

## **Evaluating Population and Environmental Education through Ecovocation: Critical Urbanization Literacy, Socio-Ecological Vulnerability, and Rights-Based Learning in Jakarta**

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### **ABSTRACT**

This article re-organizes empirical data on migrant women's vulnerability in Jakarta's SPA industry into the scope of educational evaluation. Rather than treating Population and Environmental Education (PEE) only as demographic and ecological literacy, the study evaluates PEE as a rights-based educational praxis capable of interpreting, preventing, and responding to structural vulnerability. Using a critical qualitative educational-evaluation design, the study examines data generated through semi-structured interviews, limited participant observation, and document analysis involving SPA workers, community actors, NGO and legal-aid advocates, academics, and public officials. The analysis applies four evaluative criteria: relevance, responsiveness, inclusiveness, and transformative utility. The findings indicate that PEE is highly relevant when it is reconstructed as critical urbanization literacy that prepares migrants to understand labor-market exclusion, safe migration, rights, and urban citizenship. It is responsive when environmental education moves beyond behavioral campaigns and evaluates socio-ecological vulnerability, including dense housing, sanitation problems, pollution, flooding, and unequal access to healthy urban space. It becomes inclusive when the voices of stigmatized informal workers are treated as legitimate evidence for educational planning and social protection. Finally, the study proposes ecovocation as a transformative evaluation model that integrates critical consciousness, environmental justice literacy, legal and labor-rights education, safe reporting mechanisms, and non-stigmatizing vocational pathways. The article contributes to educational evaluation by demonstrating how qualitative evidence can be organized into a defensible, triangulated, and utilization-oriented framework for evaluating PEE in contexts of urban inequality.

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### **INTRODUCTION**

Educational evaluation is not limited to measuring programme outputs or learner achievement. In contemporary contexts marked by inequality, migration, ecological stress, and urban precarity, educational evaluation also needs to examine whether educational frameworks are relevant to real social conditions, responsive to vulnerable groups, inclusive of marginalized voices, and useful for social transformation (Batra, 2020; Brau et al., 2022, 2022; Paudel, 2017; Sharma et al., 2024), (Secretariat, 2017; Thibeault et al., 2024). This article therefore repositions Population and Environmental Education (PEE) as an evaluand: a field of educational practice that must be assessed in terms of its capacity to explain and respond to the lived realities of vulnerable urban citizens.

The empirical context of this study is the structural vulnerability experienced by migrant women in Jakarta's SPA industry, where wellness and leisure services may intersect with covert prostitution and legally ambiguous labor arrangements. The data in the original manuscript show that migrant women's vulnerability is not merely an individual moral issue but is connected to rural-urban migration, limited educational capital, weak labor-market access, gendered family responsibilities, and unequal urban environments (Arif et al., 2021; Mikac and Wahdyudin, 2021; Potts and Jin, 2022; Utomo et al., 2013; Wardhana, 2023; Yulianti et al., 2023). This empirical pattern provides a strong basis for reframing the manuscript within educational evaluation, because it raises a central evaluative question: Does PEE adequately equip vulnerable citizens with the knowledge, agency, and protection pathways needed to navigate urbanization?

Rapid urbanization in developing countries has reshaped demographic concentration, labor structures, and socio-spatial relations. While urbanization is often framed as a pathway to growth and mobility, critical urban scholarship shows that the benefits of urban transformation are unevenly distributed, particularly for migrants, women, and informal workers (Borja, 2023; Harvey, 2008; Hugo, 2017; Mehan, 2025). Migrant women may enter the city with expectations of work, yet encounter formal labor markets that require credentials, networks, and prior experience that they often lack. In such conditions, the city becomes not only a space of opportunity but also a mechanism of social selection.

From an educational-evaluation perspective, the problem is not simply that migrant women lack information. The deeper issue is that existing population and environmental education may still be too technocratic, moralistic, or behavior-oriented to address structural vulnerability (Amin and Eliasa, 2023; Batra, 2020; Derrien et al., 2020; Nussbaum, 2011; Paudel, 2017; Sharma et al., 2024). Population education is frequently reduced to demographic knowledge such as growth, density, migration, and fertility, whereas environmental education is often narrowed to campaigns about waste management, conservation, or individual behavior. Such approaches may produce awareness but not necessarily critical capability, rights literacy, or the ability to interpret social and ecological injustice (Freire, 2019).

