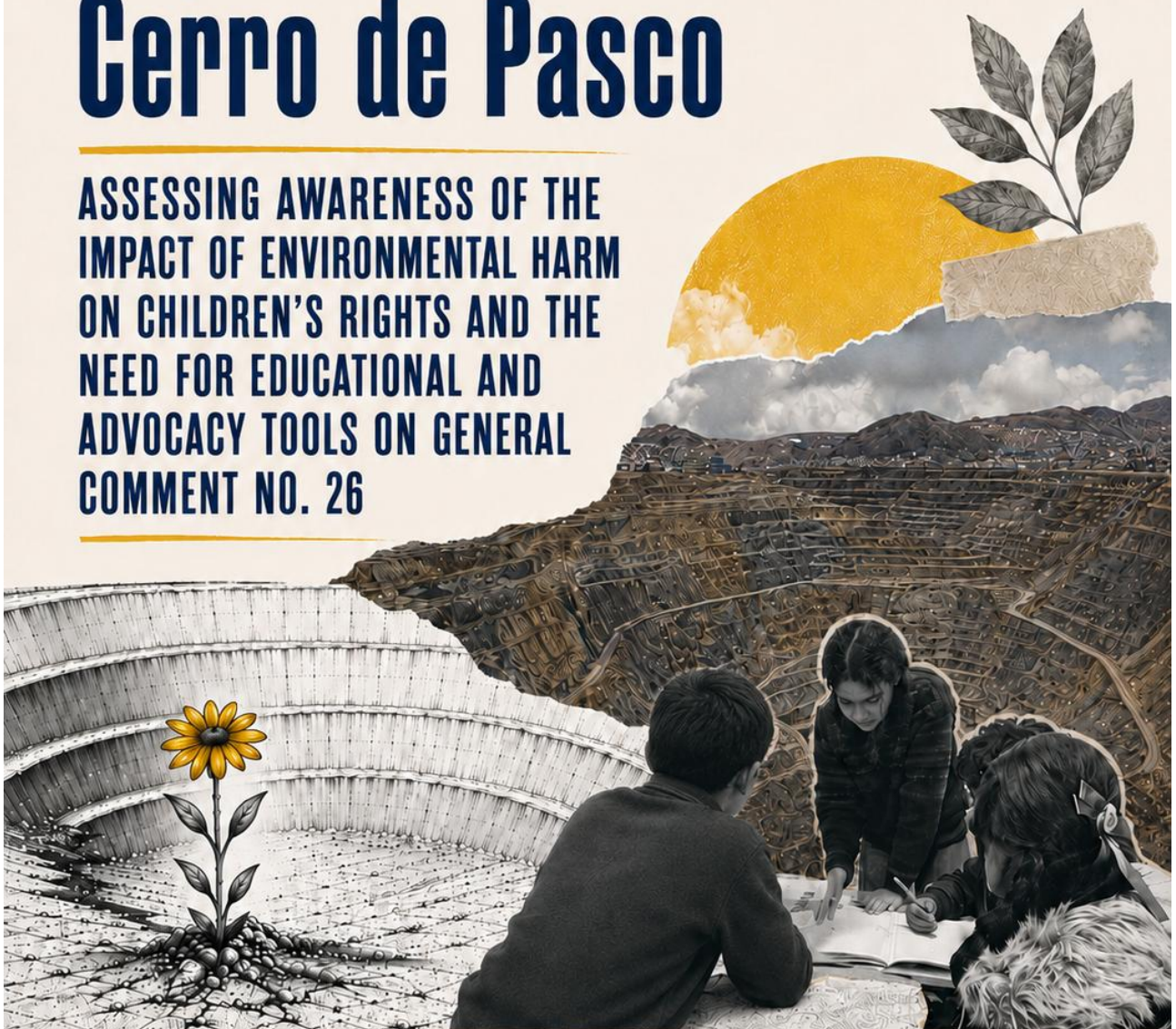


Field Assessment Report: Cerro de Pasco

ASSESSING AWARENESS OF THE
IMPACT OF ENVIRONMENTAL HARM
ON CHILDREN'S RIGHTS AND THE
NEED FOR EDUCATIONAL AND
ADVOCACY TOOLS ON GENERAL
COMMENT NO. 26



FIELD ASSESSMENT REPORT CERRO DE PASCO, PERU

Awareness of Environmental Harm and Children's Rights, and the Need for Educational and Advocacy Tools Related to General Comment No. 26

Year of publication: 2026

Assessment location: Cerro de Pasco, Pasco Region, Peru

Field assessment conducted: April, 2026

Prepared by:

Giulia Desideri, Zeudi Liew

In collaboration with:

Red Interquorum Pasco

Suggested citation

Future Rights APS. (2026). Field Assessment Report: Cerro de Pasco—Awareness of Environmental Harm and Children's Rights, and the Need for Educational and Advocacy Tools Related to General Comment No. 26.

Acknowledgements

This report was made possible through the participation of children, adolescents, educators, families, community representatives, and local stakeholders in Cerro de Pasco. We extend our sincere appreciation to all those who shared their experiences, perspectives, and recommendations during the field assessment.

FUTURE  RIGHTS



© 2026 Future Rights APS

All rights reserved.

The views and findings presented in this report reflect the results of the field assessment and do not necessarily represent the official position of all participating or supporting organisations.

Content

1. EXECUTIVE SUMMARY	3
2. INTRODUCTION	4
2.1 Context and Existing Evidence	4
2.2. Key Gaps and Rationale for the Project.....	5
2.3 Purpose and Objectives	9
3. PROCESS	9
3.1. Phase 1. Inception: Methodology and Workbook Development	10
3.2. Phase 2. Field Assessment and Participatory Validation	10
3.3 Phase 3. Analysis, Refinement, and Future Development	11
4. METHODOLOGY	11
4.1 Approach	11
4.2 Data Collection Methods	12
4.3 Limitations and Ethical Considerations	13
5. FINDINGS	14
5.1 Findings from Key Informant Interviews (KII).....	14
5.1.1 Structural Environmental Exposure	14
5.1.2 Inequality and Household Protection	14
5.1.3 Gaps in Health and Education Systems.....	15
5.1.4 Normalisation of Risk	16
5.1.5 Capacity to Act	17
5.2 Findings from Workshops with Adolescents	19
5.2.1 Engagement and Learning	19
5.2.2 Perception of Environmental Risks	20
5.2.3 Motivation and Trust in Participation and Collective Action	21
5.3 Findings from Direct Observation	23
5.3.1 Environmental Conditions	23
5.3.2 Exposure and Infrastructure	24
5.3.3 Gap Between Perception and Reality	25
6. IMPLICATIONS FOR WORKBOOK DEVELOPMENT	28
7. CONCLUSIONS	35
8. RECOMMENDATIONS AND NEXT STEPS	35
8.1 Key Recommendations	35
8.2 Implementation Steps	36
BIBLIOGRAPHY	37

1. EXECUTIVE SUMMARY

This report presents the findings of a participatory field assessment conducted in Cerro de Pasco, Peru, as part of the development and testing of *Children's Rights, Health and the Environment: General Comment No. 26 in Practice*, a GC26-based workbook and participatory methodology focused on children's environmental rights, environmental justice, and youth participation.

Cerro de Pasco represents one of the most emblematic cases of chronic environmental contamination linked to mining activity in Latin America. Existing research has extensively documented severe exposure to heavy metals affecting communities living near mining operations and waste deposits, particularly children and adolescents. At the same time, important gaps remain regarding participatory, child-centred, and rights-based approaches capable of supporting environmental rights awareness, youth participation, collective reflection, and community engagement.

The field assessment aimed to:

- better understand how environmental degradation affects adolescents' daily lives, wellbeing, and participation;
- test and refine selected activities and components of the proposed workbook and methodology;
- assess the feasibility of implementing participatory GC26-based approaches within contexts affected by environmental injustice.

The assessment adopted a qualitative and participatory approach combining desk review, key informant interviews, participatory workshops with adolescents, direct observation, and limited household visits. Key informant interviews were conducted with teachers, health professionals, psychologists, NGO representatives, youth activists, community members, and institutional actors. In parallel, three participatory workshops involving 48 adolescents aged 12 to 14 were conducted in a local secondary school. Direct observation was carried out across schools, residential areas, public spaces, areas surrounding the mine, and neighbourhoods located near contaminated environments.

Findings consistently showed that environmental exposure in Cerro de Pasco is structural, chronic, and deeply integrated into everyday life. Contamination was experienced not as an isolated environmental issue, but as a condition affecting housing, schools, water access, sanitation systems, public spaces, infrastructure, and children's daily environments. The assessment also highlighted the extent to which environmental risk and degradation have become normalised within the community despite widespread awareness of contamination and health concerns.

Interviews and workshops revealed significant feelings of frustration, environmental fatigue, distrust toward institutions, and limited confidence in the possibility of meaningful change. Adolescents frequently described limited opportunities for participation and low trust that authorities would respond to environmental concerns affecting their communities.

At the same time, the workshops demonstrated strong engagement when adolescents were provided with participatory and practice-based spaces to discuss environmental issues and children's rights. Activities based on mapping, scenario analysis, group reflection, and action-oriented discussions proved particularly effective in helping participants connect environmental harm with children's rights and everyday lived experiences.

The assessment identified several implications for the refinement of the workbook and methodology. Findings highlighted the importance of:

- simplifying legal and rights-related concepts;
- strengthening visual, participatory, and practice-based activities;
- grounding discussions in adolescents' lived realities and local environments;
- strengthening action-oriented participation guidance;
- integrating stronger safeguarding, emotional wellbeing, and facilitation components.

Overall, the field assessment suggests that the proposed workbook and methodology have strong potential as participatory and child-centred tools capable of supporting environmental rights awareness, youth participation, collective reflection, and community engagement in contexts affected by environmental injustice.

Key recommendations emerging from the assessment include:

- the workbook needs to be drafted in order for communities and youth to further adapt and contextualise activities and concepts to their own realities;
- strengthening participatory and action-oriented activities;
- integrating stronger safeguarding and psychosocial guidance;
- supporting local facilitation capacities through schools, NGOs, and youth networks;
- conducting longer-term piloting processes linked to youth participation, environmental rights education, and community engagement.

More broadly, the assessment demonstrates the importance of moving beyond awareness-only approaches toward participatory methodologies capable of supporting young people, educators, and civil society in working with adolescents to understand environmental harm through a children's rights lens while strengthening agency, reflection, and meaningful participation within contexts where environmental exposure and institutional neglect have become normalised over time.

2. INTRODUCTION

2.1 Context and Existing Evidence

Cerro de Pasco, located in the central highlands of Peru at approximately 4,300 metres above sea level, is one of the country's oldest and most environmentally affected mining cities. For decades, mining activities have shaped the city's economy, urban development, and social organisation, while the expansion of open-pit extraction has progressively brought mining infrastructure into close proximity with residential neighbourhoods, schools, and public spaces. The city presents a complex socio-economic reality in which mining remains both a major source of livelihood and a source of environmental and public health risk, generating tensions between economic dependency, environmental degradation, institutional responses, and demands for environmental justice.

