

## CALL FOR PROPOSALS FOR RESEARCH GRANTS

November 8, 2019

The Alberta Land Institute announces a Call for Proposals for its research grants competition. The deadline for receipt of applications is **December 20, 2019**. We expect that successful applicants will be notified by **January 15, 2020**.

### ABOUT THE ALBERTA LAND INSTITUTE

The Alberta Land Institute (ALI) was established at the University of Alberta in 2012 to connect research and policy for improved land use planning and land management in the province. ALI conducts, supports, and promotes multidisciplinary research on regulatory and market-based instruments and innovative land-use, water, and agricultural policies, which impact environmental, social, and economic outcomes in Alberta and beyond. ALI works with stakeholders to identify research gaps and communicate knowledge. Current and completed research projects conducted or supported by ALI can be viewed online at <https://www.albertalandinstitute.ca/research/research-projects>.

**Research Categories:** The Alberta Land Institute funds and conducts research in the following three categories.

**Discovery Research:** Research undertaken to identify and examine emerging and future issues critical to the Institute's mandate. Successful proposals in this category will articulate broad research questions, inform long-range policy development using different disciplines and theoretical perspectives, and offer or inspire new information or innovative solutions to land use and land use management problems. Multi-year proposals may be considered in this category.

**Policy Research:** Projects focusing on a specific issue of immediate and critical concern to ALI's stakeholders, providing concrete analysis of policy alternatives, land use instruments, etc., and supported by comprehensive academic research. The primary purpose of projects in this category is to fill knowledge gaps and support decision-making in Alberta.

**Educational Projects:** Projects aimed at translating and transmitting existing or new ALI or other relevant knowledge beyond the academic community in order to shed light on issues specifically relevant to ALI's partners and stakeholders and to support public discussion and policymaking in Alberta.

**Research Areas:** ALI has recently identified three priority research areas: Land Use and Environmental Risk, Sustainable Agriculture, and Markets in Ecosystem Services. The theme of this call for research proposals is *Land Use, Resilience and Environmental Risk* (see below for

further details).

### **Selection Process**

Applications will be pre-screened by ALI staff and reviewed by a Research Advisory Committee (RAC). Upon the recommendations of the RAC, the Research Director will make the final decision on the awards. Prospective applicants are invited to contact ALI's Research Director, Eran Kaplinsky, at [eran.kaplinsky@ualberta.ca](mailto:eran.kaplinsky@ualberta.ca) or 780-492-2941 to discuss the suitability and scope of the proposal prior to formal submission.

### **Requirements**

Applicants must submit a completed application form along with a personal data form from a tri-council agency for themselves and for each Co-Investigator. Application forms, guidelines and additional information are available at:

<http://www.albertalandinstitute.ca/research/callforproposals>

Please review the guidelines carefully before completing the application form. Applicants must submit one PDF file containing all required information and documentation on or before the deadline to: [albertalandinstitute@ualberta.ca](mailto:albertalandinstitute@ualberta.ca)

The following must be submitted within two months of project completion (i.e., by **March 1, 2021** for one year projects) for publication on the ALI website:

- A Final Report describing the research methodology, finding, and conclusions, as well as (and in a substantive manner) the policy issue that the research addresses and the implications of the report for policy and/or practice. The Research Director may set out other reporting requirements.
- A short (2–4 pages), non-technical summary of the Final Report.

Subsequent applications will only be considered if satisfactory final or interim progress reports of all previous and existing ALI grants have been fulfilled prior to the new application.

Any published work that is derivative of the research supported by the grant must acknowledge the financial support received from the ALI. ALI must be provided with a copy of any publications.

Please refer to the attached Grant Guidelines and Application for further information on the application process.

### **Budget and Project Period**

Projects will be funded to a maximum of \$50,000 for a one-year period. Expected date of completion is March 2021. Funding for continuation of the research may be available in subsequent years depending on the potential policy implications and the proposed approach.