This article advances ecovocation as an evaluative reconstruction of PEE. Ecovocation refers to an integrated educational approach that links population literacy, ecological awareness, vocational empowerment, rights advocacy, and critical citizenship (Batra, 2020; Breen et al., 2023; Kozan et al., 2017; Paudel, 2017; Potts and Jin, 2022). It does not treat vocational education as narrow skill training; rather, it positions skills, legal literacy, safe migration knowledge, and environmental justice as part of a broader capability infrastructure. In this sense, ecovocation can be evaluated as a humanistic and transformative educational response to urban vulnerability.

Accordingly, the purpose of this article is to reorganize the empirical data from the uploaded manuscript into a coherent article for the field of educational evaluation. The article has three objectives: first, to evaluate the relevance of PEE to migrant women's urban vulnerability; second, to show the validity of empirical data through transparent evidence mapping and triangulation; and third, to propose an ecovocation-based model of PEE evaluation that can inform education, policy, and social advocacy (Brau et al., 2022; Clark et al., 2019; Potts and Jin, 2022; Sharma et al., 2024; Thibeault et al., 2024).

## **2. Literature Review and Evaluative Framework**

### **2.1 Educational Evaluation as Judgement, Responsiveness, and Use**

Evaluation involves systematic judgement about the merit, worth, significance, and use of an educational programme, policy, or practice (Scriven, 1991; Stufflebeam, 2003). In educational evaluation, the object being evaluated is not always a single curriculum or intervention (Batra, 2020; Nussbaum, 2011; Paudel, 2017; Sharma et al., 2024). It may also be an educational orientation, a

conceptual framework, or a programme logic that claims to respond to social needs. In this article, PEE is treated as such an evaluand.

The evaluative framework combines four traditions. First, the CIPP model emphasizes context, input, process, and product, allowing evaluation to examine whether an educational framework responds to real contextual needs (Stufflebeam, 2003). Second, responsive evaluation stresses the concerns, lived experiences, and values of stakeholders, especially those affected by the programme (Potts and Jin, 2022). Third, utilization-focused evaluation asks whether evaluation findings are useful for action, policy, and programme improvement (Patton, 2002). Fourth, critical pedagogy insists that education must cultivate consciousness and agency rather than merely transmit information (Batra, 2020; Brau et al., 2022; Derrien et al., 2020; Freire, 2019; Kozan et al., 2017; Sharma et al., 2024; Thibeault et al., 2024).

Based on these traditions, this article uses four evaluative criteria: relevance, responsiveness, inclusiveness, and transformative utility. Relevance refers to the fit between PEE content and the structural realities of migration, labor, rights, and urban inequality (Arif et al., 2021; Mikac and Wahdyudin, 2021; Utomo et al., 2013; Wardhana, 2023). Responsiveness refers to the ability of PEE to address socio-ecological vulnerability experienced by learners and communities. Inclusiveness refers to the extent to which marginalized voices become legitimate data for educational planning. Transformative utility refers to the practical capacity of PEE to support protection, rights restoration, and alternative life pathways.

## **2.2 Population and Environmental Education as a Field Requiring Evaluation**

Population and Environmental Education historically emerged from concerns about demographic change, environmental sustainability, and development planning (Afriadi, 2022; Mikac and Wahdyudin, 2021; Nussbaum, 2011; Sharma et al., 2024; Wardhana, 2023). However, when PEE is reduced to population control, ecological modernization, or individual behavior change, it may fail to address the political economy of vulnerability. The uploaded manuscript argues that PEE in Indonesia has often been shaped by positivist demographic traditions and normative ecological approaches, producing knowledge that explains population and environmental problems but does not always cultivate critical citizenship.

For educational evaluation, this limitation is important. A programme or field may be formally relevant to national development yet substantively weak if it does not equip vulnerable groups to interpret the power relations that produce their conditions (Batra, 2020; Derrien et al., 2020; Paudel, 2017). In urban contexts, PEE must therefore be evaluated not only by whether learners know demographic concepts or environmental facts, but also by whether they can understand migration risk, informal labor, spatial inequality, environmental injustice, gendered vulnerability, and the right to the city (Harvey, 2008; Lefebvre, 1996).