Scientific, institutional, and civil society research conducted over the past decade has extensively documented severe environmental contamination associated with historical and ongoing mining activities in Cerro de Pasco (DIRESA, 2018; Fandiño Pineiro et al., 2021). Studies carried out by academic researchers, public health institutions, and organisations such as Source International consistently identify chronic exposure to heavy metals among communities living near mining operations and waste deposits. Existing evidence indicates that exposure occurs through multiple pathways, including contaminated soil, airborne dust, polluted water sources, toxic residues inside homes, and the proximity of schools and residential areas to mining infrastructure (Fandiño Pineiro et al., 2021). Previous studies and reports have also documented the progressive urban expansion of mining activities into residential areas, contributing to environmental degradation, displacement, unsafe public spaces, and deterioration of local living conditions.

Research conducted in Paragsha¹, located approximately 400 meters from the open-pit mine, identified significantly elevated concentrations of arsenic, cadmium, and lead among exposed children compared to non-exposed populations. According to findings reported by Source International, arsenic concentrations were three times higher, cadmium concentrations twice as high, and lead concentrations six times higher among exposed children, with lead levels exceeding internationally accepted reference values by more than forty times. Existing literature from the Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) has linked chronic exposure to heavy metals with serious health and developmental impacts among children, including respiratory illnesses, digestive disorders, dermatological conditions,

¹ Paragsha is a neighbourhood of Cerro de Pasco located adjacent to the open-pit mine and historically considered one of the areas most affected by mining-related environmental contamination.

anaemia, chronic pain, neurological symptoms, learning difficulties, behavioural changes, attention deficits, and developmental impairments. A recent neurocognitive study further identified significant cognitive impacts associated with prolonged exposure to heavy metals among children living in mining-affected areas. Children from exposed communities presented average IQ scores significantly lower than children from non-exposed populations, while statistically significant inverse correlations were identified between concentrations of lead, cadmium, arsenic, manganese, and antimony and children's cognitive performance indicators (Carreiro-Da-Cunha et al., 2026). Source International reports suggest that contamination remains a persistent concern, with elevated concentrations of several heavy metals continuing to be identified among children living in mining-affected areas.

Beyond biomedical impacts, existing literature and local documentation, including work by Centro Labor and Source International, highlight broader processes of environmental deterioration affecting children's living conditions and wellbeing. Environmental exposure in Cerro de Pasco is not confined to isolated industrial zones but is embedded within everyday urban life. Many households live near mining infrastructure, waste deposits, and highly contaminated areas, while schools, recreational spaces, and residential zones are often located in environments characterized by visible dust, deteriorated land conditions, poor sanitation systems, and limited environmental protection measures. Source International reports also point to broader infrastructural and environmental management challenges, including irregular water access, deteriorated drainage systems, untreated wastewater discharge, and inadequate waste management. Particular concern has been raised regarding Laguna Patarcocha², located near the centre of the city, where wastewater and urban waste are reportedly discharged without adequate treatment. These conditions contribute to cumulative environmental exposure and disproportionately affect children and adolescents who experience contaminated environments as part of their daily routines.

International human rights bodies, including the Committee on the Rights of the Child, the UN Human Rights Council, and successive UN Special Rapporteurs on human rights and the environment, increasingly frame toxic exposure and environmental degradation as children's rights issues. General Comment No. 26 (2023) on children's rights and the environment with a special focus on climate change recognizes environmental harm and toxic pollution as "*an urgent and systemic threat to children's rights globally*" and emphasizes that children experience disproportionate impacts due to their developmental vulnerability and cumulative exposure over the life course. Scholars working on environmental justice and children's rights, including Elisa Morgera, UN Special Rapporteur on Climate Change and Human Rights, have similarly emphasized the importance of addressing environmental harm through participatory, rights-based, and intergenerational approaches that recognize children not only as vulnerable populations, but also as rights-holders entitled to participation, protection, and access to remedies (Morgera, 2023).

2.2. Key Gaps and Rationale for the Project

Gap Between Evidence and Long-Term Response

Despite the extensive documentation of environmental contamination and heavy metal exposure in Cerro de Pasco, important gaps remain between the production of evidence and the existence of sustained, child-centred responses capable of addressing the broader social and rights-related dimensions of environmental harm. Existing research and institutional interventions have primarily focused on toxicological monitoring, biomedical assessment, and contamination measurements, generating substantial evidence regarding exposure pathways and associated health impacts among children living near mining operations and waste deposits.

² Patarcocha Lagoon is a lagoon located in the centre of Cerro de Pasco. Historically part of the city's natural ecosystem, it now receives a large portion of the city's domestic wastewater, urban sewage, and waste without adequate treatment systems. Over the years, it has undergone severe environmental degradation linked both to urban contamination and the expansion of mining activities, becoming one of the most visible symbols of the environmental and public health crisis affecting the city.

At the same time, long-term prevention, remediation, psychosocial support, and child-sensitive protection measures remain limited or inconsistently implemented despite repeated environmental and health emergency declarations. The 2013 Human Rights Impact Assessment conducted by Source International, *The Case of the Cerro de Pasco Mining Operation and its Impacts on Human Rights*, documented severe exposure to lead, arsenic, and cadmium among children and highlighted links between chronic toxic exposure, neurological impacts, cognitive development, and barriers affecting the enjoyment of fundamental rights, including health, education, development, and life itself. More than a decade later, existing evidence suggests that many of the structural conditions contributing to environmental exposure and vulnerability continue to persist.

Limited Attention to Psychosocial and Everyday Impacts

The review also highlighted more limited attention to the everyday social and psychosocial dimensions of environmental exposure, particularly from the perspective of children and adolescents. While contamination pathways and health impacts are well documented, less research has examined how prolonged exposure shapes children's daily experiences, emotional wellbeing, perceptions of risk, educational experiences, trust in institutions, or sense of future opportunities. Existing evidence has also rarely translated into practical participatory methodologies or community-based processes capable of supporting adolescents' engagement in environmental awareness, collective reflection, or local decision-making processes.

Weak Child Participation in Environmental Governance

International human rights frameworks increasingly emphasize that environmental harm should be understood not only as a public health issue, but also as a children's rights issue requiring participation, access to information, protection, and access to remedies. General Comment No. 26 stresses the importance of ensuring children's meaningful participation in environmental decision-making processes and adopting child-sensitive responses to environmental risk. However, evidence from Cerro de Pasco suggests that opportunities for child and youth participation in environmental governance and local advocacy remain limited. Children and adolescents are often treated primarily as affected populations rather than as active rights-holders capable of contributing to environmental monitoring, community dialogue, and collective responses to environmental injustice.

Normalisation of Environmental Risk and Limited Collective Agency

Preliminary observations emerging during the assessment process also pointed to widespread frustration, environmental fatigue, and limited opportunities for meaningful youth participation in discussions related to environmental risk and community wellbeing. Contamination was frequently described as an unavoidable aspect of everyday life despite widespread awareness of environmental degradation and health concerns. These observations further reinforced the importance of creating safe participatory spaces and accessible tools capable of connecting environmental realities with children's rights, participation, and collective forms of action.

Project Rationale

In response to these gaps, the assessment was designed as an initial effort to explore participatory approaches grounded in General Comment No. 26 and in the implementation guidance entitled *Advancing Children's Right to a Clean, Healthy and Sustainable Environment: Guidance on General Comment No. 26*. The process also sought to explore, for the first time, the potential application of a Child Rights Impact Assessment lens to environmental harm through participatory activities conducted with adolescents and community actors in Cerro de Pasco.

The assessment further served as an opportunity to test selected elements of a developing workbook intended to support affected communities and children in monitoring children's rights impacts, documenting environmental concerns, and strengthening advocacy related to environmental rights, access to services, accountability, and justice mechanisms.

More broadly, the assessment aimed to examine how child-centred and participatory approaches could contribute to environmental rights awareness, youth engagement, and community-based responses in contexts affected by chronic environmental injustice



Area	Existing evidence and responses	Identified gaps
Biomedical and toxicological evidence	Extensive research has documented heavy metal exposure, contamination pathways, and associated health impacts affecting children in Cerro de Pasco. Studies by academic institutions, public health actors, and organisations such as Source International have generated substantial evidence regarding lead, arsenic, and cadmium exposure.	Existing responses remain heavily focused on contamination measurement and biomedical monitoring, with limited integration of participatory, psychosocial, and child-rights-based approaches.
Human rights documentation	The 2013 Human Rights Impact Assessment conducted by Source International documented links between contamination, children's health, cognitive development, education, and fundamental rights, while contributing to broader recognition of the severity of the environmental crisis.	No subsequent comprehensive child-rights-focused environmental assessment appears to have been conducted since 2013.
Institutional responses	Environmental and health emergency declarations have been issued by Peruvian authorities in response to contamination and public health concerns.	Long-term remediation, monitoring, healthcare access, and accountability mechanisms appear inconsistent, fragmented, or insufficiently implemented.
Environmental governance and participation	International human rights frameworks, including General Comment No. 26, increasingly emphasize child participation, access to information, and child-sensitive environmental governance.	Opportunities for meaningful child and youth participation in environmental governance, advocacy, and decision-making remain extremely limited in Cerro de Pasco.
GC26 implementation guidance	The 2024 guidance <i>Advancing Children's Right to a Clean, Healthy and Sustainable Environment: Guidance on General Comment No. 26</i> promotes participatory methodologies, child-rights impact assessments, child participation, and community-based evidence collection.	No evidence was identified showing systematic implementation of GC26-related participatory approaches, Child Rights Impact Assessments, or child-centred environmental governance methodologies in Cerro de Pasco.
Children's rights and business accountability	International child-rights frameworks increasingly emphasize the responsibility of business actors regarding environmental harm affecting children.	No Child Rights Impact Assessment linked to mining operations or business activities following UNICEF or GC26-related frameworks was identified during the review.

2.3 Purpose and Objectives

This report forms part of the broader process of developing and testing the workbook *Children's Rights, Health and the Environment: General Comment No. 26 in Practice* (hereafter "the workbook"), a participatory learning tool created for adolescents, youth workers, educators, communities, and advocates.

The workbook was designed to help young people understand environmental harm not only as an environmental issue, but also as a children's rights issue linked to health, protection, participation, dignity, and wellbeing under General Comment No. 26. It aims to support adolescents in identifying environmental rights concerns and exploring safe and realistic forms of participation, collective reflection, and action.

The assessment was conceived as an exploratory and participatory process aimed at testing and refining the workbook and its methodology within the context of Cerro de Pasco. Building on General Comment No. 26 and emerging guidance supporting its implementation, the process explored how child-rights-based and participatory approaches could support adolescents' engagement with environmental rights, environmental justice, and accountability discussions.

The field mission also served as an initial effort to explore how participatory approaches linked to GC26 could be adapted within contexts affected by chronic environmental injustice.

The field assessment pursued three main objectives aimed at understanding local environmental realities affecting children and adolescents, testing the proposed workbook and participatory methodology, and assessing the feasibility of applying child-rights-based and participatory approaches linked to General Comment No. 26 within contexts affected by environmental injustice.

Understanding the Local Context

The assessment explored how environmental degradation and contamination affect adolescents' daily lives, health, wellbeing, education, and sense of safety within environmentally impacted communities. The process also examined local perceptions of contamination, environmental concerns, existing protection gaps, and broader challenges affecting children and adolescents, while grounding GC26 and environmental rights discussions within the lived realities and experiences of communities in Cerro de Pasco.

