



UNIVERSITY
OF ALBERTA



Spring 2023

MOMENTUM

Department of Resource Economics and Environmental Sociology

Chair's Message

As we emerge from pandemic challenges, REES colleagues are again advancing research and engagement well beyond the walls of our department.

Several large outreach initiatives were hosted over the last few months, including a symposium on the future of coffee held in conjunction with the Sustainability Council. Organized by **Kaan Ozdurak** and **Philippe Marcoul**, this event attracted guests from off campus, with broad participation across faculties. As I write this message, with leadership from **Ellen Goddard**, REES colleagues and students are at the Agri-food Policy Conference in Ottawa, addressing disrupted markets and implications for Canada and the rest of the world.

In addition to these outreach events, recent community-engaged research is taking students and faculty members to places such as the Inuvialuit Settlement Region, rural Tanzania, Vietnam, and many places in between to build relationships and advance knowledge on key sustainability concerns. The year ahead also marks ongoing change and renewal as we see our senior colleagues transitioning to retirement. These people include **Peter Boxall**, **Ellen Goddard** and **Marty Luckert**, who continue to contribute

to teaching and research within the department. In renewing our capacity in these areas, we are excited for the year ahead as we welcome our new Co-operative Chair in Agricultural Marketing and Business – see the announcement on the last page. We also hope to initiate the renewal of one or two faculty positions over the next 12 months.

With thanks to **Debra Davidson, Elizabeth Ho**, and the REES Communications Committee, I hope you enjoy the updates found in this edition of the department newsletter.

Sara Nekounamghadirli,
Clark Banack, Kevin
Jones and John Parkins,
in Canmore, AB,
October 2022.



Public Policy and Engagement with REES

One of the most important stages of research is knowledge-sharing.

This is particularly true of REES, a department that focuses much of its research efforts on social, economic and environmental problems that are high on the agendas of citizens, policymakers and businesses. Below, we showcase a variety of recent knowledge-sharing activities involving faculty and graduate students in our department. In the first example, Rural Sociology Master's student, **Kaan Ozdurak**, provides a synopsis of a one-day workshop on examining the future sustainability of coffee, which he spearheaded at the U of A last fall. The second entry describes the engagement of several of our graduate students and **Dr. Brenda Parlee** in COP15, the latest United Nations Biodiversity Conference, held in December, 2022, in Montreal.

Coffee Workshop

On December 1, 2022, REES and the Sustainability Council sponsored a public seminar to explore the sustainability challenges facing coffee production, organized and facilitated by graduate student Kaan Ozdurak.

In the following paragraphs, Kaan shares his perspective on the importance of sustainability in our global coffee sector.

Many people drink coffee every day, but few know much about what's behind this drink. Through my own research I have learned a lot about the many facets of coffee. My aim with the coffee sustainability seminar was to give a general audience insights into the coffee sector, its supply chains, the various stakeholders involved from producers to roasters, as well as an outlook on the future of coffee. Two guest speakers, one from the Rainforest Alliance, an international certification organization that works with coffee producers across the Global South, and the other representing Rosso Coffee Roasters, a Calgary business, shared insights on coffee sustainability from their organizational perspectives. The event concluded with a coffee tasting of four different single origin coffees provided by two local Edmonton coffee roasters, Sorellina and Rogue Wave Coffee. With the coffee tasting I wanted to provide an opportunity to sample coffees that many in the audience might not usually drink.

Coffee is one of the world's most traded commodities and some even claim that coffee is the world's second most sought commodity after crude oil.¹ Up to 25 million households worldwide depend on coffee production, with producers being mainly smallholder farmers.²

Especially due to increasing coffee consumption in Asian countries, global demand for coffee is rising.³ At the same time, coffee production is facing challenges, threatening the long-term supply of coffee beans. Pests like coffee leaf rust and changing climatic conditions pose ecological threats to coffee cultivation. Volatile market prices and imbalances in value distribution across the coffee value chain put coffee producers under economic pressure and often into poverty.^{4,5} Coffee production might also decrease due to an aging farming population, with the younger generation moving to cities and seeking off-farm work.⁶