## **2.3 Ecovocation as an Evaluative Reconstruction of PEE**

Ecovocation is proposed here as a reconstructed model of PEE that integrates ecological knowledge, population analysis, vocational capability, legal literacy, and civic advocacy (Batra, 2020; Breen et al., 2023; Kozan et al., 2017; Mehan, 2025; Secretariat, 2017). It resonates with Sen's capability approach because it evaluates education by asking whether people gain real freedoms to pursue lives they have reason to value (Sen 1999). It also resonates with Nussbaum's emphasis on human capabilities and dignity (Nussbaum 2011).

Ecovocation thus shifts PEE from moral instruction to educational empowerment. It asks whether education can prevent vulnerability before migration, strengthen awareness during urban incorporation, and provide realistic exit pathways from exploitative labor arrangements (Derrien et al., 2020; Paudel, 2017; Thibeault et al., 2024). Within this model, educational evaluation becomes a bridge between empirical diagnosis and programme redesign.

## METHODS

### 3.1 Design

This article uses a critical qualitative educational-evaluation design. The empirical dataset is drawn from the qualitative multi-sited case study described in the uploaded manuscript, while the present article reinterprets that dataset through educational evaluation (Anderson et al., 1981; Cook and Lineberry, 2016; Nouraey et al., 2020; Stake, 2004). The evaluation is not designed to measure the effectiveness of a completed training programme; rather, it evaluates the adequacy and transformative potential of PEE as an educational framework for addressing urban vulnerability.

The evaluand is PEE as reconstructed through ecovocation. The unit of analysis is the relationship between educational gaps, socio-ecological vulnerability, rights knowledge, and potential advocacy-vocational pathways for migrant women in Jakarta. The evaluation questions are: (1) How relevant is PEE to migrant women's urban vulnerability? (2) How responsive is PEE to socio-ecological conditions affecting vulnerable informal workers? (3) How inclusive is the evidence base when marginalized voices are used as data for educational planning? (4) How can ecovocation improve the transformative utility of PEE?



Figure 1. Framework for Educational Evaluation

### 3.2 Data Sources and Participants

The data were generated through purposive and snowball sampling. Participants included migrant women working in SPA establishments, SPA managers, community actors, NGO and legal-aid advocates, academics, and public officials. This multi-actor structure allows the evaluation to compare lived experience, advocacy perspectives, expert interpretation, and policy recognition. All personal names are anonymized using informant codes.

Data collection consisted of semi-structured interviews, limited participant observation, and document analysis of local regulations, demographic statistics, NGO reports, and media coverage. The use of multiple data sources strengthens credibility because the findings do not rely on a single testimony or institutional account. Instead, the analysis compares recurring patterns across workers, advocates, academics, officials, and documentary sources.

*Table 1. Data sources used for educational evaluation*

Source group	Codes / materials	Data contribution
SPA workers / migrant women	IT, RN, DS, WD, DA, LA, NA, RA	Migration history, schooling, labor-market barriers, family responsibility, workplace risks, housing and environmental conditions, rights knowledge
Community actor	JT	Local perception of raids, access to decent work, neighborhood-level recognition
NGO and legal-aid advocates	SI, RO, TA	Structural inequality, legal literacy, safe reporting, social advocacy, stigma management
Academics	ID, AH	Conceptual interpretation of urbanization, right to the city, PEE critique, rights-based education
Public officials	HD, NM	Policy recognition of migrant vulnerability, need for social outreach, skills training, and protection programmes
Documents and observations	Regulations, statistics, reports, media, field notes	Triangulation of policy context, urban ecological conditions, regulatory gaps, and social-protection issues

### 3.3 Data Analysis and Validation

The data were analyzed thematically. Initial coding identified repeated patterns related to migration literacy, educational capital, urban labor exclusion, socio-ecological vulnerability, stigma, legal ambiguity, and the need for alternative pathways. These codes were then reorganized into educational-evaluation themes using the criteria of relevance, responsiveness, inclusiveness, and transformative utility.

To make the validity of data explicit, this article presents an evidence matrix in the results section. Validity is strengthened through triangulation across interviews, observations, and documents; member checking with selected informants; reflexive journaling to monitor researcher assumptions; and audit trails that connect claims to specific data segments (Denzin, 2005; Lincoln, 1985). The article therefore avoids making broad evaluative claims without showing the empirical basis on which those claims are made.

