Questions and Answers from the Webinar for Informal Educators, 19 February 2020

Q: Will the webinar recording be available after the webinar?

A: Yes, the link to the recording (plus some supplemental sections we didn't have time for) and links to the presentations will be posted on the challenge website, observer.globe.gov/trees-2020. You can also find additional Frequently Asked Questions in the facilitator's guide linked from that page.

Q: What do we do if several people will be using the same phone (i.e. a teacher and a class of students or at a library program)?

A: The app calculates the height of the tree based on the height of the observer that's entered into the app. If you're sharing a device among participants in a program, remember to change the height of the observer if different people use the app to make observations. You can change this in the Help section of the Trees tool, by tapping on the question mark at the lower right and selecting "Change Current User Height Settings." *(Theresa Schwerin)*

Q: Do we have a wheelchair-friendly equivalent to step length so that people in wheelchairs can participate in measuring tree height using GLOBE Observer? *(Rachel Zimmerman Brachman)*

A: Some math would do it: calculate the perimeter of the wheel; then count how many turns of the wheel and just enter the distance. *(Lin Chambers)*

A: Another idea that might be helpful is to mark a spot on the wheel so that it's easy to keep track of the rotations. *(Heather Mortimer)*

A: You can measure the distance directly using a tape measure. There is an option to include measured distance in the final screen of the app. This will improve the accuracy of the measurement as well. You will also want to enter height in the chair during set up so that the app is using the right eye height to calculate angles. Great question! *(Holli Kohl)*

A: Commenting on accessibility in general, the app does work well with pre-installed smartphone screen readers with no loss of information or experience for participants. *(Brittany Blomquist)*

Q:We are trying to plan a local program for Make Every Tree Count. Is it more useful to get (a) lots of observations of the same tree, (b) observations of trees all over one locale (like a campus or a park), (c) observations of trees which are as widespread as possible? *(Genevieve de Messieres)*

A: In terms of encouraging participation, we have found that people like to return and track change of the same tree, as well as in the near vicinity. *(Brittany Blomquist)*

A: From a science perspective, all are good options. Getting multiple measurements of a single tree is really helpful in assessing error or the accuracy of height estimates from the app. We actually have an observation station to help you facilitate multiple measurements of a single tree: https://observer.globe.gov/station. Getting measurements from multiple trees is helpful because scientists do need data density - an assessment of tree height across a region. So do whatever makes most sense for your location. *(Holli Kohl)*

Q: Can you print out your data if you're working with a class? *(Mary Hamelin)*

A: Yes. Data are available to everyone in a spreadsheet that can be printed. Get data at https://www.globe.gov/globe-data There are tutorials there, but we can also help you access data if you'd like. *(Holli Kohl)*

Q: Would we need to use DBH tape for the circumference or just regular measuring tape? *(David Andrusyk)*

A: You can use DBH tape [a type of measuring tape specifically used for measuring cylindrical objects like trees], but a regular tape measure is perfectly suitable. Make sure that if you choose “Metric” as your unit of measurement, that you have a metric tape measure. This also holds true for choosing the “English” option, make sure you have a tape measure in English units. *(Brian Campbell)*

Q: Can you see other people’s data or just your own? *(Rachel Zimmerman-Brachman)*

A: You can see everyone’s data. All data entered into GLOBE is publicly available at https://www.globe.gov/globe-data.

Q: Can measuring tree height (and comparing it to other people’s observations) be used in science fair projects? *(Rachel Zimmerman Brachman)*

A: Yes! We encourage use in research. *(Holli Kohl)*

A: There are also opportunities for students to submit their research papers through the GLOBE International Virtual Science Symposium. More information can be found on the GLOBE website, https://www.globe.gov. *(Kristen Weaver)*

Q: Are you concerned that your tree height data from April may be biased because trees in higher-elevation, snow-covered areas won't be accessible at that time of year? *(Tim Mayer)*

A: That is a good point. Even though there may be a bias, we will still get a great amount of tree height observations from those accessible trees. Hopefully, many of those in the higher-elevation areas will become even more excited about the Trees Tool that they will take tree height observations of the trees in higher-elevation areas if and when the trees are safely accessible. *(Brian Campbell)*

Q: C**an a team be a family? People from the same church? Patrons at a library? School classrooms (or whole schools?)** *(Rachel Zimmerman-Brachman)*

A: Yes, absolutely. Teams can be made up of all those that you mentioned. *(Brian Campbell)*

Q: If working with a group of students or different classes is it okay for multiple students to take measurements on the same tree? *(Dian Brannen)*

A: Absolutely, this allows for data density. Scientists use multiple observations of the same trees to gauge the accuracy of the observations and how well the data can be compared to the NASA ICESat-2 satellite and the GEDI instrument on the ISS. We are hoping that classes take observations of as many trees as possible in an area, with multiples of the same trees. *(Brian Campbell)*

Q: I registered my team and am yet to get a confirmation. *(Michael Olanrewaju)*

A: You can go to https://www.globe.gov/globe-community/globe-teams/find-a-globe-team and click on "filter" at the top of the page to search for the team name that you registered to make sure it was created sucessfully. In terms of specific confirmation for the Trees Challenge 2020, they will be sent well before the beginning of the challenge itself, but just may not have happened yet, as it's not an automated process. *(Kristen Weaver)*

