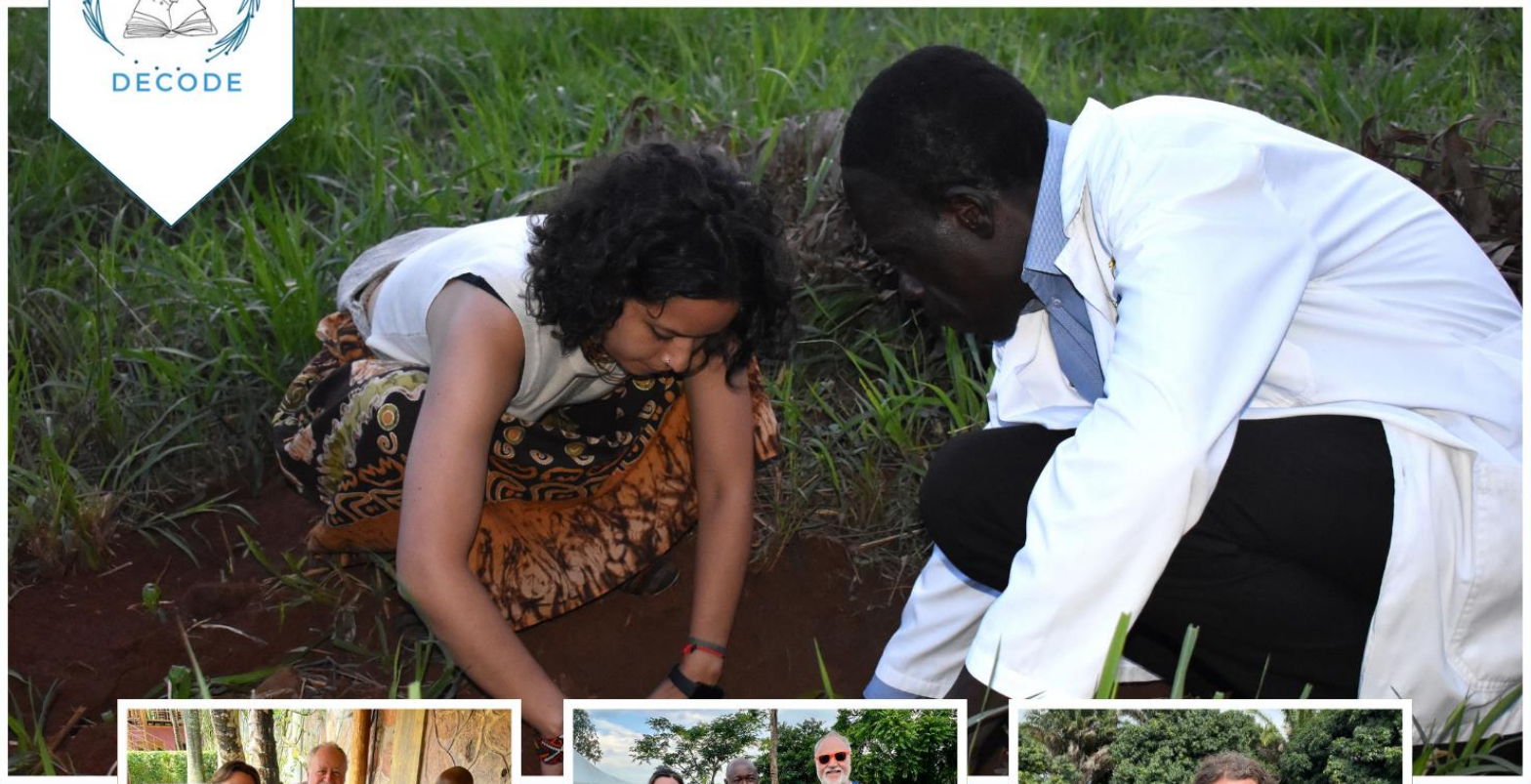




THE DECODE KNOWLEDGE PROJECT



THE DECODE PROJECT: CO-CONSTRUCTION, DECOLONISATION & TRANSFORMATION
PRODUCING ACTIONABLE KNOWLEDGE FOR THE CHALLENGES OF OUR TIMES