*Table 2. Data-validity strategy for the educational-evaluation article*

Trustworthiness criterion	Procedure	Function in this article
Credibility	Triangulation across workers, advocates, academics, officials, observation, and documents	Themes are retained only when supported by more than one data stream or by strong negative-case explanation.
Transferability	Thick description of migration, urban labor, housing, environment, and rights context	Readers can judge whether the findings are applicable to other urban PEE or vulnerability contexts.
Dependability	Thematic coding and evidence matrix	Evaluation claims are linked to traceable empirical indicators rather than general impressions.
Confirmability	Reflexive notes, anonymized quotes, and audit trail	Interpretation is separated from raw evidence, reducing unsupported normative judgement.

## RESULTS AND DISCUSSION

The results are organized according to the evaluative criteria. Each subsection shows how empirical data from the uploaded manuscript support an evaluative judgement about PEE and ecovocation.

### 4.1 Relevance: PEE as Critical Urbanization Literacy

The first evaluative finding is that PEE becomes relevant when it is reconstructed as critical urbanization literacy. Worker data show that migration to Jakarta often occurred without adequate knowledge about urban labor-market exclusion, formal job requirements, legal risks, and mechanisms for protection. IT described migration as an emergency response after a factory contract ended and after a friend offered work in Jakarta as an SPA therapist. NA's account showed

that even completing high school did not automatically translate into mobility because she could not access her diploma due to unpaid school fees. WD's vocational-school background in beauty also did not prevent precarious entry because employers still required work experience.

These data indicate that the educational problem is not only low schooling but weak migration literacy. Participants entered the city without knowledge of how the urban labor market sorts workers by credentials, networks, gender, class, and experience. RN's account that schooling did not prepare her for urban life confirms a gap between formal education and practical citizenship literacy. DS's reflection that outreach or training about urban labor risks might have prevented entry into vulnerable work further shows the preventive value of population education.

The evaluative judgement is therefore clear: conventional population education is insufficient when it treats migration as a demographic trend without addressing power, risk, rights, and labor-market structure. PEE is relevant to educational evaluation when it equips potential migrants with safe-migration knowledge, labor-rights literacy, critical awareness of informal work, and capacity to identify exploitative recruitment.

#### **4.2 Responsiveness: Environmental Education as Evaluation of Socio-Ecological Vulnerability**

The second evaluative finding concerns responsiveness. The data show that urban environmental conditions are not neutral background factors; they form an "infrastructure of vulnerability". SPA worker informants described cramped boarding rooms, dense neighborhoods, polluted alleys, flood-prone areas, poor sanitation, and unsafe water as conditions that intensify exhaustion, illness, insecurity, and dependence on unstable income.

IT associated living near a polluted river and frequent flooding with difficulty sustaining work. RN highlighted that narrow and polluted residential spaces accelerated bodily exhaustion. DS linked waterlogging and flooding to safety risks, while DA reported health problems related to unclean water in boarding houses. These accounts show that vulnerable workers experience environmental injustice not as abstract ecological degradation but as daily bodily burden.

The evaluative judgement is that environmental education within PEE must move beyond individual behavioral campaigns. If environmental education only teaches waste sorting, cleanliness, or conservation without addressing unequal access to healthy space, it becomes weakly responsive to marginalized groups. A responsive PEE curriculum or programme should evaluate who lives in polluted and flood-prone areas, why vulnerable workers are concentrated there, and how access to sanitation, clean water, safe housing, and health protection is linked to urban citizenship.

#### **4.3 Inclusiveness: Marginalized Voices as Valid Educational Data**

The third evaluative finding is that PEE becomes more inclusive when the lived experiences of migrant women are treated as valid data rather than moralized anecdotes. In the original manuscript, worker narratives are supported by the perspectives of NGO and legal-aid advocates, academics, community actors, and public officials. This multi-perspective structure is important for educational evaluation because it prevents the analysis from reducing vulnerability to individual weakness.

Advocates SI, RO, and TA emphasized that population education should raise awareness of structural inequality, class bias, gendered disparity, legal rights, and safe reporting. Academics ID and AH argued that urbanization must be taught as a political process related to decent work, social protection, and the right to the city. Public officials HD and NM recognized that many migrant women arrive without basic knowledge and are vulnerable to exploitation, suggesting that education should be linked with public policy and social outreach.

