

Climate Change Adaptation and Local Communities

An alternative paradigm for advancing the science of local knowledge systems for effective policy outcomes

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Story of a different worldview

“Excellence is not a gift but a skill that takes practice. We do not act ‘rightly’ because we are ‘excellent’; in fact we achieve ‘excellence’ by acting ‘rightly’.”

– Plato

Humanity has made great progress towards understanding climate change and generating a well-substantiated body of climate change knowledge. Yet, translating such knowledge into effective policy and practice is a monumental challenge. Overcoming this challenge depends on our ability to act right and generate relevant knowledge applicable to users. Actions on climate change are inherently linked with the kind of knowledge generated. While climate change is a human-induced issue, the solution to it lies in understanding humanity, the world humans operate in, and the knowledge that motivates them to take action.



Milestones: Emerging scientific and political consensus

COP 16 (Cancun 2010) and 21 (Paris 2015) have catalyzed international action on adaptation and emphasized the role of local/indigenous knowledge systems and actors in understanding climate change, adaptation, and their relation to local communities.

Cancun Adaptation Framework (CAF): Enhancing action on adaptation

- Common but differentiated responsibilities and respective capabilities
- Recognition of different worldviews (e.g., indigenous knowledge)

Paris Agreement: Recognizing values of different worldviews for transformative change

- Emphasis on the value of local state and non-state actors in climate adaptation (UNFCCC, 2015)
- Local/indigenous knowledge systems, including the holistic view of community and environment (IPCC, 2014)



Issues at stake

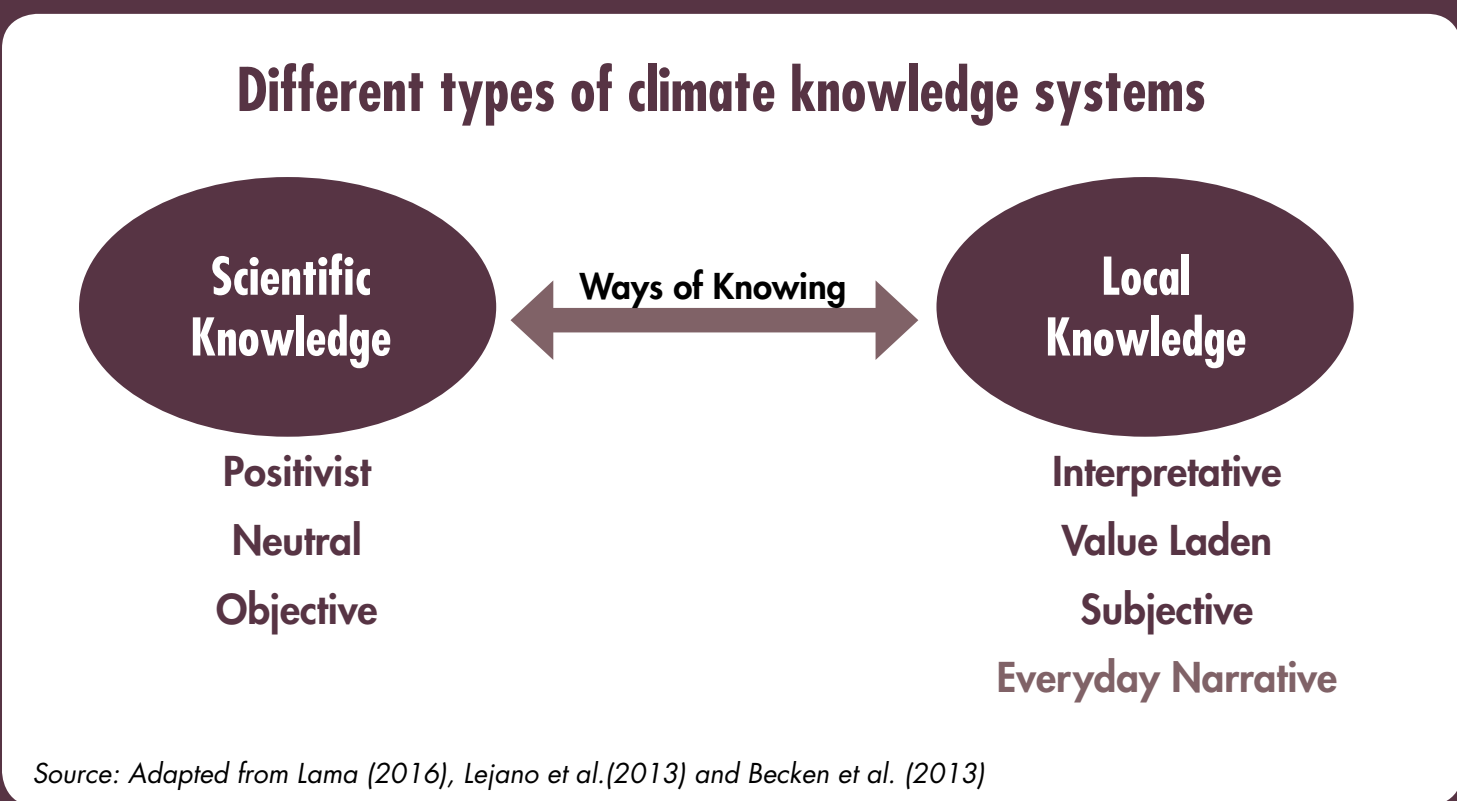
Progress in turning milestones into effective action has been slow because of the gaps related to research on and application of place-based local knowledge within mainstream climate change adaptation practice. Analysis of place-based adaptation issues and agendas that are shaping its discourse (Ireland and McKinnon, 2013) requires a deep social transformation – first, in the way adaptation is conceptualized and, second, by rethinking the approach framed within the alternative narrative to sustainability concept.