ANNOTATED BIBLIOGRAPHY ON COMMUNITY-LED RESEARCH AND THE CLIMATE CRISIS

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By: DECODE

Working Paper 1



University
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UNESCO Chair in Community Based
Research and Social Responsibility
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Annotated Bibliography on Community-Led Research and the Climate Crisis

Bakal, M., & Einbinder, N. (2024). Scaling local climate action: Learning from community organisations to build a post-development agenda for Central America. *Npj Climate Action*, 3(1), 30. <https://doi.org/10.1038/s44168-024-00114-4>

The authors criticise typical Development models that are focussed on economic growth to the detriment of ecological sustainability and Indigenous sovereignty. Bringing into focus the Maya-Achi community in Guatemala we are made aware of the devastating impact of climate change on the area in addition to harmful development projects like the Chixoy hydroelectric dam. As an answer to this Doublehead monster of the climate crisis and soul-less economic exploitation Indigenous led organisations have been using agroecology and traditional farming, like milpa, to restore ecosystems and build economic and environmental resilience. These Indigenous led initiatives focus on cultural revitalization , food, sovereignty and climate adaptation premised in Indigenous knowledge systems, and Indigenous philosophies like Buen Viver - good living. Given the success of the Buen Vivir philosophy as the driving force behind these community led initiatives; the authors call for scaling of local climate action by providing more funding to local initiatives and paying greater respect to the Indigenous perspectives on development.

Baldessari, S., Paletto, A., & De Meo, I. (2024). Rethinking Public Participation in Forest Policies: A Literature Review of Participatory Techniques. *Forests*, 15(9), 1514.

<https://doi.org/10.3390/f15091514>

This paper discusses the rise in the academic consciousness of participatory democracy and participatory decision making. The authors review more than 2000 papers and sieved out 24 participatory techniques which showed varying levels of community participation from the lowest level of just merely informing the community to the highest level of empowering the community where they themselves make the decisions. The authors argue that based on their assessment, participation of community in forestry decision making has been inconsistent and have generally failed to potently engage citizens or influence policy in a significant way. This paper could be useful in highlighting the gap that mere participation has not been sufficient in guaranteeing the representation of the voices and intents of communities in the outcomes of decisions. And that therefore, a new paradigm where communities themselves lead initiatives to better understand and address their issues may provide better satisfaction to the local citizenry.

Buschman, V. Q., & Sudlovenick, E. (2022). Indigenous-led conservation in the Arctic supports global conservation practices. *Arctic Science*, as-2022-0025.

<https://doi.org/10.1139/as-2022-0025>

This article recognizes that Indigenous led research and conservation in the arctic has been shaping the global conversation on conservation and has served as a model for addressing climate change and protecting biodiversity internationally. The authors criticise colonial conservation methods that often impose restrictions on Indigenous communities such as hunting bans and exclusionary protected areas. These types of approaches negatively affect Indigenous sovereignty, food security and land-based cultural practices. The authors therefore call for greater collaboration between

Indigenous communities and global conservation organisations so as to guarantee that the epistemology of the Indigenous groups are embedded and enacted in research and policy at the global level.

Caughey, A., Kilabuk, P., Sanguya, I., Doucette, M., Jaw, M., Allen, J., Maniapik, L., Koonoo, T., Joy, W., Shirley, J., Sargeant, J., Møller, H., & Harper, S. (2022). Niqivut Silalu Asijjipalliajuq: Building a Community-Led Food Sovereignty and Climate Change Research Program in Nunavut, Canada. *Nutrients*, 14(8), 1572.
<https://doi.org/10.3390/nu14081572>

