DRIVERS and BARRIERS to SSHA IMPACT at the INTERFACE BETWEEN SCIENCE and POLICY

A LITERATURE REVIEW

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DRIVERS AND BARRIERS TO SSHA IMPACT AT THE INTERFACE BETWEEN SCIENCE AND POLICY: A LITERATURE REVIEW

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Abstract

This scoping review examines the contributions of Social Sciences, Humanities, and Arts (SSHA) disciplines at the science-policy interface (SPI), synthesizing findings from 71 peer-reviewed articles published between 2008 and 2022. The SPI refers to the zone of interaction between academic research and public decision-making, where knowledge is mobilized to inform policy. While traditionally dominated by STEM fields, the SPI increasingly relies on SSHA expertise to address societal challenges characterized by complexity, uncertainty, and value conflict. SSHA fields contribute uniquely through contextual research, deliberative facilitation, and evidence dissemination; activities essential for policy processes that involve human behavior, ethics, governance, and culture.

Despite their relevance, SSHA engagement at the SPI is constrained by two persistent barriers: low connectivity (across disciplines and sectors) and low institutional capacity (within both academia and policy systems). Structural misalignments, disciplinary silos, and underdeveloped collaborative infrastructures limit SSHA influence. However, where SSHA integration succeeds, it is driven by trusted relationships, reflexive institutional cultures, boundary-spanning actors, and co-designed partnerships. Disciplines with applied orientations (e.g., economics, bioethics) tend to integrate more readily, though often by conforming to dominant evidence standards rather than shifting them.

To realize SSHA's full potential, the SPI must evolve beyond STEM-centric paradigms. Institutional redesign is required to embed epistemic diversity, participatory infrastructures, and policy-facing mechanisms that support SSHA leadership. The review identifies the need for alternative impact frameworks and expanded empirical research across underrepresented disciplines and regions. SSHA are not auxiliary to science-policy work; they are integral to its legitimacy, accountability, and effectiveness.

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Purpose and Rationale

Public decision and policy making are increasingly subject to conditions of complexity, uncertainty, urgency, and contestation. Issues such as global health crises, climate change, structural inequality, and democratic erosion resist linear problem-solving. They are not merely technical problems to be solved, but collective predicaments to be interpreted, negotiated, and justified. They are social in origin, ethical in consequence, and political in implementation.

Social Sciences, Humanities, and Arts (SSHA) disciplines generate knowledge and practices that are key ingredients in the types of innovation needed to meet these challenges. Their value lies not only in offering more data points, but also in enabling public institutions to adjudicate through competing values, make sense of ambiguity, and locate policy within broader historical and social contexts. Despite this, SSHA knowledge remains under-integrated into the science-policy interface (SPI), where evidence-informed innovation continues to be framed predominantly in technocratic, quantitative, and instrumental terms.

Our scoping review addresses that disconnect. Drawing on 71 peer-reviewed studies published between 2008 and 2022, it documents SSHA disciplines' engagement at the SPI, the kinds of contribution they make, the barriers that constrain their involvement, and the institutional and structural conditions that enable more effective integration. While a full methodological description is available in the preprint (Lapointe, Belisle-Pipon et al. 2025, SocAxiv DOI: https://osf.io/preprints/socarxiv/s3whr_v1.), this summary focuses on the practical insights relevant to institutional actors committed to supporting evidence-informed, reflexive, and democratic decision-making.

Key Findings

SSHA MODES OF ENGAGEMENT AT THE SPI

SSHA disciplines engage at the SPI through three principal modalities: through the conduct of research, the facilitation of deliberative processes, and the dissemination of knowledge in forms designed for policy and public uptake.

Research constitutes a major avenue for SSHA engagement, particularly where scholars conduct studies grounded in local contexts, relational dynamics, and adapted interpretive frameworks. In these contexts, SSHA research typically relies on methodologies such as interviews, focus groups, ethnography, participatory action research, and documentary analysis. Rather than producing generalized findings for universal application, SSHA-driven policy-focused research surfaces situated knowledge that can inform place-based, culturally attuned, and socially responsive policy development. It also exposes assumptions that may be implicit in dominant problem framings.

