



A decolonial and participatory research approach to envision equitable transformations toward sustainability in the Amazon

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ARTICLE INFO

Keywords:

BIWOC

Epistemology

Justice

Border space

Future thinking

ABSTRACT

How people relate to and see themselves as part of nature relations differs worldwide and often depends on culture and worldviews. Nonetheless, challenging the dominant Euro-Western epistemic domination is needed to attain more equitable and sustainable future visions. This change entails fostering decolonial mediation between different knowledge systems in a context of intersectional difference. The collective struggles of Black, Indigenous, and other Women of Color (BIWOC) for self-determination shed light on pathways of decolonial mediations and how to attain epistemic equity when thinking about the future. Echoing the call of BIWOC to use decoloniality in knowledge co-creation, we co-created a *border space* together with 20 BIWOC in the Putumayo department of Colombia. In this space, we jointly envisioned three radical visions of the Amazon through scenario-building exercises between 2022 and 2023. Storytelling is a powerful tool to capture the BIWOC's differentiated experience of the world and to explore their individual and collective emancipation from different forms of oppression. Decolonial mediations support the (co-)design of a "safe enough" space for questioning and rethinking Euro-Western domination. Our research also indicates that incorporating decolonial praxis into sustainability transformation research can allow for a more radical envisioning of the future.

1. Introduction

Ensuring an equitable transformation toward a more sustainable future demands the recognition of a diversity of worldviews on human-nature relations (Escobar, 2018; IPBES, 2022; Pascual et al., 2023; Trisos et al., 2021). Transformations towards sustainability, thus, entail a fundamental shift towards greater sustainability and equity pathways. Yet, when considering decision-making related to the biosphere, Euro-Western imaginaries of human-nature relationships have monopolized the discussions around environmental practices, particularly in science and global policy arenas (Escobar, 2014, 2018; IPBES, 2022). It is increasingly recognized that these

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dominant imaginaries have underpinned and driven unsustainable behaviors, primarily responsible for today's environmental and climate crises (Di Chiro, 2020).

Decolonial researchers and activists promote a pluriverse perspective on the relationship between people and nature, highlighting the necessity of varied transformative efforts to tackle current crises (Escobar, 2018; Kothari et al., 2019). This approach challenges the domination of Euro-Western epistemologies, rejecting the notion of knowledge production as neutral (Hlabangane, 2018; Zanotti et al., 2020). Similarly, the hierarchization of knowledge systems underpinned by Euro-Western imaginaries of class, race, gender, and ethnicity has created a differentiated experience of nature (Di Chiro, 2020). Consequently, de-universalizing nature-related worldviews to emancipate subjugated people and knowledge systems requires scholars to foster diverse views on nature within a context of human difference.

In Colombia, local communities, Indigenous peoples, Afro-descendants, and grassroots organizations are fighting against the rising threats and violence linked to the Euro-Western imaginaries of nature's exploitation (Arbeláez-Ruiz, 2021; Escobar, 2014; Sánchez-García & Wong, 2024). In particular, Black, Indigenous, and other Women of Color (BIWOC) have consolidated their participation and leadership, actively engaging in decision-making from the local to the national governance. For instance, in 2022, Francia Marquez, a human rights and environmental activist, became the first Afro-descendant woman elected as vice president, and in 2023, she was also appointed to the Ministry of Equality and Equity of Colombia.

The story of Francia Marquez and other BIWOC is particularly relevant in the context of gender-based violence across the country. Between 1995 and 2011, about 400,000 women were murdered, and more than two million women were displaced, with Indigenous and Afro-descendant women disproportionately affected (UN Women, 2023). It is estimated that more than 35 % of women in Colombia have experienced physical violence, and about 18.3 % experienced sexual violence (Bott et al., 2016; USAID & UN Women., 2016). Indigenous and Afro-descendant women are at a substantially higher risk of intersectional discrimination based on their gender, skin color, and ethnic origin (USAID & UN Women., 2016).

Currently, numerous grassroots organizations are dedicated to combatting intersectional violence and discrimination across the nation. In southern Colombia's Putumayo department, *Alianza Tejedoras de Vida* (ATV - Weavers of Life Alliance) and *Fundación Hiladoras de Vida* (FHV - Weavers of Life Foundation) adopt a gender-based conservation model. ATV was established in response to a hunger crisis triggered by a 30-day armed conflict in 2005 in Putumayo. ATV collaborates with 65 grassroots groups to promote environmental peacebuilding in the region. Later, ATV initiated the *Guardianas del Agua* (Water Stewards) educational program to safeguard water sources and rivers. So far, 120 women from 13 municipalities in Putumayo have participated in this program. In 2022, a first-generation Water Steward created a new initiative called *Guardianas de Bosques* (Forest Stewards) under FHV. This new program aims to enhance the capacities of Indigenous women in forest conservation. Both Water and Forest Stewards of ATV and FHV confront and resist various forms of intersectional violence and discrimination while advocating for their communities and territories as women and ethnic minorities.