In this piece Caughey et al describes the fact that the history of research and especially health research in Inuit communities have been dehumanising, unethical and colonial. Recognising this the Inuit communities have called for a new paradigm in research in their communities. Out of this call the Inuits have established the National Inuit Strategy on Research (NISR). The NISR has centred its approach to research in Inuit communities in an Indigenous epistemological framework. In so doing research questions and methodologies around food security, nutrition and climate change are defined by Inuit elders and members of the community. The Inuits are especially attuned to developing understanding and responses to the ways in which climate change has impacted food security. Further to that knowledge sharing and creation approaches like storytelling, which is an important component of Inuit epistemology, is leveraged as a legitimate and culturally appropriate research methodology. As some members of the Inuit communities put it themselves “the stories are the research”, and the “stories are how we (Inuit) learn and understand” (p. 7). Emerging from Indigenous epistemological approaches to research are policies and findings that are practical to the Inuits and directly benefit the communities.

Clapham, K. (2011). Indigenous-led Intervention Research: The Benefits, Challenges and Opportunities. *International Journal of Critical Indigenous Studies*, 4.

<https://ijcis.qut.edu.au/article/download/63/63/63-Article%20Text-59-1-11-20180308.pdf>

Clapham, with over 15 years of experience in Indigenous research in Australia, provides a direct definition of “Indigenous-led” research ‘as research which is controlled and driven by Indigenous communities’ (p. 40) emphasising that the ownership and management of the process must come from the Indigenous communities themselves. With the emerging emphasis on ethical research practices involving Indigenous peoples, guidelines have been developed to ensure that research is respectful of and is in alignment with Indigenous rights and self determination. One such guideline is Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research. The intervention research of focus in this article is on injury prevention in Indigenous communities and involves collaboration between community, government and researchers. Nevertheless the author highlights that for these Indigenous led intervention research to have maximal impact there is still need to enhance the research leadership capacity of Indigenous groups in order to guarantee consistent data quality and produce long term benefits.

Colbourne, R., Moroz, P., Hall, C., Lendsay, K., & Anderson, R. B. (2019). Indigenous works and two eyed seeing: Mapping the case for Indigenous-led research. *Qualitative Research in Organizations and Management: An International Journal*, 15(1), 68–86.

<https://doi.org/10.1108/QROM-04-2019-1754>

Central to this paper is the idea of using Two-Eyed Seeing as a framework towards decolonising research. “Two-Eyed Seeing provides both guidance and instruction on how to bridge Indigenous forms of science and knowing with western science and knowing.” (p. 69). And necessary to the is the establishment of mutual respect across the two knowledge systems. The authors make it clear that Indigenous led research is

a crucial move towards community self determination and well being. They envisage a type of Indigenous-led research paradigm where the investigative work of knowledge curation is done in partnership with non-Indigenous allies and organisations bettering outcomes like economic development and education contributing more effectively to the efforts of reconciliation. Nevertheless the authors reason that one major challenge to Indigenous led research is limited understanding and capacity in non-Indigenous organisations (these organisations often lack the framework or structures to properly appreciate and recognise the value of Indigenous knowledge).

Fisher, J. T., Grey, F., Anderson, N., Sawan, J., Anderson, N., Chai, S.-L., Nolan, L., Underwood, A., Amerongen Maddison, J., Fuller, H. W., & Frey, S. (2021). Indigenous-led camera-trap research on traditional territories informs conservation decisions for resource extraction. *FACETS*, 6, 1266–1284.

<https://doi.org/10.1139/facets-2020-0087>

Here we receive a description of how the Whitefish Lake First Nation led camera-trap research on their traditional territory in an effort to monitor mammal populations that have been impacted by intensive and extensive resource extraction industries like oil and forestry. The methodology of the research intertwined Indigenous ecological knowledge with modern scientific methods to obtain data on mammalian species distribution. It was found that industrial activities such as pipelines and well sites affected delicate predator-prey dynamics leading to ecological imbalances in terms of the change in population size of some mammals in particular areas. As such the research suggested such actions as comanagement of land and resources to find the best balance for wildlife and the needs of the local communities. This blending of western technology and methods with Indigenous knowledge and approaches is celebrated as a model by which global systems can adopt this approach to develop

more comprehensive conservation research and policies for more targeted conservation interventions.