Q: How do I convert a Citizen Scientist Account to a Teacher/Classroom account? (Jordan Wolf)

A: Please contact us at globeobserverhelp@lists.nasa.gov and we will direct you to the correct group to help you with this. *(Brian Campbell)*

A: At the very least, it will require completing either an in-person workshop or eTraining, https://www.globe.gov/get-trained/protocol-etraining, so that might be something to explore first. *(Kristen Weaver)*

Q: Can we use some of the other GLOBE Observer features (Land Cover, Clouds) while participating in the Trees Challenge? *(Rachel Zimmerman-Brachman)*

A: Absolutely! We had several homeschool groups and families join us for multiple programs; as time went on, those families were making multiple observations while on the same nature walk. For example, we collected cloud observations at the same time we observed tree data and land cover data. As program participants gain knowledge in making observations, one program becomes an opportunity to make multiple observations for different protocols. It is really great to see previous attendees share terminology and assist newcomers. *(Brittany Blomquist)*

A: Yes, please! Concurrent data is really helpful. For the Trees challenge, however, we are just counting Trees observations to identify top observers. *(Holli Kohl)*

Q: Can one person be on more than one team? (If you're a student in a classroom that's participating, and your Scout troop is also participating, for example.) *(Rachel Zimmerman-Brachman)*

A: Yes, you can join as many teams as you like. All of your observations will count toward each team's total. So if I'm on my Scout team and on my library team, and I take 10 trees observations, I will get credit for 10 observations, my Scout team will get credit for 10 observations, and my library will get credit for 10 observations. *(Holli Kohl)*

Q: Is the training limited to professional educators? *(Brittany Blomquist)*

A: No, anyone can get trained to join GLOBE. We encourage informal educators to become GLOBE teachers or GLOBE partners. *(Holli Kohl)*

Q: Can I do my observations alone and then share with my students? *(Mauricio Zamora)*

A: Yes, that's a great idea. You can see your measurements in the app under "My Observations" or on the GLOBE website: https://www.globe.gov/globe-data

Q: Question about choosing trees to measure. Can we start off having everyone measure the trees in their yard? If you are in a wooded area, should you just measure the ones near the outside area where we can stand back or should we choose trees throughout the wooded area? *(Anita Murphy)*

A: Yes, you can have people measure trees in their yards or on the edge of a wooded area. Just make sure you can clearly see the base of the tree and can walk to the base of the tree easily. Trees in a group of trees should be the tallest tree in the group. This is a good reason to use the team tool because all observations collected by members of your team will show up no matter where the data are collected.

Q: If I plant a sapling, it will be shorter than a full-grown tree. Is there a way for me to annotate my measurement to say that I know it's just a sapling? *(Rachel Zimmerman Brachman)*

A: Yes, just enter that information in the field notes section of the app. *(Holli Kohl)*

Q: Can teachers make measuring trees a homework assignment? *(Rachel Zimmerman-Brachman)*

A: Yes, the only restriction to keep in mind is that children under 13 should use the app under adult supervision. If you are a GLOBE teacher, you can give them an anonymous student account to use in the GLOBE Observer app.

Q: Can I encourage my local botanical garden to raise awareness of the Trees Challenge so that their visitors can participate? *(Rachel Zimmerman Brachman)*

A: Yes! Please share with anyone you think might be interested in the challenge. There are printed materials available on the challenge page on the GLOBE Observer website. *(Kristen Weaver)*

Q: How do you get confirmed as being trained so you can begin entering data? *(Jordan Wolf)*

A: If you're using the Trees tool in the app, you will go through the tutorial, then you will be able to make observations. The training takes 5 minutes or so, so keep that in mind if you use the app with a group. The eTraining is not required to enter data, but can be used as a supplement if desired. *(Kristen Weaver)*

Q: Are there any restrictions or preferences on data from wild vs cultivated trees? *(Kati Henderson)*

A: No restrictions. If you are collecting data on private land, just make sure you have permission from the landowner. *(Holli Kohl)*

Q: I know a place where there are many trees to conserve but also is visited by many tourists. Can the program help to do projects focused to preserve this kind of area? *(Mauricio Zamora)*

A: Great suggestion! Yes, if the area permits people to walk to the trees, using the Trees tool is a great way to raise awareness.

Q: Is there more information available on how informal educators are implementing GLOBE Observer Trees in their programs?

A: Brittany Blomquist, from the La Salle Public Library, has written a couple of blog posts on the STAR_Net website about trees programs: http://www.starnetlibraries.org/uncategorized/make-every-tree-count-programs-you-can-use/

Brittany also recorded a short "extras" video talking a bit more about gratitude rocks in programs, which will be linked with the webinar recording from the Trees Challenge 2020 facilitator's guide on the GLOBE Observer site. Also available there is a video of Vivienne Byrd at Los Angeles Public Library describing their trees programs, and a description from Tassia Owen of using the GLOBE Observer app with Girl Scouts through their "Think Like a Ciitzen Scientist" journey.