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Review

Mapping Breastfeeding Policies and Workplace Support Regulations in Southeast Asia: A Scoping Review of Policy Existence, Implementation, and Coverage

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Abstract

Breastfeeding is a cost-effective public health intervention that reduces infant morbidity and mortality while providing long-term benefits for mothers and children. In Southeast Asia, rising female labor force participation and complex regulatory environments highlight the need to understand how breastfeeding policies and workplace support are implemented. Breastfeeding protection sits at the intersection of maternal and child health, gender equity, decent work and social protection, yet evidence mapping on its implementation in the region remains limited. This scoping review mapped the national regulatory frameworks and workplace support provisions for breastfeeding reported in the peer-reviewed literature from Southeast Asia, along with their reported implementation, compliance, monitoring and enforcement; the barriers and facilitators encountered; and the evidence gaps identified (RQ1–RQ4). This scoping review followed the Joanna Briggs Institute (JBI) methodology for scoping reviews and was reported in line with the PRISMA-ScR guideline. The protocol was registered a priori with the Open Science Framework. Five information sources of three distinct types were searched on 16 March 2026: two bibliographic databases (PubMed/MEDLINE, Scopus), two publisher platforms (ScienceDirect, Taylor & Francis Online) and one academic search engine (Google Scholar). Two reviewers independently screened records using the Population–Concept–Context (PCC) framework. Findings were then organized along a six-link implementation chain—policy existence, implementation, accessibility, utilization, compliance, and effectiveness to distinguish what is enacted from what reaches workers. This review included 22 studies. The evidence was geographically concentrated: all included studies reported on only five of the eleven ASEAN member states: Indonesia (n = 13), the Philippines (n = 4), Thailand (n = 3), Malaysia (n = 1), and one multi-country study covering Indonesia, the Philippines, and Viet Nam. Along the implementation chain, the duty-bearer links were well reported: policy existence in 22 of 22 sources, implementation in 21, and compliance in 20. In contrast, worker-facing links were less well reported: accessibility in 12, utilization in 7, and effectiveness in 4. Policy coverage remained concentrated in the formal sector, with limited protection for informal workers, and implementation often depended on institutional commitment rather than national enforcement. Organizational-level barriers were the most frequently reported (18 of 22 studies), followed by structural or policy-level barriers (11 of 22). Within the five ASEAN member states for which evidence was located, a consistent gap was reported between enacted provisions and their implementation in workplaces. The literature documents that employers are required to provide far more fully than employed women can actually

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access and use, and the absence of evidence from six member states is itself a priority gap. Because no critical appraisal was undertaken and the included designs cannot support effect estimates, this review makes no claim about policy effectiveness.

Keywords: breastfeeding policy; workplace support; Southeast Asia; maternity protection; policy implementation; scoping review; PRISMA-ScR; decent work; informal employment; gender equity

1. Introduction

1.1. Background

Breastfeeding is a highly effective and low-cost public health intervention that reduces infant morbidity and mortality and yields long-term health benefits for mothers and children [1]. Despite this well-established evidence, adherence to recommended practices, particularly early initiation, exclusive breastfeeding for the first six months, and continued breastfeeding up to two years or beyond, remains below global targets in many low- and middle-income countries [1,2]. Global data indicate that fewer than half of infants and young children worldwide are breastfed according to World Health Organization recommendations [3]. This mismatch between evidence and practice highlights the need for stronger structural and policy-level interventions to protect, promote, and support breastfeeding.

Barriers at the individual, interpersonal, organizational, and structural levels shape women's breastfeeding decisions and experiences [4,5]. At the individual level, many mothers anticipate breastfeeding to be straightforward but face physical and emotional challenges that undermine its continuation [4]. Partner, family, and wider social network support are central to sustaining breastfeeding, while the quality and consistency of health professional support strongly influence mothers' satisfaction with breastfeeding support programs [4,5]. Global qualitative syntheses also show that women's engagement with breastfeeding support depends on the broader sociocultural context, the forms of support available, and how well they align with their needs and expectations [5].

Framed sociologically, workplace breastfeeding support is not only a health intervention but a condition of decent work. The right to maternity protection is established in the Convention on the Elimination of All Forms of Discrimination against Women, which obliges states to introduce paid maternity leave without loss of employment or seniority [6], in ILO Convention No. 183, which sets the minimum entitlement, and Convention No. 156, which addresses the position of workers with family responsibilities [7,8]. Whether a woman can sustain breastfeeding after returning to work therefore depends on her position in the labor market as much as on her knowledge or motivation: on whether her contract is written, whether her employer is registered, whether her sector is inspected, and whether her occupation carries the discretion to step away from a production line. Because roughly two in three women in employment in the Asia-Pacific region work informally [9], the protections examined in this review reach a minority of the women they are intended to serve. That protection follows existing lines of occupational and gender stratification.

Beyond individual and social factors, maternal employment and the policy environment shape breastfeeding practices. A systematic scoping review from Africa found that paid employment without adequate structural support is consistently associated with lower exclusive breastfeeding rates in the first six months [10]. In many low- and middle-income settings, long hours, limited flexibility, and lack of facilities make sustaining exclusive breastfeeding difficult, even when knowledge of its benefits is high [2,10,11]. While policies are urged to strengthen breastfeeding support in workplaces, health systems, and childcare

services, evidence on implementing and evaluating workplace breastfeeding programs remains limited [10]. A systematic review of exclusive breastfeeding policies in South Africa shows that a national policy shift towards promoting exclusive breastfeeding coincided with a rise from under 10% in 2011 to about 32% in 2016. Yet, progress is slow and uneven because family, community, and workplace contexts are not fully addressed [12]. Global reviews further indicate that breastfeeding barriers are embedded in health systems, social policies, maternity protection, and labor market regulations [1,2].

Weak national policies or ineffective enforcement thus contribute to a non-supportive breastfeeding environment. Comparative case studies in Burkina Faso, the Philippines, Mexico, and the United States show that evidence-based advocacy, multisectoral political will, adequate financing, strong research and evaluation, and national coordination drive national breastfeeding-policy scale-up, yet inadequate maternity protection remains a key constraint, underscoring the importance of workplace-level policies alongside national regulation [13].

Southeast Asia's rapid urbanization and rising female labor-force participation heighten the importance of breastfeeding policies and workplace support [14,15]. Regulatory gaps, weak enforcement, and fragmented governance structures may undermine breastfeeding promotion efforts across the region [3,14,16]. Governance-focused reviews further indicate that weak institutions and poor implementation can limit the effectiveness of health regulations, including those intended to protect breastfeeding [17]. While facility- and clinic-based breastfeeding research is abundant, systematic mapping of national and workplace-support policies in Southeast Asia remains limited, underscoring the need for cross-national analyses of regulatory frameworks and their enforcement. A scoping review is appropriate because it maps the extent, range, and nature of a heterogeneous body of policy-oriented evidence and identifies gaps, rather than estimating the effect of a defined intervention [18,19].

1.2. Objective and Research Questions

This scoping review aimed to map breastfeeding-related regulatory frameworks and workplace support provisions reported in the peer-reviewed literature from ASEAN member states, and to describe how those provisions were implemented, monitored, and enforced; the barriers and facilitators reported; and the identified evidence gaps. Consistent with the PCC framework, four research questions were addressed:

RQ1. What national regulatory frameworks and workplace policies for promoting, protecting, and supporting breastfeeding are reported for ASEAN member states? (Population: employed pregnant or breastfeeding women and policy stakeholders; Concept: breastfeeding-related policies and regulations; Context: ASEAN member states.)