Stakeholders across the coffee supply chain, from roasters, traders, governments,

1 Goldscheine, E. (2011, November 14). 11 Incredible Facts About The Global Coffee Industry. Business Insider. <https://www.businessinsider.com/facts-about-the-coffee-industry-2011-11>

2 International Coffee Organization. (2019). Coffee Development Report 2019. Growing for prosperity. International Coffee Organization. <https://www.ico.org/documents/cy2021-22/coffee-development-report-2019.pdf>

3 Panhuysen, S., & Pierrot, J. (2020). Coffee Barometer 2020. Coffee Collective 2020. <https://hivos.org/assets/2021/01/Coffee-Barometer-2020.pdf>

4 Global Coffee Platform. (2021). Coffee Sustainability Reference Code. Global Coffee Platform. https://www.globalcoffeeplatform.org/wp-content/uploads/2021/10/CSRC_CoffeeSustainabilityReferenceCode_OCT21.pdf

5 International Coffee Organization. (2019). Coffee Development Report 2019. Growing for prosperity. International Coffee Organization

6 HRNS. (2020). Theory of Change. Hanns R. Neumann Stiftung. https://www.hrnstiftung.org/wp-content/uploads/2020/02/Theory_Of_Change.pdf

certifiers, civil society and research organizations to cooperatives and farmers, are increasingly collaborating to address challenges in coffee production. Efforts are focused on establishing sustainable farmer livelihoods, regenerative farming practices and agroforestry as well as the development of new, more pest and climate resilient coffee varieties, among others.⁷

Direct trade is a particular manifestation of these efforts. A range of roasters, especially smaller 'specialty coffee roasters' are increasingly engaging in direct trade relationships with coffee farmers. Such roasters often pay 3-5 times the world market (c-market) price for green coffee beans and usually seek to establish long-term relationships with farmers. Next to supporting sustainable livelihoods and farming practices, such relationships are usually focussed on sourcing the highest quality of green coffee beans.

⁷ World Coffee Research. (2022). Innovea Global Coffee Breeding Network. World Coffee Research. <https://worldcoffeeresearch.org/programs/global-breeding-network>



I invited **Madiha Nawaz**, Head of Environmental Innovations at the Rainforest Alliance, to provide a 'big picture' view of the coffee sector, across long coffee supply chains. The Rainforest Alliance works with large roasters and traders like Nespresso on the one hand and coffee producers on the other hand. But through its work it is also connected with a wide range of other stakeholders such as cooperatives, civil society organizations, governments and development agencies. Through its certification schemes, the Rainforest Alliance supports coffee businesses in their efforts to improve the social and environmental sustainability of their sourcing. One particular feature of these certification schemes pursued by the Rainforest Alliance is the establishment of regenerative agriculture and agroforestry practices on coffee farms. Because there currently are a wide range of definitions of regenerative agriculture, the Rainforest Alliance seeks to establish a common understanding and framework of regenerative agriculture in the coffee sector. For this reason, Rainforest Alliance recently developed a regenerative coffee scorecard in collaboration with Nespresso. Next to contributing to a more unified understanding of regenerative agriculture in the coffee sector, the scorecard is also designed to help producers gradually develop their farming practices over time. It also commits roasters and traders to supporting producers in the development of specific livelihood and farming practices, which vary by country or region.

To complement this 'big picture' view, I invited **David Crosby**, founder and director of Rosso Coffee Roasters in Calgary. Through its Rosso Direct initiative, Rosso seeks to establish direct trade relationships with coffee producers. The Rosso team knows the producers it is sourcing from personally and seeks to establish long-term relationships with them. Rosso pays significantly above market price and works closely with producers to increase the quality of their coffee beans. Although many of the producers Rosso works with are not certified, many of them use sustainably in agroforestry systems and Rosso encourages them to continuously develop their practices. The higher price specialty roasters like Rosso pay to producers enables this ongoing improvement of farming practices.

It was insightful to hear from David about the business perspective and the challenges of running a small(er) coffee business. David also spoke about the background of how his business developed from serving coffee with beans sourced from other roasters, to Rosso's early days of roasting with beans of often unclear origin sourced from traders to roasting beans sourced directly from producers. This development seems to be driven partly by a desire to have more control over the quality of the beans that are sourced, but also a motivation to support producers.

