



Newsletter

October 2020

Hello and welcome to our fourth Newsletter.

With the start of the semester coinciding with renewed increase in Covid cases nationally, I expect it has been a very busy and challenging time for all. I hope all is well with all of you, and that you've been managing well enough in the midst of current concerns.

At the Centre we have mostly been preoccupied with running the Landscapes as Carbon Sinks project (more information on this below), as well as leading a bid for the Treescapes call, while Mat Williams has been leading the development of a proposal for the Changing the Environment call. We are excited by the ideas we are presenting, and of course we hope for positive outcomes, but we'll see. If anyone is interested in learning more about the Treescapes proposal, and potentially contributing to it, then feel free to get in touch with me.

Jaboury

Ongoing projects and future opportunities

Climate-KIC Landscapes as Carbon Sinks

The [Landscapes as Carbon Sinks](#) project team has been very busy with a wide range of activities across its land use partnerships, bioeconomy, finance, and soil carbon workstreams.

[Our policy analysis](#) for the Scottish Parliament to support the recommendations of a Citizen Jury regarding land management in Scotland has now been published. This report provides valuable insights on the policy context of the Scottish land sector.

We have completed the work we have done with the Scottish Land Commission, which will be published later this year. This constitutes of a review and synthesis of different existing approaches to regional management and governance systems in Scotland.

Earlier this year, we ran three workshops on building a wood-based bioeconomy in construction, which included partners across the value chain. This led to the creation of an [interactive systems map](#) through which we aim to identify points of intervention that can leverage the largest impact for the development of a construction bioeconomy that draws on domestic wood production. The map also featured in [this Climate-KIC article](#).

We have also drawn up a report titled [“Wood in construction, a policy data and summary”](#) which provides policy background and information on carbon emissions and sequestration in the construction industry, along with recommendations for policy.

We organised two funding mechanisms workshops in September. We looked at different funding mechanisms for low

emissions management and the impact they have. We are now working hard to assimilate the rich discussion into a systems map.

In partnership with WWF Landscape Lab, Wageningen University, and The Peatland Partnership, we are holding a workshop on 5 November for Flow Country Stakeholders to understand their vision for green recovery and the bioeconomy.

The project is being managed by Hester Robertson, and we encourage all those interested in being involved with this project to contact Hester directly on hester.robertson@ed.ac.uk.



New funding and grant awards

Congratulations to Casey Ryan who will lead a £3.7 million project entitled SECO: Resolving the current and future carbon dynamics of the dry tropics.

The work is a collaboration between the School of GeoSciences, and the Universities of Leeds, Sheffield and Exeter in the UK, together with over 40 partners from around the globe. The project, which will start in May 2021, will create a network of over 600 field plots to understand how the vegetation of the dry tropics is changing and complement this with radar remote sensing and modelling to quantify how the carbon cycle of the dry tropics has changed over the last 15 years. SECO will provide the first estimates of key carbon fluxes across all of the dry tropics, including the amount of carbon being released by forest degradation and deforestation and how much carbon is being taken up by the intact vegetation in the region. By understanding where and why these processes are happening, researchers will determine the current sources and sink of carbon in the dry tropics, where biomass is increasing and why, and the role of

biodiversity in the carbon cycle. Together this knowledge will help determine the safe operating space for the dry tropics, and thus the appropriate management actions to sustain both savanna and dry forest under global change. The results of SECO will also support six countries to report their land use carbon emissions as part of the Paris Agreement.

Media and Recent Publications

Mat Williams published the paper "Boreal permafrost thaw amplified by fire disturbance and precipitation increases" by Williams, Mathew; Zhang, Yu; Estop-Aragonés, Cristian; Fisher, James; Xenakis, Georgios; Charman, Dan J.; Hartley, Iain; Murton, Julian; Phoenix, Gareth. Environmental Research Letters.

Connected to her Scottish Parliament Academic Fellowship, **Annie Yang** published a SPICe briefing titled '[The Multiple Roles of Scottish Woodlands](#)'. The briefing provides an overview of existing policies and strategies related to forest creation, management, and use in Scotland, for multiple objectives, and the role of forests in light of the climate and biodiversity emergencies.

Casey Ryan and **Kyle Dexter** published a paper titled "Floristic evidence for alternative biome states in tropical Africa", Proceedings of the National Academy of Sciences (PNAS), along with a number of colleagues. Ecological theory suggests that forests and savannas can exist as alternate stable states. This concept means that in some climates, the vegetation could exist as forest or savanna, and once vegetation shifts to one of these states, positive feedback cycles maintain that state. Empirical evidence that savanna and forest are

alternative stable states has been limited however. This study brings floristic data on tree species composition to bear on the topic and suggests that much of the African continent may in fact represent a climatic zone where both forest and savanna states are possible.

Centre Blog

Our [guest blog entry](#) comes from Lewis Coenen-Rowe, Creative Carbon Scotland, where he writes about the [Library of Creative Sustainability](#). The Library is a digital resource for individuals and organisations working to address environmental sustainability and climate change, demonstrating the benefits of collaborating with embedded artists and using cultural approaches to address complex issues. The Library presents detailed case studies highlighting the range of skills, expertise and practices that embedded artists have contributed to bringing about positive change as part of broader projects or organisations, addressing social, environmental, economic and cultural sustainability. Each article includes detailed information on partners and stakeholders, sustainability outcomes and funding, as well as tips and links to further resources.

Contact

If you have items for our next newsletter, news to share with CSFL community, or if you would like to contribute to our blog, please get in touch with Nataša Honeybone (natasa.honeybone@ed.ac.uk).

