



# Synthesizing Diverse Evidence in Policy Research: From Evidence Pyramid to Deliberative Integration

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## Abstract

This editorial examines a central methodological challenge in contemporary policy research: how to synthesize diverse and extant evidence into credible policy knowledge. Policy inquiry increasingly draws on academic literature, policy and legal documents, gray literature, administrative records, media sources, and primary stakeholder data, creating conditions of evidence abundance rather than evidence scarcity. Building on recent reconsiderations of evidence hierarchies, the editorial adapts the evidence pyramid for policy research by positioning deliberative integration, rather than a single superior study design, at its apex as the highest order of synthesis and judgment. The pyramid's layers are wavy, acknowledging that evidentiary strength depends not only on study design but also on the robustness and relevance of the findings. The model further argues that this hierarchy should be understood within an evidence ecosystem perspective, in which diverse forms of evidence interact as complementary elements rather than competing sources. Within this framing, deliberative integration is proposed as a structured process of triangulation, contextual interpretation, and transparent reconciliation of heterogeneous evidence, including adaptive use of expert judgment where uncertainty persists. The editorial argues that linking the evidence hierarchy, the evidence ecosystem, and the deliberative integration offers a more suitable framework for synthesizing complex evidence in policy research and for strengthening evidence-informed policymaking.

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**Keywords:** public policy, policy research, evidence synthesis, evidence hierarchy, evidence pyramid, deliberative integration, evidence ecosystem, NPPR

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# नीति अनुसन्धानमा विविध प्रमाणहरूको संश्लेषण: प्रमाण पिरामिड (evidence pyramid) देखि विचारित एकीकरण (deliberative integration) सम्म

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## सार

यस सम्पादकीयले समकालीन नीति अनुसन्धानमा केन्द्रीय पद्धतिगत चुनौतीको रूपमा रहेको यो प्रश्नको उत्तर खोजेको छ: विविध र विषम प्रमाणहरूलाई विश्वसनीय नीति ज्ञानको रूपमा कसरी संश्लेषण गर्ने? नीति अनुसन्धानहरूमा बढ्दो रूपमा प्राज्ञिक साहित्य, नीति र कानुनी दस्तावेजहरू, खैरो साहित्य, प्रशासनिक अभिलेखहरू, मिडिया स्रोतहरू र प्राथमिक सरोकारवालाबाट प्राप्त सूचनाहरूको प्रयोग हुन्छ। यसले प्रमाणको अभावको सट्टा प्रमाण प्रशस्तताको अवस्था सिर्जना गर्दछ। अनुसन्धान क्षेत्रमा प्रमाण भार-सोपान (evidence hierarchy) को अवधारणाको बारेमा हाल भएका पुनर्विचारहरूमा टेकेर यस सम्पादकीयले नीति अनुसन्धानको लागि एक विशिष्ट प्रमाण पिरामिड प्रस्ताव गरेको छ, जसमा प्रमाण संश्लेषण र निर्णयको उच्चतम क्रमको रूपमा विचारित एकीकरण (deliberative integration) लाई शीर्षमा राखिएको छ। यस्तो पिरामिडका प्रमाण तहहरू सिधा नभई वक्र रहेका छन्। यस्तो वक्रताले के स्वीकार गर्दछ भने प्रमाणको भार वास्तवमा अध्ययन डिजाइनमा मात्र नभई अध्ययनको अन्त्यमा आउने परिणामको बलियोपन र प्रासङ्गिकतामा पनि निर्भर हुन्छ। यस मोडेलले के थप तर्क गर्दछ भने यो प्रमाण भार-सोपानलाई प्रमाणको पारिस्थितिक प्रणालीको दृष्टिकोण (evidence ecosystem perspective) भित्र बुझ्नुपर्छ, जहाँ प्रमाणका विविध रूपहरू एक आपसमा प्रतिस्पर्धी स्रोतहरू हुनुको सट्टा पूरक तत्वहरूको रूपमा अन्तरक्रिया गर्दछन्। यस किसिमको ढाँचाभित्र, विचारित एकीकरण (deliberative integration) लाई त्रिकोणीकरण (triangulization), सन्दर्भगत व्याख्या (contextual interpretation) र विषम प्रमाणहरू (heterogenous evidences) को पारदर्शी मेलमिलाप (transparent reconciliation) को संरचित प्रक्रिया (structured process) को रूपमा प्रस्ताव गरिएको छ, जसमा अनिश्चितता कायम रहने ठाउँमा विशेषज्ञ निर्णय (expert judgement) को अनुकूलित प्रयोग समेत समावेश छ। समग्रमा यस सम्पादकीयले के सुझाव प्रस्तुत गरेको छ भने प्रमाण भार-सोपान, प्रमाण पारिस्थितिक प्रणाली र विचारित एकीकरणलाई जोड्दाखेरि नै नीति अनुसन्धानमा जटिल प्रमाणहरूको संश्लेषण गर्न र अन्ततः प्रमाण-सुसूचित नीति निर्माणलाई बलियो बनाउनको लागि अभै उपयुक्त खाका सिर्जित हुन्छ।