Speaking to members of the audience during the coffee tasting, it seems that many appreciated the breadth and depth of aspects related to coffee covered in the event. There was even a passionate tea drinker in the audience who attended the event specifically to learn more about coffee, because it's such a widely consumed beverage. The speaker's presentations provided a good starting point for more in-depth discussion in the Q&A with the two speakers as well as **David Laville** from Rogue Wave Coffee and **Lynsey Hayes** from Sorellina. Some questions from the audience had to go unanswered when the seminar ended after 90 minutes. But the event provided a good overview of current issues in the coffee industry and can serve as a starting point for those who would like to deepen their understanding of what's behind their perhaps favourite beverage.

The Ārramāt Project's Participation at the 15th Meeting of the Conference of Parties (COP15) to the UN Convention on Biological Diversity

In December 2022, COP15 governments, organizations, communities and ENGOs from around the world convened in Montreal to negotiate a framework for conserving global biodiversity.

Ārramāt Team at the opening ceremonies of COP15!



The Global Biodiversity Framework (GBF) sets out an ambitious plan of action to curb biodiversity loss, and to ensure that, by 2050, the shared vision of living in harmony with nature is fulfilled.

Much of Earth's biodiversity is located in the territories of Indigenous Peoples, who are highly successful at caring for the land and resources in ways that are good for the environment and support the health and well-being of their communities. Indigenous Peoples comprise five per cent of the world population but steward 80% of the world's biodiversity in their territories.

Therefore, it's of utmost importance that they actively participate in setting goals and successfully implementing the GBF. This was strongly endorsed and advocated for by the federal government in the COP15 negotiate. As described by the Canadian Minister of the Environment,

"Indigenous Peoples have been guardians of the land, waters, and ice of this continent for millennia. Canada's ambitious biodiversity goals can only be met in partnership with First Nations, Inuit, and Métis. By coupling Indigenous and Western science, we can fight the twin crises of climate change and biodiversity loss, strengthen our relationships with Indigenous communities, and build a better future for everyone."

— The Hon. Steven Guilbeault, Minister of Environment and Climate Change

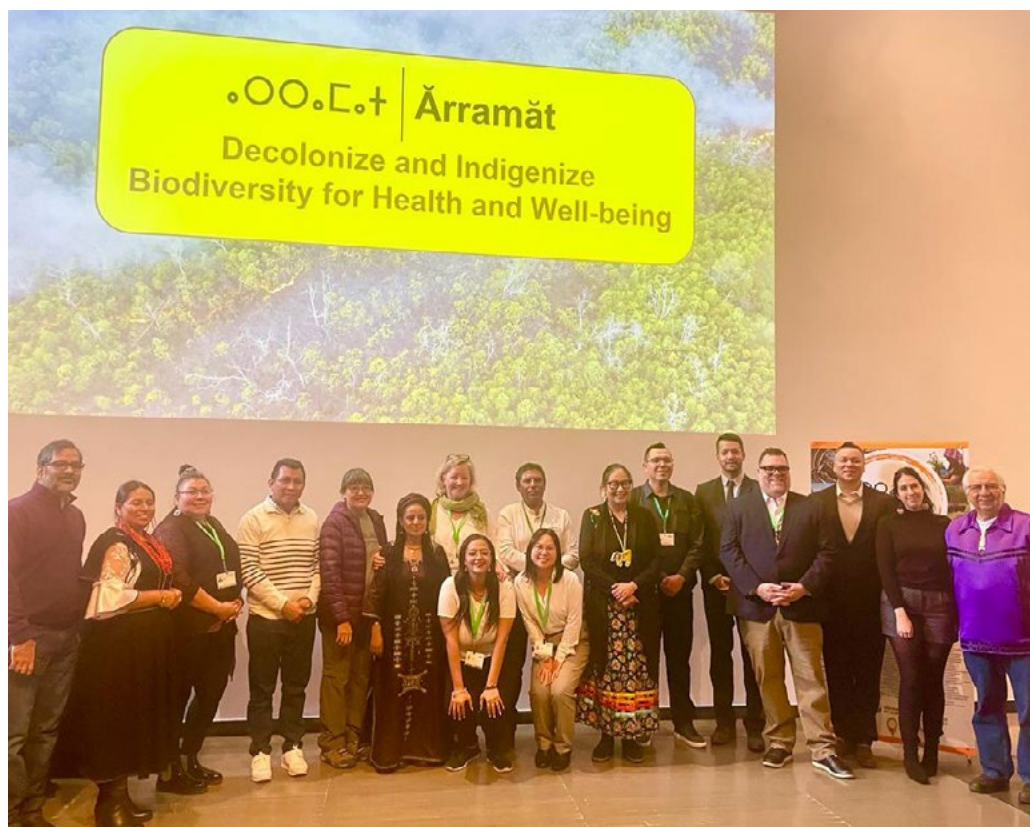
COP15 was attended by Āramāt Principal Investigator, **Dr. Brenda Parlee** (REES), REES students **Robbie Potts** (Samson Cree First Nation) and **Sharlene Alook** (Bigstone Cree First Nation), Āramāt Communications Coordinator **Abby D'Souza** (REES Alumni) and other members of the project including **Elder Wanda Pascal** (Tetlit Gwich'in/ Tetlit Zheh, NWT), **Dr. Mariam Wallet Aboubakrine** (Tin Hinane/University of Ottawa), **Danika Billie Littlechild** (Carleton), Aminata Diallo (African Leadership University), **Dr. Murray Humphries** (McGill University) and **Geoffrey Roth** (United Nations Permanent Forum on Indigenous Issues/Capital Native Nations).

