

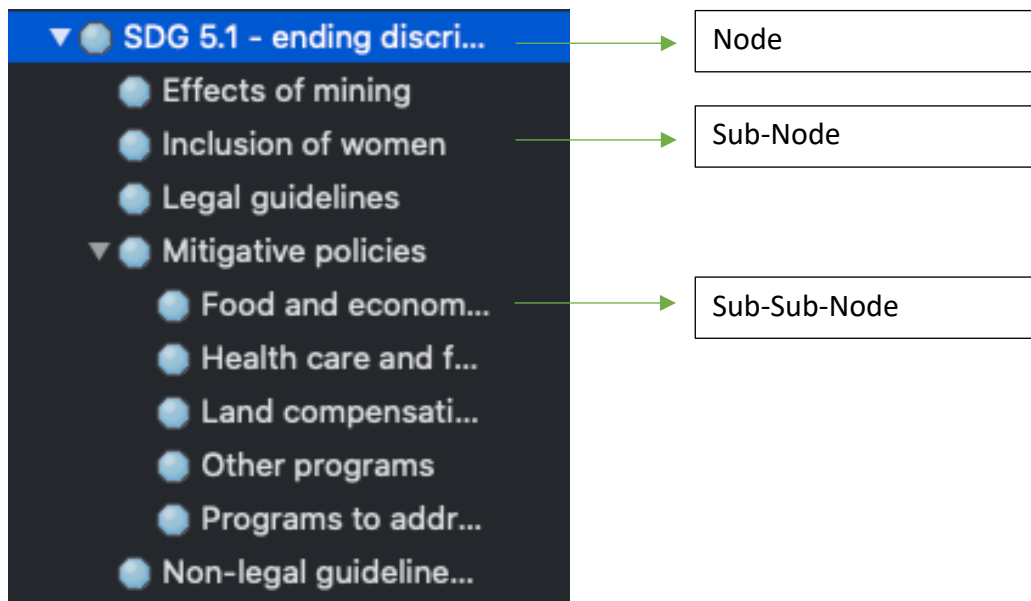
**Background:** This document provides supplementary material relating to the coding process, the final coding framework, and validation steps for the following article:

Lesnikov, P., Kunz, N.C. and Harris, L.M. (2023) Gender and sustainability reporting – Critical analysis of gender approaches in mining. *Resources Policy*.

<https://doi.org/10.1016/j.resourpol.2022.103273> (available open access)

**Coding Process:**

As noted in the above article, our initial coding framework was developed by cross-referencing the results from our literature search against indicators listed under Sustainable Development Goals (notably SDG 5) to identify current areas of concern relating to women and the mining industry. This was a key starting point for the broader gender analysis outlined in the piece. Our coding approach also drew upon a 2019 report produced for Asia-Pacific Economic Cooperation (APEC) on women’s participation in mining (Campero et al., 2019). The “targets and indicators” section of the UN Sustainable Development Goal (SDG) 5 were reviewed for relevance in relation to the key themes identified in our literature review and review of the APEC report. Each area of concern was classified under the UN SDG 5 targets that were deemed relevant. The coding framework was developed in NVivo by converting those SDG 5 targets into broad “nodes.” Areas of concern identified from our literature review were then classified under the SDG 5 indicators and converted into sub-nodes. Specific details about each sub-node (for example, reporting by region or only globally) were converted into sub-sub-nodes (Figure 1).

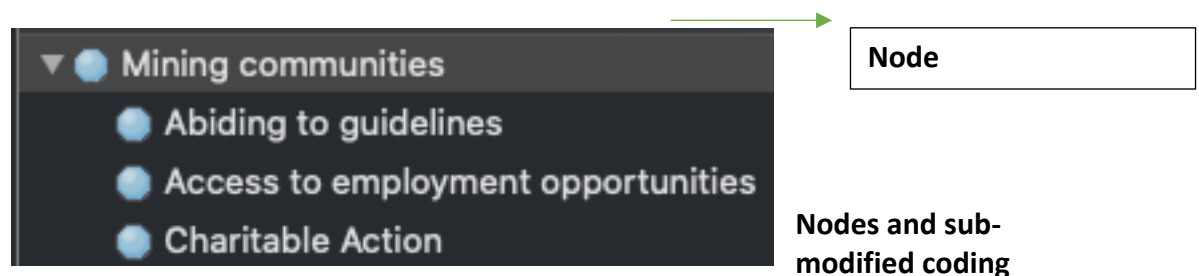


**Figure 1: nodes, sub-nodes, and sub-sub-nodes in original coding framework using SDG 5 targets.**

This coding framework was validated through a multi-coder process. Both the first author (Lesnikov, P.) and a collaborator simultaneously applied the codes to a sample sustainability report (by BHP Billiton Minerals). Both validators found that the sustainability report mentioned similar areas of concern as those identified in the literature review, but did not specify how

those issues related to gender and diversity. For example, the report mentioned relations between Indigenous communities and mining companies but did not mention any intersectional concerns that might be relevant in terms of gender and Indigeneity. Following this, the first author and collaborator also found differences in how they applied the framework to the sustainability reports. In terms of how this manifested during the coding process, one of the validators would code references in the sustainability reports as long as they related to areas of concern, regardless of whether or not the reference used gender-explicit language (for example, virtually every sustainability report has a section on health and safety, which we know affects men and women differentially. This validator would have included those references regardless of whether or not they distinguished between the gendered health effects of mining). Meanwhile, the second coder hadn't applied the codes unless there was gender explicit language. It was found that the latter approach yielded very few references in some cases. Similarly, the validation process also revealed that many of the sub-nodes were too specific and unlikely to be referenced in the reports.