Paradigm shift: Making sense of the alternative paradigm

Local adaptation discourse: Understanding a different worldview

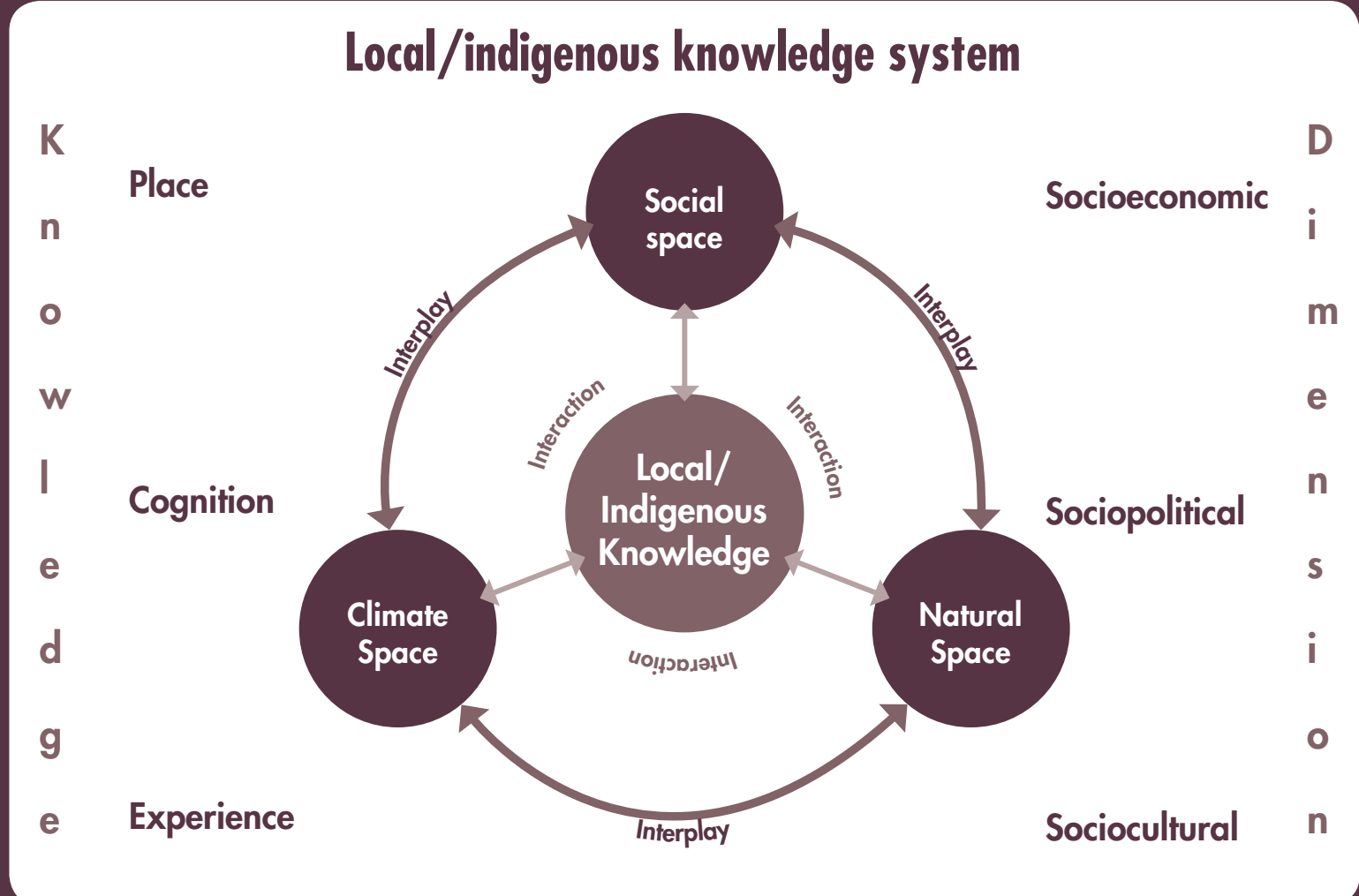
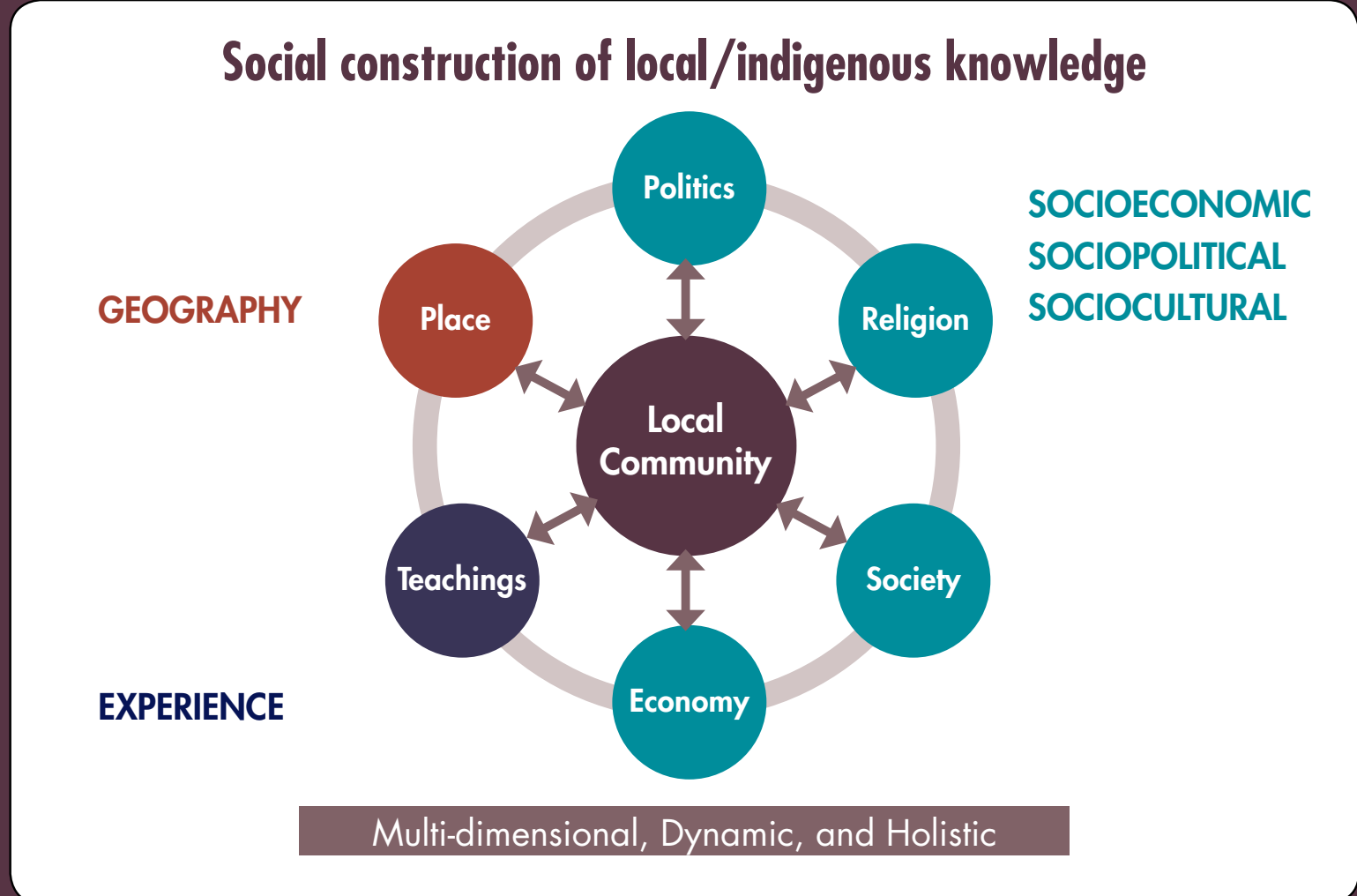
Local/indigenous people’s view of the world is based on everyday narratives (Lama, 2016). It is the longstanding information, wisdom, tradition, and practices (Kothari, 2007), which acts as a rich repository and vehicle for complex cultural, geographic, and human information (Lejano et al., 2013). Local ways of knowing are completely opposite to scientific methods. It is the systematic body of knowledge acquired through longstanding intergenerational knowledge, personal experience, and their interaction with the surrounding environment (Becken et al., 2013). Local knowledge is value laden and subjective, interpreted through observation, personal experience and symbolism.



