

Towards a Diagnostic Framework of Sustainable Housing Expertise

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1 Introduction

Contemporary housing systems across advanced economies are defined by deep and persistent dysfunction. In Ireland, this is crystallised in competing policy imperatives to simultaneously improve housing affordability by ramping up supply, address sustainability concerns through mass retrofit and circular construction, and uphold the economic viability of market-led development.

This paper presents these three imperatives as a ‘trilemma’ of housing policy which produces irreconcilable contradictions for those tasked with delivering it, arguing that such contradictions are materialised in built outcomes that fall short of what might reasonably be called ‘sustainable housing equitability’ – that is, a fair system of access to safe, comfortable, and culturally adequate housing that universally supports the long-term prosperity of human communities.

The paper thus addresses two questions:

1. How might sustainable housing equitability be usefully defined for decision-makers and practitioners?
2. What kind of conceptual tools can support actors tasked with navigating the tensions of the housing trilemma in practice?

To address these questions, I propose an analytical framework that approaches the housing trilemma through three theoretical lenses – strategic agency, value/s, and the ethics of care. Revisiting early conceptions of “sustainability”, notably the Planner’s Triangle (Campbell 1996, 2016, Hirt & Campbell 2024), I argue that the concept of sustainable housing equitability is not a new synthesis but a tautology: a housing system cannot be considered sustainable unless it is equitable, and vice versa. At the same time I critique portrayals of sustainability as a balancing act between economic, environmental, and social concerns, which in practice shut down debate and legitimise business-as-usual patterns of growth and extraction, arguing instead for a new approach that centres justice and embraces productive conflict as a core constituent of any fair housing system.

2 Methods

The paper adopts a problematising literature review methodology (Alvesson & Sandberg 2020, George et al. 2023). Rather than attempting comprehensiveness, the review maps how affordability, sustainability, and viability have each been defined, measured, and contested across academic literatures, policy documents, media / commentary and other key sources.

The review process unfolded in three stages:

1. Decomposition of the trilemma – the three core concepts (affordability, sustainability, viability) were broken down into working definitions, indicators, and policy framings, and situated within broader political-economic debates.
2. Iterative searches and snowballing – the corpus of relevant literature was built up through a combination of searches across major databases (Scopus, Web of Science, Google Scholar) as well as industry (professional institutions, statute books) and media resources, with bibliographic snowballing, citation mapping, and selective use of AI-assisted tools (Litmap, Paper Digest).
3. Comparative synthesis – materials were organised around the three concepts to identify emergent subcategories and trace overlaps, tensions, and blind spots, with particular attention to the role of professional expertise at the practice nexus.

The analysis was also informed by the author’s professional background in architecture, environmental consultancy, and community organising, which

guided the search strategy and provided critical insight into how policy conflicts are negotiated in real-world settings.

3 Results

The literature review surfaced three key themes:

1. Siloed research domains: While debates continue around affordability metrics (Baker et al. 2015, Bieri 2014, Corrigan et al. 2019, Ezennia & Hoskara 2019, Herbert et al. 2018, Hulchanski 1995, Quigley & Raphael 2004, Stone 2006, Wood & Ong 2011), contemporary research focuses on the political choices underpinning affordability problems, how they are shaped by processes of financialisation and neoliberal land-use policy (Aalbers 2016, Byrne 2020, Colenutt 2020, Fields 2017, Forrest & Hirayama 2015, McKee et al. 2020, Waldron 2023). However, much scholarship remains siloed and that which does attempt to bridge divides often falls short at the applied level. For instance, while some have examined the influence of divergent sectoral interests on policy formulation (Waldron 2019), few have considered how this plays out where policy conflicts materialise at the implementation stage (Weible & Heikkila 2017, Yang et al. 2026) – ie. where policies meet the ground of design coordination, procurement, budgeting and contracts.
2. Emphasis on technical metrics: Much research emphasises technical responses to climate change (e.g. energy efficiency, low-carbon construction, etc), but neglects broader social, economic and political implications of sustainability (Hegarty & Kinnane 2023, Hofheinz et al. 2024, Irish Green Building Council 2019). For example, an emerging body of literature attempts to synthesise existing measures of housing affordability and carbon neutrality in order to guide practitioners towards the integrated goal of sustainable housing equitability (Silva et al. 2024). However, such frameworks rarely account for development economics – arguably the key determinant of development outcomes in a market-led housing system (Alshubiri & Ani 2024, Edgell 2024, Pullen et al. 2010). Questions thus remain about how policies aimed at producing sustainability influence the lived realities of the housing crisis (Waldron 2023).
3. Dominance of ‘cost’ drivers: Scholarship around development viability largely focuses on the performative role of financial modelling and how

this functions to shape public discourse and thus influence planning practices (Christophers 2014, Crosby 2019, Foye 2022, Henneberry 2016, McAllister 2019, McAllister et al. 2016, Sayce et al. 2017, Waldron 2019). However, most of these studies tend to focus on upfront (supply-side) cost trade-offs between viability on the one hand and affordable housing or design standards on the other. An integrated conception of sustainable-affordable housing might shift the focus of valuation models onto ‘viability’ in the true sense, from the end-user’s point of view.