This study explores how BIWOC envision an equitable transition toward sustainability in the Amazon. By creating a *border space* or "safe enough" space, we collaborated with 20 Water and Forest Stewards from FHV and ATV to co-develop future visions. We investigated how shifts in knowledge and understanding, aimed at a decolonial perspective, could lead to more equitable and sustainable futures. Utilizing frameworks of intersectionality and decoloniality, we sought to understand how these epistemic transformations could contribute to achieving greater equity and sustainability. To guide our inquiry, we asked: How do local BIWOC promote epistemic equity in envisioning an equitable transformation towards sustainability in the Amazon? The outcomes of our research are presented in three normative narratives of the region.

We structure the paper as follows. We first summarize our theoretical engagements to incorporate decolonial practices in a space of intersectional difference. Then, we summarize how we created a *border space* for more equitable knowledge exchange. An overview and timeline of the methods used during the two participatory workshops are then presented. Following this, we describe how we collected and analyzed the data. The results of the first and second participatory workshops and a summary of our analysis of the Causal Layered Analysis (CLA) themes and visions of the future and the emancipation of BIWOC are then presented. Reflections and discussions on the process and its implications for envisioning diverse decolonial futures conclude the paper.

2. Decolonizing the future: using decolonial mediations in a space of intersectional difference

The Euro-Western worldview has historically claimed to be a universal mode of understanding reality, relying on the power of reason as the sole pathway to knowledge (Doxtater, 2004; Grosfoguel, 2007). This supposed universality arises from the belief that rationality, represented by the (White-Western) Man, transcends specific perspectives and achieves comprehensive objectivity (Grosfoguel, 2007; Hlabangane, 2018; Wynter, 1987). By concealing its own subjectivity, Euro-Western knowledge creates a hierarchy that devalues alternative epistemologies, reinforcing a colonial order in which Indigenous and other knowledge systems are marginalized as inadequate, reactive, and irrational (Doxtater, 2004; Foucault, 2020; Maldonado-Torres & Cavaooris, 2017). This epistemic dominance, institutionalized through European colonization, continues to influence knowledge production today (Grosfoguel, 2007; Mignolo, 2009; Zavala, 2016).

In response to this epistemic hierarchy, decolonial scholars and Indigenous activists are advocating for a decolonial turn in knowledge co-creation—one that challenges the universal claims of Euro-Western epistemologies and repositions epistemic equity or an equitable recognition and integration of diverse epistemologies (Escobar, 2018; Zanotti et al., 2020). Decolonial theorists emphasize the need for a pluriverse perspective, which rejects the colonial/modern binary that distinguishes superior from inferior knowledge (Escobar, 2018; Kothari et al., 2019). Instead, it conceptualizes the world as composed of interconnected realities. This perspective highlights the importance of contextually situated responses to global crises, rather than imposing a singular, universal

solution (Escobar, 2018; Kothari et al., 2019).

Intersectional and feminist scholars shed light on how race, class, gender, and ethnicity interact to shape diverse experiences within the colonial/modern world (Di Chiro, 2020). Their work illustrates how power relations are embedded in environmental and social justice struggles, advocating for solutions that recognize the unique lived experiences of marginalized groups rather than perpetuating a one-size-fits-all approach. Thus, intersectional environmental justice aligns with decoloniality by resisting knowledge homogenization and prioritizing context-specific, community-led interventions (Di Chiro, 2020).

A key strategy for achieving epistemic equity is decolonial mediation, which facilitates engagement between diverse knowledge systems within a context of intersectional difference (Di Chiro, 2020). Decolonial mediations go beyond merely documenting historical colonial injustices; they actively create equitable spaces for knowledge exchange, acknowledge local histories, and foster processes of self-determination and liberation (Hlabangane, 2018; Zanotti et al., 2020). These mediations resonate with calls to “forgive in the pursuit of the humanity that was lost in the pursuit of Man” (Hlabangane, 2018, p. 686).

Storytelling has emerged as a powerful tool within decolonial mediations, providing a means to challenge Euro-Western epistemic violence and amplify counter-narratives (Ortiz, 2023; Sweet & Chakras, 2010; Terry et al., 2024; Wiebe, 2019). While scholars recognize the coloniality embedded in storytelling traditions, they also emphasize its potential to foster anti-colonial critique and contribute to decolonial practices (Ortiz, 2023; Sweet & Chakars, 2010; Wiebe, 2019). Collaborative storytelling efforts with racialized communities, such as BIWOC, can help reclaim histories and envision alternative futures grounded in decolonial thought (Samuel & Ortiz, 2021).