Testing the Workbook and Methodology

The field phase tested selected workbook activities and participatory methodologies to assess whether the proposed concepts, tools, and facilitation approaches were understandable, accessible, relevant, and meaningful for adolescents and local stakeholders in real community settings. The process also explored how GC26 could be translated into practical and community-based tools capable of supporting environmental rights awareness, collective reflection, participation, and child-centred approaches to environmental assessment and evidence collection.

Assessing Feasibility and Future Applicability

The assessment evaluated the feasibility of implementing the methodology in schools and community settings affected by environmental injustice. This included exploring levels of participant engagement, the adaptability of activities across contexts, and the potential role of educators, NGOs, social workers, and local actors in supporting future implementation. The process also examined the methodology's potential to support longer-term youth participation, advocacy, community engagement, and child involvement in environmental governance and accountability discussions in line with GC26 principles.

3. PROCESS

The development of the workbook and participatory methodology followed a progressive process through three interconnected phases: (1) inception: methodology and workbook development; (2) field assessment and validation; and (3) analysis, refinement, and preparation for future piloting and implementation.

3.1. Phase 1. Inception: Methodology and Workbook Development

The first phase focused on the conceptualisation and initial development of the workbook and participatory methodology. This process combined desk review and analysis of GC26 and related child rights frameworks with a longer-term process of dialogue, reflection, and exchange conducted together with communities, adolescents, young activists, and individuals directly affected by environmental harm in Cerro de Pasco and similar contexts. Rather than emerging exclusively from theoretical or academic research, the methodology was progressively shaped through approximately one year of workshops, conversations, webinars, and collective reflections with young people and community actors experiencing environmental injustice directly.

The development of the workbook also built on participatory and cross-learning initiatives promoted by Future Rights, including the project *Agire*, developed together with Red Interquorum Pasco and other youth actors. Through collaborative workshops and exchanges involving Italian students, adolescents, and youth activists connected to Cerro de Pasco, participants reflected on environmental justice, participation, and children's rights, while exploring how General Comment No. 26 (GC26) could be made more accessible and meaningful for adolescents and communities. These exchanges contributed to identifying the need for a practical, participatory, and action-oriented workbook capable of supporting young people in understanding and engaging with environmental rights frameworks within their own realities.

The conceptualisation process was further strengthened through interconnected initiatives and exchanges with Terre des Hommes (Tdh) Lausanne, including discussions and collaborative reflections developed in connection with the 2025 Congress on Justice with Children. These processes created additional opportunities for consultation and exchange with young people around environmental justice, participation, intersectionality, and child rights, while also contributing to broader reflections on the limitations of existing environmental and child-rights education approaches. Additional reflections emerging from exchanges with experts and participants, including discussions connected to the webinar with Special Rapporteur on climate change and human rights, Elisa Morgera, further informed the broader rights-based, participatory, and intergenerational approach underpinning the methodology.

This participatory and iterative process informed both the structure and content of the workbook, contributing to the identification of key themes connected to environmental degradation, participation, rights awareness, institutional distrust, environmental fatigue, barriers to justice, and collective action. Children and adolescents were therefore involved not only during the validation phase, but from the earliest stages of conceptualisation and development.

The phase also included the design of educational and facilitation activities adapted to adolescents and community-based contexts. The methodology was structured as a progressive learning and action process guiding participants from environmental observation and recognition of everyday realities toward rights awareness, documentation of environmental harm, local analysis, and reflection on possible forms of collective action. Particular attention was given to accessibility through non-technical language, safeguarding considerations, practical applicability, participatory learning, and collaborative approaches capable of engaging adolescents beyond purely theoretical instruction.

3.2. Phase 2. Field Assessment and Participatory Validation

The second phase consisted of a field mission in Cerro de Pasco to assess whether the methodology – including interviews, workshops, direct observation, and group activities – was appropriately designed for adolescents and community members, and to identify possible improvements.

The field mission also contributed to identifying local realities, protection gaps, perceptions of environmental risk, and barriers to participation and collective action, while allowing for preliminary assessment of the methodology's strengths, limitations, and feasibility for future implementation and adaptation. Consultations and workshops were designed as collaborative spaces centred on dialogue, reflection, and shared analysis rather than extractive data collection processes.

3.3 Phase 3. Analysis, Refinement, and Future Development

The final phase focuses on consolidating findings from the field assessment in order to further refine and strengthen the workbook and methodology. This includes improving selected sections of the workbook, reinforcing facilitation guidance and safeguarding considerations, and adapting activities and materials based on realities identified during the field mission. The phase also aims to support future piloting and implementation processes grounded in the experiences, feedback, and needs identified through workshops, interviews, and direct observation.

This stage also seeks to support longer-term engagement by identifying local partners, facilitators, and community stakeholders capable of contributing to future implementation processes. Particular attention is given to opportunities for youth leadership, collective action, and community-based advocacy linked to environmental rights and children's wellbeing.

4. METHODOLOGY

4.1 Approach

This field assessment adopted a qualitative and field-based approach aimed at understanding how adolescents, communities, and local stakeholders experience and interpret environmental harm within everyday life. The methodology combined participatory engagement, direct observation, and contextual analysis to explore not only environmental exposure itself, but also its social, institutional, and child-rights dimensions. A qualitative approach was particularly important in this context because it made it possible to capture lived experiences, perceptions, and forms of normalisation of environmental harm that are often overlooked by quantitative data alone.

The approach was informed by the principles of participation and child-centred engagement reflected in General Comment No. 26 (GC26) and its implementation guidance, recognizing adolescents not only as affected populations, but also as active participants capable of reflecting on environmental realities, identifying protection gaps, and contributing to discussions on rights and collective action.

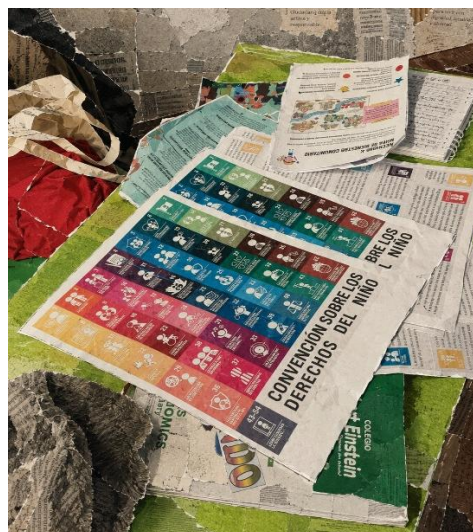
Rather than focusing exclusively on quantitative measurement or environmental monitoring, the assessment built on the strong and long-standing scientific evidence produced by environmental NGOs working directly on the ground - including Source International and Centro de Cultura Popular Labor - documenting the impacts of environmental harm and heavy metal exposure in Peru on children's and communities' health. The assessment therefore explored perceptions, lived experiences, community dynamics, and the practical applicability of the proposed workbook and methodology. Particular attention was given to how environmental harm is normalised, perceived, and experienced by adolescents and communities, and to how participatory tools may support awareness, reflection, and engagement.

In summary, each phase aims to:

Phase 1: Development of a participatory GC26-based workbook and methodology grounded in children's lived experiences and environmental justice realities.

Phase 2: Participatory validation and field testing of the methodology while exploring adolescents' perceptions of environmental harm, rights, and participation.

Phase 3: Refinement of the workbook and assessment methodology to support future youth-centred environmental rights and community engagement processes linked to GC26.



4.2 Data Collection Methods

The field assessment combined multiple qualitative and participatory data collection methods to strengthen contextual understanding and triangulate findings across sources. These included Key Informant Interviews (KIIs), participatory workshops with adolescents, direct observation, limited household visits, and desk review.

The overall approach aimed to explore how adolescents, communities, and local stakeholders experience and interpret environmental harm within everyday life in Cerro de Pasco. Rather than focusing exclusively on environmental exposure, the methodology examined its social, institutional, emotional, and child-rights dimensions, while also functioning as a practical field-testing process for the proposed GC26-based workbook and participatory methodology.

Desk Review

The field assessment was supported by a desk review of existing literature, reports, institutional documentation, academic studies, and human rights analyses related to environmental contamination, heavy metal exposure, children's health, environmental justice, and General Comment No. 26.

The desk review helped provide contextual background, identify existing evidence and knowledge gaps, and inform both the analytical framework and interpretation of field findings. Particular attention was given to existing scientific and human rights evidence documenting the impacts of heavy metal exposure and environmental contamination on children and communities in Peru.

Key Informant Interviews (KIIs)

Key Informant Interviews were conducted with 14 participants representing different sectors and perspectives connected to children's wellbeing, environmental governance, public services, education, health, youth participation, and community life in Cerro de Pasco. Informants included educators, psychologists, healthcare professionals, youth activists, community members directly affected by contamination, representatives of civil society organisations, and local institutional actors.

The interviews explored perceptions of environmental contamination, its impacts on children's daily lives and wellbeing, institutional responses, barriers affecting children and adolescents, and local capacities for participation and collective action. Particular attention was given to how environmental harm is experienced and normalised within everyday community life, as well as to the practical relevance and accessibility of the proposed GC26-based workbook and methodology.

Participatory Workshops with Adolescents

Three participatory workshops were conducted with adolescents aged 12 to 14 years old at a private secondary school in Cerro de Pasco. 48 students participated across three groups: one group of 20 students aged 12, one group of 10 students aged 13, and one group of 18 students aged 14. Each workshop lasted approximately two hours and functioned both as a participatory learning activity and as a practical testing phase for the workbook and methodology.

The workshops aimed to explore adolescents' perceptions of environmental contamination, community life, children's rights, and participation, while also assessing whether the proposed activities and concepts were accessible, engaging, and relevant for young participants. The sessions combined introductory activities, discussions on children's and environmental rights, scenario analysis, community mapping exercises, and group reflections on participation, advocacy, and collective action.

Rather than functioning as lecture-based sessions, the workshops were designed as participatory spaces centred on dialogue, reflection, and connection between rights concepts and adolescents' everyday experiences. The workshops also created opportunities for participants to provide feedback on facilitation approaches, activities, and the overall structure of the methodology.

Direct Observation and Household Visits

Direct observation formed a central component of the assessment process. Observations were conducted across schools, residential neighbourhoods, public spaces, streets, markets, areas surrounding the open-pit mine, locations near Laguna Patarcocha, and environments located close to mining infrastructure and contaminated areas.

Particular attention was given to environmental conditions, visible exposure pathways, sanitation systems, waste management, water access, infrastructure quality, housing conditions, and broader indicators affecting children's living conditions and wellbeing. Observation findings were used to complement and validate information emerging from interviews and workshops, while also helping identify how contamination and environmental degradation become integrated into ordinary community environments and daily routines.

The assessment also included household visits and informal community conversations in neighbourhoods located near mining waste deposits. These visits provided additional insight into how environmental exposure is experienced and managed within domestic environments, including challenges related to water insecurity, dust exposure, housing conditions, care practices, and access to services affecting children and families.

Overall, the combination of these methods allowed for a more comprehensive understanding of environmental exposure and its implications for children and adolescents, while also supporting the participatory validation and refinement of the proposed GC26-based workbook and methodology.

4.3 Limitations and Ethical Considerations

Exploratory Nature of the Assessment

This assessment was conducted as a short-term exploratory and participatory field exercise rather than as a comprehensive scientific or epidemiological study. The findings primarily reflect qualitative insights, observations, and lived experiences gathered during the field mission and are intended to inform the refinement of the workbook and methodology rather than produce statistically representative conclusions.