RQ2. How are these policies implemented, how are compliance and enforcement monitored across sectors and employment settings, and how far along the implementation chain (existence, implementation, accessibility, utilization, compliance, effectiveness) does the reported evidence extend?

RQ3. What barriers and facilitators to implementation are reported, and at which socio-ecological level do they operate?

RQ4. What evidence gaps and research priorities are identified by the included studies?

2. Materials and Methods

2.1. Protocol, Registration and Reporting

This scoping review followed the Joanna Briggs Institute (JBI) methodology for scoping reviews and reported in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines to ensure trans-

parency, reproducibility, and comprehensive reporting [18,19]. The completed PRISMA-ScR checklist is provided as Supplementary Material S3, and the PRISMA flow diagram is presented in Figure 1. The methodological framework comprised five stages: (1) identifying the research question; (2) identifying relevant studies; (3) study selection; (4) charting the data; and (5) collating, summarizing, and reporting the results [20,21].

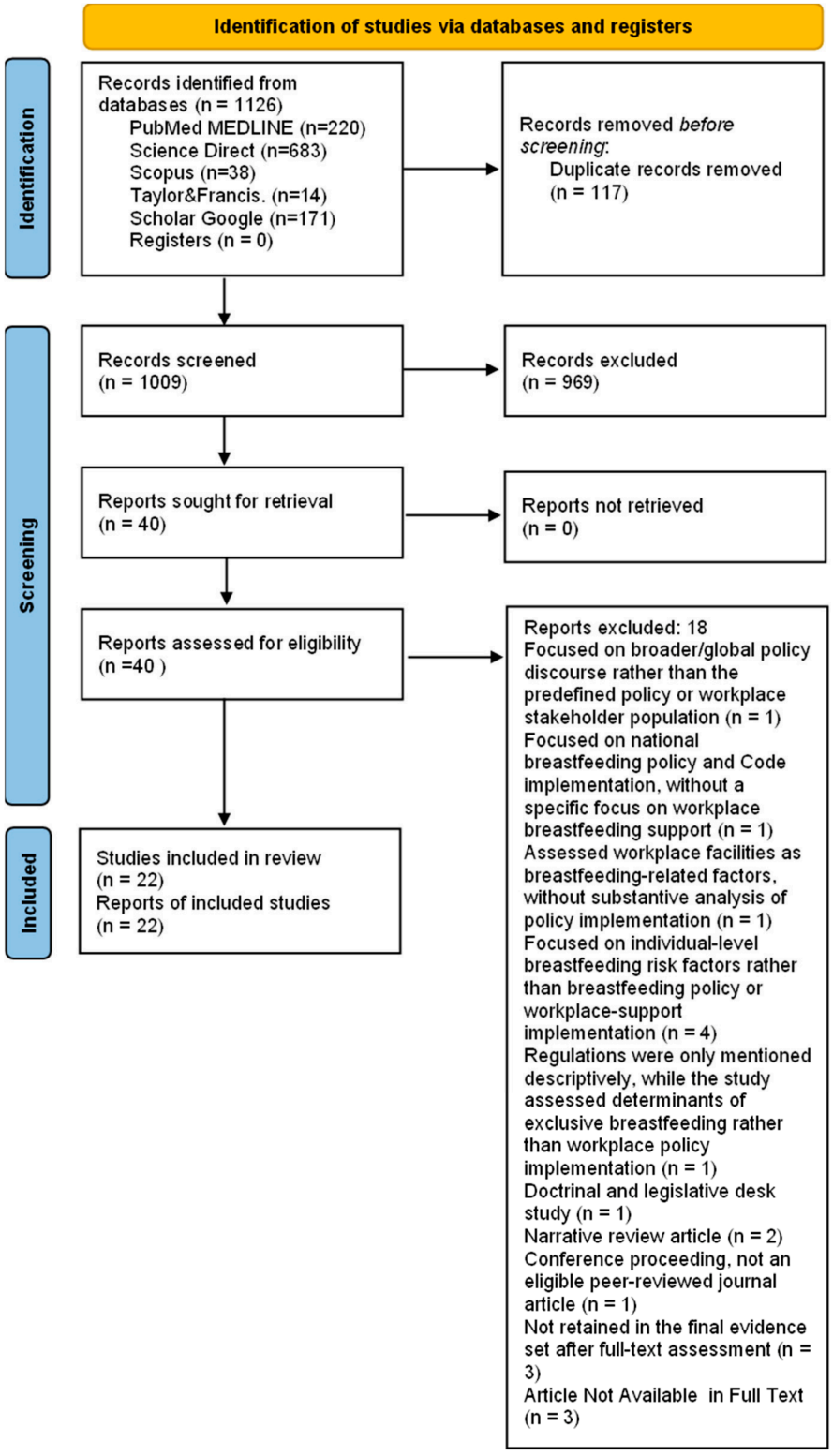

Figure 1. PRISMA-ScR flow diagram showing identification, screening, eligibility assessment and inclusion of sources. The diagram has been redrawn to show the four reasons for exclusion at title and abstract screening alongside those at full-text screening.

The review protocol was registered with the Open Science Framework (OSF) on 20 March 2026 under the registration DOI 10.17605/OSF.IO/TZ7S3 before data extraction. The registration is publicly accessible, and the protocol document, the a priori charting form, and the search log are deposited at the same DOI for reader inspection.

One amendment to the registered protocol is declared. The registered objective included adopting and enforcing the International Code of Marketing of Breast-milk Substitutes (the WHO Code). Because the operationalized eligibility criteria required an employment or workplace nexus (Section 2.4), no retrieved source reported Code adoption or enforcement in an employment setting; therefore, the domain was not retained as a separate review objective or charting domain. The decision was taken before charting began and is recorded in the OSF amendment log. A second amendment is declared in this round: the review title was changed at revision, and the implementation chain described in Section 2.6 was added as an analytic overlay applied to already charted data. No eligibility criterion, search line, or charted field was altered, and no source was added or removed.

2.2. Information Sources

Five electronic information sources of three distinct types were searched: two bibliographic databases (PubMed/MEDLINE and Scopus), two publisher platforms (ScienceDirect and Taylor & Francis Online) and one academic search engine (Google Scholar). These are not equivalent retrieval environments and are reported separately here rather than as five 'databases'. The bibliographic databases were the primary sources. The two publisher platforms were used as supplementary sources; because they retrieve only a single publisher's holdings and Elsevier content is already indexed in Scopus, records retrieved from them are expected to overlap substantially with the Scopus yield. Google Scholar was used as a supplementary source only, restricted to the first 200 records sorted by relevance, in line with JBI guidance that search engines should not serve as primary information sources.

No systematic search was conducted of the ASEAN Secretariat document repository, the WHO Institutional Repository for Information Sharing (IRIS), the WHO Global database on the Implementation of Nutrition Action (GINA), the UNICEF publications repository, the ILO NATLEX legislative database, ILO Labor Statistics, or any national gazette or ministry portal. Governmental, intergovernmental, and legislative documents therefore enter this review only where an included peer-reviewed source described them, and the regulatory picture reflects what the peer-reviewed literature reports rather than a primary legal or documentary analysis. The eligibility criteria no longer imply otherwise, and Supplementary Material S2 sets out a repository-by-repository strategy for the planned update.