Deliberation represents another core mode of engagement for SSHA at the SPI. SSHA researchers frequently design, facilitate, and analyze participatory and deliberative forums such as citizen juries, consensus conferences, roundtables, and public consultations. These processes are not simply vehicles for extracting opinion; they are spaces for producing knowledge through reasoned interaction. They allow decision-makers to hear, not just what publics want, but how they justify those preferences, what trade-offs they are willing to accept, and what values they prioritize. SSHA scholars bring the methodological infrastructure and interpretive skills needed to make these processes meaningful and credible.

Dissemination in SSHA context extends beyond scholarly publishing. Researchers may produce policy briefs, curate exhibitions, design interactive databases, collaborate with media outlets, and translate research into accessible formats across multiple platforms. These practices are attuned to the timing, languages, and registers of policy discourse. They do not simplify complex findings; they recontextualize them so that they can be evaluated, debated, and acted upon within institutional settings.

Modality	Description	Examples	Institutional Requirements
Research	Generation of context-specific, relational, or interpretive knowledge that reframes policy issues	Participatory research on structural determinants of health; critical analysis of algorithmic bias	Academic recognition; early engagement by policy institutions
Deliberation	Design and facilitation of structured public reasoning and dialogical processes	Citizen juries on data governance; stakeholder consensus conferences on climate adaptation	Funding for process design; trained facilitators; institutional trust
Dissemination	Translation of knowledge through accessible or strategic formats	Policy briefs, targeted reports, media collaborations, art-based engagement	Infrastructure for knowledge mobilization; support for public scholarship

Table 1. Modalities of SSHA Engagement at the Science-Policy Interface

ALIGNMENT WITH POLICY AND DECISION-MAKER NEEDS

Two needs of policy- and decision-makers are consistently emphasized across the literature. The first is **the need for embedded, contextual knowledge**. Policy- and decision-makers must understand not only what interventions might work but also what social structures, power relations, cultural norms, and historical experiences will shape how policies are received, adapted, or resisted. SSHA researchers produce knowledge that attends to the institutional, moral, and political ecologies in which decisions unfold. This includes, for instance, understanding the role of trust in vaccine uptake, the cultural politics of climate communication, or the symbolic dimensions of legal and bureaucratic procedures.

The second is **the need for evidence-based deliberation infrastructure**, to support processes that enable decision-makers to navigate disagreement, clarify uncertainty, and weigh competing forms of evidence. SSHA disciplines contribute here not only by virtue of their capacity to produce relevant knowledge input, but also by designing participatory processes that go beyond stakeholder mapping or public relations, enabling genuine dialogue around contested questions. They also contribute analytic instruments to assess how such processes are conducted, whose voices are amplified or silenced, and how legitimacy is constructed.

Where these two needs, contextual intelligence and deliberative capacity, are recognized, SSHA engagement tends to be more deeply embedded and more systematically valued.

IMPACT OF SSHA KNOWLEDGE AT THE SPI

While SSHA contributions often resist linear metrics of policy uptake, the review finds evidence of significant conceptual, instrumental, and symbolic impact.

Conceptual impact is the most prevalent. SSHA research frequently shapes how problems are understood, how obesity is framed as structural rather than individual, how biodiversity is linked to relational worldviews, how poverty is represented in media and policy discourse. This reframing matters because it determines which solutions are considered legitimate, which indicators are tracked, and which stakeholders are consulted.

Instrumental impact, where SSHA knowledge directly informs a decision or policy, is less common but documented in cases where researchers were embedded early in policy processes. These include contributions to ethics frameworks in global health organizations, the design of urban planning regulations incorporating social sustainability indicators, or the integration of cultural rights into municipal governance.

Symbolic impact, though harder to trace, is visible where SSHA research is invoked to legitimize existing or planned actions in the strategy arena. While this can veer into tokenism, it also signals the broader cultural authority of SSHA disciplines, especially when their involvement affirms the moral or democratic legitimacy of public decisions.

Across these types of impact, one consistent pattern emerges: SSHA influence tends to be cumulative, iterative, and institutional. It rarely operates through one-off projects or transactional consultations. Where sustained relationships exist between researchers and decision-makers, the effects are more enduring.

BARRIERS TO SSHA INTEGRATION

Despite these contributions, SSHA integration at the SPI is subject to persistent structural and cultural barriers.