Operational and Methodological Constraints

The assessment was conducted during a six-day field mission by a small field team working in collaboration with local youth networks and community actors. Time constraints, limited geographical coverage, logistical challenges, and the exploratory nature of the process affected the scope and consistency of some activities. The methodology also remained flexible throughout implementation, with facilitation approaches and discussions adapted according to participant profiles, levels of engagement, and emerging local realities.

Participatory workshops primarily functioned as spaces for testing and validating the workbook and methodology. Formal focus group discussions were not conducted as a standalone methodological component, and some household visits were adapted due to logistical and contextual constraints.

Contextual Sensitivities

The assessment took place within a context characterized by long-term environmental exposure, low institutional trust, and social sensitivities surrounding mining activities and environmental responsibility. These dynamics influenced how participants discussed environmental harm, vulnerability, responsibility, and possibilities for change, while also shaping levels of participation and openness during the field process.

Ethical and Safeguarding Considerations

Participation in workshops and discussions was voluntary, and efforts were made to create safe, respectful, and age-appropriate spaces for adolescents and community members. Particular attention was given to safeguarding, confidentiality, and avoiding unnecessary distress when discussing environmental harm, health concerns, and community challenges.

5. FINDINGS

5.1 Findings from Key Informant Interviews (KII)

5.1.1 Structural Environmental Exposure

"There is a very contaminated lagoon in the centre of the city, Patarcocha. Schools are located around it. Under certain weather conditions, the smell becomes stronger and affects children significantly. Cases have been reported of children being unable to eat because the air becomes unbearable." (Youth participant)³

Interviews consistently described environmental exposure as structural, continuous, and deeply embedded within everyday life in Cerro de Pasco. Informants emphasized that contamination is not experienced as an isolated event, but rather as a permanent condition affecting homes, schools, public spaces, and community infrastructure.

Participants frequently referred to airborne dust as one of the most visible and constant forms of exposure. Families described needing to clean their homes continuously due to dust accumulation, while several informants explained that dust from mining operations reaches schools, houses, food, and children's play areas. Schools were described as being located directly beside mining activity, where trucks transporting mining materials generate constant dust exposure affecting children during meals and recreational activities.

Water insecurity also emerged as a major concern across interviews. Informants described irregular water access, dependence on water delivered by cisterns, and widespread distrust regarding water quality. Several participants stated that available water was perceived as contaminated not only with heavy metals but also with untreated waste and sewage. Open sewage systems, deteriorated drainage infrastructure, and the discharge of waste into *Laguna Patarcocha* were repeatedly mentioned as part of the environmental conditions affecting daily life.

Interviewees emphasized that environmental exposure extends beyond proximity to the open-pit mine itself. While communities located closest to the mine were considered the most affected, informants repeatedly stressed that contamination impacts the entire city. Schools located near contaminated areas, poor waste management systems, deteriorated public infrastructure, and polluted urban environments contribute to making exposure unavoidable and permanent.

Several participants highlighted that children grow up within these conditions from birth onward, normalizing environmental degradation as part of ordinary life. In this sense, environmental exposure was described not as episodic, but as structurally linked to housing conditions, urban planning, inadequate infrastructure, and the long-term presence of mining activity within the city itself.

5.1.2 Inequality and Household Protection

"We are all affected by living around the open-pit mine, but those most affected are the communities living closest to it, such as Champamarca, Paragsha, and other nearby areas. These populations have been directly exposed as the mine has continued to expand." (Youth participant)⁴

³ Original Spanish quotation: "Hay una laguna muy contaminada en el centro, Patarcocha. Los colegios están alrededor. En ciertas condiciones climáticas el olor se intensifica y afecta mucho a los niños. Se han reportado casos de niños que no pueden comer por el ambiente irrespirable."

⁴ Original Spanish quotation: "Todos estamos afectados por vivir alrededor del tajo abierto, pero los más afectados son los que viven cerca del tajo: Champamarca, Paragsha y otras zonas cercanas. Son poblaciones que han estado directamente expuestas mientras el tajo se fue expandiendo."

Interviews revealed strong connections between environmental exposure, poverty, and unequal access to protection mechanisms. Informants consistently emphasized that while contamination affects the broader population, the ability to reduce or mitigate exposure depends heavily on economic resources.

Participants explained that families with greater financial means are more capable of purchasing bottled water, nutritional supplements, filters, medicine, or foods perceived to help reduce the effects of heavy metals, such as yogurt, iron-rich products, vitamins, and fortified foods. Families with higher incomes are also more likely to live farther from heavily contaminated zones or access better healthcare services through private insurance systems.

In contrast, economically vulnerable families were described as facing significantly higher levels of exposure while having fewer possibilities to protect themselves. Informants frequently linked poverty to inadequate housing conditions, food insecurity, limited access to healthcare, and inability to relocate away from contaminated areas. Several interviewees explained that poorer communities often live in areas closest to mining waste, open sewage systems, or contaminated urban zones because housing costs are lower there.

Children were consistently identified as the most vulnerable group within this dynamic. Interviewees described how malnutrition, anaemia, contaminated food and water, limited healthcare access, and chronic environmental exposure intersect to increase risks for children's physical and cognitive development. Informants also emphasized that protection strategies largely remain individualized and dependent on household resources rather than guaranteed through public systems or institutional support.

The interviews further suggested that inequalities are reinforced by fragmented healthcare access linked to insurance systems. Several participants described how treatment quality, access to specialists, and follow-up care depend heavily on whether families possess public insurance, social security coverage, or private resources.

Overall, KIIs highlighted that environmental exposure in Cerro de Pasco is not experienced equally. Existing socio-economic inequalities significantly shape both vulnerability and access to protection, reinforcing cycles of exclusion and long-term health insecurity among children and families with fewer resources.

5.1.3 Gaps in Health and Education Systems

"The care people receive depends on the type of insurance they have. If you have EsSalud or SIS, the treatment is different. Not everyone can access the same care. Children often arrive only when the problem has become severe, and many parents lack the information needed to recognise the signs earlier." (Community member)⁵

A central finding emerging from interviews was the widespread perception that health and education systems are not adequately prepared to respond to the realities associated with chronic environmental contamination and children's wellbeing.

Informants consistently referred to major gaps in prevention, monitoring, specialised healthcare, mental health support, and public awareness regarding heavy metal exposure. Several participants reported that blood lead testing, follow-up systems, environmental health campaigns, and specialised treatment pathways remain insufficient, inconsistent, or inaccessible for large portions of the population.

Healthcare professionals and community members described a system that largely responds only once problems become severe, and even then responses are often inadequate or insufficient. Participants repeatedly emphasized the absence of prevention strategies, environmental health education, and specialised services for children affected by contamination. Mental health support was also described as extremely limited,

⁵ Original Spanish quotation: "Si tienes EsSalud o SIS, cambia la atención. No todos pueden acceder a tratamiento. (...) La atención llega cuando ya muestran algo por emergencia, cuando el problema se ha agravado mucho. (...) Hay personas que no tienen esos recursos, no tienen ese conocimiento ni el mismo interés de velar por sus hijos."

with significant stigma surrounding psychological services and little access to specialised child or adolescent care.

Within the education sector, interviews highlighted concerns regarding both infrastructure quality and educational conditions. Informants described schools located near contaminated environments, deteriorated buildings, lack of heating despite extreme cold conditions, inadequate sanitation, and insufficient educational resources. Some participants explained that children study in environments affected by strong smells from contaminated water bodies such as *Laguna Patarcocha*, making concentration and daily school activities difficult.

Several interviewees also noted the absence of sustained environmental education and child-rights awareness within schools. Existing educational activities were described as limited to basic hygiene campaigns rather than broader discussions regarding environmental contamination, rights, prevention, or participation.

At the same time, informants described how mining continues to shape educational expectations and social imaginaries. Some participants referred to schools and educational environments where mining-related careers are heavily promoted, reinforcing the perception that mining remains one of the only viable futures available to young people despite its environmental consequences.

Overall, interviews revealed systems characterized by fragmentation, weak coordination, limited specialization, and insufficient integration between environmental realities and child protection responses.

5.1.4 Normalisation of Risk

“Many adults say that contamination has not affected them, that they are fine. But that is only apparent. When you look more closely or undergo testing, you realise that many people are not well physically, emotionally, or psychologically. Yet when young people raise these concerns, they are often dismissed as part of the ‘generation of crystals’.” (Youth participant) ⁶

One of the strongest themes emerging from the interviews was the normalisation of environmental risk within everyday life. Informants repeatedly described contamination, illness, polluted environments, and inadequate living conditions as realities that many community members have gradually adapted to over time.

Several participants explained that adults frequently minimize the impacts of contamination by comparing current conditions to previous generations, arguing that “things used to be worse” or that they themselves grew up exposed to mining environments without obvious consequences. Youth participants repeatedly referred to being labeled as the “*generation of crystals*”⁷ when expressing concerns about environmental conditions, health, or wellbeing.

Interviewees suggested that this normalisation reduces both public pressure and collective mobilization. Environmental degradation becomes perceived as inevitable, permanent, and inseparable from life in Cerro de Pasco. Informants described how many residents continue daily routines despite recognizing contamination risks because there are few perceived alternatives and little trust that change is possible.

Normalisation was also linked to lack of information and limited understanding regarding environmental health risks. Several participants highlighted misconceptions around contamination prevention, including beliefs that boiling water removes heavy metals or that symptoms associated with contamination are simply part of normal life.

⁶ Original Spanish quotation: “También dicen que la contaminación no les ha afectado, que están bien. Pero eso es solo aparente. Cuando te haces análisis o investigas más, te das cuenta de que no estás bien físicamente, ni emocional ni psicológicamente, porque el entorno social tampoco ayuda. (...) Cuando los jóvenes queremos alzar la voz, los adultos no nos escuchan porque dicen que somos de ‘generación de cristal’.”

⁷ The Spanish expression *generación de cristal* (“crystal generation”) is a colloquial and often dismissive term used to portray younger generations as overly sensitive or fragile.

At the emotional level, normalisation appeared connected to broader feelings of resignation, fatigue, and social adaptation. Participants described communities that continue functioning despite chronic exposure, while simultaneously expressing frustration, hopelessness, or distrust regarding institutions and future prospects. According to several interviewees, contamination has become so embedded within the city's identity that imagining Cerro de Pasco without mining activity is often perceived as impossible.

5.1.5 Capacity to Act

“The population has lost its strength. In the past there was more mobilization. Even when local authorities call for demonstrations against mining expansion, only a few people attend. There is a lack of engagement. Many families have left, many young people are no longer here, and this has weakened the community's ability to demand its rights.” (Civil society representative) ⁸

Environmental Fatigue and Limited Collective Agency

Interviews revealed widespread frustration, demotivation, and limited confidence in the possibility of meaningful environmental change in Cerro de Pasco. While awareness of contamination and its impacts on children existed to varying degrees, many participants perceived environmental problems as long-standing issues that remain insufficiently addressed despite years of public discussion, research, and advocacy.

Weak Participation and Fragmented Mobilization

Participants referred to the existence of local youth networks, collectives, and social initiatives involved in awareness-raising and community activities, including groups such as *Labor* and Red Interquorum Pasco. However, these initiatives were generally perceived as having limited visibility, continuity, resources, and influence beyond specific activist circles. Several informants also described a gradual weakening of social mobilization over time due to institutional distrust, political disillusionment, community fatigue, and the normalisation of environmental risk.