Two features of the yield reported in Supplementary Material S1 require comment and are carried into the Limitations. First, ScienceDirect contributed 683 of 1126 records (60.7%) while only 117 duplicates (10.4%) were removed, a pattern consistent with a low-precision full-text search on that platform. Second, the Scopus yield (n = 38) was lower than the PubMed/MEDLINE yield (n = 220), although Scopus indexes MEDLINE almost in full; the Scopus string combined the population, policy, and breastfeeding concepts but applied the geographic concept as a country affiliation filter rather than as a Boolean block, which reduced sensitivity. Both issues are acknowledged as limitations of the present search rather than corrected post hoc, and a corrected, extended strategy adding Embase, CINAHL, Web of Science Core Collection, Global Health, and regional indexes is provided in Supplementary Material S2 for use in the planned update of this review.

2.3. Search Strategy

The search strategy combined controlled vocabulary terms (MeSH in PubMed) and free-text keywords across three concept blocks: breastfeeding; policy, regulation and

workplace support; and the Southeast Asian region. Boolean operators (AND, OR) and truncation were used, and strings were adapted to the syntax and field requirements of each source while maintaining conceptual consistency.

Supplementary Material S1 reports the complete strategy for each source, line by line, including the field searched, the limits applied, and the number of records retrieved at each step, along with the date each search was executed. All searches were run on 16 March 2026, the date of the most recent search. The search covered publications from 1 January 2000 to 31 December 2025. Yields were: PubMed/MEDLINE n = 220; ScienceDirect n = 683; Scopus n = 38; Taylor & Francis Online n = 14; Google Scholar n = 171.

In accordance with the JBI three-step search, an initial limited search of PubMed and Scopus was undertaken to identify index terms and title/abstract keywords; the full strategy was then run across all five sources; and the reference lists of all included sources were screened for additional eligible records. Reference-list screening did not yield any additional records meeting the eligibility criteria.

2.4. Eligibility Criteria

Eligibility criteria were based on the PCC framework and are described in Table 1. The Population has been amended to state explicitly that women in informal, casual, own-account, and domestic employment were eligible, since the exclusion of informal workers from statutory protection is one of the review's central findings. The Context has been corrected to the eleven ASEAN member states: Timor-Leste was admitted as the eleventh member on 26 October 2025, within the search window, and is therefore included.

Table 1. PCC Framework: Inclusion and Exclusion Criteria.

PCC Element	Inclusion Criteria	Exclusion Criteria
P (Population)	Studies involving (a) pregnant or breastfeeding women in employment, including formal, informal, casual, own-account, and domestic employment; and/or (b) policymakers, government officials, human resource managers, business owners, labor unions; and/or (c) health professionals or other stakeholders engaged in implementing breastfeeding policies or workplace support.	Studies focusing solely on individual breastfeeding experience with no connection to regulation, policy or workplace context.
C (Concept) 1: Breastfeeding-related policies and regulations	Studies examining national legislation, subordinate regulation or institutional policy for the promotion, protection and support of breastfeeding, including maternity protection.	Studies assessing determinants of breastfeeding behavior only, or evaluating educational or clinical interventions with no policy or regulatory component.
C (Concept) 2: Workplace policies and support	Studies examining workplace policy and practice, including maternity leave, paternity leave, breastfeeding or milk-expression breaks, lactation facilities, flexible work, management or HR support, and compliance and enforcement mechanisms in public, private, formal and informal workplaces.	Studies of health-facility interventions (e.g., staff training, BFHI) with no connection to a workplace context or workplace policy.
C (Concept) 3: Implementation, barriers and facilitators	Studies reporting forms of implementation, compliance, monitoring, enforcement, and barriers or facilitators in implementing breastfeeding or workplace policies. Sources reporting accessibility, utilization, or effectiveness (Table 2) were also eligible under this concept.	Studies reporting breastfeeding prevalence or intervention effectiveness only, without accounting for policy implementation, enforcement, or workplace support.

Table 1. *Cont.*

PCC Element	Inclusion Criteria	Exclusion Criteria
C (Context)	The eleven ASEAN member states: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste and Viet Nam.	Studies in which all data originate outside Southeast Asia, or global analyses without data or analysis specific to a member state.
Sources of evidence	Peer-reviewed journal articles published in 2000–2025 in English or in a national language of the region where translation by the review team was possible. Legislation and policy documents were used only as contextual material cited within an included study. They were not retrieved from ASEAN, WHO, UNICEF, ILO, or national repositories, none of which was searched (Section 2.2).	Editorials, letters, opinion pieces, conference abstracts without methodological detail; case reports and case series without a policy or workplace-regulatory context; sources the team could not translate; grey literature, which was not searched.

Table 2. Operational definitions applied to the core concepts.

Concept	Operational Definition Applied in This Review
Maternity protection	Statutory entitlements attaching to pregnancy, childbirth and the postpartum period—paid or unpaid maternity leave, cash benefits, employment security and health protection at work—as defined in the instrument reported by the source.
Workplace support	Employer- or institution-level provisions enabling breastfeeding or milk expression during working hours: lactation rooms or corners, milk-expression breaks, milk storage, flexible schedules, on-site childcare, counseling, and management or supervisor support.
Policy existence	A named statutory, regulatory or institutional instrument establishing a breastfeeding or maternity entitlement applies to the setting studied.
Implementation	Evidence that a policy or regulatory requirement has been translated into an observable provision or practice in a workplace or institution (e.g., a room has been designated, a break has been granted).
Accessibility	Evidence on whether an existing provision could in practice be reached by the workers entitled to it—proportion of workers with access, physical distance from the workstation, privacy, equipment, and whether permission had to be individually negotiated.
Utilisation	Evidence on whether entitled workers actually used the provision—take-up of a lactation room or break, and where milk was expressed in practice.
Compliance	The extent to which a duty-bearer (employer, institution or authority) adheres to an applicable requirement, as reported by the source.
Effectiveness	Evidence relating a specific provision to a breastfeeding outcome using a comparison—pre/post, exposed/unexposed, or an adjusted association. A prevalence figure reported without a comparison was not charted as effectiveness.
Monitoring	Any routine or periodic process for assessing implementation or compliance—inspection, reporting, scorecards, audit or supervision—irrespective of the body performing it.
Enforcement	Mechanisms used to compel adherence, including administrative sanction, criminal provision, licensing conditions, or inspection with the power to require corrective action.
Adequate lactation facility	A facility that meets the standard specified in the instrument or study reported by the source. The review team imposed no external standard.
Barrier/facilitator	A factor reported by the source as hindering or supporting policy implementation or workplace breastfeeding support, charted verbatim and classified into one of four socio-ecological levels—individual, interpersonal, organizational, structural/policy—by two chartists independently.
Formal/informal sector	Formal employment denotes work covered by a written contract and statutory social protection; informal employment denotes casual, seasonal, own-account, domestic or unregistered work outside that coverage, following the definition used by the source.

2.5. Operational Definitions of Core Concepts

The concepts used to structure charting and reporting were defined a priori as set out in Table 2. These definitions governed eligibility decisions at the full-text stage, including the twelve records excluded for 'inappropriate concept', and both chartists applied them. Three further constructs, accessibility, utilization, and effectiveness, were added at revision so the distinction between a provision existing, reaching a worker, being used by breastfeeding women, and producing an outcome can be reported separately rather than collapsed into a single idea of 'implementation'. These three were derived from the fields already charted and required no re-extraction.