The evaluative judgement is that inclusive educational evaluation must recognize the epistemic value of those who experience exclusion. Migrant women's accounts are not supplementary illustrations; they are central data for redesigning PEE. When education planners

ignore such voices, PEE risks reproducing disciplinary citizenship, where vulnerable people are instructed to adapt to inequality rather than supported to transform it.

#### 4.4 Transformative Utility: Ecovocation as a Model for PEE Evaluation

The fourth evaluative finding concerns transformative utility. Informants across groups suggested that punitive enforcement and moral policing are insufficient. Worker data show that vulnerability is connected to educational gaps, weak legal literacy, absence of safe complaint mechanisms, limited vocational alternatives, and stigma. Advocate, academic, and official data all point toward the need for an integrated educational ecosystem rather than fragmented interventions.

Ecovocation therefore emerges as a practical model for evaluating and redesigning PEE. It includes five interrelated components: critical consciousness education, urban environmental justice literacy, labor and legal literacy, psychosocial and stigma-sensitive support, and non-stigmatizing vocational pathways. The model is evaluative because each component can be assessed for relevance, access, stakeholder responsiveness, and actual use in reducing vulnerability.

*Table 3. Evidence matrix linking empirical data to educational-evaluation judgement*

<b>Evaluative criterion</b>	<b>Empirical evidence from dataset</b>	<b>Validation pathway</b>	<b>Educational-evaluation judgement</b>
Relevance	IT migrated after factory work ended; NA lacked usable diploma; WD had beauty-school background but lacked experience; RN reported schooling did not prepare her for urban reality.	Worker interviews triangulated with advocate and academic interpretations on migration literacy and labor exclusion.	PEE should include critical urbanization literacy, safe migration, credential awareness, and labor-rights education.
Responsiveness	IT, RN, DS, WD, and DA described flooding, pollution, poor sanitation, density, unsafe water, and bodily exhaustion.	Worker narratives triangulated with observation and official recognition of dense and flood-prone settlements.	Environmental education should evaluate socio-ecological vulnerability and unequal access to healthy urban space.
Inclusiveness	SI, RO, TA, ID, AH, HD, and NM emphasized rights, legal literacy, policy outreach, and protection beyond raids.	Cross-actor convergence between civil society, academia, and government perspectives.	PEE evaluation must include marginalized voices as legitimate evidence for educational planning.
Transformative utility	Workers stated that education/training, rights knowledge, and alternative skills could reduce entrapment; officials acknowledged raids alone are insufficient.	Convergence between worker needs, advocacy recommendations, and public-policy recognition.	Ecovocation can guide PEE redesign through critical consciousness, environmental justice, legal literacy, safe reporting, and vocational alternatives.

Table 4. *Ecovocation-based model for evaluating PEE*

Component	Educational content	Evaluation question
Critical urbanization literacy	Migration, labor-market exclusion, credentials, informal work risks, right to the city	Can participants identify safe migration routes, decent-work standards, and exploitation risks?
Socio-ecological vulnerability literacy	Housing density, sanitation, flooding, pollution, health risks, unequal healthy space	Can learners interpret environmental problems as structural and classed rather than purely individual?
Labor and legal-rights literacy	Contracts, wages, social security, gender-based violence, safe complaint mechanisms	Do vulnerable workers know where and how to seek protection without stigma or criminalization?
Advocacy and solidarity	Community organizing, NGO/legal-aid connection, stigma management, rights claims	Does education create pathways for collective voice and institutional response?
Non-stigmatizing vocational empowerment	Alternative skills, recognition of prior skills, realistic livelihood pathways	Do training pathways expand capabilities without blaming or re-stigmatizing participants?

## Discussion

### 5.1 Repositioning the Article within Educational Evaluation

The reorganization of the manuscript into the scope of educational evaluation changes the central contribution of the article. The focus is no longer simply the sociological explanation of urban prostitution or the right to the city. Instead, the article now evaluates whether PEE can function as an educational framework for reading, preventing, and responding to vulnerability. This shift strengthens the article’s relevance for journals in educational evaluation because the empirical data are interpreted as evidence for programme and framework improvement.

Using CIPP logic, the context dimension is demonstrated by migration pressure, labor-market exclusion, ecological stress, and weak protection. The input dimension concerns the content needed in PEE: safe migration, rights literacy, environmental justice, and vocational alternatives. The process dimension concerns how education should be delivered through community outreach, participatory dialogue, NGO collaboration, and non-stigmatizing support. The product dimension concerns expected outcomes: stronger rights awareness, safer decision-making, improved access to services, and expanded capability.

