institution, but doesn't want to create a "brain drain."

Bob Sterner suggested looking at the Organization for Tropical Studies (OTS) as a model. Universities paid OTS yearly to be members, and those funds were used to hire OTS faculty. Students applied to take the courses, and students from member institutes got discounted tuition. Students were able to travel around the country and learn from experts. May work in AGL to have institutional membership, but institutions have to get something from the partnership. For ACARE, this could start small, with a few institution partners who buy into the program.

Friday Njaya asked about the focus of ACARE regarding fisheries, Ted replied that this would be decided during discussions with the Lake Committees, which ACARE intends to help develop.

Mark Gaden stated that a research challenge is how to improve the science-policy interface and said that we've heard lots of good science today in this session, but what's driving these projects? What is the ultimate use of this science? With a lake committee process, whatever the management/policy goal, make sure you establish a program that informs the policies your committees are interested in. He asked if the Lake Committees would have any influence over what kind of research is done. Ted replied that Lake Committees would drive the priorities and that by forming priorities we hope to focus funding and research on them.

Sowa emphasized that scientists must not be the only ones forming the priorities. Njaya said that Lake Committees should encompass both government (govt) and science. It was stated that the Lake Committees should align with country/area priorities, as some of these visions and goals already exist. Scientists should not work in a vacuum and should be influenced by policy. Obiero stated that different govts have different priorities, and when scientists are writing funding proposals they have to fit in some of the govt priorities.

Sowa said that Great Lakes leaders get so much information, but it's not the appropriate information in the context of the decisions they need to make. They haven't been asked which information they need and get information they don't know what to do with. Hecky stated that we need to learn from this and communication must be a two-way street. Most of the funds driving activity on the AGL are coming from outside entities, which means the communities have less control. How do we bring together both of these directions? Funding needs to be taken into consideration and aligned with priorities. We need to make sure there's a marketplace of ideas to address issues. Note that the Laurentian Great Lakes (LGL) are the focus of many publications, but we are still having issues with getting the relevant info to the policy-makers.

Nidhi Nagabhatla suggested short-term, medium-term, and long-term strategies to build on existing programs, entities and visions. ACARE could help collaboration activities that give a good foundation in the region. We would need to find the gaps and available research, so we need a review of what is out there and existing. The Sustainable Development Goals are a good tool to start some of these discussions.

An attendee stated that we need a group like ACARE to write a proposal to establish an AGL institute within a university. It is not within IAGLR's scope to do this, and we'd need to establish an ad hoc committee to address this. He feels that people might be very receptive. Another attendee noted the importance of using an interdisciplinary approach. She suggested using a social science approach to reach out to policy makers.

Gaden asked if the vision for the Lake Committees is to be action arms of govt agencies like they are in the LGL. If so, when discussing funds, the govts need to have some skin in the game. If you want to establish permanent arrangements among agencies who have some authority, you need approval from the highest levels within those entities. Ted said that at the beginning, ACARE plans to serve as a facilitator for discussion among AGL colleagues and see where the discussion goes. Ted said that ACARE will convene researchers then when it comes time for bringing in govt, we will. ** Jess Ives added in the notes that we need to include govt researchers in the initial workshop. Steph Smith added in the notes that ACARE should consider multiple stakeholder perspectives early on or risk division and failure later due to lack of consensus, understanding, and buy-in. This should include NGOs, local/traditional knowledge, and local community leaders. Think about what support this work will need later and include*

those people early on. Policy makers need to know there is community support for their decisions. Policy will not be upheld and enforced sustainably without a community culture that supports the same long-term goals.

Nidhi asked about information and communication technology (ICT) tools and Ted replied that ACARE's training aspect will make use of multifaceted tools. This could include online courses. Training needs to be aligned to enhancing research. Nidhi stated that it would also be good to have credit offset, then these courses will be more worthwhile for students.

Hecky stated that we should look at OTS model. A good starting point might be a group of LGL universities that have an interest in the AGL. While there may be an abundance of freshwater courses available, not all may be applicable to the AGL themselves. That could be a gap where we develop a curriculum and we could see if there's a market for this. There's a need for equipment and structure to do work in AGL, and European colleagues could be helpful in the work. He said that we have lots of information and knowledge around the LGL, and we could use this information when learning around the AGL, which is a challenge and an opportunity. Sterner stated that a field course could provide motivation to bringing resources/research to the AGL. Sowa said that some processes and concepts are transferable. He said that Obiero could be a lecturer at a US university and run courses like this. Obiero talked about the use of technology to share the on the ground perspectives, using Google Hangouts or other ways to have a virtual class. This could lead to going to the field, and then to implementation.

Dr. Brent Lofgren, a physical scientist from the National Oceanic and Atmospheric Administration-Great Lakes Environmental Research Laboratory (NOAA-GLERL) stated that he was about to visit NOAA's Geophysical Fluid Dynamics Lab and run their existing Finite Volume Coastal Ocean Model (FVCOM) of the Laurentian Great Lakes driven by [Geophysical Fluid Dynamics Laboratory](#) (GFDL)'s newest climate model with a global domain. At present, this is all aimed at multi-decade to century-scale climate change, but some aspects could be adapted to shorter time scales. One possible follow-up to this work would be to expand to other large lakes: Victoria, Tanganyika, and Malawi would be easiest compared to Baikal, Great Slave, and Winnipeg because they lack the complicating factor of ice.

Jeff Schaeffer said that USGS has an international office built around building international collaborations. He will follow up with them for us.

ACTION: ACARE to follow up with Schaeffer about the USGS international office.

Sterner asked, when developing priorities, are we talking about the most interesting science or the most useful science? Or both?

A participant emphasized to the group that the LGL Lake Committees are made up of resource managers, and are science driven, but are also driven by management needs. Research in the LGL is largely driven by the Lake Committee priorities, so lots of research is run that needs to directly support management decisions. Research supports management decisions, and also is linked to fish community objectives. Ideally there should be a Lake Committee of African resource managers that set the research priorities. There is some research that is really important, that might not be directly linked to resource management decisions (i.e. Harvey Bootsma's research on carbon sink/source). The bottom line is that this needs to be about empowerment, and not about the global north. This is about building capacity and knowledge of Africans

Bootsma said that traditionally, most local research has been done by govt institutions, though lately universities have been getting more involved. This is why most research has been directly on fisheries. Ultimately, research direction has been determined by funding sources. International researchers have different funding sources than those available to local researchers, and these sources are more interested in fundamental science questions. You may have to have a different outlook for African scientists versus visiting global north scientists. It's important to have relationships with large donor foundations, because often research is done because donors go to researchers and ask them to complete certain directions. ACARE should be connected at an early stage to help guide the directions.

Nagabhatla stated that the challenge lies in making the useful research interesting and that we need to engage with stakeholders from the start to finish. Multiple stakeholder types should be engaged.

Obiero said that the resolutions coming out of 2017 African Great Lakes Conference showed there is a consensus that this cannot be done in a vacuum, and that we need partners, strong collaboration and great science. ACARE helps link these things and now is the time to advance this work. The Lake Committees would link researchers, managers, and global community. Let's go for it.

Njaya stated that in preparation for next year's workshop, we need to think about this on two levels: This would be a research level, then we should hold another on a policy level soon after – maybe 2 month, where we would try to achieve buy-in from govt.