2.6. Implementation Chain Framework

Because a central criticism of the submitted version was that it cataloged policies rather than analyzing implementation, findings for RQ2 are organized along a six-link implementation chain, policy existence → implementation → accessibility → utilization → compliance → effectiveness, each link defined in Table 2. The chain is an analytic device for reading the charted data, not a new extraction: a source was recorded as reporting a link when the corresponding charted field contained a substantive entry rather than 'not reported'. Its purpose is to separate the three links that describe what a duty-bearer is required to do and is judged to have done (existence, implementation, compliance) from the three that describe what an employed woman can reach, use and benefit from (accessibility, utilization, effectiveness). The distinction matters because a policy may be fully enacted, implemented on paper, and judged compliant while remaining unreachable at the point of use. Section 3.4 addresses the distinction between policy existence, implementation, accessibility, utilization, compliance, and effectiveness by reporting each link separately.

2.7. Screening and Eligibility Assessment

Selection proceeded in two stages: title and abstract screening, followed by full-text assessment. Two reviewers (N.P.A. and R.W.B.) independently assessed every record against the criteria in Tables 1 and 2. We resolved disagreements through discussion or, when they persisted, by having a third reviewer (D.S.S.) arbitrate. Records were managed in Mendeley Reference Manager (version 2.149.0) for de-duplication, and screening decisions were logged in a shared spreadsheet. Reasons for exclusion were recorded at both stages, not only at full text; the title and abstract stage was coded against the same four categories (population, concept, context, source type), and these counts are now displayed in the PRISMA-ScR flow diagram (Figure 1). The eighteen reports excluded at the full-text stage are listed individually, with the reason for each exclusion, in Supplementary Material S2.

Two of the review authors (R.W.B. and N.P.A.) are authors of primary studies that were assessed for eligibility and included in this review. D.S.S., who served as the third reviewer and arbitrator when required, is also a co-author of primary studies included in this review. To mitigate potential conflicts of interest, no author participated in the eligibility decision, data charting, or reconciliation for any primary study of which they were an author. For these studies, a fourth team member who was not involved in screening undertook these procedures, and the decisions were recorded separately in the screening log. Further details are provided in the Conflicts of Interest statement.

2.8. Data Charting

Data were charted using a structured form developed a priori and deposited with the protocol at the OSF registration DOI; Supplementary Material S4 reproduces the form. Both chartists piloted the form independently on the first three included studies and revised it before full charting. Two reviewers charted independently in duplicate and reconciled

the charts item by item; they referred residual discrepancies to a third reviewer. No study author was contacted for additional information.

Because the evaluative descriptors used in the charting tables carry the review's most consequential judgments, the rule applied to them is stated here. Every such descriptor was taken from the primary study: either the quantitative value the study reported, or the categorical judgment the study itself made. Where a study made no such statement, the cell was charted as 'not reported'. The review team did not assign, rate, or infer any of these descriptors, and did not apply an external rubric. The implementation-chain counts in Table 5 were likewise derived arithmetically from these charted fields and involve no judgment about whether a provision was adequate. All included sources are ordered alphabetically by first author surname in Table 3 and in Supplementary Tables S1–S4; the numbered citation appears with each row so that the table row and the reference list can be matched directly.

Table 3. Characteristics of the included sources of evidence (n = 22), in alphabetical order of first author.

No.	Source (Year) [Ref]	Country	Design (Sample)	Setting and Sector
1	Al-Attas & Shaw (2022) [22]	Malaysia	Qualitative phenomenology (4 couples, 12 dyadic interviews)	Homes and cafés; public, private, and self-employed
2	Anderson et al. (2025) [23]	Multi-country (Indonesia, Philippines, Viet Nam; also Nigeria)	Qualitative (desk review, 20 KII)	Program headquarters and regional offices; public, private, informal
3	Astuti & Morgan (2018) [24]	Indonesia	Qualitative intervention analysis	Industrial settings; industrial sector
4	Bartolata (2021) [25]	Philippines	Descriptive qualitative (14 deans/directors, 12 faculty presidents)	Bicol University; higher education
5	Basrowi et al. (2015) [26]	Indonesia	Cross-sectional (n = 186)	Five workplaces: offices and factories
6	Basrowi et al. (2018) [27]	Indonesia	Delphi, three rounds (15 experts, round 1)	National; health authorities, pediatrics, midwifery
7	Basrowi et al. (2020) [28]	Indonesia	Qualitative phenomenology (8 OHS coordinators)	Factories; formal industrial sector
8	Cetthakrikul et al. (2024) [29]	Thailand	Qualitative (FGD; 19 mothers, 5 factories)	Bangkok and surrounding provinces; manufacturing
9	Dina (2017) [30]	Indonesia	Policy evaluation (Balanced Scorecard)	Government institutions and public service providers
10	Dina et al. (2021) [31]	Indonesia	Mixed methods (8 companies)	Semarang City/Regency; private sector (food, furniture)
11	Febrianingtyas et al. (2019) [32]	Indonesia	Qualitative (18 IDI)	Jakarta; public (civil service) and private
12	Henderawaty et al. (2014) [33]	Indonesia	Qualitative (IDI, observation)	South Kalimantan; government agencies and private companies
13	Jiravisitkul et al. (2022) [34]	Thailand	Mixed methods (65 surveys, 7 FGDs)	Chulabhorn Hospital; health sector

Table 3. *Cont.*

No.	Source (Year) [Ref]	Country	Design (Sample)	Setting and Sector
14	Maramag et al. (2023) [35]	Philippines	Qualitative (desk review, IDI; n = 87)	Greater Manila; manufacturing, BPO, services, government, NGO
15	Melissa et al. (2015) [36]	Indonesia	Descriptive qualitative (IDI, observation)	PT Apac Inti Corpora, Semarang Regency; textile industry
16	Ocampo-Guirindola et al. (2018) [37]	Philippines	Cross-sectional (5131 mother–infant pairs)	Nationwide; health and non-health institutions
17	Prastita et al. (2025) [38]	Indonesia	Qualitative, constructivist (n = 12)	Urban Java; private employees, civil servants, teachers, midwives, nurses
18	Pratiwi & Ernawaty (2023) [39]	Indonesia	Cross-sectional (34 puskesmas)	Wonogiri Regency, Central Java; public health sector
19	Samaniego et al. (2022) [40]	Philippines	Mixed methods (desk review; 100 IDIs)	Greater Manila Area; public health
20	Sulastri et al. (2025) [41]	Indonesia	Descriptive-analytical, juridical-normative	National; labor law and health
21	Windayani (2023) [42]	Indonesia	Comparative legal study (2 regional regulations)	Cirebon and Semarang; law and public health
22	Yimyam & Hanpa (2014) [43]	Thailand	Participatory action research (24 pre, 31 post)	Electronics company; formal industrial sector

Note. IDI, in-depth interview; KII, key informant interview; FGD, focus group discussion; BPO, business process outsourcing; OHS, occupational health and safety.

2.9. Critical Appraisal of Individual Sources of Evidence

Consistent with JBI guidance and PRISMA-ScR item 12, and with the mapping objective of this review, no formal critical appraisal of methodological quality or risk of bias was undertaken. The decision was made a priori and registered in the protocol. The consequence is clear: the review can describe what the literature reports but cannot weight sources by methodological strength, and therefore makes no claim about whether any provision is effective. Where an included source reported an effect, that effect is attributed to the source and not asserted by this review.

2.10. Synthesis of Results

Data synthesis followed a structured descriptive and narrative approach organized around the four research questions. The synthesis is presented as a continuous narrative under research-question subheadings, with the tables serving as reference material for the narrative rather than the primary vehicle for the findings; for this reason, the two most detailed charting tables have been moved to the Supplementary Materials. Included studies were first summarised descriptively (Table 3). Findings were then reported against RQ1 (Table 4), RQ2 (Table 5, implementation chain), RQ3 (Table 6) and RQ4 (Supplementary Table S4). Design and outcome heterogeneity precluded statistical pooling, and none was attempted.