Youth interviewees in particular described limited opportunities for meaningful participation and expressed the perception that children and adolescents are rarely included in decision-making processes related to environmental concerns affecting their communities.

Economic Dependence and Structural Constraints

Interviews highlighted the city's continued economic and social dependence on mining despite widespread recognition of its harmful impacts. Participants described how precarious employment, migration dynamics, weak governance, and unequal power relations contribute to feelings of fragmentation, limited collective agency, and difficulty imagining alternatives beyond mining activity.

Demand for Practical Rights-Based Tools

At the same time, interviews revealed strong interest in practical tools capable of supporting environmental awareness, youth participation, and collective action. Several participants emphasized the importance of helping adolescents and communities better understand environmental harm, children's rights, and available pathways for participation, advocacy, accountability, and access to services.

Overall, the interviews suggest that while awareness of environmental harm exists across the community, collective responses remain constrained by institutional distrust, environmental normalisation, weak participation structures, and broader socio-economic inequalities.

⁸ Original Spanish quotation: “La población ha perdido fuerza. Antes había más movilización. Incluso cuando el alcalde convoca a movilizaciones contra la expansión minera, va poca gente. Hay desinterés. Muchas familias ya no están, muchos jóvenes tampoco. Esa es una de las principales razones por las que se ha debilitado la capacidad de exigir derechos.”

Summary of KII Key Findings Through a Child Rights and GC26 Lens

Thematic area	Child/adolescent-centred implications	Relevant child rights / GC26 dimensions
Structural Environmental Exposure	Children and adolescents are exposed to environmental contamination continuously across homes, schools, public spaces, and recreational environments. Exposure is experienced as unavoidable and embedded within everyday life from early childhood onward. Schools and child-centred spaces located near mining operations expose children to airborne dust, contaminated environments, poor sanitation, and deteriorated infrastructure during learning, meals, and recreational activities. Environmental exposure is perceived as structurally linked to urban conditions, inadequate infrastructure, and long-term mining activity rather than isolated contamination events.	Right to health; survival and development; safe, clean, healthy and sustainable environment; water and sanitation Right to education; health; adequate infrastructure; best interests of the child Right to development; environmental rights; adequate standard of living
Inequality and Household Protection	Children from low-income households face higher levels of environmental exposure while having fewer possibilities to access safer housing, healthcare, adequate nutrition, or protective measures. Economic inequalities shape families' ability to reduce contamination risks through bottled water, nutritional supplements, medical care, or relocation away from contaminated areas. Malnutrition, anaemia, contaminated food and water, and limited healthcare access increase risks to children's physical and cognitive development.	Non-discrimination; right to health; adequate standard of living; social protection Right to health; food; water; social protection Survival and development; health; nutrition
Gaps in Health and Education Systems	Children and adolescents experience limited access to prevention, specialised healthcare, mental health support, and long-term monitoring related to heavy metal exposure. Schools are perceived as inadequately equipped to provide safe and healthy learning environments due to poor infrastructure, contamination exposure, and insufficient sanitation and heating systems. Environmental education and child-rights awareness are perceived as limited, reducing children's understanding of environmental harm, prevention, and participation opportunities.	Right to health; mental health; access to healthcare Right to education; health; dignity Access to information; education; participation
Normalisation of Risk	Children and adolescents grow up in contexts where contamination and environmental degradation are normalised as part of ordinary life, potentially reducing risk perception and expectations for change. Young people expressing environmental or health concerns may experience dismissal or	Right to information; development; health Participation; freedom of expression; dignity Mental health; development; wellbeing

	minimization from adults and institutions. Feelings of resignation, fatigue, and hopelessness influence adolescents' emotional wellbeing and perceptions regarding future possibilities.	
Capacity to Act	Adolescents reported limited opportunities for meaningful participation in environmental decision-making processes affecting their lives and communities. Distrust toward institutions, weak accountability, and fear of social or political consequences limit collective engagement and advocacy. Despite these barriers, adolescents and community members expressed strong interest in environmental education, child-rights awareness, and practical tools supporting collective action and advocacy.	Participation; freedom of association; expression Access to justice; protection of rights; participation Education; participation; access to information

5.2 Findings from Workshops with Adolescents



5.2.1 Engagement and Learning

Overall, participants showed high levels of engagement throughout the workshops, particularly when activities were directly connected to their own environments, daily experiences, and community realities. Participation increased progressively as discussions became more interactive, practical, and grounded in familiar situations. Drawing activities, scenario discussions, and community mapping exercises encouraged active participation

across all age groups and created space for collective reflection on environmental conditions that were rarely discussed critically within everyday life.

Some of the strongest reactions emerged when participants began connecting children's rights to environmental conditions affecting their own schools, neighbourhoods, and public spaces. While most students demonstrated general awareness regarding children's rights, many had never previously reflected on contaminated environments, unsafe public spaces, polluted recreational areas, or inadequate infrastructure as possible rights violations. Discussions linking environmental degradation to health, play, safety, and wellbeing often generated surprise and collective reflection among participants.

The community mapping exercise emerged as one of the most engaging moments. Working in groups, participants drew their neighbourhoods and identified spaces perceived as safe, unsafe, supportive, polluted, or dangerous using different colours. During collective discussions, many adolescents were surprised when they realised that large portions of their maps were marked in red or orange, representing contaminated, unsafe, or unhealthy environments. The exercise prompted participants to collectively reflect on environmental conditions that had previously remained largely unquestioned within daily routines and community environments. The exercise contributed to helping participants reinterpret familiar environments through a children's rights perspective.

Participants also engaged strongly with discussions exploring how different rights intersect within everyday environments. For example, reflections around children playing football in spaces surrounded by waste or contamination helped participants recognize that the existence of a recreational space alone does not necessarily guarantee the full realization of the right to play if environmental conditions remain unsafe or harmful. These discussions were particularly important in helping adolescents understand how environmental degradation can simultaneously affect multiple dimensions of children's wellbeing and rights.

Adolescents engaged more easily with rights-related concepts when discussions were directly connected to their own schools, neighbourhoods, public spaces, and everyday experiences. Participatory and practice-based activities were effective in facilitating discussion, comprehension, and critical reflection among participants. More abstract legal concepts and institutional frameworks required additional simplification, visual support, and concrete examples in order to remain accessible and meaningful, particularly for younger participants.

Differences between age groups were relatively limited regarding overall participation and environmental awareness. Younger participants generally were more spontaneous and expressive during activities, while older adolescents demonstrated more reflective—and in some cases more resigned—attitudes regarding environmental conditions and the possibility of change. At the same time, levels of awareness and critical reflection varied significantly between individuals, suggesting that environmental perceptions are shaped less by age itself than by personal experiences, family narratives, and broader community attitudes toward contamination and mining.

5.2.2 Perception of Environmental Risks

The workshops showed that most adolescents were already highly aware of environmental deterioration in Cerro de Pasco, although the depth, interpretation, and normalisation of environmental risks varied considerably among participants.

Certain environmental concerns emerged consistently across all workshop groups. *Laguna Patarcocha*, waste accumulation, polluted public spaces, poor urban conditions, and feelings of insecurity were repeatedly identified within the mapping exercises and group discussions. Participants frequently described Cerro de Pasco as polluted, unsafe, neglected, cold, and lacking safe or well-maintained spaces for children and adolescents.

The mapping activities showed that environmental contamination is strongly embedded within adolescents' perception of their city. Red and yellow zones frequently represented polluted areas, garbage accumulation, unsafe streets, contaminated public spaces, or locations associated with environmental risk. Schools often emerged as some of the few spaces perceived positively or as relatively safe.

At the same time, perceptions regarding mining itself were more complex and sometimes contradictory. Some students identified the mine as harmful and directly connected it to contamination and environmental damage, while others described it as simultaneously harmful and economically necessary for the city's survival. In

several cases, participants did not include the mine in their maps at all, despite its physical proximity and visibility within the city. In contrast, other groups identified the mine directly as a source of contamination or marked it as a dangerous or ambivalent space. These differences suggested varying levels of normalisation, awareness, and personal interpretation regarding the role of mining within everyday life. These differences suggested that perceptions of mining are influenced not only by direct environmental experience, but also by family narratives, social context, and broader community attitudes.

The workshops also revealed that certain forms of contamination were more visible to adolescents than others. Participants frequently referred to visible waste, polluted public areas, unpleasant smells, and environmental deterioration, while awareness regarding less immediately visible exposure pathways, such as contaminated water systems or long-term heavy metal exposure, appeared less developed.

Throughout the activities, several participants began questioning environmental conditions they had previously described as “normal” or unavoidable. While several students initially described contamination as “normal”, collective discussions often led participants to reflect on how polluted recreational spaces, unsafe infrastructure, and degraded public environments affect children’s wellbeing, safety, and rights.

5.2.3 Motivation and Trust in Participation and Collective Action

The workshops revealed widespread feelings of distrust, frustration, and discouragement among adolescents regarding institutional responses and the possibility of meaningful change.

Participants frequently expressed the perception that adults, authorities, and institutions do not listen to young people’s concerns. During discussions on participation and collective action, several adolescents stated that even when young people try to raise concerns or propose ideas, “nobody listens” or “nothing changes.” These perceptions appeared closely linked to broader feelings of institutional abandonment and lack of visible improvements in environmental conditions over time.

Older participants in particular often expressed a sense of fatigue and scepticism regarding collective action. While some students proposed protests, awareness campaigns, workshops, or community initiatives, these ideas were frequently accompanied by doubts regarding whether such actions would actually produce change. Discussions suggested that many adolescents perceive participation as possible in theory, but ineffective in practice.

At the same time, the workshops demonstrated that adolescents remain interested in engagement and collective reflection when meaningful spaces are created. Participants responded particularly positively to spaces where they could openly discuss their experiences, frustrations, and ideas for possible action. The workshops themselves often became spaces where students felt listened to and taken seriously, particularly because the activities encouraged dialogue rather than passive learning.

Trust emerged as one of the central issues affecting youth participation. Participants repeatedly associated inaction with corruption, lack of institutional response, weak accountability, and the perception that environmental problems remain ignored by authorities. Several students also appeared influenced by broader social narratives minimizing environmental concerns or dismissing young people as overly sensitive or unrealistic.

Despite this, the workshops also revealed the presence of interest, curiosity, and willingness to engage among many adolescents. Some participants demonstrated strong motivation to discuss environmental issues, propose actions, and reflect critically on their communities, suggesting that limited participation is not necessarily the result of apathy, but rather of repeated experiences of institutional inaction, lack of safe participatory spaces, and low confidence that engagement can produce meaningful change.