Frehlich, L., Amson, A., Doyle-Baker, P., Black, T., Boustead, D., Cameron, E., Crowshoe, L., McBrien, K., Ji, Y., McGuire, A., Oliver, A., Tuttau, L., Zhang, J., Checholik, C., & Wicklum, S. (2023). Spread of Makoyoh'sokoi (Wolf Trail): A community led, physical activity-based, holistic wellness program for Indigenous women in Canada. *Journal of Health, Population and Nutrition*, 42(1), 80.

<https://doi.org/10.1186/s41043-023-00427-w>

Having been victims of an oppressive colonial past Indigenous peoples of Canada and especially Indigenous women are at an increased risk of developing chronic diseases. Physical activity is a powerful component of holistic health and an effective way of fighting off the onset of chronic diseases. The Makoyoh'sokoi (The Wolf Trail Program) is a holistic health and wellness programme consisting of a collection of physical exercises and activities designed by Indigenous women for use by Indigenous women. The programme is an 18 week course and sets out to provide an avenue for Indigenous women to participate in physical activity programming, an opportunity missing in many communities across Canada. The development of the Makoyoh'sokoi (The Wolf Trail Program) followed extensive community engagement and consultation fulfilling the hallmarks of a true community led initiative. This article can serve a useful example in how community led initiatives can provide practical solutions for community concerns in a way that is culturally appropriate and premised in the epistemology and ontology of the people creating those solutions for themselves.

Hall, B., & Tandon, R. (2020). Editorial: Knowledge democracy for a transforming world. *Gateways: International Journal of Community Research and Engagement*, 13(1).

<https://doi.org/10.5130/ijcre.v13i1.7225>

Hall and Tandon share their powerful stories of the beginnings of Participatory Action Research (PAR). Describing how the academic world was mighty hostile to PAR in its infant stages, the authors show how the landscape has shifted towards increasing support and recognition of the family of participatory and engaged scholarship. The authors share a number of examples from across the world that demonstrate knowledge democracy in action. For example, we hear the story of the mass cutting of trees in Uganda for charcoal production, a situation properly opposed by the vast majority of the community members. Through activism, protest and mobilisation the community was able to fight back and have their knowledge and voices respected to make a meaningful change in the situation- the local council banned tree-cutting. Knowledge democracy serving as the foundational concept from which PAR is derived properly contains the entire family of community based participatory and engaged scholarship and research. This is because, crucial to the concept of knowledge democracy, is the idea of a true respect and recognition of multiple epistemologies. This paper is of especial importance to our work because it maps the journey of the development of the evincement of Knowledge Democracy in academics from participation to community-based to now community-led as we currently investigate. The embracing of community-led knowledge curation is certainly within Knowledge Democracy as community-led projects are infused with local, Indigenous epistemologies of the community. Epistemologies that Knowledge Democracy demands that we respect.

Jagadish, A., Freni-Sterrantino, A., He, Y., O' Garra, T., Gecchele, L., Mangubhai, S., Govan, H., Tawake, A., Tabunakawai Vakalalabure, M., Mascia, M. B., & Mills, M. (2024). Scaling Indigenous-led natural resource management. *Global Environmental Change*, 84, 102799. <https://doi.org/10.1016/j.gloenvcha.2024.102799>

This paper does a very good job of reaffirming that there is a clear and justified desire to have an increase in Indigenous led initiatives if we are to effectively fight off the environmental damage and biodiversity loss caused by climate change. A very good example of the efficacy of Indigenous led climate adaptation initiatives is given in the form of the authors discussion of the Locally Managed Marine Areas (LMMAs) in Fiji, a community led initiative where Indigenous communities govern and manage nearshore marine resources which has proved to be an effective strategy for biodiversity conservation and climate adaptation. Using the theoretical construct of Diffusion of Innovations (DOI) theory, the authors have been able to explain the adoption and spread of these LMMA's among Indigenous communities in Fiji. That is to say that DOI theory in its most basic form is the idea that once an innovation is adopted by one group, there is an increased probability of adoption by neighbouring groups. LMMA's themselves, their diffusion across Fiji villages, have improved marine conservation and have also been pivotal in integrating Indigenous customs into governmental systems.