Our research builds on these theoretical foundations by integrating scenario-building and storytelling as tools for decolonial mediation to envision radical futures for the Amazon. By employing a decolonial and intersectional approach, we created a *border space*—what Nyamnjoh (2017) describes as a “safe enough”—where diverse knowledge systems are equally valued. This approach enables the co-creation of plural, situational, and transformative decolonial futures, resisting the universalist logic of Euro-Western epistemologies and embracing a multiplicity of ways of knowing. It puts, so to speak, theory into practice.

3. Methods overview

We sought to create a *border space* through iterative on-site visits, participatory workshops, interviews, and informal community engagement between 2022 and 2023. Building trust and promoting empowerment required ongoing communication and reflection throughout the research process. As our research team was based in Europe for most of the year, we utilized online communication channels like WhatsApp and Facebook to establish permanent and open communication channels with local participants. Additionally, creating this “safe enough” space for a fair exchange of knowledge required us to be sensitive to the legacy of colonialism and rehabilitate Indigenous worldviews and wisdom in the region (Juri et al., 2021). For this, we formed a committee of six interdisciplinary researchers who provided guidance and support throughout the process. This committee also helped us ensure a cohesive methodology and *border space*.

While conducting the research, the researchers in charge of organizing the workshops faced various ethical dilemmas, leading to tension within the research team. Specifically, this tension arose concerning the involvement of foreign participants, especially White Western European men, in the workshops. Feminist and intersectional scholars iteratively struggled to accept the participation of male researchers in participatory processes despite local BIWOC explicitly expressing their interest in European and male involvement. Local BIWOC argued that an inclusion approach could provide a space for more meaningful exchange between BIWOC and Euro-Westerners. This would allow both groups to learn from each other and enable local BIWOC to communicate and educate the broader world about their values and worldview. Echoing BIWOC’s willingness to work across genders and nationalities, the organizing team implemented an autonomous space where local BIWOC had the right to ask for an independent space for discussion without explanation and at any point during the workshops. When requested, all non-local BIWOC members, or “guests,” as they are called in the consent forms, were asked to leave the facilitation room for as long as the participants needed. In the last workshop, the organizing team asked the participants to list concerns and potential risks regarding the guests’ participation. Participants shared these concerns with the guests before inviting them to join them in the storytelling exercise.

Guests were requested to sign a confidentiality agreement. They had an informative talk regarding power asymmetries, misconduct, and their roles during the workshops, both as students and helpers, before the activities. Participants were also asked in the consent forms to remain discreet after the workshops, avoiding sharing details about the participation or opinions of other participants. Transcriptions of audio and video recordings were anonymized, following the EU data protection regulations. Participants had the option to avoid appearing in any photos taken during the activities.

Local BIWOC were neither socialized nor involved in deciding on the methodologies for the workshops due to funding time constraints and restrictions on travel during the COVID-19 pandemic. However, the research team worked with local BIWOC to co-design the participatory scenario-building workshops’ agenda, objectives, and type of engagement early in the process. The research team also addressed local BIWOC’s wishes for the project to facilitate capacity-building through shared learning with the research team. As a result, the research team led lectures on decoloniality, intersectionality, and experiences in knowledge exchange throughout the workshops.

Additionally, an early engagement with the participants allowed the research team to reflect on local traditions, practices, ways of being, and understanding (Juri et al., 2021; Rosa et al., 2017). Participatory scenario-building was used as it allows to co-create radical visions of desirable futures that account for local ways of being and knowing (Falardeau et al., 2019; Fredström et al., 2023; Juri et al., 2021; Pereira et al., 2018; Raudsepp-Hearne et al., 2020). For the participatory workshops, a structured futuring approach and a storytelling exercise were used to co-create three radical normative visions of the Colombian Amazon and to backcast them to the

present. During the final workshop, on December 13, 2024, participants received a copy of the illustrated book of the stories.¹ As part of the lead author and other researchers' efforts to continue working with BIWOC, new funding opportunities to support participants' gender-based conservation initiatives have emerged.