Researchers may also contact ALI about being partners in a project, with ALI's contribution being one part of a larger research fund. ALI has made inquiries to possible partners in this area and would be interested in participating as a key proponent in a larger application.

**Contact**

Inquiries can be addressed to: [albertalandinstitute@ualberta.ca](mailto:albertalandinstitute@ualberta.ca). Please clearly indicate the nature of your email in the subject line.

## FALL 2019 CALL FOR PROPOSALS:

The Alberta Land Institute is accepting for consideration research proposals in the *Land Use, Resilience and Environmental Risk* research area. ALI is particularly interested in proposals focusing on information and education, regulation and policy, and risk-sharing. Proposals featuring an interdisciplinary or multidisciplinary approach are welcome.

Prospective applicants are encouraged to discuss their proposals with ALI before submitting a formal application.

## Land Use, Resilience, and Environmental Risk

Severe or extreme weather events pose serious threats to human lives and settlement.<sup>1</sup> Examples of such events include fluvial and pluvial flooding, hail, heatwaves, wildfire, and drought. The frequency and severity of threats in Alberta has been increasing due to climate change and due to the expansion of settlement and other human activities and their encroachment on wildlands and protective natural features.<sup>2</sup> Despite growing recognition of these threats, the public and private response has been criticized as inadequate. While some restrictions on the use of land have been placed,<sup>3</sup> development in floodplains and other hazard-prone areas has been permitted even after catastrophic weather events such as the Calgary floods in 2013 and Fort McMurray area wildfires in 2016.<sup>4</sup> Despite the mounting evidence of risk and policy recommendations by experts, the incidence of injury and damage to property has increased, as have insurance rates and public expenditure.<sup>5</sup>

ALI is seeking proposals for research that can assist decisionmakers to minimize and mitigate environmental risk and promote more resilient settlement and land use policy in Alberta. ALI is particularly interested in a better understanding of: the environmental risks, their patterns in

---

<sup>1</sup> Kovacs, Paul and Howard Kunreuther. 2001. "Managing Catastrophic Risk: Lessons from Canada". Paper presented at the ICLR/IBC Earthquake Conference, Simon Fraser University, Vancouver, BC. [https://pdfs.semanticscholar.org/9c9b/ccf414b9785b3c04f5497127fe9398b28253.pdf?\\_ga=2.224843354.1792368394.1569862014-975851435.1569862014](https://pdfs.semanticscholar.org/9c9b/ccf414b9785b3c04f5497127fe9398b28253.pdf?_ga=2.224843354.1792368394.1569862014-975851435.1569862014)

<sup>2</sup> Edwardson, Lucie. 2018. "Alberta accounts for 61% of Canada's insured damage due to severe weather." CBC News, July 20, 2018. <https://www.cbc.ca/news/canada/calgary/alberta-61-per-cent-canada-insured-damage-severe-weather-1.4754542>

Kovacs, Paul. 2016. "Celebrating Local Leadership" In *Cities Adapt to Extreme Heat: Celebrating Local Leadership*, edited by Sophie Guilbault, Paul Kovacs, Peter Barry and Gregory R.A. Richardson, 5-7. Institute for Catastrophic Loss and Health Canada. <https://www.iclr.org/wp-content/uploads/PDFS/cities-adapt-to-extreme-heat.pdf>

<sup>3</sup> See, e.g., Mbajjorgu, Lynne Njeri. 2019. "Building Resilient Communities: Planning for Natural Hazards Risks in Small and Mid-Sized Municipalities in Alberta". PhD diss., University of Alberta; Holm, K., Jakob, M., & Scordo, E. 2016. "An inventory and risk-based prioritization of Steep Creek Fans in Alberta", Canada. E3S Web of Conferences, 7, 01009. <https://doi.org/10.1051/e3sconf/20160701009>

<sup>4</sup> Mbajjorgu, *supra* note 3.