Johnson, D. E., Parsons, M., & Fisher, K. (2022). Indigenous climate change adaptation: New directions for emerging scholarship. *Environment and Planning E: Nature and Space*, 5(3), 1541–1578. <https://doi.org/10.1177/25148486211022450>

This paper echoes the need for decolonisation of climate change adaptation approaches. However, further to that the paper positions intersectionality as an important concern for Indigenous communities. That is, the impacts and turbulence caused by the climate crisis affects members of the Indigenous community in unique ways based on their overlapping identities of gender, race, class etc. And as such, intersectionality provides a good framework from which the heterogeneous climate vulnerabilities of Indigenous communities can be better understood so that more equitable and inclusive policies may be developed. The authors criticise the paternalism of traditional climate

adaptation policies. The author calls for the greater inclusion of Indigenous knowledge as has been seen in Indigenous-led projects like the Maori community project on coastal erosion in Aotearoa.

Kipp, A., Cunsolo, A., Gillis, D., Sawatzky, A., & Harper, S. L. (2019). The need for community-led, integrated and innovative monitoring programmes when responding to the health impacts of climate change. *International Journal of Circumpolar Health*, 78(2), 1517581. <https://doi.org/10.1080/22423982.2018.1517581>

Here we find an argument for more community-led monitoring of the impacts of the climate crisis on the Inuit communities in the Circumpolar North. In the broader context of environment-health monitoring programmes this article examines the utility of Community-Based Monitoring - a form of monitoring where the actors in a community e.g. community members and government, work together to observe and record issues that affect the community. As the authors put it “environment-health monitoring programmes that engage community members have been identified as being more successful than other programmes” (p. 11). In examining around a dozen and half monitoring programmes in the Circumpolar North, the authors were able to show that there is sufficient space and opportunity for the normalisation of community-led investigation and monitoring of climate related health and environmental concerns (like the rise in water borne and food borne diseases; injurious or morbid travel through adverse weather events). In so doing the impacts of climate change on the Inuits of the Circumpolar North can be more robustly monitored and adapted to using culturally appropriate technology, local knowledge and an infusion of the Inuit values of the interconnectedness of people, land and the environment.

Lansbury, N., Redmond, A. M., & Nona, F. (2022). Community-Led Health Initiatives for Torres Straits Island Communities in a Changing Climate: Implementing Core Values

for Mitigation and Adaptation. *International Journal of Environmental Research and Public Health*, 19(24), 16574. <https://doi.org/10.3390/ijerph192416574>

This paper describes the reality that Indigenous communities and their health are especially vulnerable to the climate crisis. Community led health initiatives in the bTorres Strait Islands will play a key role in addressing this issue in a way that is epistemically appropriate. Communities on these islands have for example, taken on conservation projects like rainwater harvesting to combat the ways in which climate change has affected water availability.

Menghwani, V., Walker, C., Kalke, T., Noble, B., & Poelzer, G. (2022). Harvesting Local Energy: A Case Study of Community-Led Bioenergy Development in Galena, Alaska. *Energies*, 15(13), 4655. <https://doi.org/10.3390/en15134655>

This paper is useful to our work because in the larger context of the climate crisis reliable sustainable energy is an important consideration. This paper shows that there is great promise in a community-led development of energy solutions, specifically bioenergy solutions. The paper describes how a community-led initiative in Galena, Alaska harvested woody biomass sustainably from nearby forests and processed it into renewable, locally sourced energy solutions for the community. It is important to note that the community took on this initiative in order to avoid the popular alternative in the region, diesel. Therefore, a move from diesel, a fossil fuel, to a locally sourced renewable woody matter is in itself. a move towards addressing the climate crisis. The benefits of the project were sustainability (there was enough biomass to run the project for 100 years [p.8]), cost saving (cheaper than diesel), employment and climate friendly alternatives.