Thematic area	Child/adolescent-centred implications	Relevant child rights / GC26 dimensions
Engagement and Learning	Adolescents engaged most actively when environmental discussions were directly connected to their own schools, neighbourhoods, daily experiences, and community realities. Participatory and practice-	Right to participation; education; freedom of expression Right to information; health; development;

	based activities facilitated dialogue, critical reflection, and collective learning across age groups. Many participants had not previously connected environmental conditions such as contamination, unsafe public spaces, or degraded infrastructure to children's rights and wellbeing. The workshops helped adolescents reinterpret familiar environments through a child-rights perspective. Community mapping exercises encouraged adolescents to critically reflect on environmental risks affecting their daily lives. Identifying large portions of their communities as polluted, unsafe, or unhealthy often generated surprise and collective discussion regarding normalised environmental conditions. Discussions exploring how environmental degradation affects play, safety, health, and wellbeing helped participants recognize the interconnection between environmental conditions and multiple dimensions of children's rights. More abstract legal and institutional concepts required simplification, visual support, and concrete examples in order to remain accessible and meaningful, particularly for younger participants. Older adolescents often expressed more reflective—and in some cases more resigned—attitudes regarding environmental conditions and the possibility of change, while younger participants were generally more spontaneous and expressive.	safe, clean, healthy and sustainable environment Right to participation; access to information; development Right to play; health; safety; development Right to accessible information; education Mental wellbeing; participation; development
Perception of Environmental Risks	Adolescents demonstrated strong awareness of environmental deterioration within Cerro de Pasco, particularly regarding polluted public spaces, waste accumulation, unsafe infrastructure, and degraded urban environments affecting their daily lives. Mapping activities showed that contamination and environmental insecurity are deeply embedded within adolescents' perception of their city, with polluted and unsafe areas frequently dominating representations of community spaces. Schools often emerged as some of the few spaces perceived as relatively safe or supportive within otherwise degraded urban environments. Adolescents expressed complex and sometimes contradictory perceptions regarding mining, simultaneously recognizing environmental harm while also associating mining with economic survival and community identity. Awareness of visible forms of contamination, such as waste, smells, and polluted public areas, appeared stronger than understanding of less visible environmental risks such as water contamination or long-term heavy metal exposure. Collective discussions encouraged participants to question environmental conditions previously perceived	Right to health; safe environment; development Right to development; health; adequate living conditions Right to education; protection; wellbeing Right to information; participation; development Right to information; health; environmental education Right to health; play; development; participation

	as “normal” or unavoidable, particularly regarding unsafe recreational spaces, contaminated environments, and deteriorated infrastructure affecting children’s wellbeing.	
Motivation and Trust in Participation and Collective Action	Adolescents frequently expressed feelings of frustration, distrust, and discouragement regarding institutional responses to environmental problems and the possibility of meaningful change. Many participants perceived that adults, authorities, and institutions do not listen to young people’s concerns or respond meaningfully to environmental issues affecting their communities. Older adolescents in particular often expressed scepticism regarding collective action, describing participation as theoretically possible but practically ineffective due to lack of institutional response and visible change. The workshops demonstrated that adolescents engage positively when safe, respectful, and dialogue-based participatory spaces are created. Many participants valued opportunities to openly discuss their experiences, frustrations, and ideas. Distrust toward institutions was strongly linked to perceptions of corruption, weak accountability, and long-term institutional inaction regarding environmental harm. Despite frustration and low confidence in institutional change, many adolescents demonstrated curiosity, motivation, and willingness to engage in environmental discussions and collective reflection when meaningful opportunities for participation were available.	Right to participation; access to justice; freedom of expression Right to be heard; participation; accountability Participation; civic engagement; development Participation; freedom of expression; dignity Access to justice; protection of rights; participation Participation; association; access to information; development

5.3 Findings from Direct Observation

5.3.1 Environmental Conditions

Direct observation confirmed the widespread environmental deterioration described throughout interviews and workshops. Environmental degradation was highly visible across different areas of the city and appeared deeply integrated into the urban landscape and daily living conditions.

One of the most striking observations concerned the visibility and physical proximity of mining infrastructure within the city itself. The open-pit mine remained clearly visible from multiple urban areas despite attempts to partially isolate sections through fencing and protective barriers. In some locations, damaged or incomplete barriers exposed the mining area directly to surrounding neighbourhoods and public spaces, reinforcing the sense that extraction activity is physically embedded within the city rather than separated from it.

Laguna Patarcocha emerged as one of the most visibly degraded environmental spaces observed during the field mission. The lagoon, located near schools and public areas, was characterised by strong odours, visible pollution, and severe environmental degradation. Waste discharge and sewage flows were visibly connected to the lagoon area, while nearby public spaces and children’s recreational areas remained in active use despite the surrounding environmental conditions.

Across neighbourhoods and public spaces, environmental deterioration appeared normalised and constant. Dust accumulation, waste scattered along streets, deteriorated buildings, poor urban maintenance, and

abandoned or partially damaged infrastructure were visible throughout different areas of the city. The overall urban environment frequently conveyed a sense of abandonment, precariousness, and environmental neglect.

Direct observation also highlighted the harsh climatic and physical conditions affecting everyday life. Extreme cold temperatures, lack of heating systems, poorly insulated buildings, and visibly precarious housing conditions contributed to an environment perceived as physically exhausting and difficult to navigate on a daily basis.

Schools and children's environments reflected many of these broader conditions. The school visited during the assessment presented important infrastructural limitations, including unfinished sections of the building, poor insulation, inadequate hygiene conditions, insufficient sanitation facilities, and exposure to strong odours associated with nearby contamination sources. Public recreational spaces and playgrounds similarly appeared poorly maintained, with some located directly adjacent to contaminated areas or waste accumulation sites.

Overall, direct observation confirmed that environmental degradation in Cerro de Pasco is not confined to isolated industrial zones, but instead forms part of the ordinary visual, physical, and social environment experienced daily by children and communities.

5.3.2 Exposure and Infrastructure

Observation findings strongly suggested that environmental exposure in Cerro de Pasco is intensified by inadequate infrastructure, weak environmental management systems, and limited protective measures within everyday living environments.

Water access emerged as a particularly critical issue. In several areas, residents depended on water delivered through cistern systems and stored in household containers under difficult conditions. Informal storage practices, irregular distribution, and community concerns regarding contamination reflected broader vulnerabilities linked to access to safe water. Observation findings aligned closely with interview data describing limited and unequal access to reliable, clean water.

Waste management and sanitation systems also appeared severely inadequate. Open sewage flows, visible waste accumulation, and poor drainage infrastructure were observed in multiple areas of the city, including locations near residential zones and schools. Waste disposal appeared inconsistent, with garbage frequently accumulated in public areas, streets, and spaces used by children and families. The discharge of wastewater and sewage into Laguna Patarcocha was visibly identifiable during the field mission, reinforcing concerns regarding chronic environmental exposure.

Housing conditions further reflected structural vulnerability. Many residential areas appeared characterized by precarious construction materials, poor insulation, overcrowding, and limited protection from extreme weather conditions. Exposure to cold temperatures appeared particularly significant given the lack of adequate heating systems and the physical condition of many homes and buildings.

Educational infrastructure similarly reflected broader infrastructural limitations. The school environment observed during the assessment presented deficiencies related to hygiene, sanitation, heating, and overall building safety. Although the school functioned as an important social and protective space for students, the physical conditions themselves appeared insufficient for ensuring safe and healthy learning environments.

Public infrastructure and urban planning also contributed to exposure risks. Sidewalks, secondary roads, drainage systems, and public maintenance appeared inconsistent across different areas of the city. While some main roads were maintained, many surrounding streets and pedestrian areas remained deteriorated or poorly adapted to everyday mobility and safety needs.

Overall, direct observation suggested that environmental exposure in Cerro de Pasco cannot be understood solely through contamination measurements. Exposure is continuously reinforced through infrastructure deficiencies, limited environmental protection systems, precarious housing conditions, and the integration of contaminated environments into ordinary daily life.

Case Study: Everyday Environmental Exposure Near Mining Waste Deposits

A household visit conducted in a neighbourhood located close to mining waste deposits provided additional insight into how environmental exposure is experienced within everyday family life. The visit, carried out together with women from the community, highlighted how contamination, inadequate infrastructure, and limited access to services intersect within children's daily environments.

Residents described living conditions characterized by constant dust exposure, deteriorated infrastructure, inadequate sanitation systems, and close proximity to mining waste areas. Women explained that dust rapidly accumulates inside homes, covering windows, furniture, food, and household surfaces, particularly during dry periods or increased mining activity. Several participants described the need to clean continuously in order to manage exposure within the home.

Water insecurity emerged as one of the community's main concerns. Participants explained that water intended for household consumption and delivered by tanker trucks often arrives intermittently and in insufficient quantities, forcing families to rely on multiple water sources despite concerns regarding contamination. Women also described open sewage systems near residential areas and persistent odours linked to wastewater discharge and contamination affecting Laguna Patarcocha.

The visit also illustrated how responsibility for prevention and protection is often transferred onto families themselves. Women described attempting to protect children through hygiene practices, nutritional supplements, iron-rich foods, and constant household cleaning despite limited financial resources and inconsistent institutional support. As one participant explained, families "do what they can" to protect their children even while recognizing that contamination cannot be fully avoided.

Participants frequently linked contamination to children's health and educational challenges, including anaemia, respiratory illnesses, fatigue, concentration problems, and learning difficulties. At the same time, women expressed strong feelings of frustration and distrust regarding institutional responses, describing inconsistent medical follow-up, inaccessible specialised services, and limited information regarding available support or complaint mechanisms.

Despite these challenges, the visit also revealed significant levels of awareness, mutual support, and willingness among residents to engage around children's wellbeing and environmental concerns. The case illustrates how environmental exposure in Cerro de Pasco is experienced not only through contamination itself, but through the cumulative pressures it places on housing, caregiving, health, education, and everyday community life.



5.3.3 Gap Between Perception and Reality

One of the strongest findings emerging from direct observation was the contrast between the severity of environmental conditions and the extent to which these conditions appeared normalised within everyday life. Contaminated public spaces, deteriorated infrastructure, open sewage systems, chronic dust exposure, and strong smells linked to mining activity were frequently experienced as ordinary aspects of the urban environment. Children attended schools and used recreational spaces located near visibly contaminated areas, while families continued daily activities around polluted environments with limited alternatives.

Observations reinforced interview findings suggesting that normalisation functions as an important social adaptation mechanism within contexts of chronic environmental exposure. Community members often discussed contamination, illness, and infrastructure deficiencies in calm or routine ways despite describing conditions with potentially serious health implications. This was particularly visible regarding water access,

where irregular supply, dependence on cisterns, and contamination concerns initially appeared underemphasized before emerging as major issues affecting daily life.

The gap between perception and observed reality was especially evident in children's environments. Many adolescents initially described contaminated or deteriorated spaces as normal parts of everyday community life before later reflecting on how these conditions may also affect their rights, wellbeing, and sense of safety.

At the same time, normalisation did not appear to reflect lack of awareness. Many residents demonstrated strong awareness of environmental deterioration while also expressing resignation, environmental fatigue, and limited confidence in the possibility of structural change. Overall, field observations suggested that environmental exposure in Cerro de Pasco is experienced not only as a physical condition, but also as a social and psychological reality shaping how risk, vulnerability, and everyday life are understood and managed within the community.