Āramāt hosted a public side event, **"The Āramāt Project: One Health through Strengthening Indigenous Health & Well-Being"** at the McCord Stewart Museum on December 5, 2022. The side-event was co-sponsored by FAO, WHO/PAHO, CCUNESCO, McGill University, U of A, U of O, and more, and featured keynote speakers from each organization. It was also an informal "launch" of the project. It was attended by Indigenous delegates, UN organizations, government representatives, academics, and current Āramāt team members.

"There is never a time for us to give up on Mother Earth"

– Āramāt Co-Principal Investigator Danika Billie Littlechild (Āramāt COP15 side-event)

The Āramāt Project's unofficial launch and first UN side-event (December 2022).



ALES student, **Robbie Potts** (Samson Cree First Nation), was also invited to speak at a side event of World Health Organization about his work with youth in Maskwacis to monitor chronic wasting disease in deer, elk and moose, which are important to food security and health of his community. He highlighted this project as an example of an Indigenous-led conservation project that will be similar to those funded through the Āramāt Project. Over 100 Indigenous organizations will have the opportunity to apply for \$4.5 million in funding to lead projects in over 70 ecozones and cultural territories across the world, as well as in Canada, in 2023-24. The aim is to create opportunities to elevate Indigenous Knowledge and highlight Indigenous-led solutions to the combined biodiversity and health crisis.

ALES student, **Sharlene Alook** (Bigstone Cree First Nation), joined **Elder Wanda Pascal** and four other Indigenous women from Africa, Asia and Latin America on a panel about Indigenous women's knowledge and their leadership in biodiversity conservation. She shared perspectives from her MSc research and the revitalization of the Indigenous Cree language and its potential to guide and heal relationships with the land, which were damaged by decades of resource development such as forestry and oil and gas activity.

COP15 was an opportunity for members of the Āramāt Team to continue to build connections with Indigenous networks and collaborators, strengthen existing connections through bilateral and multilateral meetings, and for members of the Team, specifically youth, to share their experience and knowledge at a global event. As the project continues to unfold, we look forward to more opportunities to support Indigenous Peoples to share their knowledge and engage in leadership and action for Mother Earth.

Sharlene Alook and **Elder Wanda Pascal** speaking at COP15 on Indigenous Women's Knowledge and the contribution women have on preserving biodiversity.