Moewaka Barnes, H., Harmsworth, G., Tipa, G., Henwood, W., & McCreanor, T. (2021). Indigenous-led environmental research in Aotearoa New Zealand: Beyond a transdisciplinary model for best practice, empowerment and action. *AlterNative: An*

International Journal of Indigenous Peoples, 17(2), 306–316.

<https://doi.org/10.1177/11771801211019397>

This piece highlights that Indigenous research in Aotearoa New Zealand transcends the conventional transdisciplinary approach by including and embedding Indigenous knowledge at its core. Aspects of this Indigenous perspective includes a holistic integration of environmental, social and economic dimensions. The case studies examined show how Maori-led environmental research projects, like the freshwater and wetlands management in Waikato, have influenced regional and national policies. The authors praise this form of collaborative Indigenous led research but highlight some challenges. These challenges includes the navigation power imbalances as well as ensuring that Maori knowledge is genuinely embedded and respected in the broader context of scientific enquiry.

Muthukrishnan, R., & Datta, R. (2023). *Indigenous Practice and Community-Led Climate Change Solutions: The Relevance of Traditional Cosmic Knowledge Systems*.

Routledge. [DOI: 10.4324/9781003389064](https://doi.org/10.4324/9781003389064)

Premised in the traditional cosmics knowledge system of the Indigenous Adi- Shaiva community in India, this book is a powerful conversation about decolonising climate change science and inquiry and indigenizing our approach to the climate crisis at the local level. The authors tell us that a defining feature of traditional cosmic knowledge systems is their emphasis on relationality and spirituality in caring for land, water and natural resources. As such these systems strive for peaceful, non-violent and sustainable solutions to combat the climate crisis. As spiritual and ecologically conscious peoples, Indigenous communities have already been leading the march to address climate change locally, by prioritising the health balance within ecosystems. Recognising this the authors call for greater incorporation of Indigenous knowledge in

climate policy both locally and globally to guarantee both equity and resilience in environmental management.

O'Connor, B., Hardman, M., Donkin, L., & Cook, P. (2023). The climate crisis – can a community-led approach work? *Perspectives in Public Health*, 143(5), 254–256.
<https://doi.org/10.1177/17579139231180802>

This article makes an initial evaluation of the potential of community-led initiatives to address the climate crisis. Recognising that several localities around the UK, for example, have declared a climate emergency, hope is shone on the power of community-led approaches such as community-owned solar farms and local climate leadership programmes. The authors justify local action from the background that generally around a third of all carbon emissions are within the control of the local community. Further to that they argue that “Community-led action can be effective because of its ability to respond and mobilise quickly, adapt to climate impacts, and be an authentic approach because decisions are made locally” (p. 254). The big question/concern, however, is whether these locally driven solutions to addressing the climate crisis are sustainable and scalable. The authors therefore invite more research into this question.

Perkins, P. E. (2020). *Local activism for global climate justice: The Great Lakes Watershed* (1st ed.). Routledge.

Part two of this book is especially relevant to our work of trying to better understand community led action and knowledge curation on the climate crisis. A number of instances are described of communities leading initiatives to combat the climate crisis. For example, considering the intersection of food choice with climate justice some communities have established initiatives such as community gardens and free food programmes. The book highlights the power of individual efforts like food selections, fuel use etc in addressing the climate crisis. Other examples of community-led

initiatives are described. We are told about the fossil fuel divestment movement in Toronto, where the local communities have been petitioning institutions to divest from fossil fuel companies. There is also the Free Food For Justice movement advocating for community level food sharing and equitable food systems in the context of the global climate crisis. There is also the Aamjiwnaang First Nation's Toxic Tours, an initiative by Indigenous communities to raise awareness of the devastating impacts of industrial pollution in First Nations lands and to bring into focus ways in which Indigenous communities are taking leadership in environmental justice. Additionally we are given the example of how the building up of social capital in communities can help with climate resiliency at individual and community level. Social capital involves people having connections to each other and building trust. The power of this social capital to resiliency was seen when in the 1995 Chicago heat wave, people with local friends were 70% less likely to die (p. 159).