Table 4. Reported regulatory frameworks, workplace provisions and implementation, by country (RQ1 and RQ2).

Country (n)	Principal Instruments	Statutory Leave	Workplace Provision Mandated	Reported Implementation and Compliance	Monitoring and Enforcement	Informal-Sector Coverage	Reported Evidence of Effectiveness
Indonesia (13)	Law No. 13/2003; Gov. Reg. No. 33/2012; Joint Reg. of Three Ministries (2008); MoH Reg. No. 15/2013; Law No. 17/2023 and Gov. Reg. No. 28/2024; municipal regulations (Cirebon, Semarang)	3 months	Employer duty to provide a lactation room and opportunity to express milk during working hours	Reported as suboptimal in every source reporting it: 21.5% of workers with access to a facility; 7.5% with access to a support program; exclusive breastfeeding 4–54% depending on setting	Manpower Office supervision and, in two municipalities, fines and imprisonment; no routine monitoring system reported in 9 of 13 sources	Formal sector only. No instrument reported as reaching casual, own-account or domestic workers; informal employment not addressed by any of the 13 sources	One source reported a facility–outcome association (dedicated facility associated with threefold higher exclusive breastfeeding) [26]; no other comparative estimate
Philippines (4)	Expanded Breastfeeding Promotion Act (RA 10028, 2009); 105-Day Expanded Maternity Leave Law (2019)	105 days paid (+15 solo parents)	Mandatory lactation stations and paid lactation breaks; curriculum integration in educational institutions	Compliance described as high among inspected firms but low in the informal sector and among short-term contract workers; 'low extent of compliance' in a university setting	Annual inspection by the Department of Labor and Employment; no functional measurement of lactation station use reported	Nominally extends to the informal economy, but contribution requirements were reported to exclude vendors, farmers and own-account workers in practice [35,40]	One source reported an association between lactation-station and break utilization and breastfeeding duration [37]
Thailand (3)	Fourth and subsequent National Economic and Social Development Plans; Breastfeeding Corner Policy (Department of Labor Protection and Welfare)	90 days paid	Designated breastfeeding corner with chair, table, power outlet, sink, and refrigerator; lactation breaks encouraged but not mandated	160 workplaces initiated a corner during 2021–2022; no participating factory granted a formal lactation break; 78.2% continuation reported in one hospital setting	Voluntary encouragement by the Department of Labor Protection and Welfare; no monitoring system reported	Formal sector only; the informal sector was explicitly stated to be outside the maternity-benefit scheme [43]	One participatory intervention reported a significant pre/post increase in workplace breastfeeding rates ($p = 0.004$) [43]

Table 4. *Cont.*

Country (n)	Principal Instruments	Statutory Leave	Workplace Provision Mandated	Reported Implementation and Compliance	Monitoring and Enforcement	Informal-Sector Coverage	Reported Evidence of Effectiveness
Malaysia (1)	Employment Act, Section 37; National Breastfeeding Policy and Baby-Friendly Hospital Initiative	60 days (private), 90 days (public)	No structural workplace requirement reported; expression takes place in toilets, meeting rooms, or prayer rooms	Six-month exclusive breastfeeding prevalence 47.1%; 89.1% of mothers reported stopping because time could not be allocated	Not reported	Not reported	Not reported
Viet Nam (within 1 multi-country study)	Maternity leave and workplace lactation policies; reform reported through a multi-country advocacy case study	Not reported separately	Paid maternity leave and breastfeeding facilities	Not reported separately	Nutrition scorecards and cross-jurisdiction tracking indicators described as an emerging mechanism	Reform reported as expanding toward the informal sector, without a financing mechanism being described [23]	Not reported

Table 5. Reported evidence along the implementation chain (n = 22 sources).

Chain Link	Level at Which It Is Observed	Sources Reporting It	What Was Reported
Policy existence	Duty-bearer	22 (100%)	Every source named at least one statutory, regulatory, or institutional instrument.
Implementation	Duty-bearer	21 (95%)	All sources but one reported whether a provision had been put in place in the setting studied.
Compliance	Duty-bearer	20 (91%)	Reported as a proportion or as the source's own categorical judgment of adherence.
Accessibility	Worker	12 (55%)	Proportion of workers with access, distance, privacy, equipment, or the need to negotiate permission individually.
Utilisation	Worker	7 (32%)	Actual take-up of a room or break, or where milk was expressed in practice.
Effectiveness	Worker	4 (18%)	A provision related to a breastfeeding outcome using a comparison [26,34,37,43]; no source used a design capable of supporting a causal claim.

Table 6. Barriers and facilitators to implementation, by socio-ecological level, with the number of included sources reporting each (n = 22).

Level	Barriers (n)	Barriers Reported	Facilitators (n)	Facilitators Reported
Structural/policy	11	Maternity leave shorter than six months; exclusion of informal and short-term contract workers; absence of a dedicated budget; fragmented or uncertain legal duty; weak inter-agency coordination	6	Existence of labor and health legislation; explicit statutory guarantee; evidence-based advocacy and strategic partnership; criminal provisions as a protective instrument
Organizational/ workplace	18	High workload and production targets; rigid or shift schedules; absent, distant or substandard lactation facilities; no refrigeration; no formal lactation break; management perception of breastfeeding as a cost	12	Dedicated lactation room and equipment; permission and time to express milk; supervisor and top management commitment; written internal policy; on-site counseling; integration into the occupational health and safety system
Interpersonal/social	3	Norm that breastfeeding ceases on return to work; stigma from colleagues; negative workplace perceptions	6	Understanding supervisors and colleagues who cover duties; spousal and family support; colleagues lending private space.
Individual	2	Fatigue and emotional exhaustion; low motivation to continue expression at work	8	Maternal knowledge of breastfeeding and of entitlements; self-efficacy; positive maternal attitude; personal initiative such as bringing a cooler bag or hands-free pump

3. Results

3.1. Selection of Sources of Evidence

A total of 1126 records were identified: PubMed/MEDLINE (n = 220), Scopus (n = 38), ScienceDirect (n = 683), Taylor & Francis Online (n = 14) and Google Scholar (n = 171). After removal of 117 duplicates, 1009 records were screened by title and abstract, of which 969 were excluded. The reasons for exclusion at this first stage are reported in the flow diagram and in the text: inappropriate population (n = 857), inappropriate concept (n = 99), inappropriate context (n = 10), and inappropriate source type (n = 3).

Forty reports were assessed at full text. Eighteen were excluded: population (n = 1), concept (n = 12), context (n = 1), source type (n = 1), and full text unavailable (n = 3). Twenty-two sources met the eligibility criteria and were included. Each excluded full text is listed with its reason in Supplementary Material S2, and the twelve concept exclusions were decided against the definitions in Table 2.

3.2. Characteristics of Sources of Evidence

Table 3 summarises the 22 included sources. Designs were predominantly qualitative (n = 11) and mixed-methods (n = 4), with four cross-sectional studies, two legal or policy-document analyses and one Delphi study. Settings ranged from factories and offices to hospitals, universities, community health centers and national policy documents.

The evidence was geographically concentrated, and this concentration is the single most important constraint on the review's findings. Thirteen studies reported on Indonesia, four on the Philippines, three on Thailand and one on Malaysia; one multi-country study covered Indonesia, the Philippines and Viet Nam alongside a non-ASEAN country. Viet Nam therefore appears only within a multi-country study, and no study reported on Brunei Darussalam, Cambodia, Lao PDR, Myanmar, Singapore or Timor-Leste.

