

LC6k: Update from the Land Use Group

Dear LandCover6k colleagues,

It's been a while since we sent an update, but your land use group has been busy amid the pandemic, new jobs, moves, and all the other complications of life. Many of you know that PAGES has offered one-year extensions to working groups; we have accepted and now have a little over a year before LandCover6k's term comes to an end.

The first task for the land use group was to develop a simple global land use classification that could be used for all world regions and time periods. We started this in 2015, in a conference at the Chicago Center in Paris, continuing that work of consultation and discussion in numerous workshops and meetings around the world. A preliminary version of the classification was published in the PAGES Magazine LandCover6k issue in 2018 (<http://pastglobalchanges.org/products/pages-magazine/12456-26-1-past-land-use-land-cover>) and we recently submitted a refined and expanded version of the classification and an explanation of the global land use database (previously referred to as the codebook) for publication. This article includes a worked-out example of land use mapping for the Middle East at 6kya.

At the 2018 LC6k meeting in Sitges, Spain, focused on co-designing land use and land cover research with climate and ALCC modelers, the land use group agreed to focus first on land use classification at the 12kya, 6kya, 4kya, and CE 1500/1492 time slices, with the option of including 2kya if possible. Some regional groups are looking at other time periods as well, but these are the ones we agreed to prioritize. We also agreed to provide a range of regionally and historically specific per capita land use values and to work with modelers to better understand if and how more specific PCLU values affect model outcomes. We have compiled these values and are currently working on implementing them.

Those of you participating in regional land use groups probably know that mapping progress has been uneven. Some regions have seen great developments and are in the process of publishing the first results. Other regions lagged behind, often missing a leader to move forward such an endeavor; it is a big responsibility running a regional land use group and all of us are busy with many things. If your region is one of those lagging behind, please consider taking on a leadership role -- if you'd like to do this, please be in touch with one of us as we are updating our chart of regional group leaders in preparation for a long-awaited new website. If you want to participate but don't want to be a group leader, please also be in touch so we can direct you to the right person.

A brief update on regional land use mapping. Europe at 6kya is nearly complete and the Europe group is working on a set of publications summing up the work done. As noted, the Middle East at 6kya is also complete. A workshop last week comparing the Europe and Middle East data and mapping methods hosted by Nicki Whitehouse and Dan Lawrence resulted in some interesting methodological discussion that should be useful for many world regions. The South Asia group has had two workshops in India and is currently closing in on preliminary land use maps for 12 and 6kya, with maps for 4kya and 1500 in rougher condition. We are forming a Southeast Asia and Oceania group now as well as a Central Asia and Russia group. The East Asia group has also made good progress on maps for 12kya, 6kya, and 4kya. Work on historic land use for China is well developed and we hope to integrate that work into the global database soon. The Africa land use group has also held several workshops and has made some progress tackling land use histories on this massive continent. During the last meeting in Cambridge, the Africa group identified sub-continental groups that will be able to manage the diversity of the continent.

In the Americas, early work in Central America has yet to be completed and aligned with the new classification. Work in North America is currently in abeyance; please be in touch if you are interested in that region. The Amazonia group was one of the first to get started; unlike Europe, North America, or the Middle East, scholars of Amazonia face a challenge familiar to many other world regions where research has been limited in certain areas or much compiled data is in the “gray literature.” As we work out strategies for managing this uncertainty, we are also highlighting areas of need for new scholarship. A group for South America outside the Amazon is also in development and some work has begun; again, please let us know if you are interested in participating.

Finally, let us update you on the situation of general LandCover6k meeting that was originally scheduled to be held in Philadelphia this autumn. Because of the pandemic, the meeting was postponed to the spring of 2021. As COVID cases in the United States continue to rise, we do not feel comfortable predicting when we might be able to meet in person again, so please be patient as we feel our way forward. LandCover6k will be present at the PAGES OSM in Agadir, Morocco, May 18-22, 2021.

Stay safe,

Kathy, Marco, and Nicki