In this section, we summarize our methodological steps between February 2022 and March 2023 (see Fig. 1 for a visualization of the process):

1. Based on our first round of discussions with the research team and the leader of FHV and ATV in 2022 (see Section 4.1), the research team designed the first participatory scenario-building exercise using a Mānoa mash-up method in a 2-day workshop. The first workshop took place in March 2023. The research team used the Mānoa mash-up method as it allows one to think creatively while linking the future to existing initiatives or seeds in the present. The Mānoa mash-up is an adapted version of the original Mānoa scenario methods by Pereira et al. (2018), using seeds instead of emerging issues to create diverse and unexpected scenarios that evolve from changes and impacts over several decades. Additionally, Pereira et al. (2018) combined this seeds-based scenario method with the Three Horizons framework to analyze how vital issues evolved along Three Horizons: the present (First Horizon), a transformative or transition phase (Second Horizon), and the future (Third Horizon) (Pereira et al., 2018). The Three Horizons framework is a visual tool that explores how the significance of issues evolves, connecting the present to the future (Curry, 2015). It serves as an accessible introduction to future thinking and helps clarify emerging changes. The framework provides narrative structure when paired with scenarios by illustrating overlapping and competing change timelines. This approach identifies critical concepts and actions that facilitate transitions from conventional practices to transformative patterns (Sharpe et al., 2016). Consequently, the Mānoa mash-up allows researchers and participants to create innovative future visions by linking them to current real-world projects, highlighting pathways and interventions that connect today to the envisioned futures (Pereira et al., 2018). In this research, the Mānoa mash-up allowed us to create plausible decolonial futures by grounding radical visions of the future in today's seeds or initiatives. See Section 4.2 for a detailed description of the method's use.
2. As a next step, the research team used Causal Layered Analysis (CLA) to analyze the data collected during the first participatory scenario-building exercise. Embedded in critical future studies, CLA acknowledges the role of the state and other forms of power in creating and perpetuating discourses that establish a particular vision of the future that becomes hegemonic (Inayatullah, 1998). CLA consists of four levels of analysis: litany, social causes, discourses or worldviews, and myth/metaphor. The first level refers to the unquestioned vision of reality; the second level deals with the social causation of a problem; the third level studies the deeper and unconscious worldview or discourse and how different actors construct the litany, and the fourth level explores the unconscious-emotional dimensions of the inquired issue.

We applied CLA as it moves away from the ontological concerns of future predictability and engages in the politics of epistemology (Inayatullah, 1998). Using CLA helped us to 1) unpack the discourses underpinning the colonial/modern order that upholds social inequity and exacerbates the ecological degradation of the Amazon and 2) create a transformative space for the articulation of constituted discourses that were later shaped as visions of the future (De Simone, 2004; Inayatullah, 1998). We followed De Simone's (2004) guidelines to analyze the four levels of CLA. However, instead of using the alternative worldviews proposed by the author to re-imagine the future, we used three well-known Latin American discourses to envision endogenous futures for the region (the Nasa people's worldview, the autonomy principles of the Zapatistas in Mexico, and the *vivir sabroso* – a philosophy from Afro-descendant communities in Colombia's Pacific and Cauca regions that emphasizes living in harmony with nature and the community, valuing dignity, peace, and cultural traditions). Based on this first analysis, the research author developed three archetypes of the future visions for the Amazon region: "The Amazonian Desert", "A New Age", and "The Revenge of Coca" – see Sections 4.3–4.5 and Appendix B for details.

3. Afterward, the research team designed a second participatory scenario-building exercise to explore further pathways for the emancipation of BIWOC in the region (see Section 5.1). To do so, the research team designed a storytelling exercise that fostered the local ways of sharing stories. For the workshop, the lead author also developed five female characters to represent some of the most pressing and common forms of intersectional violence experienced by BIWOC in the region. The character descriptions were inspired by the female secondary characters of the Latin American novels *La Hora Azul*, *El Vuelo de la Ibis Escarlata*, *El Coronel no Tiene quien le Escriba*, *Opio en las Nubes*, and *Delirio*. The research team chose these novels because they feature female characters who are anti-heroes and go through various forms of violence, many of which take place in conflict or post-conflict settings. We used first-person narration in the descriptions so that the female characters could tell their stories and give voice to their experiences. The character descriptions were initially developed in Spanish and later translated into English (see the character description in Appendix E).

Meanwhile, it became clear that we needed to address power imbalances between Indigenous women and other Women of Color within grassroots movements to promote equity. To accomplish this, we created a code of conduct that addresses the concerns of Indigenous leaders, drawing inspiration from previous attempts by BIWOC to address power dynamics in diverse contexts. Additionally, we incorporated Indigenous ways of thinking and decision-making into our work, which made Indigenous participants feel more at home and led to increased participation and contributions. In our second workshop, which took place in November 2023, the code of conduct was read aloud, and participants were asked to sign it.

