

Participatory Flood Mapping and Disaster Risk Reduction: The Case of Kashechewan First Nation, Northern Ontario, Canada

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This article examines the physical vulnerability of Kashechewan First Nation in Northern Ontario to spring flooding. Declaration of emergency and mandatory precautionary evacuation every spring has become a part of life for residents and has increased their vulnerability. This article explores the community's traditional and local spatial knowledge for risk reduction by employing a participatory case study approach. The data for the study was generated through participatory flood mapping techniques and qualitative interviews completed with community Elders. Traditional knowledge (TK) of the First Nation helped this study better understand the recurring flooding problem. The participation of Elders and community leaders helped us knowing their views, perspectives, and perceptions of flooding. The community's location, infrastructure, climate change, and resource development were identified by participants as the main reasons for the increased flood risk. The integration of the Cree TK and scientific knowledge suggests that the warming weather is causing earlier spring, snowmelt and rapid runoff in addition to the increased events of breakup ice jams and the number of jamming sites. The past 50-Year discharge data indicate that there is no significant change in the Albany River's flows.

Key Words: Kashechewan First Nation, Indigenous Peoples, Canada, Participatory Flood Mapping, Traditional and Scientific Knowledge, Climate Change