<sup>5</sup> IBC [Insurance Bureau of Canada]. 2015. *The financial management of flood risk: An international review: Lessons learned from flood management in G8 countries*. Ottawa, ON: IBC. [http://assets.ibc.ca/Documents/Natural%20Disasters/The\\_Financial\\_Management\\_of\\_Flood\\_Risk.pdf](http://assets.ibc.ca/Documents/Natural%20Disasters/The_Financial_Management_of_Flood_Risk.pdf)

Alberta, and the potential responses to such risks; the regulatory framework and the policy and economic incentives which affect public and private land use decisions; and the dissemination of relevant information within government and to the public. Examples of the questions that are of interest to ALI are provided below. These are not meant to exclude or discourage other research questions or proposals. For any inquiries, contact ALI's Research Director at [eran.kaplinsky@ualberta.ca](mailto:eran.kaplinsky@ualberta.ca).

## Governmental Policy Options and the Regulatory Environment

- How is environmental risk management policy developed and implemented in the province? What roles are allocated to the province, regional and municipal authorities? Are there conflicts between different jurisdictions? Are decisions over floodplain and hazard-prone development allocated to the most effective level of government?
- Are existing land use planning instruments sufficient for managing environmental risks, or are there other, innovative instruments that could be adopted?
- How can municipalities better tie land-use approval to flood risk? Is there alignment between policy discussion and development permits? How can a greater dialogue be stimulated?
- Are the provincially adapted national building codes sufficiently addressing resilience? Do they contradict any mitigation measures outlined in voluntary programs such as FireSmart?
- Does the current cost-share structure of the federal Disaster Financial Assistance Arrangement provide sufficient incentives for provinces and municipalities to dedicate resources to hazard mitigation and risk management? Are there examples of different approaches to disaster relief that reduce the moral hazard problem? How has the DFAA stipulation that "the costs of repairing or replacing structures are not eligible if they are in a location that, prior to their conservation was designated, recognized or zoned as a flood risk area by provincial or municipal authorities" influenced floodplain regulation development?
- How and to what extent is risk to extreme weather events addressed in land-use plans and bylaws? Are guidelines designed to manage risk implemented in practice? What communities have adopted mitigation plans? (How) Have they incorporated the concept of resilience into their municipal development plans? What role should the province play in helping small municipalities plan for climate change and hazard risk reduction to be more resilient?
- Provisions in the recent City Charter regulations for Calgary and Edmonton require them to develop and adopt climate change mitigation and adaptation plans. How and to what extent are these cities addressing risk through urban planning and design? How have the goals outlined within their respective strategies influenced

the development process? How will the plans be implemented to ensure action and ensure there is no gap between commitments and actual implementation? Do provincial legislation and regulations present any barriers to municipal adaptations being implemented?

- What are the risk-sharing incentives available to municipalities and individuals? How can regulatory and financial incentives help reduce risk and support resilience? Are there historical successes in the province?
- Engineers and planners are charged with communicating risk, both pre- and post-disaster. However, there appears to be a gap between technical recommendations and the decisions made by politicians who are faced with societal pressures to rebuild and return to the previous “normal”. Do municipalities and indigenous communities have access to the information they need to make effective risk-reducing decisions? If so, what barriers remain for communities to implement cost-effective risk-reducing measures? What kinds of information helps to effectively translate the costs of disasters as well as the benefits that could be gained by making hard decisions about rebuilding and the creation of more restrictive land-use bylaws?
- Is there sufficient baseline information available to Alberta’s municipalities to identify natural assets within a region that help mitigate risk? How are risk management strategies being shared across municipal borders? How are Alberta’s communities choosing the best course of action once impacts of climate change are identified?
- What lessons can be learned from risk-reduction programs in other jurisdictions?
- Does the current regulatory environment promote or discourage the use of natural assets to mitigate risk? How might we better utilize natural assets to reduce risks and improve disaster outcomes? Is there innovative nature-based infrastructure being engineered in other jurisdictions that might be effective in the Alberta environment?