**Keywords:** public policy, policy research, evidence synthesis, evidence hierarchy, evidence pyramid, deliberative integration, evidence ecosystem, NPPR

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## **Introduction**

Policy research has long depended on the ability to assemble information from multiple sources and transform that information into analytically credible and practically useful conclusions. A familiar situation in policy research may help illustrate the problem. A researcher examining exclusion in public service delivery, local governance reform, climate adaptation, or social protection may begin by collecting evidence from journal articles, government reports, legal documents, media coverage, stakeholder consultations, and primary fieldwork. Each source contributes insight, yet each captures only part of the problem. Academic literature may provide conceptual and empirical grounding, policy documents may show institutional intent, media reports may indicate issue salience, and field evidence may reveal implementation realities that formal records overlook.

This is increasingly the norm in policy research. In many cases, the difficulty lies not in a lack of evidence but in its abundance and fragmentation (Boaz et al., 2006; Oliver et al., 2005). Evidence varies in quality, scope, timeliness, and even epistemological orientation. Some evidence is statistically robust yet contextually thin. Some is contextually rich yet not generalizable. Some is formal and authoritative yet detached from lived realities.

Yet policy research must still move toward judgment and draw conclusions.

This editorial begins with that practical challenge. It argues that synthesizing diverse data for policy research requires moving beyond narrow understandings of the evidence hierarchy toward a broader framework that recognizes both differentiated evidentiary strength and complementarity among evidence forms. To advance this argument, the editorial develops three linked ideas: an adapted evidence pyramid for policy inquiry, an evidence ecosystem perspective, and deliberative integration as a structured process for reconciling evidence.

## **Rethinking the Evidence Pyramid for Policy Research**

Evidence hierarchies have made an important contribution to research methodology by encouraging attention to rigor, transparency, and inferential strength (Blunt, 2026; Murad et al., 2016). However, their application in policy research requires adaptation. Many policy questions do not concern causal effects alone. They often involve implementation, institutional behavior, social processes, political feasibility, and contextual variation. For such questions, evidence cannot be judged solely by rigid hierarchies imported from experimental traditions.

This concern has fueled growing critiques of overly mechanical evidence pyramids. Murad et al. (2016) argue that evidence hierarchies should be understood more dynamically, emphasizing fitness for purpose rather than fixed superiority. They also note that research design alone does not determine quality; other factors, such as methodological limitations, imprecision, inconsistency, and indirectness, may affect the overall quality of the research. This insight is particularly relevant to policy research.

An adapted evidence pyramid for policy inquiry can be proposed as follows.

At the foundational level lies **contextual and foundational evidence**, including administrative data, grey literature, issue scanning, stakeholder observations, media review, and descriptive sources. These may not always offer strong causal inference, but they often help define the problem, establish context, and identify emerging concerns. This also means that one should apply utmost care in applying inclusion and exclusion criteria when selecting sources and information of this category.

The second level comprises **empirical and analytical evidence**, including surveys, observational studies, qualitative field research, comparative case studies, and institutional analysis. These sources help explain patterns, mechanisms, and contextual relationships.

The third level includes **synthetic evidence**, such as systematic reviews, realist synthesis, qualitative meta-synthesis, and multi-source synthesis. At this level, bodies of evidence are synthesized in structured ways.

At the apex sits **deliberative integration** as proposed in this editorial. This includes cross-source reconciliation, triangulated interpretation, theory-guided synthesis, and, where uncertainty remains high, structured expert elicitation including Delphi-like methods.

The importance of this adaptation and refinement of the evidence pyramid lies in one conceptual shift: the apex is not simply “highest-ranked evidence,” but highest-order integration. This matters in policy research, where strong conclusions often arise not from one superior evidence form but from disciplined integration across multiple forms.

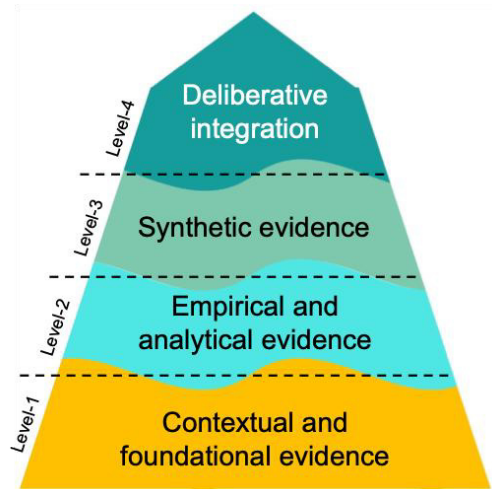


Figure 1. Evidence pyramid for policy research.