### 5.2 From Measurement to Critical Educational Judgement

The evidence supports a broader understanding of educational evaluation. Evaluation should not only ask whether learners achieve predefined outcomes; it should also ask whether educational frameworks are ethically and socially adequate. In this case, PEE is inadequate if it merely transmits demographic and ecological facts while neglecting migration risk, gendered labor vulnerability, spatial injustice, and urban environmental inequality.

This finding aligns with responsive evaluation, which insists that stakeholder concerns and lived experiences must shape evaluative judgement (Stake, 2004). The strongest evidence in this article comes from the convergence between migrant women’s accounts and the interpretations of advocates, academics, and officials. Such convergence strengthens the claim that educational gaps are structural rather than incidental. It also suggests that educational evaluation should treat vulnerable communities as co-producers of evaluative knowledge, not simply as objects of intervention.

### **5.3 Ecovocation and Utilization-Oriented Evaluation**

The proposed ecovocation model strengthens the utilization value of the study. Utilization-focused evaluation emphasizes that evaluation should generate findings that intended users can apply for improvement (Patton, 2002). Ecovocation translates empirical findings into a usable framework for curriculum designers, community educators, public officials, NGOs, legal-aid institutions, and vocational-training providers.

For curriculum designers, the findings imply that PEE should include modules on safe migration, critical urbanization, labor rights, and environmental justice. For government agencies, the findings imply that education cannot be separated from social protection, housing, sanitation, gender-based violence prevention, and safe complaint mechanisms. For NGOs and legal-aid actors, the findings support integrated outreach that combines critical education, rights literacy, and vocational support. For higher education institutions, the findings suggest that PEE research should move toward transdisciplinary and community-based evaluation.

### **5.4 Contribution to the Field of Educational Evaluation**

This article contributes to educational evaluation in three ways. First, it demonstrates how qualitative data from a socially sensitive field can be reorganized into a transparent evidence matrix that supports evaluative judgement. Second, it proposes criteria for evaluating PEE in contexts of vulnerability: relevance, responsiveness, inclusiveness, and transformative utility. Third, it advances ecovocation as a model that connects educational evaluation with capability expansion, environmental justice, and urban citizenship.

The study also shows that validity in qualitative educational evaluation does not depend on numerical generalization. Its validity is built through thick description, stakeholder triangulation, reflexive analysis, and explicit linkage between data and judgement. This is especially important when evaluation deals with marginalized groups whose experiences may be hidden, stigmatized, or absent from official datasets.

## **CONCLUSION**

This article has reorganized empirical data on migrant women's vulnerability in Jakarta into the scope of educational evaluation. The central conclusion is that PEE should be evaluated not only as a field of demographic and environmental literacy but as a rights-based educational praxis. The data show that migrant women's vulnerability is intensified by limited educational capital, weak migration literacy, informal labor risks, legal ambiguity, socio-ecological stress, and limited access to protection. These conditions reveal the need for a more critical, inclusive, and transformative model of PEE.

The study's first conclusion is that population education should be reconstructed as critical urbanization literacy. Education must prepare potential migrants to understand opportunity structures, labor-market exclusion, safe migration, decent work, and urban citizenship. The second conclusion is that environmental education should be evaluated as education for socio-ecological vulnerability and environmental justice, not only as individual behavioral instruction. The third conclusion is that PEE becomes transformative when it is linked to legal literacy, safe reporting, social advocacy, and realistic vocational pathways.

Ecovocation offers a model for this reconstruction. It integrates critical consciousness, environmental justice, legal and labor-rights literacy, solidarity, and non-stigmatizing vocational empowerment. As an evaluative model, ecovocation can help educational researchers and policymakers judge whether PEE is relevant, responsive, inclusive, and useful for expanding the capabilities and dignity of vulnerable citizens.

Future studies should test the ecovocation model in specific PEE programmes, community education initiatives, or vocational-rights interventions. Quantitative or mixed-methods evaluation

may further examine changes in migration literacy, rights awareness, self-protection capacity, access to services, and livelihood outcomes. Nevertheless, the present qualitative evidence already demonstrates that educational evaluation must attend to the social and ecological realities that shape learning, vulnerability, and citizenship.

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