Foremost among them is lack of connectivity between SSHA researchers and policy actors. Weak or absent networks, divergent timelines, incompatible incentive systems, and differing epistemological assumptions are manifest factors. SSHA research, often framed in critical or reflexive terms, does not easily align with policy cultures that prioritize instrumental problem-solving or short-term deliverables.

Institutional capacity is also limited. Most universities lack the infrastructure to support policy engagement as a core part of academic life, there are few incentives and rewards, limited training, and insufficient resources to foster sustained involvement. On the policy side, SSHA expertise is often underrepresented in advisory structures, funding programs, and leadership roles. When it is

included, it is frequently late in the process, framed as a supplement rather than as constitutive of the problem space.

Finally, detrimental and unwarranted epistemic hierarchies persist. SSHA knowledge is often viewed as soft, subjective, or ideological, especially when contrasted with data-driven, quantitative approaches. This framing obscures the methodological rigor, interpretive sophistication, and social relevance of SSHA contributions, and undermines their legitimacy in decision-making spaces.

DRIVERS OF EFFECTIVE SSHA ENGAGEMENT

Where SSHA engagement is impactful, it is underpinned by deliberate efforts to build and maintain connectivity, trust, and institutional support.

Connectivity refers not only to personal networks but to organizational and ecosystemic infrastructures that enable cross-sectoral collaboration. These include boundary-spanning actors (individuals and organizations), knowledge brokering platforms, embedded researcher roles, and joint research-policy partnerships. These mechanisms facilitate mutual understanding, enable co-design of research agendas, and create conditions for iterative engagement.

Trust is another central factor. Where researchers are seen as credible, respectful of policy constraints, and responsive to institutional needs, they are more likely to be engaged. Building this trust takes time and often requires that SSHA researchers develop fluency in policy logics and languages, without abandoning the critical edge that defines much of their work.

Institutional culture matters too. Organizations that value deliberation, pluralism, and reflexivity tend to be more open to SSHA engagement. Fields such as economics and public policy have found easier entry points due to methodological alignment with decision cultures, but other disciplines, e.g. ethics, anthropology, sociology, design, history, performance studies, have demonstrated value when structural support allows their contributions to be sustained and recognized.

Dimension	Barriers	Drivers
Institutional Connectivity	Absence of structured collaborations Siloed academic and policy domains	Boundary-spanning actors Embedded roles Cross-sectoral networks
Recognition and Incentives	Academic promotion metrics undervalue engagement Policy institutions undervalue interpretive and qualitative work	Attuned evaluation systems Funding for interdisciplinary and impact-driven research

Epistemic Hierarchies	Preference for quantitative or predictive models Dismissal of SSHA as "subjective"	Expanded definitions of evidence Deliberative cultures open to plural methodologies
Temporal Alignment	Misaligned timelines between academic research and policy cycles	Long-term partnerships Early-stage co-design of research questions and agendas
Trust and Legitimacy	Lack of mutual understanding; absence of shared language	Reflexive engagement Policy fluency Sustained collaboration with consistent actors

Table 2. Barriers and Drivers to SSHA Integration at the SPI

Implications for Higher Education and Government

For universities, our findings point to the need to restructure reward systems and resource allocations. Public engagement, policy influence, and community impact must be recognized as scholarly contributions on par with publication and grant income. Dedicated support for interdisciplinary and intersectoral collaboration, including training in policy communication and institutional partnership-building, is essential. So too are spaces, both physical and symbolic, where SSHA scholars can experiment with new forms of engagement and dissemination.

For policy- and decision-makers in public institutions, a shift is needed in how evidence is defined, solicited, and acted upon. SSHA knowledge must be integrated not as ornamentation but as substance. This means involving SSHA researchers from the outset, funding deliberative processes with care and intention, and building internal capacity to engage with forms of knowledge that do not fit the mold of prediction and control. It also requires valuing methods that attend to meaning, context, and experience, not as constraints on action, but as preconditions for its legitimacy.

For SSHA knowledge leaders, this is a moment of strategic opportunity. Demonstrating the value of disciplinary insight requires more than critique. It requires clear articulation of how methods, theories, and practices contribute to real-world decision-making, without compromising on complexity or nuance. It also demands investment in the slow work of relationship-building, political awareness, and reflexive engagement with the institutional worlds SSHA seeks to influence.