¹ The stories in English and Spanish are available at: <https://bit.ly/memories-forest> and <https://bit.ly/memorias-bosque>

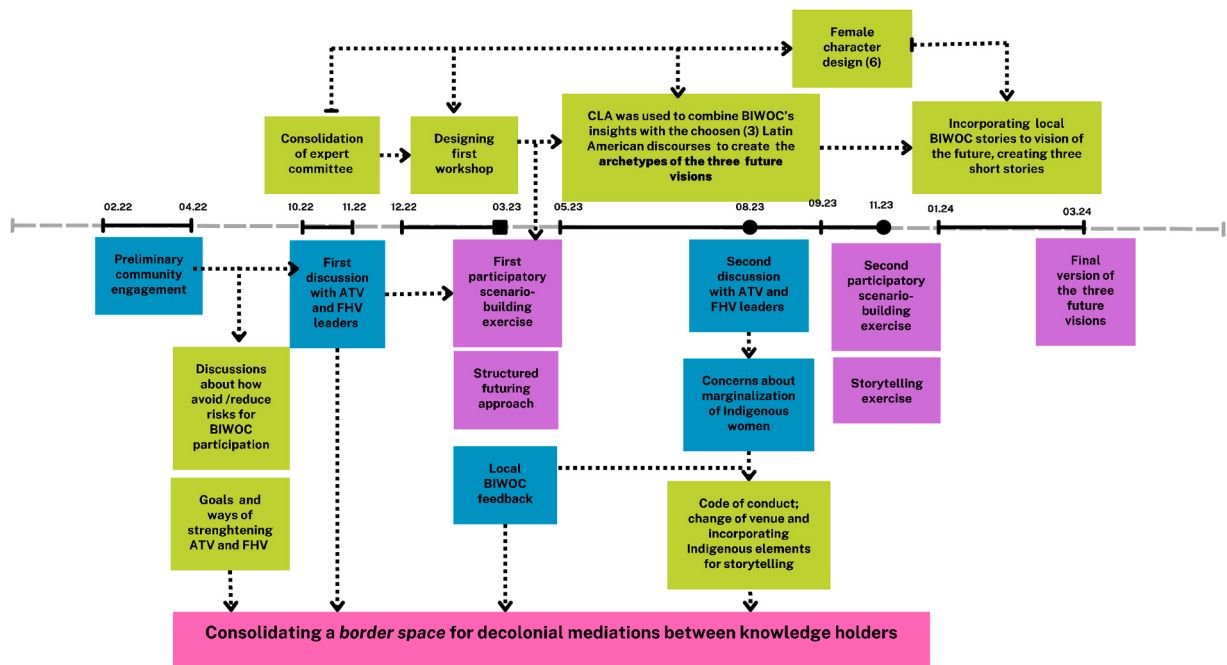


Fig. 1. Timeline and process for co-creating the three future visions during our 2-year research (Green = discussions between the research team; blue = discussion meetings with local BIWOC; violet = workshops and participatory exercises; pink: creating a *border space*).

4. In the same workshop, participants were tasked with creating a story in which their character is the hero. A detailed description is provided in [Section 5.1](#).
5. This storytelling exercise's audio and video recordings were later utilized to develop the character's storyline in the previously developed visions of the future (The Amazonian Desert, A New Age, and The Revenge of Coca), as explained in [Section 5.2](#).

4. First participatory scenario -building exercise

This section describes our methods for designing a *border space* ([Section 4.1.](#)), the Mānoa mash-up methods during our first workshop in March 2023 ([Section 4.2.](#)), and the Casual Layered Analysis (CLA) for data analysis ([Section 4.3.](#)). Appendix A presents the agenda with the guidelines for the first participatory workshop and schematic figures of the material used in this exercise. Additionally, we present the result of the CLA themes analysis based on women's insights and ideas ([Section 4.4](#)). We describe these three themes as the litany and further explore the social causes, worldviews, and metaphor/myth underpinning these phenomena as participants explained. Appendix B provides a detailed overview of the themes and levels of analysis together with women's problematization and potential alternative solutions. This section also analyzes the three future visions: The Amazonian Desert, A New Age, and The Revenge of Coca ([Section 4.5](#)). This is done by explaining how the seeds of the present connect to both women's alternative solutions and the three Latin American counteracting discourses (the Nasa people's worldview, the *vivir sabroso* of the Afro-descendent communities in Colombia, and the autonomy principles of the Zapatistas in Mexico).