Thematic area	Child/adolescent-centred implications	Relevant child rights / GC26 dimensions
Environmental Conditions	Environmental degradation was visibly integrated into the urban landscape and everyday living conditions experienced daily by children and adolescents across Cerro de Pasco. The close physical proximity between mining infrastructure, residential neighbourhoods, schools, and public spaces contributed to making environmental exposure a constant part of children's daily environments. Laguna Patarcocha and surrounding public areas used by children and families showed severe environmental deterioration, including visible pollution, sewage discharge, and strong odours, while remaining active community spaces. Dust accumulation, waste, deteriorated infrastructure, and poor urban maintenance contributed to environments characterized by environmental neglect and precarious living conditions affecting children's wellbeing and daily life. Extreme cold, inadequate heating systems, poor insulation, and precarious housing conditions created physically demanding living environments for children and families. Schools and recreational environments reflected broader environmental and infrastructural deficiencies, including poor sanitation, inadequate hygiene conditions, unfinished infrastructure, and proximity to contamination sources.	Right to health; survival and development; safe, clean, healthy and sustainable environment Right to health; protection; adequate standard of living Right to play; health; water and sanitation; safe environment Right to development; adequate living conditions; dignity Right to adequate housing; health; survival and development Right to education; health; play; protection
Exposure and Infrastructure	Environmental exposure was reinforced by inadequate infrastructure, weak environmental management systems, and limited protective measures within everyday living environments used by children and adolescents. Irregular water access, dependence on cistern	Right to health; safe environment; development Right to water and sanitation; health; adequate standard of living Right to health; sanitation;

	systems, unsafe storage conditions, and concerns regarding contamination affected children's hygiene, nutrition, and daily wellbeing. Open sewage systems, waste accumulation, poor drainage infrastructure, and inadequate sanitation systems contributed to chronic exposure risks within residential areas, schools, and public spaces. Precarious housing conditions, overcrowding, poor insulation, and limited protection from extreme weather increased children's vulnerability to environmental and health-related risks. School infrastructure deficiencies related to sanitation, heating, hygiene, and building safety limited the creation of safe and healthy learning environments for children and adolescents. Weak urban planning, deteriorated roads and pedestrian areas, and inconsistent public maintenance contributed to unsafe and inadequate environments affecting children's mobility, safety, and everyday activities.	protection Right to adequate housing; survival and development Right to education; health; dignity Right to protection; development; accessible public spaces
Gap Between Perception and Reality	Observation findings revealed a strong contrast between the severity of environmental degradation and the extent to which unsafe and contaminated conditions have become normalised within children's and communities' daily lives. Children and adolescents routinely used schools, recreational spaces, and public environments that remained visibly contaminated or located near environmental hazards, while these spaces continued to function as ordinary environments for socialization and daily activities. Chronic exposure and prolonged infrastructural neglect appeared to reduce the perceived urgency of environmental risks affecting children's health, dignity, and wellbeing. Adolescents initially described several contaminated or degraded environments as "normal" before progressively reflecting on how these conditions may also constitute violations of their rights and wellbeing. The normalisation of contamination appeared closely connected to broader feelings of resignation, environmental fatigue, distrust, and limited confidence in the possibility of structural change. Observation findings suggested that environmental exposure affects children not only physically, but also socially and psychologically by shaping perceptions of safety, normality, wellbeing, and future possibilities.	Right to health; development; safe environment Right to play; education; protection; health Right to information; health; dignity Right to participation; access to information; development Mental wellbeing; participation; access to justice Survival and development; mental health; dignity; participation

6. IMPLICATIONS FOR WORKBOOK DEVELOPMENT

The field assessment identified several areas requiring further refinement in order to strengthen the accessibility, relevance, and practical applicability of the workbook for adolescents living in environmentally affected contexts.

Simplification of Rights and Legal Concepts

The workshops highlighted the need to further strengthen the progression between adolescents' lived experiences and the introduction of rights-based concepts. Participants engaged more easily when discussions on children's rights, environmental rights, and GC26 emerged from issues they had already identified through mapping, reflection, and discussion activities. Future iterations should therefore place greater emphasis on experiential learning before introducing legal and rights-based concepts, while incorporating additional visual materials, practical examples, and age-appropriate language.

Contextual and Practice-Based Learning

Participatory and practice-based activities consistently generated stronger engagement than theoretical discussions alone. At the same time, field-testing showed that identifying environmental problems does not automatically translate into understanding environmental harm and its consequences. While participants could readily identify visible issues such as waste, polluted spaces, or environmental degradation, additional facilitation was often required to support reflection on how these conditions may affect health, wellbeing, development, and rights. Future iterations should therefore strengthen activities that progressively connect environmental observations with their potential impacts on children's lives.

Strengthening Action-Oriented Participation

The assessment highlighted the need to strengthen the workbook's action-oriented dimensions. While participants were generally able to identify environmental concerns and propose initial ideas for action, they demonstrated limited familiarity with practical pathways for participation, advocacy, accountability, access to services, and collective engagement. Future iterations should therefore provide more concrete guidance and examples showing how adolescents can seek support, report concerns, engage with institutions, access services, organize community initiatives, and participate safely in environmental decision-making processes.

Emotional Wellbeing and Safeguarding

Feelings of frustration, environmental fatigue, distrust, and hopelessness emerged consistently throughout workshops and discussions, particularly among older adolescents. Field-testing reinforced the importance of balancing discussions on environmental harm with activities that support reflection, agency, collective care, and constructive action. Facilitation guidance should support practitioners in managing emotionally sensitive discussions related to environmental harm, health concerns, and community experiences while avoiding approaches that may generate unnecessary anxiety or feelings of helplessness among participants.

Participation and Safe Spaces

The assessment reinforced the importance of participatory spaces where adolescents feel listened to and able to reflect collectively on environmental realities affecting their lives. Field-testing also highlighted the need to more clearly frame concepts such as safety, risk, and protection within environmental contexts. During several activities, participants initially associated unsafe spaces primarily with crime, violence, or social insecurity rather than environmental conditions. Future facilitation guidance should therefore support practitioners in helping participants explore environmental safety as an integral dimension of children's wellbeing, protection, and rights.

Key finding	Child rights / GC26 dimensions	Implications for children and adolescents	Implications for workbook development
Environmental contamination is embedded in homes, schools, public spaces, recreational areas, and daily urban life	Right to health; survival and development; safe, clean, healthy and sustainable environment	Children experience environmental exposure as a continuous condition rather than an isolated event	Include activities helping adolescents identify how environmental harm appears in everyday spaces and routines
Mining infrastructure and contaminated sites are physically close to schools, neighbourhoods, and public areas	Health; protection; education; adequate standard of living	Children's learning, play, and social life take place near environmental hazards	Use familiar places such as schools, routes, playgrounds, and neighbourhoods as entry points for discussion
Water insecurity, poor sanitation, open sewage, waste accumulation, and weak infrastructure intensify exposure	Water and sanitation; health; adequate living conditions; dignity	Environmental harm is reinforced by basic service failures affecting hygiene, health, and wellbeing	Include practical exercises on how infrastructure, services, and environmental rights are connected
Exposure and protection are shaped by poverty and household resources	Non-discrimination; social protection; health; adequate standard of living	Poorer children face higher exposure and fewer means to reduce risks through healthcare, nutrition, safer housing, or water access	Avoid framing protection only as individual behaviour; emphasize structural inequality and collective responsibility

Families carry much of the burden of protection through cleaning, food choices, supplements, water management, and care practices	Health; social protection; best interests of the child	Children's protection depends heavily on household capacity rather than guaranteed public systems	Include reflection on the difference between family coping strategies and institutional obligations
Health and education systems are perceived as insufficiently prepared to respond to chronic contamination	Health; education; mental health; access to information	Children face limited prevention, monitoring, specialized care, mental health support, and safe school environments	Provide accessible explanations of rights, services, accountability, and possible support pathways
Schools and recreational spaces may be perceived as safe while still being environmentally unsafe	Education; play; health; protection	The existence of a school or playground does not guarantee children's rights if environmental conditions remain harmful	Use scenario-based activities to explore how rights intersect in real-life situations
Environmental risks have become normalised within everyday life	Information; participation; development; health	Adolescents may see contamination, waste, unsafe spaces, and poor infrastructure as ordinary or unavoidable	Use participatory mapping and reflection exercises to question normalisation and identify rights implications
Adolescents are often able to identify environmental problems but may struggle to understand how environmental harm affects health, wellbeing, development, and rights.	Access to information; education; participation	Young people may recognize environmental harm without having the language to frame it as a rights issue	Strengthen the bridge between lived experience, environmental harm, and children's rights
Less visible risks, such as heavy metals, water contamination, and long-term health impacts, were significantly harder for adolescents to recognize and connect to their	Health; information; environmental education	Children may understand visible pollution more easily than hidden or cumulative exposure	Include simple, visual, age-appropriate explanations of invisible risks and long-term exposure

own lives than visible environmental problems.			
Adolescents responded strongly to participatory, visual, and practice-based activities	Participation; education; expression	Young people engage more deeply when learning is active, concrete, and connected to their own realities	Prioritize mapping, drawing, scenarios, storytelling, group discussion, and action-planning over lecture-based content
Abstract legal concepts were less accessible without examples and facilitation	Education; access to information; participation	Rights frameworks may feel distant unless translated into everyday situations	Simplify legal language and use concrete examples, visuals, and locally relevant scenarios
Community mapping was especially effective in generating reflection	Participation; information; development	Adolescents were able to visualize how much of their environment they perceived as unsafe, polluted, or unhealthy	Keep community mapping as a core activity and use it to connect perception, rights, and action
Scenario discussions helped adolescents understand the interconnection between rights	Health; play; education; protection; development	Young people recognized that environmental harm can affect several rights at once	Expand scenario-based exercises showing overlapping rights violations in daily life
Adolescents expressed distrust toward institutions and low confidence that participation produces change	Participation; access to justice; expression	Repeated institutional inaction may produce frustration, resignation, and disengagement	Include realistic discussions on participation, advocacy, limits, risks, and safe collective strategies
Many adolescents felt that adults and authorities do not listen to young people	Right to be heard; participation; dignity	Young people may internalize the idea that their views do not matter	Design activities that validate adolescents' voices and model meaningful participation

Participation was stronger when adolescents felt listened to and taken seriously	Participation; dignity; freedom of expression	Safe and respectful spaces can counter feelings of exclusion and silence	Train facilitators to create non-hierarchical, supportive, dialogue-based spaces
Emotional fatigue, hopelessness, frustration, and resignation emerged strongly	Mental health; dignity; development; participation	Environmental harm affects children not only physically, but also emotionally and psychologically	Integrate psychosocial reflection, emotional check-ins, collective care, and safe discussion of difficult topics
Older adolescents sometimes showed more resignation, while younger participants were more spontaneous	Development; participation; mental wellbeing	Age does not determine awareness, but experiences and social narratives shape how young people engage	Adapt facilitation by age group, allowing both creative expression and deeper critical discussion
Environmental perceptions are shaped by family narratives, social context, and community attitudes toward mining	Information; participation; development	Adolescents may hold complex or contradictory views about mining, harm, and economic survival	Allow space for ambivalence and avoid overly simplistic narratives; encourage critical but respectful dialogue
Awareness alone is insufficient for meaningful engagement	Participation; information; education	Adolescents may know contamination exists but lack tools to understand rights or act collectively	Move beyond awareness-raising toward orientation, agency, participation, and action
Adolescents lacked practical orientation on what environmental rights mean in practice	Access to information; participation; access to justice	Young people may not know what steps are possible, safe, or realistic	Include practical guidance on participation pathways, community dialogue, advocacy, and seeking support
Low institutional trust and fear of consequences can limit collective action	Protection; participation; access to justice	Young people may hesitate to speak openly or organize around environmental concerns	Include safeguarding, risk awareness, and safe participation principles