Actor	Actionable Implications	Strategic Objective
Universities	• Revise promotion and tenure criteria to value policy engagement and public scholarship • Invest in infrastructure for interdisciplinary and intersectoral collaboration • Support SSHA training in policy communication and co-production methods	Institutionalize SSHA contributions to policy- and decision-making as legitimate, valued, and resourced forms of impact
Policy-Makers	• Include SSHA experts at the earliest stages of agenda-setting and policy design • Develop internal capacity to engage with interpretive, ethical, and contextual forms of knowledge • Fund deliberative processes and SSHA-informed evidence platforms	Broaden evidence frameworks and institutional readiness for plural forms of reasoning
SSHA Knowledge Leaders	• Articulate and communicate how disciplinary tools contribute to policy relevance • Build long-term partnerships with public actors • Engage critically but constructively with institutional constraints and governance logics	Position SSHA disciplines as necessary actors in public problem-solving
Cross-Sector Coalitions	• Establish contact zones such as boundary-spanning organizations, networks, and shared governance initiatives • Promote evaluation frameworks that capture conceptual and relational forms of impact	Create durable, trusted, and visible infrastructures for SSHA integration

Table 3. Institutional and Policy Implications for SSHA Integration at the SPI

Conclusion

The future of evidence-informed policy will not be determined by better models alone. It will depend on the willingness of institutions to make room for knowledge that resists simplification, knowledge that can hold contradiction, trace histories, surface power, and expand the range of public meaning. SSHA disciplines offer this capacity. They are not ancillary to the science-policy interface; they are central to its renewal. Their integration will not happen by accident. It will require structural transformation: in how institutions train, evaluate, fund, and reward those who do the work of thinking across domains. To build just, inclusive, and democratically legitimate policy systems, societies must learn to think with SSHA. That is not an act of addition. It is an act of reconstruction.

University Systems → Reform incentives / Fund engagement / Train for policy → Policy Institutions → Embed SSHA expertise / Value qualitative inputs / Support deliberative methods → Cross-Sector Interfaces → Support boundary actors / Maintain shared governance / Build trust infrastructure → Fully Enabled SSHA-Powered Public Policy-Innovation Ecosystems
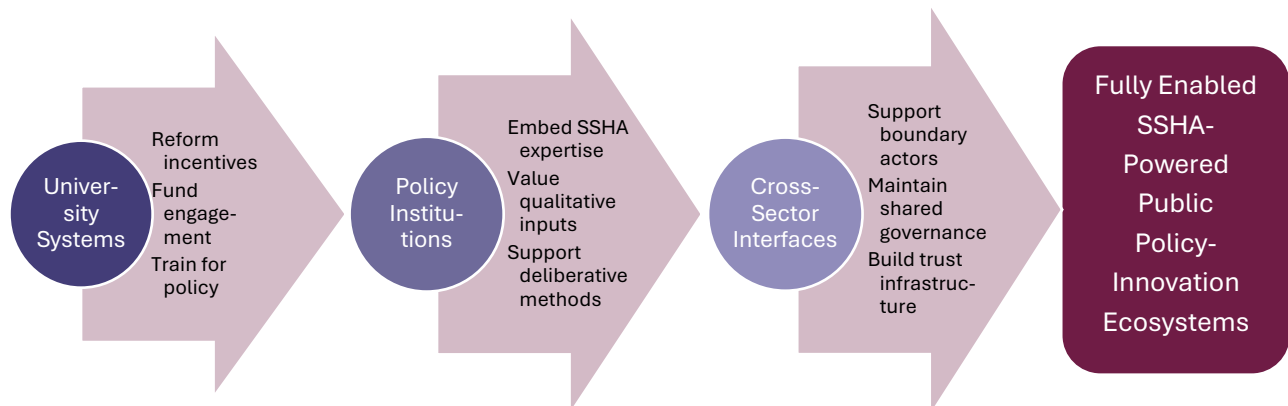
Figure. Institutional Action Framework: Strategic Actions Across Sectors to Advance SSHA in Science and Policy Interface