PICES-2023 Workshop Reports W9—Indigenous and Community-Led Approaches to support climate change adaptation and Ecosystem Resilience in the North Pacific and Arctic—ProQuest. (n.d.). Retrieved September 21, 2024, from <https://www.proquest.com/docview/2922164955/fulltextPDF/D9B80537BC4B47CAPQ/1?accountid=14846&sourcetype=Scholarly%20Journals>

This workshop held in Seattle in 2023 brought together Indigenous knowledge holders, ocean scientists and academics to have a conversation on how to get the best from both Indigenous knowledge systems and Western knowledge systems when addressing the climate crisis. A key point in the conference is the recognition that Indigenous communities have been adapting to climate events for millennia, and that therefore there was wealth of knowledge wrapped up Indigenous approaches to climate adaptation. The workshop emphasises the urgency of the need for more Indigenous led research to prioritise the needs of Indigenous coastal communities.

Good examples of current Indigenous led initiatives were shared like projects in Alaska and Yukon river that have been prioritising a focus on issues such as sea ice loss, food security and salmon health leading to more robust climate resilience strategies.

Nevertheless, the workshop highlighted that there are necessary tensions in trying to bring together Western and Indigenous knowledge systems, especially because Western scientific framework often fails to properly appreciate or respect the Indigenous Knowledge systems. As a way to generate equity among these often divergent epistemological frameworks, the workshop participants recommend increased long term funding Indigenous led works and relationship building with Indigenous communities.

Pienaaah, C. K. A., Baruah, B., Kansanga, M., & Luginaah, I. (2024). The impact of community-led conservation models on women's nature-based livelihood outcomes in semi-arid Northern Ghana. *Discover Environment*, 2(1), 45.

<https://doi.org/10.1007/s44274-024-00073-x>

With a rapidly changing climate and its associated impacts on biodiversity and ecosystems, community-led conservation models like the Community Resource Management Areas (CREMA's) of semi-arid Northern Ghana show superior promise. This superior promise is evinced through the CREMA's ability to produce higher yields (when compared to non-CREMA areas) for women who are involved in the shea tree farming and the resultant production of shea butter. Shea trees in Ghana have over the years struggled in number and productivity due the negative impacts of climate change. The community led conservation approach described by the Authors (CREMA) rescues the nature-based livelihoods of women in Ghana who depend on healthy shea tree growth and productivity for economic sustenance. As a consequence there is a greater chance of attaining Sustainable Development Goals (SDG's) like SGD 5 - gender equality and SDG 14 - life on land.

Rawlings, V., Flexner, J. L., & Riley, L. (Eds.). (2021). *Community-Led Research: Walking New Pathways Together*. Sydney University Press.

<https://www.jstor.org/stable/j.ctv1rcf2jj>

This book is great resource in denoting the development of Community-Led Research (CLR) as a new paradigm in the family engaged research. It describes CLR that goes beyond participatory action research (PAR) or community based participatory research (CBPR) in that CLR emphasises the community as the leader of the research process defining and enacting the research goals and taking full ownership of the knowledge curation process. Important to CLR is that it prioritises the epistemologies and lived experiences of local and Indigenous communities as being essential for addressing such wicked and complex problems as the climate crisis and social injustice. CLR requires that there is long-term relationship built and a development of mutual goodwill, the timelines for which may be incompatible with current funding models and institutional constructs and constraints. As such the authors argue for CLR to be seen as in alignment with movements like “slow science” and “degrowth” which are movements advocating for the move away from the extractive capitalist approach to research and knowledge curation. That is, we must recognise that research and especially CLR which depends on solid relationships will take time and is not so much about productivity or the meeting of timelines but rather about developing meaningful solutions that are well thought out and robustly engaged by all stakeholders.