3.3. RQ1: National Regulatory Frameworks and Workplace Provisions

Every country represented in the evidence had enacted at least one national instrument establishing maternity protection and, in most cases, a workplace lactation provision (Table 4). Indonesia was described through a layered framework Law No. 13/2003 on Manpower, Government Regulation No. 33/2012, the 2008 Joint Regulation of Three Ministries, Ministry of Health Regulation No. 15/2013 and, more recently, Law No. 17/2023 with Government Regulation No. 28/2024 in which the right to express milk during working hours and the duty of employers to provide a lactation facility are stated, while statutory maternity leave remained three months in the studies reporting it [24,27,28,30–33,36,38]. The Philippines was described through the Expanded Breastfeeding Promotion Act (RA 10028), which mandates lactation stations and paid lactation breaks, and the 105-Day Expanded Maternity Leave Law [25,35,37,40]. Thailand was described through the National Economic and Social Development Plan series and the Breastfeeding Corner Policy promoted by the Department of Labor Protection and Welfare, with 90 days of paid maternity leave [29,34,43]. Section 37 of the Employment Act described Malaysia, providing 60 days of maternity leave in the private sector and 90 days in the public sector [22].

Read comparatively rather than country by country, three patterns emerge. First, the instruments converge in form and diverge in strength. Every country mandates or encourages a physical facility, but only the Philippines attaches a paid break to it, and only the Philippines and Indonesia include any enforcement provision. Second, the instruments are layered differently. Indonesia regulates through a stack of general labor law, health law, and ministerial regulation, which produces overlapping duties without a single accountable authority; the Philippines regulates through two dedicated statutes with a named inspectorate; Thailand regulates through a development plan and a voluntary welfare program,

so no duty attaches at all. Third, the sole determinant of whether a woman falls inside the instrument is the formality of her employment. Only the Philippine expanded-leave law was reported as extending in principle to the informal economy, and even there the studies described contribution requirements that vendors, farmers and other own-account workers could not meet [35,40]. The statutory leave period reported in every country was shorter than the six months of exclusive breastfeeding that the same national policies endorse; only the Philippine 105-day entitlement approaches it.

3.4. RQ2: From Policy Existence to Effect—Implementation, Accessibility, Utilization, Compliance

Reporting the chain link by link changes what the evidence shows (Table 5). All 22 sources reported policy existence, and 21 reported implementation—an observable room, corner, or break. Sources reported compliance, judged by the sources themselves, in 20. These are the three links at which the duty-bearer is visible. Sources reported the three links at which the worker is visible far less often: accessibility by 12 sources, utilization by 7, and effectiveness by 4. The literature therefore documents what employers are required to provide, and whether they are judged to have provided it, roughly three times more fully than whether women can reach and use it. This asymmetry, rather than the count of policies, is the review's central empirical observation.

Where accessibility was reported, it was generally poor. Facilities existed in most workplaces studied, but their adequacy—judged against the standard named in each source—was reported as insufficient in eleven of the sixteen studies that addressed facilities, with milk expressed in toilets, prayer rooms or first-aid rooms, with refrigeration frequently absent, and with corners located far from production areas [22,26–29,31,32,36]. Two Indonesian studies reported that 21.5% of workers had access to a proper facility and 7.5% had access to a support program [26]. Where utilization was reported, the pattern was the same: no participating Thai factory granted a formal lactation break, so mothers pumped during meal breaks [29]; 89.1% of Malaysian mothers reported stopping because time could not be allocated [22]; and Filipino evidence recorded low awareness and low use of stations that formally existed [35].

Monitoring and enforcement were the least well-reported domains in the whole evidence base. A routine monitoring mechanism was described in only four sources: annual labor inspection in the Philippines [35,40], Manpower Office supervision in Indonesia [33], and nutrition scorecards in the multi-country study [23]; in each case, the sources reported that the mechanism did not extend to verifying whether a facility was functional or used. Enforcement through sanctions was reported only in the two Indonesian municipal regulations, and one source questioned whether those provisions exceeded the delegation granted by the parent Health Law [42]. In the remaining sources, the charted cell for monitoring, enforcement, or both was 'not reported', which is itself a finding: the literature documents what has been enacted far more fully than what is subsequently verified.

3.5. RQ3: Barriers and Facilitators

Barriers and facilitators charted verbatim from each source were classified into four socio-ecological levels and counted (Table 6). Organizational barriers were the most frequently reported, appearing in 18 of the 22 sources: heavy workload, rigid or shift-based schedules, production targets, distance between the workstation and the facility, and absent or substandard facilities. Structural or policy barriers followed, in 11 sources. Interpersonal barriers (3 sources) and individual barriers (2 sources) were comparatively rarely reported, a distribution that may reflect the policy-oriented framing of the included literature as much as the lived experience of the women studied.

The pattern of facilitators was different. Organizational facilitators were again the most common (12 sources). Individual facilitators were reported in 8 sources and interpersonal facilitators in 6; in both cases, they appeared more often than the corresponding barriers. Maternal knowledge, self-efficacy and personal initiative, and support from partners, colleagues and supervisors thus appear in this literature primarily as the means by which women compensate for provisions that the workplace has not made. Structural facilitators were reported in 6 sources and consisted almost entirely of the existence of a legal framework rather than of its operation. The full table by source is available in Supplementary Table S3.

3.6. RQ4: Evidence Gaps and Research Priorities Identified by the Included Sources

Every included source identified at least one gap; these are charted individually in Supplementary Table S4 and fall into five clusters. The most frequently reported concerns concerned monitoring and enforcement (7 sources), where inspection was said to verify the existence of a facility but not its use [22,32–34,40–42], and facility standards (7 sources): refrigeration, distance and privacy, and the absence of a legally enforceable specification [26,28,30,31,36,37,41]. Five sources reported a mismatch between statutory leave and the six-month exclusive breastfeeding recommendation [24,30,38,40,43]. Four sources reported excluding informal-sector and short-term contract workers from maternity protection [23,35,39,43]. Three sources reported the absence of workplace-based breastfeeding education designed for working mothers [25,29,43].

This review identified two gaps not addressed by the included sources. First, the evidence base is almost entirely qualitative and descriptive: only four sources linked a provision to an outcome using any comparison, so the measurable effect of maternity leave, break entitlement, or facility standards on breastfeeding in this region remains unquantified. Second, and of comparable weight, the concentration of evidence in five member states means the peer-reviewed literature cannot describe the ASEAN-wide policy picture. The absence of any eligible study from Brunei Darussalam, Cambodia, Lao PDR, Myanmar, Singapore or Timor-Leste is reported here as a research gap in its own right rather than only as a limitation of this review.

4. Discussion

This review mapped the breastfeeding and workplace-support provisions reported in 22 peer-reviewed sources from five ASEAN member states. Three observations follow. Enacted provisions are widespread in the countries studied; verification of those provisions is not; and the population least protected by the instruments—informal and non-standard workers is also the population least studied.

4.1. What This Review Adds

Three contributions distinguish this review from the regional and thematic reviews that precede it. First, previous syntheses of workplace breastfeeding support have counted policies or summarised barriers; by separating the six links of the implementation chain (Table 5), this review shows that the imbalance in the evidence is systematic rather than incidental; the duty-bearer links are reported in 20 to 22 of 22 sources and the worker-facing links in 4 to 12, so the literature is far better equipped to say what employers must do than whether employed women can use what is provided. Second, by disaggregating the region rather than treating it as a unit, the review identifies three distinct regulatory architectures within five countries—a layered multi-instrument stack without a single accountable authority (Indonesia), dedicated statutes with a named inspectorate (the Philippines), and a voluntary welfare programme carrying no duty (Thailand)—and shows that the presence

of an inspectorate, not the presence of a mandate, is what distinguishes them. Third, it establishes that six of eleven member states have no peer-reviewed evidence at all on this question, which reframes what future regional policy analysis can and cannot claim.