Youth groups and community actors may need support to organize assessments and participatory activities	Participation; association; education	Meaningful youth participation requires preparation, accompaniment, and local capacity-building	Include facilitator guidance, outreach tools, workshop planning templates, and adaptation notes
Contextualization is essential for relevance and engagement	Education; participation; information	Adolescents engage more meaningfully when activities reflect their own schools, neighbourhoods, and daily realities	Build flexibility into the workbook so examples and activities can be adapted to each local context
The workbook can serve as a space for collective reflection, not only individual learning	Participation; association; dignity	Adolescents benefit from discussing shared experiences and realising that concerns are collective, not isolated	Design group-based exercises that move from individual experience to collective analysis
The workbook can help adolescents reinterpret familiar realities through a rights-based lens	Information; development; participation	Everyday environmental harm becomes more visible when connected to rights, dignity, and wellbeing	Use rights-based reflection throughout the workbook, not only in introductory sections
Children's environmental rights are affected across multiple dimensions at once	Health; education; play; development; participation; protection	Environmental harm intersects with schooling, recreation, health, emotional wellbeing, and future aspirations	Use an integrated approach rather than separating environment, rights, health, and participation into isolated topics
Participatory methodologies are especially important in contexts of weak accountability and low trust	Participation; access to justice; dignity	Creating spaces where adolescents are heard can itself support agency and confidence	Position the workbook as both educational and empowering, with strong attention to facilitation quality
The field test confirmed strong potential for use in Cerro de Pasco and similar contexts	GC26 implementation; participation; environmental rights	Adolescents showed interest, curiosity, and willingness to engage when given meaningful tools and spaces	Further develop the workbook as an action-oriented, child-centred resource for environmental justice contexts

Participants were generally able to identify environmental concerns and propose ideas for action, but demonstrated limited familiarity with practical pathways for participation, advocacy, accountability, and access to support services.	Participation; access to information; freedom of expression; access to justice and effective remedies; evolving capacities; environmental education (GC26)	Adolescents may recognize environmental problems and express concerns but lack the knowledge, confidence, and practical tools needed to seek support, engage with decision-makers, access services, or advocate for change.	Develop practical, age-appropriate tools to help adolescents access information and support, engage decision-makers, and participate safely in advocacy and accountability processes.
---	--	---	---



7. CONCLUSIONS

The field assessment demonstrates that environmental contamination in Cerro de Pasco is not experienced as an isolated environmental problem, but as a structural condition shaping children's everyday lives, health, wellbeing, education, and future perspectives. Across interviews, workshops, direct observation, and desk review, the findings consistently revealed a context in which environmental exposure has become deeply normalized despite its visible impacts on communities and adolescents.

At the same time, the assessment highlighted that the central gap is not simply lack of awareness regarding contamination, but the absence of accessible, participatory, and child-centred pathways capable of transforming awareness into understanding, participation, and collective action. Many adolescents demonstrated significant interest in discussing environmental issues and reflecting critically on their realities when meaningful spaces were created, yet also expressed feelings of frustration, low institutional trust, and limited confidence in the possibility of change.

These findings reinforce the importance of approaches grounded in participation, contextualization, and practical engagement rather than exclusively theoretical or awareness-based models. The field-testing suggests that the GC26-based workbook and methodology can provide an important framework for helping adolescents understand environmental harm through a children's rights perspective, strengthen collective reflection, and explore realistic forms of participation and action within contexts affected by environmental injustice.

More broadly, the assessment demonstrates the importance of creating spaces where adolescents are recognized not only as vulnerable populations affected by contamination, but also as rights-holders capable of interpreting their realities, expressing concerns, and contributing to discussions and actions affecting their communities. In this sense, the methodology represents not only an educational tool, but also a participatory process capable of supporting environmental rights awareness, youth engagement, and community-based reflection in contexts where these spaces are often absent.

8. RECOMMENDATIONS AND NEXT STEPS

8.1 Key Recommendations

The field assessment suggests that the GC26-based workbook and methodology have strong potential for implementation in Cerro de Pasco and similar contexts affected by environmental injustice. At the same time, the findings highlight several areas requiring further refinement and strategic attention prior to broader implementation.

Key recommendations emerging from the assessment include:

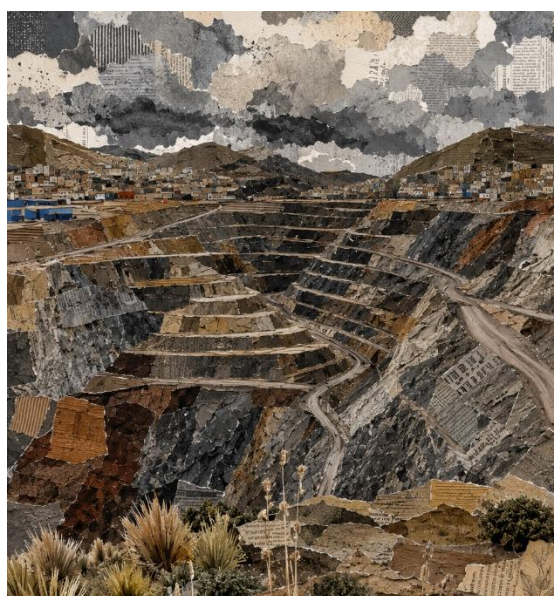
- **Further contextualise and simplify the workbook** through practical examples, visual tools, participatory activities, and locally grounded scenarios that connect rights concepts to adolescents' everyday experiences.
- **Strengthen the action-oriented dimension of the methodology** by including clearer pathways for participation, collective reflection, youth engagement, and safe forms of advocacy beyond awareness-raising alone.
- **Maintain strongly participatory and practice-based facilitation approaches**, as adolescents consistently engaged more actively with interactive, visual, and experiential activities than with lecture-based or purely theoretical content.
- **Strengthen local facilitation and ownership** by involving schools, youth groups, local NGOs, educators, psychologists, social workers, and community actors capable of supporting sustained engagement and continuity over time.
- **Integrate psychosocial and emotional dimensions more explicitly** within future implementation, including safe discussion spaces, collective care approaches, and activities addressing environmental fatigue, frustration, hopelessness, and distrust.

- **Ensure flexibility and contextual adaptation** so that the methodology can be adjusted to different local realities, environmental conditions, age groups, and community dynamics.
- **Avoid short-term or one-off implementation models** without follow-up opportunities, as sustained accompaniment and trusted relationships appear essential for meaningful participation and long-term engagement.
- **Develop facilitator guidance and safeguarding components** capable of supporting safe, non-hierarchical, and youth-centred participation in contexts characterized by environmental injustice and low institutional trust.

Overall, the assessment suggests that the workbook has significant potential not only as an educational resource, but also as a participatory and action-oriented tool supporting environmental rights awareness, youth engagement, and collective reflection among adolescents living in environmentally affected contexts.

8.2 Implementation Steps

Step	Action
1	Refine the workbook and methodology based on field assessment findings, strengthening practical activities, contextual examples, action-planning components, and accessibility of rights-related concepts.
2	Create a local taskforce involving schools, NGOs, youth groups, educators, psychologists, social workers, and community actors working with adolescents.
3	Train facilitators on participatory methodologies, environmental rights, safeguarding, psychosocial sensitivity, and action-oriented facilitation approaches.
4	Pilot the refined workbook through longer-term implementation processes with selected schools, youth groups, and local partners in Cerro de Pasco, integrating youth leadership and collective action laboratories aimed at strengthening participation, agency, and community engagement among adolescents.
5	Conduct follow-up evaluation and adaptation processes in order to assess implementation challenges, participant engagement, contextual relevance, and long-term feasibility.



BIBLIOGRAPHY

- Canfield, R. L., Henderson, C. R., Cory-Slechta, D. A., Cox, C., Jusko, T. A., & Lanphear, B. P. (2003). *Intellectual impairment in children with blood lead concentrations below 10 µg per deciliter*. New England Journal of Medicine, 348(16), 1517–1526.
- Carrasco Retamozo, J. (2024). *Percepción de la contaminación por metales pesados y riesgos en la salud en Cerro de Pasco, 2023*. Revista de la Facultad de Medicina Humana.
[Carrasco Retamozo, J. \(2024\). Percepción de la contaminación por metales pesados y riesgos en la salud en Cerro de Pasco, 2023](#)
- Carreiro-Da-Cunha, E., et al. (2026). *Possible adverse effects of mining activity on the neurocognitive development of children in Cerro de Pasco*.
[PubMed – Neurocognitive effects of mining exposure in Cerro de Pasco](#)
- Centers for Disease Control and Prevention (CDC). (n.d.). *Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention*.
- Centers for Disease Control and Prevention (CDC). (2024). *CDC Updates Blood Lead Reference Value*.
[Centers for Disease Control and Prevention - updates blood lead reference value](#)
- Centro de Cultura Popular Labor. (2015). *Agua, minería y cambio climático en Cerro de Pasco: Un reto para tres realidades*. Participación, Boletín No. 39. Cerro de Pasco: Asociación Civil Centro de Cultura Popular Labor.
[Centro de Cultura Popular Labor. \(2015\). Agua, minería y cambio climático en Cerro de Pasco: Un reto para tres realidades. Participación, Boletín No. 39](#)
- Child Rights International Network (CRIN). (2016). *Submission to the UN Committee on the Rights of the Child in advance of the 2016 Day of General Discussion on “Children’s Rights and the Environment”*.
- Children’s Environmental Rights Initiative. General Comment No. 26 resources.
[Children’s Environmental Rights – GC26 resources](#)
- Committee on the Rights of the Child. (2023). *General Comment No. 26 (2023) on children’s rights and the environment with a special focus on climate change (CRC/C/GC/26)*. United Nations.
- Dirección Regional de Salud (DIRESA) Pasco. (2018). *Informe final de las actividades desarrolladas en la declaratoria de emergencia sanitaria D.S. N° 005-2018-SA*.
- Fandiño Pineiro, X., et al. (2021). *Heavy metal contamination in Peru: implications on children’s health*. Scientific Reports, 11(1).
- GlobalGiving / Source International. *Reports on Restore Health in Cerro de Pasco*.
[GlobalGiving – Restore Environmental Health in Cerro de Pasco](#)
- Mongabay (2026). *Peru mining pollution linked to children’s cognitive impairment study*.
[Mongabay – Peru mining pollution and cognitive impairment](#)
- Morgera, E. (2023). *The recognition of the human right to a clean, healthy and sustainable environment and the UN Convention on the Rights of the Child*. Environmental Policy and Law.
- Piñeiro, X. F., et al. (2021). *Heavy metal contamination in Peru: implications on children’s health*.
[PMC Article – Heavy metal contamination in Peru: implications on children’s health](#)
- Source International. *Cerro de Pasco: last investigation reveals an increase in heavy metals levels in the population*.
[Source International – Cerro de Pasco investigation](#)

- UNICEF. *General Comment No. 26 (2023) on children's rights and the environment*. [UNICEF – General Comment No. 26 overview](#)
- World Health Organization (WHO). (2024). *Lead poisoning and health*. WHO Fact Sheet. [World Health Organization. Lead poisoning and health.](#)
- World Health Organization (WHO). (2021). *Exposure to Lead: A Major Public Health Concern (2nd ed.)*. Geneva: World Health Organization. [World Health Organization. Exposure to Lead: A Major Public Health Concern](#)