The Rigolet Inuit Community Government, Sawatzky, A., Cunsolo, A., Jones-Bitton, A., Gillis, D., Wood, M., Flowers, C., Shiwak, I., & Harper, S. L. (2020). “The best scientists are the people that’s out there”: Inuit-led integrated environment and health monitoring to respond to climate change in the Circumpolar North. *Climatic Change*, 160(1), 45–66. <https://doi.org/10.1007/s10584-019-02647-8>

In this article the lived experiences and the epistemological perspectives of the Inuit people of Rigolet, Nunatsiavut, Canada, which are often excluded in conventional climate monitoring systems, are placed front and centre in investigating the impacts of climate change through Inuit-led environmental and health monitoring. This community-led approach in Rigolet integrates land based activities like fishing and hunting, with health and environmental monitoring to ensure that climate adaptation policies are rooted in what matters most to the Inuit people. As a result the process of environmental monitoring includes Inuit perspectives on wellbeing such as a consideration of cultural disconnection and disrupted connection to the land caused by the climate crisis. These intangible losses are often completely missed by conventional research approaches.

Vogel, B., Yumagulova, L., McBean, G., & Charles Norris, K. A. (2022). Indigenous-Led Nature-Based Solutions for the Climate Crisis: Insights from Canada. *Sustainability*, 14(11), 6725. <https://doi.org/10.3390/su14116725>

Indigenous-led Nature Based solutions will play a critical role in global conservation efforts and will help with such climate change mitigation strategies as carbon sequestration, and land and water restoration. The authors praise Indigenous-led nature based solutions (NbS) as having the double benefit of effective climate adaptation and biodiversity protection. These Indigenous led NbS have been able to influence national policies including Canada's National Adaptation Strategy and collaborative projects like the Indigenous Guardians initiative showcase some of the successes.

Wachira, J., Atela, J., Stacey, P., & Outa, G. (2024). NGO-Led Community-Based Conservation: A New Frontier of Territorialization with Implications for Pastoralists' Land Tenure and Climate Change Adaptation. *Land*, 13(6), 740. <https://doi.org/10.3390/land13060740>

This paper cautions us against the rapid proliferation and acceptance of NGO-led Community Based Conservancies (CBC's) in Northern Kenya. NGO-led CBC's whilst

noble in their pursuit of promoting conservation and climate adaptation have often negatively impacted the lives and livelihoods of the pastoralists who depend on the land. The problem is that NGO-led CBC's in their conservation efforts often enclose large tracts of land and thus necessarily restrict the movements of the pastoralists and their traditional access to those lands. This exacerbates their vulnerability to climate change and thus often brings them into conflict with the NGO-led CBC's over issues of land rights. Further to those problems, the NGO-led CBC's have been criticised for their lack of transparency in their governance structure leading to allegations of unequal distribution of resources favouring elites over the broader community. This paper highlights the importance of including in the process of climate change policymaking, all those who will be affected at the local levels.

Westoby, R., McNamara, K. E., Kumar, R., & Nunn, P. D. (2020). From community-based to locally led adaptation: Evidence from Vanuatu. *Ambio*, 49(9), 1466–1473.

<https://doi.org/10.1007/s13280-019-01294-8>

The authors criticise the hubris of policy and funding guidelines for adaptation projects as missing the mark when it comes to delivering solutions that properly meets the needs of the community. The authors charge that locally communities in the Pacific Islands, for example, are the best deciders about the methods, solutions and processes that will make them more resilient, not some external “expert”. The authors therefore argue that adaptation initiatives should transcend beyond being “community-based” but become instead “locally led” (community-led). In the locally led paradigm communities take full ownership of the adaptation efforts and so the outcomes are more likely to be compatible with their cultures and perspectives and thus more satisfactory to them.