4.2. Interpreting the Compliance Gap

This paper reported for interpretation rather than description of the low compliance reported in several countries, and the charted data support three readings that are not mutually exclusive.

The first is that compliance is unobserved rather than absent. In 18 of 22 sources, no routine monitoring mechanism was described, and in the four where one was, the sources stated that it verified the existence of a facility, not its use [23,33,35,40]. A duty that is never checked where it matters generates no information about its own performance; the low compliance reported in this literature may therefore be partly an artifact of measuring the wrong thing. This reading is supported by the finding that the studies reporting the lowest compliance are those that asked workers rather than employers [22,29,32].

Second, compliance is unenforced. Outside the two Indonesian municipalities that attached criminal sanctions [42], no source described a remedy available to a worker whose entitlement was denied. Where a duty carries no consequence, compliance becomes a function of managerial preference, which is exactly what the sources describe: implementation repeatedly depended on the disposition of top management or an individual supervisor [28,31,36]. The Thai case is the clearest illustration, since the Breastfeeding Corner Policy is explicitly voluntary and produced facilities in 160 workplaces but a formal lactation break in none [29].

The third is that compliance is unaffordable at the level demanded. Employers in several settings described the provision as a cost against production targets rather than an investment [26,28], and two studies identified the absence of any budget line as the binding constraint on public-sector implementers [30,33]. Where a mandate is issued without a financing mechanism, non-compliance is the predictable equilibrium rather than a failure of will. Read together, these three readings suggest that the policy problem in this region is not the absence of a rule but the absence of measurement, remedy, and money attached to it.

4.3. The Structural Mismatch Between Maternity Leave and the Six-Month Recommendation

This mismatch deserves separate emphasis because it is the one incompatibility that no amount of workplace support can fully resolve. Every country in this review endorses six months of exclusive breastfeeding as national policy. Every country provides less than six months of maternity leave: three months in Indonesia, 90 days in Thailand, 60 days in the Malaysian private sector, and 105 days the longest in the region and still short of the target in the Philippines. The policy therefore requires a woman to be simultaneously at work and exclusively breastfeeding for between six and eighteen weeks. The entire apparatus of rooms, corners and breaks exists to manage a contradiction created upstream by labor law. Five of the included sources named this explicitly and recommended extending paid leave to 180 days [24,30,38,40,43]. ILO Convention No. 183 sets 14 weeks as a minimum, not a target [7], and the mismatch identified here is between national health policy and national labor policy rather than between either and the international standard. Recognizing it as such matters for where the remedy lies: an incompatibility written into the length of statutory leave cannot be corrected by a facility standard, however well enforced.

4.4. A Social-Policy Reading: Gender Equity, Occupational Stratification and Informal Work

Read as a question of social policy rather than health services, the pattern documented here is distributional. The entitlements examined attach to the employment contract.

Hence, the women who receive them are those already best placed in the labor market, and the women excluded are those with the least bargaining power. Within the formal sector, the same gradient reappears: government offices, hospitals, and large enterprises reported better provision than small firms [32,34,39], and Indonesian evidence records more favorable breastfeeding knowledge, attitudes, and practices among white-collar than blue-collar workers [11]. A woman on a production line with a quota, a supervisor's permission to obtain, and a corner located away from her station is subject to a different regime from a civil servant in the same country under the same law.

Informal employment is the sharper case, and it is where the instruments fail structurally rather than incidentally. Comparative work on non-standard workers in other low- and middle-income settings shows that maternity protection built on employer contributions cannot reach domestic, casual and own-account workers, because the entitlement presupposes a registered employer to bear the duty [44,45]. The Philippine case in this review demonstrates the same mechanism inside ASEAN: a statute that nominally covers the informal economy excludes vendors and farmers through its contribution requirement [35,40], and costing work for the Philippines has shown that extending paid leave to informal workers requires a public financing decision rather than a drafting change [46]. ILO Recommendation No. 204 frames precisely this transition as a policy objective [47]; none of the sources in this review described a member state pursuing it for maternity protection.

Framing breastfeeding support as a labor and gender-equity issue also changes the responsibility it implies. The barriers reported here—workload, rigid schedules, absent facilities, and reliance on a supervisor's discretion—are conditions of work, while the facilitators reported at the individual and interpersonal levels may represent ways in which women and their social networks compensate for gaps in workplace provision. These findings should not be interpreted as indicating that women need greater motivation or individual responsibility to overcome inadequate support. Rather, they illustrate how maternal self-efficacy, colleague support, and other interpersonal resources may help women cope with unmet workplace needs. Read this way, the implications extend beyond the individual mother to the employment relationship and the broader social-protection system.

4.5. Comparison with International Standards and the Wider Literature

ILO Convention No. 183 sets a minimum of 14 weeks of maternity leave with cash benefits and requires daily nursing breaks counted as working time and remunerated [7]. Of the four countries with a leave duration reported here, only the Philippines meets that minimum; Thailand and Indonesia sit marginally below it, and Malaysia's 60-day private-sector entitlement is substantially below it. On nursing breaks, the divergence is sharper: the Convention treats the break as a paid entitlement, whereas no participating Thai factory granted a formal lactation break, and the Malaysian source reported women using meal and tea breaks instead [22,29].

The WHO/UNICEF Global Breastfeeding Scorecard tracks maternity-protection legislation as a policy indicator but scores the existence of legislation rather than its enforcement [48]. The pattern found here, comprehensive enactment with almost no functional monitoring, is precisely the pattern such an indicator cannot detect, and it suggests that regional monitoring frameworks would gain from an implementation indicator alongside the enactment indicator. The same distinction has been institutionalized in the marketing domain, where the NetCode protocol accompanies the International Code of Marketing of Breast-milk Substitutes [49,50]; no equivalent standing monitoring protocol exists for maternity protection, and none of the included sources described one. The implementation chain in Table 5 offers one concrete form such an indicator could take, since it distinguishes

the enactment measure that scorecards already capture from the accessibility and utilization measures that they do not.

The high-income comparator previously drawn from the United States Break Time for Nursing Mothers provision has been corrected: that provision was superseded by the Providing Urgent Maternal Protections for Nursing Mothers Act of 2022, which extended coverage to previously exempt employees and added a remedial mechanism [51]. The generalization about high-income countries as a class has been removed. What the comparison supports is narrower: the United States amended its statute specifically to close a coverage gap and attach a remedy the combination that the sources reviewed here found absent.

Interpreted through an implementation-science lens, the barriers cluster in the inner-setting and process domains of the Consolidated Framework for Implementation Research [52]: available resources, leadership engagement, and the absence of any designated implementation role or reflective monitoring. The intervention itself—a room, a break, and a period of leave—is not complex, and its evidence base is not contested. The constraint is organizational and procedural rather than informational, so further advocacy for the benefits of breastfeeding is unlikely to move it. In contrast, a designated accountable role, a utilization indicator, and an inspection remedy might.