4.1. Designing a border space

To create a *border space*, we had an in-person meeting with the leaders of ATV and FTV in November 2022. During the meeting, the leaders of these two women's organizations expressed their interest in building and strengthening the women's collective and individual capacities as part of the outcomes of their participation. To do so, we agreed to start with a learning space where we introduced and discussed equity, intersectionality, and decolonial theory and facilitated exchange with national and international researchers.

Based on our preliminary discussions, the research team designed a 2-day workshop using the Mānoa mash-up method ([Pereira et al., 2018](#)). We did this to reflect on what an equitable future to conserve the Amazon could look like, how it could be attained, and what the current challenges were to achieve it. We designed the workshop based on ([Collste et al., 2019](#); [Pereira et al., 2023](#)), combining women's active participation and reflections with an introduction to concepts and theoretical insights and the researchers' experience to enrich the discussion.

4.2. Data collection: first participatory exercise

In the initial workshop, we aimed to develop archetypes of the three future visions using the Mānoa mash-up in a participatory

scenario-building exercise. The workshop occurred on March 16–17, 2023, and included 20 local BIWOC from various ethnic groups. (e.g., *Pastos, Embera-Katía, Naza, Inga*). Due to family-related and personal reasons, only 16 women joined the workshop on the second day. The group represents diverse cultural backgrounds and ages from rural and urban contexts (Table 1). A common and shared denominator was their engagement, activism, and work related to environmental and human rights. In addition, the participants all knew each other through previous engagements and activism.

The women were divided into five groups of four participants, each with a working table and a facilitator taking notes, guiding the discussion, and clarifying concepts. We recorded each group discussion using voice recorders and the plenary talks using a video camera. All groups shared the same room to facilitate collective debate and knowledge exchange (Appendix A. Fig. 1. B.). On the first day, we started the discussions with a general introduction to the project and the tri-dimensional equity framework (Leach et al., 2018). This included presenting a working description of an equitable future to conserve the Amazon to ensure a shared starting point (see the Agenda in Appendix A).

During the first session, we explored the future (Third Horizon) by doing a storytelling exercise where women had to imagine they were 100 years old, sitting around a fire in the forest, 50–70 years in the future, telling their great-grandchildren the story of how they achieved an equitable society and what makes such a society unique. The facilitator used guiding questions to reflect on equity in the future (see Appendix A. Step 1. Third Horizon). In the next session, women discussed various initiatives and processes—termed “seeds”—that could foster a more equitable future for the Amazon (Bennett et al., 2016). Facilitators introduced the Nature Future Framework (NFF) triangle (IPBES, 2016), where participants categorized their seeds according to the assigned corners of the triangle. During a plenary session, all group-selected seeds were integrated into a single NFF triangle. With one group focusing on instrumental values and the others on relational and intrinsic values. Participants selected three seeds through a voting process. The women then developed Future Wheels for each chosen seed (Raudsepp-Hearne et al., 2020) (Appendix A. Step 1. First Horizon). Each Future Wheel featured a mature vision of the seed at its center, with the groups exploring its positive impacts on equity around that center. Finally, the groups identified interactions among the Future Wheels, providing a rich perspective on how the seeds could collectively contribute to an equitable future.

On the second day, we reflected on the present (First Horizon) and the transformative phase (Second Horizon). During the first session, we asked participants to identify the main challenges to attain an equitable future to conserve the Amazon using the S.T.E.E.P. categories (societal, technological, economic, environmental, and political). Women voted on their top five challenges hindering women’s and other vulnerable groups’ (e.g., Indigenous, Afro-descendant) well-being. Participants later used an importance-vs-effort-to-solve matrix to reflect on how important and complex it is to address these six challenges (Appendix A. Step 2. First Horizon). Afterward, each group focused on two challenges to identify transformative pathways and leverage points for the transformative phase: 1) identifying relevant actors and their operational levels (local, regional, national, international) and 2) determining the actions needed for transformative change (Appendix A. Step 3. Second Horizon). We asked women to think of a proverb, fable, or expression that captured their challenges. Our goal was to incorporate a brief version of Causal Layered Analysis (CLA), as proposed by (Fredström et al., 2023), for the initial scenario-building analysis. Lastly, each group created a visual representation of the Three Horizons to share their insights with others.

4.3. Data analysis: causal layered analysis (CLA)

After the first workshop, the research team aimed to create preliminary versions of three future visions using causal layered analysis (CLA). Following De Simone (2004, pp. 487–489), the team identified the causal factors of inequity and degradation, coding participant statements of the First and Second Horizons sessions into six themes: oil and mining concessions, environmental degradation, corruption, violence and dispossession, individualism, and loss of cultural identity. They later refined these themes to focus on the loss of cultural diversity, violence and dispossession, and environmental degradation.