Departure point

Place-based local/indigenous knowledge on adaptation has much to do with the social construction of knowledge about climate change. The place represents a cultural landscape that has been socially constructed by centuries-old traditions and ethno-climatic practices (Becken et al., 2013). Such knowledge displays multi-dimensional, dynamic, and holistic characters. Research on the science of local knowledge system needs to be backed by fundamental inquiry and framing of adaptation using a different epistemological position – one that helps inquire into and interpret the social construction of knowledge about climate change and adaptation.

Place-based local/indigenous knowledge has a strong correlation with human–environment interaction and the intangible processes of knowledge construction, operating in a space beyond geographic imageries. Systematical exploration of local/indigenous knowledge systems suggests that such knowledge is influenced by place; cognition; experience; and sociocultural, sociopolitical, and socioeconomic factors. Social science application and extensions of the adaptation paradigm from culture, human geography, and sustainability science provide important entry points in this regard.



Conclusion

Translating climate change adaptation knowledge into effective policy outcomes and practices requires inquiring into and interpreting local/indigenous knowledge. Place-based local/indigenous knowledge on climate change adaptation is the product of the social construction of knowledge informed by the intangible process of ways of knowing and taking action. Such a knowledge system is tied to multiple realities of space. The social architecture of the place-based local/indigenous knowledge system provides strong evidence of the intrinsic climate–society–environment-specific inter-relationships and interactions.

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