

# The Social Fabric of Construction: Addressing Modern Slavery Risks in Material Specifications

Anwyn Shoemark<sup>1</sup>, Dr Roberto Minunno<sup>2</sup>, Dr Richard Gruner<sup>3</sup>, and Dr Yirga Gelaw Woldeyes<sup>4</sup>

<sup>1</sup>PhD Candidate, Curtin University, School of Design and the Built Environment, Perth, Australia

<sup>2</sup>Senior Lecturer, Curtin University, Sustainability Policy (CUSP) Institute, Perth, Australia

<sup>3</sup>Associate Professor, University of Western Australia, Business School, Perth, Australia

<sup>4</sup>Senior Lecturer, Curtin University, School of Media, Creative Arts and Social Inquiry, Perth Australia

Corresponding author's E-mail: [anwyn.shoemark@postgrad.curtin.edu.au](mailto:anwyn.shoemark@postgrad.curtin.edu.au)

## Abstract

*Understanding the social performance of buildings is challenging due to the complexity of their value chains. Building specifications and material selections are based on performance criteria governed by construction codes, standards, and industry guidelines, yet they often overlook modern slavery considerations. Due to this oversight, practitioners and non-governmental organisations (NGOs) risk neglecting the social implications throughout the building's design and construction stages. To investigate how Australian building practitioners and NGOs perceive modern slavery risks in their material specifications, we conducted a bottom-up analysis of responses to analyse industry actors' experiences and identify factors that influence the respondents' decision-making during material specifications. Employing a mixed methodology with 18 expert interviews and 230 surveys, our study used industry sub-domains of 1) education, 2) clients, 3) material procurement and 4) regulation. Our findings suggest that the risk of modern slavery in selections is generated due to inadequate regulation, limited product information, and constrained access to modern slavery information, compounded by a lack of knowledge, time constraints, and project costs. This could be addressed through improved education, increased client awareness, transparent procurement, and stronger regulations. Product and material specifications frequently lack human rights information due to opaque supply chains and restrictive legislation, fostering practitioner distrust in addressing modern slavery. The outcomes underscore that a comprehensive approach is required, targeting the industry sub-domains identified and further integrating circular economy principles within supply chains to overcome the trust deficit among practitioners and NGOs when specifying products with human rights considerations. This paper proposes an integrated approach to assist in fostering the commitment of NGOs and practitioners to address modern slavery risks within the building sector.*

**Keywords:** Construction, Modern Slavery, Supply Chains, Circular Economy, SDG:12

## 1. INTRODUCTION

With approximately one in five construction workers being exploited, the construction sector is at the epicentre of modern slavery (The AHRC and KPMG, 2020). This reality calls for urgent reforms, increased transparency and significant industry change. High-profile human rights abuses reported in projects such as the 2014 World Cup in Brazil, the 2014 Sochi Olympics, Istanbul Airport in 2018, and the 2022 Qatar World Cup (Grace Farms, 2020) have led to increased scrutiny and regulations. The introduction of the Modern Slavery Act 2018 (Cth) has intensified NGO reporting requirements to assess the impact of modern slavery on their construction projects (Australian Federal Government, 2018). However, the complex supply chains of the construction sector continue to obscure a comprehensive understanding of the social impacts of building materials and labour conditions. This has led to scholarly criticism and emphasises the need to improve transparency and ethical sourcing.

Research on modern slavery in construction is limited and predominantly adopts a top-down supply chain management (SCM) context. Although direct procurement and operations are identified as high-risk areas, there is no consensus on how best to combat modern slavery (Christ and Burritt, 2018). Therefore, a broader perspective is essential. Our review identified that architectural designers', onsite workers and building practitioners are responsible for selecting both materials and associated suppliers and that their roles have been overlooked in existing studies. This creates a critical gap in understanding modern slavery dynamics in building procurement, justifying the need for a comprehensive exploration of practitioners' and NGOs' perspectives. Modern slavery lacks a universally agreed-upon definition. For this paper, we adopt the functional definition by Gold, Trautrim and Trodd (2015, p. 487): "The exploitation of a person who is deprived of individual liberty anywhere along the supply chain."