Next, the research team transcribed and coded discussions on the Third Horizon to uncover alternative ways of knowing. The research team used the Indigenous Nasa worldview, the Afro-descendant communities’ *vivir sabroso* in Colombia, and Zapatista autonomy principles in Mexico instead of those proposed by (De Simone, 2004, p. 489) to challenge the colonial/modern worldview contributing to inequity and environmental issues. To do this, the research team used women’s ideas of the future, challenging the current themes of inequity, and later sought inspiration from the principles and worldviews of the three Latin Americans to reimagine the practices underpinning such inequity. For example, during the first workshop, women noted that local competition for land ownership with state institutions and economic actors caused environmental degradation. They stressed the need for local ownership and a ban on selling land. Inspired by the Zapatista Principle of obedience instead of orders, the research team decided the government in this scenario should respect local needs without imposing lifestyles. Thus, the research team supported the Zapatista call for regional autonomy, reshaping power dynamics between communities and the state and enabling a formal ban on land sales and purchases. After this analysis, the research team crafted three short stories — The Amazonian Desert, A New Age, and The Revenge of Coca— to present radical future visions. Appendix B provides a detailed overview of the themes and levels of analysis together with women’s problematization and potential alternative solutions.

4.4. CLA results: loss of cultural identity, violence and dispossession, and environmental degradation

4.4.1. Loss of cultural identity

The loss of cultural identity refers to the disappearance of traditional knowledge and a sense of belonging, leading to neglect of artistic practices and ways of life. Individuals who lose their cultural identity adopt economic rationality and are likely to become

Table 1
Demographic breakdown of workshop participants.

Demographic	Category	Number of participants
Women's organization	Tejedoras de Vida	12
	Hiladoras de Vida	8
Social groups	Peasant	9
	Afro-descendant	2
	Indigenous	9
Age group	20–35	8
	36–45	7
	45 and over	5

workers in different extractive industries, primarily the cocaine economy² and the oil and mining sectors: “Unfortunately, we sometimes forget the ancestral knowledge they left us, we forget, and that is why many go to work in mining companies without thinking about a future, without thinking about their children, without thinking about their grandchildren (...)” (G.2.Part.4). Participants commonly accused the epistemic domination of Western knowledge as the social cause of the problem: “But you know what has hurt us a lot about the issue here? There is too much Western. My dad, for example, says < <I know how to catch my fish my way> > But a project comes along, a technician, < <no, that’s the way it is. No, that’s no good> >” (G.3.Part.4). Women described Western education as a tool for cultural assimilation rooted in the coloniality of violence and depiction of local-native Indigenous culture. The latter is underpinned by imaginaries of Indigenous people as lazy and unproductive, as described by an Indigenous participant: “That is why, I return and emphasize, is that these Indians ask, ask and ask for land and do not work.” (G.3.Part.3). Also, ideas of how Indigenous (and non-Indigenous) people look, behave and are named condition the construction of identity of Indigenous and non-Indigenous people alike. The need to comply with dominant ideas of indigeneity creates a need for those unable to meet expectations to compensate for the lack of such traits (e.g., skin color, Indigenous surnames), for example, by wearing traditional clothing: “For example, in my case, some people look at me like, when I introduce myself as governor [and say:] < < Governor? You? But you don’t have Indigenous features. You don’t look Indigenous.> > Of course, I’m Indigenous. Unfortunately, I don’t have so many Indigenous traits, but I have the most important thing: my surname and blood. My roots are Indigenous, and I self-recognize them as Indigenous.” (G.3.Part.1). Women recognized that it is unclear what encompasses indigeneity, with *mestizos*, or those culturally mixed, being unable to identify themselves as indigenous or settlers.

4.4.2. Violence and dispossession

When the topic of violence and dispossession emerged, women argued the struggles of local people to defend their territories came with a high personal and collective cost. Indigenous and local women encounter different forms of intersectional violence that threaten their lives, as described by one of the participants: “The comrades explained that there are women’s groups that have been threatened by entities that do not agree with these projects, so they said that just as there were positive results linked to the protection of the environment, there are also negative experiences such as these confrontations that these peoples have with the illegal groups.” (G.2.Part.1). Insurgent and illegal armed groups were accused of perpetrating violence not only against women but also social leaders, Indigenous people, and activists. However, the cocaine economy was described as one of the main financing mechanisms; oil and mining companies were also accused of funding violent enterprises to defend their economic interest in the region.