Based on the cross-validation exercise, the framework and coding approach were modified to more clearly demarcate where there was gender-explicit discussion, and where topics were gender-relevant, but not addressed in those terms. This helped us to identify areas where there were clear gaps in reporting and where things could more adequately addressed from a gender perspective (see summary in Table 1 of the publication). This also allowed us think more carefully about what a broader gender perspective, inclusive of intersectional dimensions, might allow for mining related sustainability reporting. All of these became important elements for the analysis in the final publication. As well, areas of concern from the literature review were classified by whether they related to mining communities or to mining company employees. As such "mining communities" and "mining employees" were used as the top nodes of the framework. This also allowed for a broader set of codes to be included given the specificity of certain SDG5 targets. As well, concerns from the literature were included as new sub-nodes, and sub-sub-nodes that were too specific were either merged into broader sub-nodes or eliminated (figure 2)

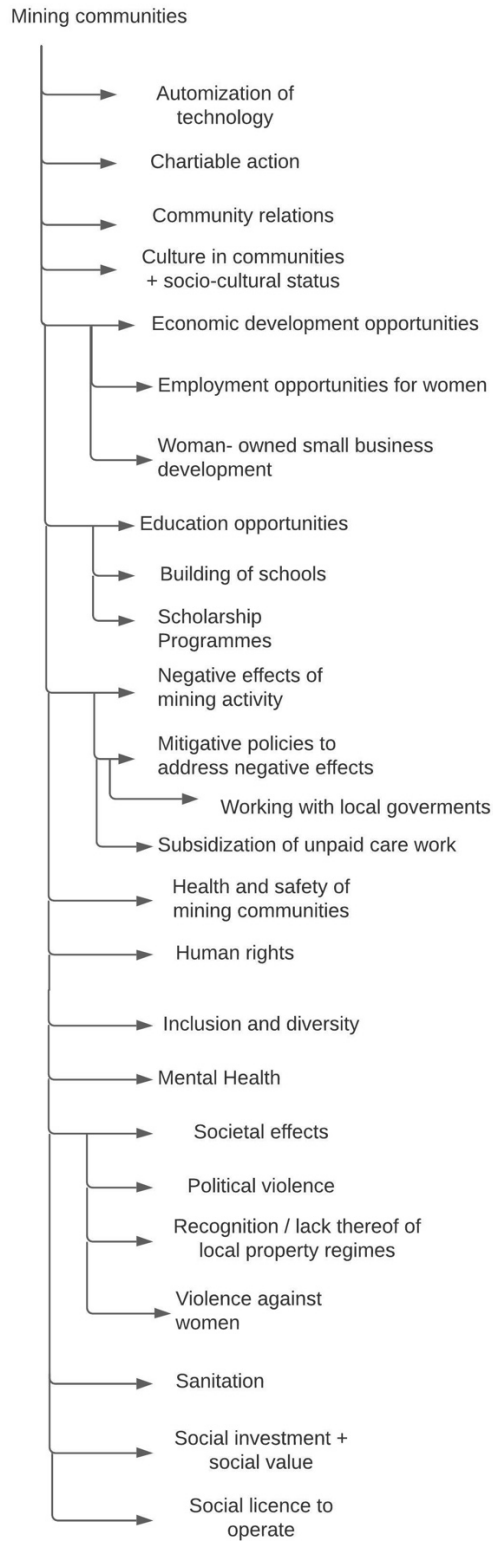


**Figure 2:**  
nodes in  
framework.

**Nodes and sub-  
modified coding**

The final coding framework for women in "Mining Communities" is presented in Figure 3 below. While we did analyse considerations for "Mining companies" as well, we ultimately did not decide to use this as the focus of the publication, as we felt that women in mining companies is an area that has a greater level of representation in the literature and in sustainability reporting. As such, details on that coding framework are not provided here.

**Figure 3: Finalized coding framework for gender/women in “mining communities”.**



**Keyword search:**

As noted in the research article, after each report was coded, a final search of a list of keywords was conducted for each report to ensure that the coding had been comprehensive and that as few references as possible were missed. The keywords used for this search were as follows:

- Gender
- Inclusion
- Diversity
- Inclusion and diversity
- Women
- Girls
- Female
- Indigenous
- SDG5
- SDG 5
- Sustainable Development Goals
- Gender Balance
- Gender Parity
- Mother, Mothers
- Children
- Education

In addition, for more specific topics that were more easily missed during the coding process (such as consultation and engagement with women), additional key word searches were conducted as necessary.