To address this critical gap, we investigated how building practitioners and NGOs perceive modern slavery risks in material selections and their associated suppliers, aiming to identify influencing factors. Driving our research, we ask the question: *How do building practitioners and NGOs perceive modern slavery risks in material specifications, and what factors influence their decisions?* To address our question, we conducted a mixed methodology, incorporating an integrative review followed by interviews and surveys. We identified four key sub-domains through which modern slavery influences practitioners and NGOs in material and supplier selections on building projects. Although our findings focus on the empirical Australian context, developed nations are higher-risk importers of modern slavery (Shilling, Wiedmann and Malik, 2021), with regulations often failing to prevent inadvertent sourcing from supply chains affected by exploitation (Liu et al., 2022). Thus, our findings are highly relevant to the construction industry.

## 2. METHODOLOGY

This investigation focused on a bottom-up analysis to examine how Australian practitioners perceive and respond to modern slavery risks across the design and construction phases. The first stage involved a systematic and integrative review, identifying that architectural designers', onsite workers and building practitioners' roles were often overlooked in existing research. To investigate field experts' insight on modern slavery in construction, our research applied a dual-method analysis of both qualitative and quantitative research through semi-structured interviews and industry surveys conducted between March and November 2023. We adopted a mixed method approach for two reasons: (1) to prioritise practitioner-centric perspectives due to their proximity to material specifications and NGO insights for policy impact, and (2) to address the need for empirical studies in this emerging field to understand modern slavery (Alzoubi, Locatelli and Sainati, 2023).

**Semi-structured Interviews:** We conducted 18 semi-structured interviews with professionals representing prominent bodies within architecture, construction, and human rights organisations. Interviewees encompassed roles, including directors, registered architects, project managers, builders, building practitioners, graduates, and students. We aimed to comprehensively represent various professional practices across career stages to reduce selection bias and coverage error.

**Survey Method:** The surveys were disseminated through professional associations, industry forums, and LinkedIn, resulting in 230 respondents. The core questions of industry surveys related to materials selections and specifications. The survey findings triangulated and verified the dominant interview themes, further offering statistical insight into different aspects of each sub-domain. This iterative approach allowed us to gather broad insights from multiple perspectives and enrich our understanding of modern slavery within the construction industry.

## 3. RESULTS AND DISCUSSION

Our findings are thematically organised into four key industry sub-domains, which shape our discussion: 1) education, 2) clients, 3) material procurement, and 4) regulation.

### 3.1. Education on Modern Slavery in Construction

It emerged from our interviews and surveys that barriers to addressing modern slavery begin in higher education and extend throughout professional development. The survey findings, as summarised in Table 1, indicate that 86% of practitioners have a strong desire for additional information on modern slavery during higher education. This gap is also reflected in industry, where 12% have attended conferences or seminars discussing the topic. Although industry literature covers modern slavery, we identified that it is often limited, lacks detail, or exists behind paywalls (RAIA, 2022; RIBA, 2018; Master Builders Australia, 2021; Housing Industry Association, 2023). This may be connected with a need for increased guidance from professional associations and highlights the demand for improved access to information on modern slavery, which contributed to 59.5% of responses. To address this limitation, we recommend integrating modern slavery into educational curricula and providing greater access to professional training to help foster a culture of ethical responsibility and proactive risk mitigation in material specifications.

**Table 1. Participants' View on Modern Slavery, Limitations, and Industry Recommendations**

Findings	Limitations	Recommendations
86% want additional information during higher education.	Higher education for the built environment does not routinely include modern slavery.	Higher education should be amended to include information about modern slavery.
12% have attended a conference or seminar that discussed modern slavery.	Industry conferences and seminars do not routinely incorporate modern slavery.	Improved access to information on modern slavery regarding material selections during conferences.
59.5% would like professional associations to provide additional guidance.	Practitioners find current guidance on modern slavery inadequate.	Improved access to information by professional and industry bodies regarding modern slavery.