Research Activities

Sustainability Research in Vietnam

REES Professor, Sven Anders, is currently on sabbatical in Vietnam. At the heart of his research is how climate change is threatening the production of crops and tree fruit, and how small-scale farmers can shift their practices to be much more sustainable and climate resilient.

The livelihoods of many Vietnamese farmers, the majority being smallholders, depends on growing crops for export. Top of this list are coffee and pepper, where Vietnam is among the top three producers and exporters in the world. Other important products are tree fruits such as dragon fruit, Asian plums, Jackfruit, and more. Much of Vietnam's coffee, pepper, and some tree fruit production takes place in the country's highlands area.

Climate change is threatening the existing production system for many of these crops, especially coffee and pepper, which react strongly to growing drought conditions and increasingly shifting monsoon rainfalls that affect flowering with dramatic effects on yields. Beyond the challenges posed by climate change, small-scale Vietnamese farms

Source: ICRAF Vietnam



(farmers) often produce at incredible levels of intensity to realize harvest that can sustain families. Using extreme levels of mineral fertilizer and pesticides has damaged (reduced) soil fertility, local ecosystems, and both surface and groundwater resources.

Two projects are among several international efforts to help farmers shift their production practices to be more climate resilient and sustainable.

A large EU-funded project spearheaded by UNDP, CIAT and ICRAF seeks to introduce sustainable coffee farming practices in the Vietnamese highlands with a specific focus on reducing (discouraging) the widespread deforestation that threatens to eliminate the remaining natural forest habitats.

An international project funded by the Australian Centre for International Agricultural Research, especially focused on highlands coffee and pepper farming, seeks to introduce the sustainable production practices that are increasingly sought after by international buyers of raw coffee and pepper. For example, many well-known multinationals with consumer brands that seek to appease European and North American consumers wish to become more “green”.

Both projects bring together local and international agricultural and social scientists from different disciplines to develop technology packages, practice changes, and other interventions, often in direct collaboration with local farm groups. This is done in a way that suits local circumstances, being easily realized on small farms at a low cost. For both coffee and pepper, large downstream buyers (exporters) are actively involved in convincing farmers, who are skeptical of researchers, and pushing new ideas to participate and implement much needed change.

Source: ICRAF Vietnam



Emotional Pathways to Climate Action

Co-funded with an Insight Grant from the Social Sciences and Humanities Research Council, and the Kule Institute for Advanced Studies.

REES Environmental Sociology Professor, **Dr. Debra Davidson**, joined forces with **Dr. Kyle Nash** from the U of A's Department of Psychology and former REES faculty member **Dr. Maik Kecinski**, who is now an Associate Professor of Behavioural Economics at the University of Delaware, to assess how emotionality shapes our individual responses to climate change, and how these responses in turn affect collective efforts to mitigate and adapt.

The need for just socio-economic transitions to address climate change becomes more urgent each year. Canada faces a particularly high transition risk, with the need to rapidly phase out a key economic sector – fossil fuels – and enable economic diversification to avoid precipitous economic decline combined with escalating negative impacts. Passing and implementing the domestic policies required to accomplish this challenge hinge upon broad political support and direct personal and collective engagement, while Canadians are simultaneously enduring the increasingly disastrous impacts that have already manifested, in the form of wildfires, extreme heat, and flooding. Moving the needle toward pro-climate action requires better understanding of the antecedents to personal and collective climate behavior. There is growing acknowledgement of the critical role played by emotionality, but gaps in scholarship persist, warranting innovative, unconventional research. Drs. Davidson, Nash and Kecinski pursue just such a research program, prioritizing interdisciplinarity and intersectionality, with a multi-stage, sequential empirical study of the role of emotions in climate change responses among Canadians, including survey and experimental methods, and qualitative interviews with wildfire disaster survivors in British Columbia focused on rural and Indigenous Canadians.

13th Annual Canadian Agri-Food Policy Conference

The 13th annual CAES Conference on January 26-28 commemorated and celebrated the contributions of our dear friend and colleague **Professor James Rude** at the *James Rude Memorial Workshop*.