The findings are consistent with evidence from comparable regions. Benedict et al. reported for South Asia that policies exist across India, Bangladesh, Nepal and Pakistan while weak enforcement undermines them [1]; Mgongo et al. reported for Africa that paid employment without structural support is associated with lower exclusive breastfeeding [10]; and Nieuwoudt et al. reported for South Africa that a national policy shift produced slow and uneven gains [12]. Within Southeast Asia, Nguyen et al. found in Viet Nam that awareness and uptake of maternity protection among formally employed women were substantially lower than statutory coverage would predict [53], a finding the present review could not corroborate independently, because Viet Nam appears only within a multi-country study. A systematic review of employer-based programs found that multicomponent workplace support raises breastfeeding duration [54], which is the evidence the recommendations in the included sources implicitly rely on but do not cite. Nguyen et al.'s finding is the closest external corroboration of the accessibility–utilization gap reported in Table 5, since it documents the same discrepancy between statutory coverage and what workers know of and take up.

4.6. Implications for Policy and Practice

Three implications follow directly from the mapping. Monitoring should shift from verifying that a facility exists to verifying that it is used, which requires a utilization indicator and a reporting route. Enforcement requires a remedy proportionate to the duty: the two Indonesian municipalities that attached criminal sanctions demonstrate both the possibility and the legal-drafting risk of doing so [42]. And extension to informal and non-standard workers requires a financing mechanism that does not depend on employer contributions, since contribution-based coverage was reported to exclude exactly the workers it nominally reaches [35,40]. A fourth, because statutory leave is shorter than the exclusive breastfeeding period that national policy endorses in every country studied, leave duration should be treated as a policy variable in its own right and not compensated for indefinitely through workplace facilities.

4.7. Implications for Future Research

Four priorities follow from the gaps identified in Section 3.6. First, primary policy-implementation research is needed in the six member states from which no eligible evidence was located: Brunei Darussalam, Cambodia, Lao PDR, Myanmar, Singapore, and Timor-

Leste. Until such evidence exists, no synthesis can describe ASEAN as a region, and this review's own claims are confined to five countries. Second, the worker-facing links of the implementation chain require dedicated measurement: studies that report accessibility and utilization, not only provision, and that sample workers rather than employers or managers. Third, quantitative evaluation of specific provisions—leave duration, break entitlement, and facility standards—against breastfeeding outcomes is needed, with designs capable of supporting causal inference; only four of 22 sources reported any comparison at all. Fourth, research on informal and non-standard employment is almost absent from this literature despite informal work predominating in the region, and costing studies of non-contributory financing models, as conducted for the Philippines [46], would be of immediate policy value.

A methodological priority also follows—an updated search across the databases, regional indexes and intergovernmental repositories listed in Supplementary Material S2—since the present search cannot be assumed to have retrieved the regional-language literature in which evidence from the unrepresented member states would most plausibly appear.

4.8. Limitations

This review has six limitations, the first of which constrains every statement made above. First, the evidence is geographically concentrated: 21 of 22 sources report on Indonesia, the Philippines, Thailand, or Malaysia; Viet Nam appears only within a multi-country study; and six ASEAN member states are unrepresented. The review therefore maps the literature of five member states and cannot describe the region.

Second, the search has its own limitations. Only two bibliographic databases were searched; Embase, CINAHL, Web of Science, Global Health, PsycINFO, a sociology or labor source, and regional indexes were not. The two publisher platforms retrieve only single-publisher holdings, and the ScienceDirect yield showed a precision pattern consistent with a full-text search. At the same time, the Scopus string applied the geographic concept as an affiliation filter rather than a Boolean block and likely under-retrieved.

Third, no legal database or grey-literature repository was searched specifically; no search was made of ASEAN, WHO, UNICEF, or ILO repositories or of national gazettes, so national legislation, government reports, and technical documents enter this review only as described in peer-reviewed sources; the regulatory picture in Table 4 therefore reflects what the literature reports, not a primary legal analysis.

Fourth, consistent with scoping-review methodology, no critical appraisal was undertaken, so sources of differing methodological strength contribute equally to the map. Fifth, the evidence is predominantly qualitative and descriptive. Accordingly, no statement in this review should be read as an effect estimate, and the four sources that reported a comparison [26,34,37,43] are cited as reporting it rather than as establishing it.

Sixth, the implementation chain is an analytic overlay applied to fields charted for a different purpose. Therefore, a link recorded as 'not reported' indicates silence in the source, which may reflect the study's design or reporting conventions rather than the absence of the phenomenon.

5. Conclusions

Within the five ASEAN member states for which peer-reviewed evidence was located—Indonesia, the Philippines, Thailand, Malaysia and, indirectly, Viet Nam—this scoping review answers its four questions as follows. On RQ1, every country studied has enacted at least one national instrument providing maternity leave, and most also mandate a workplace lactation facility or break; statutory leave was shorter than the six months of exclusive breastfeeding the same policies endorse in every country, and coverage was

anchored in formal employment throughout. On RQ2, reported evidence thins sharply along the implementation chain: 22 of 22 sources reported policy existence, 21 reported implementation, and 20 reported compliance, but only 12 reported accessibility, 7 reported utilization, and 4 reported effectiveness. Implementation depended on institutional commitment rather than national enforcement; four sources described a routine monitoring mechanism, and where described, it verified facility existence rather than use. On RQ3, barriers were predominantly organizational (18 of 22 sources) and structural (11 of 22), while facilitators were organizational (12), individual (8), interpersonal (6), and structural (6), a pattern in which individual and interpersonal resources compensate for what the workplace has not provided. On RQ4, the sources most frequently identified weak monitoring and enforcement, absent facility standards, the leave–recommendation mismatch, the exclusion of informal workers, and the absence of workplace-based education.

Because six ASEAN member states are unrepresented in the evidence, because no critical appraisal was undertaken, and because the included designs cannot support effect estimates, these conclusions describe the state of the literature rather than the performance of a region's policies. The literature does establish that the region has largely solved the problem of enacting breastfeeding provisions and has not begun to solve the problem of verifying that employed women can reach and use them. Improving workplace breastfeeding support is therefore best framed not only as a maternal and child health strategy but as a matter of decent work, gender equity, and social protection, and the gap identified here lies principally in the labor-protection machinery—inspection, remedy, and coverage of non-standard work.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/soc16100317/s1. Supplementary Material S1. Full search strategy for each information source, with fields, limits, dates and yields; Supplementary Material S2. Reports excluded at full text, with reasons (n = 18). Supplementary Material S3. Completed PRISMA-ScR checklist [18]; Supplementary Material S4. Data-charting form; Supplementary Table S1. Full characteristics of included sources; Supplementary Table S2. Study-by-study charting; Supplementary Table S3. Barriers and facilitators with socio-ecological level; Supplementary Table S4. Gaps and recommendations by source [22–43]. Supplementary Tables S1–S4 are ordered alphabetically by first author.

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Conflicts of Interest: Two authors of this review are authors of primary studies assessed for eligibility. R.W.B. is the first author of references [11,26–28]; N.P.A. is a co-author of references [11,26]. Both authors participated in the screening process, with D.S.S. serving as the third reviewer and arbitrator when required. D.S.S. is a co-author of references [27,28]. To mitigate potential conflicts of interest,

no author participated in the eligibility decision, data charting, or reconciliation for any primary study of which they were an author. Accordingly, D.S.S. did not participate in these procedures for references [27,28], while R.W.B. and N.P.A. did not participate in these procedures for the primary studies of which they were authors. For such studies, the relevant eligibility decisions, data charting, and reconciliation were undertaken by a fourth team member who was not otherwise involved in screening, and the decisions were recorded separately in the screening log. R.W.B. additionally declares an employment relationship disclosed in references [26–28]. The remaining authors declare no conflicts of interest.

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