### 3.2. Clients' Perspectives on Modern Slavery

Clients of construction projects lack awareness of modern slavery risks, emphasising the need for standardised reporting measures. The results in Table 2 reveal that only 20% of surveyed respondents have encountered clients at least once who inquired about modern slavery on their projects, suggesting limited awareness. The majority of respondents, 42%, perceive government client projects as most in need of modern slavery information, indicating a need for standardised and transparent modern slavery reporting metrics. The interview findings suggest that clients often overlook modern slavery as a risk in building selections. We identified that traditional environmental bias in sustainability could contribute to the issue, as clients often viewed sustainability as primarily an environmental rather than a social issue. Thus, a top-down approach to reporting material specifications is required, starting with government client projects and then disseminating to include smaller NGO projects. This tiered approach aims to raise awareness among clients about modern slavery risks and assist NGOs in building capacity to respond to client inquiries regarding modern slavery risks on their projects.

**Table 2. Clients' View on Modern Slavery and Recommendations to Improve Their Awareness**

Findings	Limitations	Recommendations
20% have experienced an instance of a client asking about modern slavery.	Clients do not typically consider modern slavery a risk for building selections.	Normalisation - practitioners should discuss modern slavery as a project risk with clients.
42% believed that government projects would benefit most from modern slavery information, followed by 29.5% of NGOs, 19% of individuals, 6.5% of all clients, no clients, 3%	Modern slavery vetting on government projects needs greater clarity of outcomes to set a standard for industry.	A top-down approach is needed where changes are instigated on the large government projects, and this is tricked down to NGOs.

### 3.3. Material Procurement and Implications for Project Management

Respondents expressed genuine concerns about labour conditions on their projects but found product information on modern slavery challenging to obtain. The outcomes in Table 3 indicate that 17.5% of respondents engaged in modern slavery discussions with product representatives, and a significant majority of practitioners, 57%, admitted to not actively seeking information during material specifications, suggesting a widespread lack of awareness. The main barriers to vetting supply chains for human rights are knowledge and experience 63%, time 52%, and cost 45%. Proposed solutions for tackling modern slavery during project procurement encompass ethical, economic, reputational, and legal aspects (Alzoubi, Locatelli and Sainati, 2023). Our findings highlight systemic challenges in providing transparent information for building materials, underscoring the need for standardised human rights indicators and metrics to empower practitioners' and NGOs' knowledge in decision-making.

**Table 3. Material Procurement Insights and Industry Recommendations for Modern Slavery**

Findings	Limitations	Recommendations
<i>17.5% had sales representatives discuss modern slavery.</i>	Sales representatives are not aware of or do not discuss modern slavery as part of their product information.	Practitioners should ask and encourage product supplier representatives to provide and disclose modern slavery information on their products and materials.
<i>57% never looked for information regarding modern slavery in material specifications.</i>	Lack of practitioner awareness and limited project motivation to source modern slavery information for material selections.	Improved access to information on modern slavery regarding material selections during professional development from education to conferences
<i>The main barriers to vetting supply chains for human rights are knowledge and experience 63%, time 52%, and cost 45%, with 11% citing other challenges.</i>	Products and materials often lack a chain of custody or modern slavery information. Practitioners lack experience in addressing modern slavery risks in projects.	Implement training programs and advocate for industry-specific guidelines to address modern slavery. Reconsider project budgets and time allowances to accommodate modern slavery requirements.

### 3.4. The Need for Regulation and Reporting on Modern Slavery

Participants advocated for greater regulatory intervention to address modern slavery risks effectively. Actors underscored the necessity of targeted government measures for reporting transparency to bring about genuine change. Illustrated in Table 4, 78.5%, of respondents suggested that modern slavery reporting should start with larger construction projects before expanding to smaller ones. Similarly, 78% of practitioners further advocate for stricter state and Federal regulations to address modern slavery within the sector. Existing research identifies the need for increased regulatory measures for modern slavery (Dinshaw et al., 2022; McMillan, 2023), a notion reinforced by our findings, which underscore that regulation is the most influential sub-domain, as it can drive change across the sub-domains of education, clients, and material procurement. Implementing robust regulatory frameworks is imperative, providing practitioners with clear guidelines to adopt ethical selection practices to mitigate modern slavery risks effectively.