Tracing the definitional lineage of “sustainability” reveals its origins in law (as a matter of validity and truth – ie. justice), its uptake in economics (as a balance of resources across time), and its popularisation in environmental policy (as conservation and harm reduction). These three meanings are crystallised in the “three pillars” of sustainable development. However, the persistent portrayal of sustainability as a balance between these three has depoliticising effects, obscuring the conflicts that actually drive development. Re-asserting the radical (ie. root) position of justice reveals that the trilemma’s apparent tensions, especially that between affordability and environmental goals, are only thus when viewed through the lens of economic viability. This suggests the supposed dichotomy between sustainability and affordability in housing is in fact false: the real challenge lies in confronting cultural and political choices about what we sustain – and for whose benefit. Thus the notion of professional expertise emerges as a decisive element – the arbiter of policy conflicts. Architects, planners, engineers, and cost consultants adjudicate on what gets prioritised and what gets compromised in the delivery of housing, translating abstract policy goals into built realities, enacting implicit value judgments, guided by contradictory obligations of care (to client, profession, and the public) and bound by the limits of their agency within deeply embedded institutional structures.

4 Discussion and Conclusion

Prevailing approaches to policy implementation reproduce a narrow conception of expertise that privileges technical and financial efficiency over ethical substance (Forester 1993). I argue instead for a framework that foregrounds productive conflict in order to draw attention to the ethical challenges of delivering true sustainable housing equitability.

To this end, the paper proposes a diagnostic framework, drawing inspiration from Ostrom’s (2009) Social-Ecological Systems (SES) analysis, as well as more

recent work such as Weible & Heikkilä's (2017) conceptualisation of policy conflicts, and Novalia et al.'s (2018) diagnostic approach to strategic agency. Unlike traditional policy analysis, which seeks to derive empirically testable causal relationships, the diagnostic approach looks primarily at observable 'symptoms' to infer relationships and thus guide inquiry and frame dialogue.

The proposed diagnostic framework of sustainable housing expertise is structured around three analytical entry points:

- Value – interrogating the priorities, assumptions, and beliefs underpinning decisions; (Graeber 2001)
- Care – examining professional duties, maintenance practices, and responsibilities toward people and environments; (Tronto 2015)
- Agency – recognising how actors' decisions, capacities, and constraints shape institutional reproduction or transformation, and vice-versa (Emirbayer & Mische 1998)

These perspectives are operationalised in a provisional matrix that gathers indicators of affordability, sustainability, and viability, and reframes them through guiding questions oriented around value, care, and agency. Rather than producing a "score" of success or failure, the tool is designed to structure reflection across project stages; support negotiation among stakeholders; facilitate comparison across schemes or policy regimes; serve as a prompt for participatory debate in research and practice.

The framework's contribution is twofold. Conceptually, it reframes the housing trilemma as a diagnostic problem of justice and conflict, rather than a balance of trade-offs. Methodologically, it offers a transferable tool for interrogating how sustainability, affordability, and viability are enacted in practice.

By situating decision-making expertise at the centre of sustainable-affordable housing debates, this paper aligns with the conference track "Governance and Tools Revisited". It demonstrates the potential of diagnostics as a governance innovation: a way of bridging disciplines by surfacing the implicit or assumed values that guide them and enabling inclusive dialogue around the goal of sustainable and affordable housing for all.

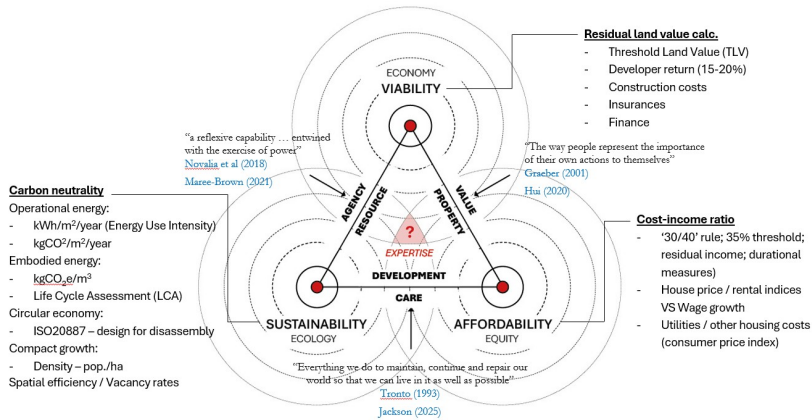


Figure 1

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