Source: Adapted from Murad et al. (2016)

### Evidence Ecosystem and Synthesizing Diverse Evidence

Traditional evidence pyramid does not fully capture how policy evidence functions. The metaphor of an ‘evidence ecosystem’ is useful in this regard. An ecological view recognizes that evidence forms often interact rather than compete. Academic studies contribute conceptual rigor. Administrative data contributes scope. Qualitative evidence contributes explanatory depth. Grey literature contributes practical implementation knowledge. Policy documents provide institutional framing. Stakeholder perspectives contribute experiential understanding. A media review may offer a glimpse of popular understanding. Rather than seeing these merely as ranked forms, an evidence ecosystem treats them as complementary elements in a knowledge system.

This perspective is especially important because contemporary policy problems are often multidimensional and multi-actor in nature (Pawson, 2002; Pawson, 2006). Such problems are rarely adequately understood through one evidence stream.

The distinction may be stated simply. Evidence hierarchy asks: how strong is this evidence for a given claim? Evidence ecosystem asks: how do diverse forms of evidence jointly contribute to understanding a policy problem? Both questions matter. Indeed, they are best seen as complementary.

Despite conceptual advances, synthesizing heterogeneous evidence remains difficult for several reasons.

One challenge is methodological heterogeneity. Quantitative studies, qualitative research, documentary evidence, and experiential data often rest on different assumptions and analytical logics. Their synthesis is therefore not merely a technical aggregation. Furthermore, in policy research, using a smaller sample size and Decision Making under Deep Uncertainty (DMDU) might come as a compulsion in certain circumstances (Hadjisotiriou et al., 2023; Ritchie et al., 2005). This further complicates the synthesis.

A second challenge is inconsistency across sources. Contradictory findings are common. Administrative trends may suggest improvement, while citizens report persistent exclusion. Documentary commitments may not align with field realities. Such divergence often requires interpretation rather than elimination.

A third challenge is the historical under-recognition of contextual and qualitative evidence. Yet implementation dynamics, institutional behavior, and social response often become intelligible only through such evidence (Gilson, 2014; Horton, 2020). The Policy Research Institute, a government think tank where the author is a research fellow, heavily uses qualitative data in its research and may serve as a model for policy research.

A fourth challenge lies in integration itself. Mixed-methods studies often successfully assemble diverse data, but the logic by which those data are reconciled may remain underdeveloped (Pedersen et al., 2011).

These challenges help explain why, as the literature consistently suggests, no single synthesis approach is sufficient across all policy contexts (Boaz et al., 2006).

### **Methodological Pluralism and Synthesis Innovation**

Responses to these challenges have generated important methodological innovations.

One major development has been the growth of plural synthesis approaches. Rather than treating one review design as universally superior, research increasingly recognizes multiple synthesis traditions aligned with different questions.

Realist synthesis has been particularly influential. Pawson (2002, 2006) shifted attention from asking whether policies work to examining how, for whom, and under what conditions they work. This is highly relevant to governance and public policy.

Multi-source synthesis is another important development. Pedersen et al. (2011) demonstrate how documentary evidence, systematic review findings, and original empirical data can be integrated into a structured synthesis.

Qualitative meta-synthesis similarly strengthens the visibility of experiential and interpretive evidence in policy analysis (Horton, 2020).

Together, these approaches suggest that synthesis in policy research increasingly depends on methodological pluralism rather than one preferred method. Yet plural methods alone do not fully capture how researchers often reason across evidence in practice.

This is where deliberative integration becomes important.

### **Deliberative Integration as a Synthesis Approach**

This editorial uses the term deliberative integration to describe a structured, transparent, and judgment-guided process for reconciling diverse evidence into defensible policy conclusions.

It includes triangulation across evidence sources, theory-informed interpretation, explicit handling of contradictions, contextual weighting of evidence, and, where appropriate, structured expert input.

The term is intended to avoid two extremes. It does not reduce synthesis to mechanical aggregation. Nor does it reduce synthesis to informal judgment. Rather, it recognizes disciplined reasoning as part of evidence synthesis.

In practice, many policy researchers already engage in such processes through thematic comparison, coding matrices, iterative cross-reading, contradiction tracking, and synthesis memos. These are often described casually as manual consolidation, but that phrase understates their analytical character.