**Table 4. Insights on How Regulation Could Address Modern Slavery in Construction**

Findings	Limitations	Recommendations
<i>78.5% believe that reporting of modern slavery should apply to larger project budgets ≥ \$25 million.</i>	Smaller projects may be overlooked in terms of human rights and modern slavery.	Reporting should initially be targeted at large projects, which can later apply to smaller projects.
<i>78% advocate for stronger state government codes on modern slavery, rising to 85.5% for the Federal Government.</i>	The construction sector needs greater regulatory direction and initiatives at both the state and Federal government levels.	The state and federal governments should provide additional regulations for construction projects to address modern slavery.

### **3.5. Setting a Research Agenda: Circularity Frameworks to Address Modern Slavery**

The lack of effective education, project management strategies, and regulation, coupled with limited information on material sourcing, undermines practitioners' confidence in addressing modern slavery. Our analysis revealed practitioners' scepticism toward current environmental standards and certifications, extrapolating this to "social washing" with the potential for inaccurate representation of social conditions of materials stemming from inadequate traceability and certification mechanisms. Building on literature advocating for increased supply chain transparency (Gutierrez-Huerter O, Gold and Trautrim, 2023), our findings stress the need for trust mechanisms to assess a material's social sustainability at the building design level. This points to the potential of enhancing traceable building materials through the circular economy and incorporating human rights considerations. A circular approach to modern slavery can address the limitations of traditional anti-trafficking initiatives, which often focus on supply chain logic (Barkay et al., 2024), and fail to holistically transform building design and construction industry behaviour from both top-down and bottom-up.

To tackle this challenge, we propose a circular human rights framework for building materials that integrates provenance, production stages, modern slavery vetting, and certifications. This framework should provide reliable information on (1) material provenance and production stages and (2) modern slavery vetting and certifications across the value chain. To assist practitioners in supporting ethical decision-making across all project decision levels, this framework should be integrated into the design phase, during which building information modelling of a project is undertaken, and practitioners specify and select the majority of materials and associated suppliers. The establishment of a circular human rights framework for building materials has the potential to provide practitioners with comprehensive information to make socially informed project decisions for human rights. This approach could expand environmental sustainability to incorporate social dimensions, promoting responsible consumption and production and aligning the construction sector with SDG:12.

## **4. CONCLUSION**

This study's practical contribution is the identification of four sub-domains: education, clients, material procurement, and regulation, which are crucial for addressing modern slavery risks in the material selections of construction projects. We advocate for improved regulatory and educational mechanisms along with access to reliable information on material provenance and trusted certifications. Integrating these recommendations into building design and construction processes ensures informed choices through greater transparency of materials supply chains. This consequently reduces the risk of unethical sourcing and supports ethical decision-making for practitioners and NGOs.

Our research theoretically introduces a novel bottom-up, practitioner and project-centric perspective, contrasting with traditional top-down SCM approaches. We demonstrate that improving practitioner due diligence in modern slavery would further benefit from integrating circular economy principles. Thus, we propose a traceable circular human rights framework to enhance material traceability and vetting from extraction to installation, integrating human rights information at each production stage. This framework should be interlinked with building design processes and material value chains.

Our findings are applicable to construction projects in developed nations due to the global nature of the industry's material production, complex supply chain tiers and the diverse migrant workforce (Hedwards, Andreovski and Bricknell, 2017). Future research lies in the application of how circularity can advance human rights principles in the built environment. Prioritising regulatory response, improving industry education, and investigating the potential of circular frameworks will enable building practitioners and clients to promote socially sustainable practices and reduce modern slavery risks. This study lays a nascent foundation for meaningful and substantive change in redressing systemic modern slavery risks and enhancing human rights in construction projects.

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