

Toolkit for Equitable  
Emergency Management

# Appendix K

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Questions to  
Consider: Hazard  
Likelihood Analysis

2025

## Appendix K - Questions to Consider: Hazard Likelihood Analysis

Focus Area/Theme	Questions
<b>Understanding Hazard Characteristics</b>	<ul style="list-style-type: none"> <li>• What historical data or projections are available on past occurrences, including the location, frequency and intensity of events?</li> <li>• What have been the impacts of this behavior for partners, stakeholders, and community members?</li> <li>• Who is the most impacted by the hazard likelihood analysis?</li> </ul>
<b>Data Collection and Analysis</b>	<ul style="list-style-type: none"> <li>• What sources of data will be used for analysis?</li> <li>• Who has contributed the data?</li> <li>• How accurate and current is the data?</li> <li>• Is the data up-to-date, and are there any gaps or uncertainties that need to be addressed?</li> <li>• Are any assumptions being made about the data?</li> <li>• Who is being consulted in the hazard likelihood analysis?</li> <li>• Are those impacted the most by the hazard likelihood analysis being consulted?</li> <li>• Are data collection methods accessible to diverse community members?</li> <li>• Are there language barriers or cultural sensitivities that need to be addressed to ensure the participation of all groups?</li> </ul>
<b>Probability and Frequency</b>	<ul style="list-style-type: none"> <li>• How will the probability of each hazard be determined?</li> <li>• What are the frequency categories for each hazard (e.g., low, medium, high) and how will these be determined?</li> <li>• How will these categories be defined and communicated to partners and stakeholders?</li> <li>• Who did you consult with to make this determination?</li> <li>• What assumptions are being made about the likelihood of certain hazards?</li> </ul>
<b>Timeframe Considerations</b>	<ul style="list-style-type: none"> <li>• How do changing conditions (e.g., climate change, urban or rural development) affect the frequency and likelihood?</li> <li>• What future trends and scenarios should be taken into account?</li> <li>• Who has helped to inform this process, or which perspectives might be missing?</li> </ul>
<b>Contextual Factors</b>	<ul style="list-style-type: none"> <li>• How does the local context influence hazard likelihood?</li> <li>• Are there specific geographical, environmental, socio-economic, or cultural factors that affect the likelihood of hazards?</li> </ul>
<b>Communicating Likelihood</b>	<ul style="list-style-type: none"> <li>• How will the results of the likelihood analysis be communicated?</li> <li>• What formats (e.g., probability maps, charts) will be used to present the likelihood of hazards?</li> <li>• How can we ensure that the likelihood information is understandable and actionable for partners and stakeholders?</li> <li>• Are explanations clear and resources available to aid partners, stakeholders, and community members in understanding the implications of the likelihood analysis?</li> </ul>
<b>Integrating Likelihood with Risk Assessment</b>	<ul style="list-style-type: none"> <li>• How will hazard likelihood be integrated into the overall risk assessment?</li> <li>• How will the likelihood estimates influence the prioritization and planning of risk reduction measures?</li> </ul>

	<ul style="list-style-type: none"> <li>• What role does hazard likelihood play in developing mitigation and preparedness strategies?</li> <li>• How will the likelihood analysis inform decisions on resource allocation and emergency planning?</li> <li>• What gets prioritized and why?</li> <li>• Could there be any unintended consequences from this?</li> </ul>
<p><b>Feedback and Continuous Improvement</b></p>	<ul style="list-style-type: none"> <li>• How will the likelihood analysis be updated over time?</li> <li>• What processes will ensure the analysis remains current and reflects new data and evolving conditions?</li> <li>• Have you integrated Indigenous Knowledge into your analysis?</li> </ul>