Deliberative integration better captures what is actually involved. It also links the evidence hierarchy and the evidence ecosystem. The hierarchy contributes appraisal, and the ecosystem contributes complementarity. Deliberative integration transforms both into coherent inference.

### **Expert Elicitation and Adaptive Synthesis**

An important dimension of deliberative integration concerns synthesis under uncertainty. When empirical evidence is incomplete or conflicting, structured expert judgment can inform interpretation. Robinson and Hammitt (2015) note the

continuing relevance of expert elicitation in such contexts. Within this, Delphi-like methods may be especially valuable. Through iterative consultation and refinement, Delphi can help interpret contradictory evidence, identify plausible mechanisms, and support transparent judgment when evidence gaps remain. Used carefully, such approaches do not replace empirical synthesis. They support adaptive synthesis under uncertainty. This may be particularly useful in emerging policy domains or low-data contexts.

### **Illustration from Applied Policy Research**

The argument becomes clearer when viewed through the lens of applied research practice.

A review of policy studies in Nepal Public Policy Review shows striking diversity in evidence configurations. Some studies rely largely on academic, gray, and policy document sources. Others combine those with stakeholder field data. Some incorporate media analysis. Some include expert consultation. Few rely on a single evidence stream.

Table 1. Illustrative Diversity of Evidence Sources in Selected Policy Studies published in the Nepal Public Policy Review

	Source Journal	Theme & Author	Primary Data		Secondary Data			
			Target Population	Experts	Academic Review	Grey Literature	Policy Review	Media Review
1.	NPPR, Vol 5 (2025)	Disability rights (Oli, 2025)			✓	✓	✓	
2.		US-Nepal policy (Lamichhane, 2025)			✓	✓	✓	✓
3.		Beekeeping (Kafle, 2025)		✓	✓	✓	✓	✓
4.		Equitable education (Koirala, 2025)	✓	✓	✓	✓	✓	
5.		Value-added tax (Paudel, 2025)			✓	✓	✓	✓
6.		Street-vending (Sharma, 2025)	✓		✓	✓	✓	✓
7.		Log-scaling standard (Dangi, 2025)		✓	✓	✓	✓	

	Source Journal	Theme & Author	Primary Data		Secondary Data			
			Target Population	Experts	Academic Review	Grey Literature	Policy Review	Media Review
8.	NPPR, Vol 4 (2024)	Agriculture production system (Timsina et al., 2024)			✓	✓	✓	
9.		Climate-resilient tourism (Phuyal et al., 2024)	✓		✓	✓	✓	
10.		Earthquake reconstruction aid (Karmakar, 2024)	✓	✓	✓		✓	
11.		Environmental study delays (Rimal, 2024)			✓	✓	✓	
12.		Affirmative action (Bhul, 2024)			✓	✓	✓	✓

Studies reviewed across themes such as disability rights, street-vending governance, equitable education, climate-resilient tourism, affirmative action, and fiscal policy show varied combinations of target population data, expert consultation, academic literature review, gray literature review, policy review, and media review.

This diversity illustrates several points. First, plural evidence configurations are routine rather than exceptional. Second, evidence architectures vary by problem type. Third, synthesis in such studies often depends on interpretive reconciliation across sources. This is where deliberative integration becomes visible as a practice.

Researchers frequently engage in iterative cross-reading, thematic comparison, triangulation, and contextual weighting to move from diverse evidence toward coherent inference. These practices often remain under-described in published methods sections, yet they may be central to the credibility of conclusions. This suggests that future synthesis methodology may benefit from greater attention not only to formal review designs but also to systematizing these integrative reasoning practices.

### Implications for Policy Research

Several implications for policy research follow. First, policy research may benefit from thinking in terms of evidence architecture rather than an evidence hierarchy alone. Second, methods training should include synthesis and evidence reconciliation, not only evidence collection. Third, journals may encourage greater transparency in

how diverse evidence is integrated. Fourth, there is scope for methodological development around deliberative integration itself, including evidence mapping matrices, triangulation protocols, synthesis memos, and reporting guidance. Such developments may strengthen rigor in complex policy research.

## **Conclusion**

Policy research increasingly operates in conditions of evidence abundance and heterogeneity. In such settings, synthesis becomes central. The traditional evidence hierarchy remains valuable, but by itself it does not fully address the complexity of policy evidence. This editorial has argued for a broader framework that combines an adapted evidence pyramid, an evidence ecosystem perspective, and deliberative integration. Together, these ideas help move beyond viewing synthesis as simple aggregation. They frame synthesis instead as structured reasoning across plural evidence. That, perhaps, is the deeper methodological challenge and opportunity of contemporary policy research.

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