The workshop topics related to, and honouring James's work, included: Rent Seeking, Canada's Business Risk Management Programs, Total Factor Productivity, Supply Management, Balancing Environmental Program Goals and International Trade.

Speakers included James' wife, **Peggy Boss**, as well as **Alan Kerr** (Michigan State University), **Aleks Schaefer** (Oklahoma State University), **Scott Pellow** (AAFC), **Bruno Wichmann** (University of Alberta), **James Vercammen** (University of British Columbia), **Bruno Larue** (Laval University), **Ryan Cardwell** (University of Manitoba) and **Derek Brewin** (University of Manitoba).

Attendees celebrated the work of Professor James Rude.



In the Life of a REES Graduate Student

What's it like being a graduate student in the department of REES? Graduate student **Ella Kim Marriott** interviewed two of her fellow graduate students to find out. In the following abbreviated summary, read about the experiences of **Kamola Abdurasulova**, who is pursuing a Master's Degree in Agriculture and Resource Economics, and **Lucas Schmaus**, who is pursuing a Master's Degree in Risk and Community Resilience (in our Sociology graduate stream). Both students have completed their coursework, and are involved in research that will serve as the basis for their theses.

We begin with Ella's conversation with Kamola. Kamola is working with **Drs. Peter Boxall and Sven Anders** to evaluate the role of extension services in environmental farm planning, and best management practices adoption in Alberta. Because the adoption of such practices can be costly to the farmer, it's important to study the effectiveness of government-sponsored incentive programs. In Kamola's words, "Usually the government offers funding, a cost-sharing approach, so that they can adopt it. But to benefit from the government, farmers have to adopt the environmental farm plan. It helps them identify their own risks." Kamola has now collected all of her data, and is using regression analysis to establish what drives farmers to adopt environmental farm plans, and to what extent the adoption of an environmental farm plan supports best management practices.



Kamola Abdurasulova



When Ella asked Kamola if she has any advice for new graduate students, here is what she had to say:

Don't get off track! It's really easy to get distracted. Set deadlines, monthly goals and steps when you don't have deadlines. It's easy to say, "oh I'll work tomorrow," but you want to stay on track and do at least a bit of work for your research every day. ... Communication is key. With each step of the process, get feedback from your supervisor. There's a lot of self-learning you can do too. But make sure you are on the same page with your supervisors.

Lucas Schmaus



Lucas' research experience is quite different, reflecting the diversity of disciplinary perspectives and methods, as well as research subjects, that the REES community engages in. Lucas is primarily using qualitative methods, relying upon interviews with community residents. Here is how Lucas describes his research:

We're doing research up in the Northwest Territories with the Tlicho [an Indigenous Nation]. We're trying to better assess the social impacts of mining projects, not just the environmental impacts. There are lots of intersections, such as economic dependence on mining. Lots of the mines up there are planning to close in the next 10 years.

My specific interest is the climate change piece. Specifically, climate change vulnerability assessment, and sort of problematizing that language and the process and how we can do it better. There are a lot of social concerns, like a lack of resources in terms of healthcare, wages, and access to water, and climate change is making these things worse. But all these issues are tied to colonialism.

Lucas' advice to new graduate students offers an important complement to Kamola's:

You have to appreciate the process of what you're doing, not just the end point, because you'll graduate before you know it. You might wish halfway through that you had done a different topic, but you have to let your research evolve. We also need to remember [when doing qualitative research], that we're not in a lab. Relationship building is important. And some of the things you might enjoy the most, like informal conversations with community members, might not even end up in your thesis.

Upcoming Events

**Dr. Martin Smith,
Duke University**

FRIDAY, MAY 12, 2023 FROM 3:30-5PM IN GSB 550



**Dr. Katherine Wagner,
University of British Columbia,
Department of Economics**

FRIDAY, MAY 19, 2023 FROM 3:30-5PM IN GSB 550



Announcements

We are very pleased to share that Dan Yu has accepted the offer of Co-operative Chair in Agricultural Marketing and Business! Dan comes from the University of Minnesota-Twin Cities, where she completed her PhD in Economics.

We look forward to having Dan join the department later this summer. Welcome, Dan!



We wish everyone a safe and healthy spring.

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