Violence against BIWOC is underpinned by the depiction of Indigenous and local people: “[T]he mix of cultures (*mestizaje*) is something that is not your fault nor... it is the fault of the Spaniards who raped our women, our ancestors, that is where some *mestizaje* comes from... Because apart from stealing the women, they stole the gold and the riches of the territories” (G.1.Part.1). Women also face different forms of harassment and discrimination based on their gender, ethnicity, and class, which not only make them more prompt to encountering violence but also less likely to receive the aid and protection of state institutions. One of the participants described the discrimination she experienced after explaining she was facing life threats to a government officer: “< <I am a lawyer. I have five death threats. Do you see a police officer with me? No, I am a government officer, and nobody cares for me. It is up to me to take care of myself as best I can.> > I understood [his words] this way, if I [were] worth more [and] I don’t have a policeman to protect me [why should] you (...) That is, if I had not been governor but an ordinary woman. [They would have] [I]et them kill me, let them disappear [me], let them take me away” (G.3.Part.3). Discrimination could also be observed between Indigenous groups, with those communities that see themselves as native from the Amazon denying other Indigenous people’s right, for example, to land. Inter-ethnic discrimination, together with precarity, can lead to conflicts over land and other natural and financial resources.

4.4.3. Environmental degradation

Women mostly conceptualized environmental degradation as decreased and lost forests, water scarcity, and pollution. One of the main culprits they identified was oil and mining companies, which pursue economic interests alone and are responsible for the environmental degradation without state authorities doing enough to control them. Although the cocaine economy is another important driver of environmental degradation in Putumayo, women recognized coca cultivation as one of the region’s most crucial

² We use the term “cocaine economy” to refer to the transnational market transactions that involve cocaine production and commercialization. This term does not include the long-lasting traditional practices and cultural heritage of Indigenous peoples and local communities related to coca leaf cultivation.

family income sources.

Women saw a trade-off between the short-term individual-economic and long-term conservation-collective interests. The former is promoted by multinational companies, politicians, and powerful economic actors, while the latter is fostered by local, women, Indigenous, and environmental grassroots organizations. Despite the collective efforts of social leaders and grassroots organizations to protect the Amazon, the precarity and lack of alternative income-generating opportunities pushes local Indigenous and non-Indigenous people to turn their backs on collective ideals, despite being aware that protecting the Amazon is in the interest of present-and-future generations from the local-to-global scale.

Moreover, local autonomy and efforts to protect the Amazon are further undermined by the current global political economy, which makes Colombia take the role of a supplier of primary materials and natural resources and a buyer of industrialized goods: “We are a business for the first world countries (...) We have all the raw materials needed in other countries, and then they come here and sell us cell phones and take everything we need to survive. We allow them to rob us, to steal from us. They even want to buy air. Didn’t you hear about those businesses that pay you for oxygen? [They] pay you to conserve.” (G.2.Part.1). Besides, multinational companies and drug trafficking organizations were accused of using bribery to co-opt state institutions. As a result, controls and prosecution of illegal practices are not taken or are effectively delayed: “Because what are we going to do? Corruption exists everywhere because what happens is they are the Ministry. Here is [the oil company], and they will say have this, and when the Cabildo comes: pass! And nothing ever happens because it is easier for them to give a sum to a person than to listen to us. After all, we will ask for what we need. After all, we are in the direct zone of influence. According to the historical records, the Indigenous community was first. The oil company came later” (G.3.Part.3). Institutionalized corruption of authorities at the local to the national level was identified as a primary obstacle to protecting the Amazon and, at the same time, a difficult challenge to overcome.

4.5. CLA results: visions of the future

4.5.1. The Amazonian desert

The Amazonian Desert first introduces the reader to a dystopian future of the Amazon and later explores a new way to overcome this through three elements. Firstly, we substituted dualisms with complementarities. Under the modern paradigm, we explored the tension between dualisms such as forest-vs-city, draught-vs-rain, human-vs-nature throughout time (past-present-future) and space (local-regional-global). For example, the Amazon was sacrificed to avert the global climatic crisis, and as a result, the region became a desert. In the global arena, the transition vindicated the modern way of living; however, at the regional level, it led to a local extinction. On the contrary, in the Amazonian life, opposites uphold each other. The forest existed because of the people, and the people existed because of the forest. Secondly, we derogated Western epistemic domination by exploring a more horizontal and just form of knowledge co-creation. In contrast to the universalism of Euro-Western science, knowledge was meant to be practical and encompass all forms of knowledge. Lastly, we explored the transition from a profit-driven to a life-centered way of living. Based on the *Nasa* idea of territory, the end goal of the Amazonian people was to sustain life: “Everything has agency, everything is alive.” This way of thinking made the commodification and appropriation of nature for capital accumulation impossible, leading to a transition from an ontological modern/colonial order to a relational/decolonial one. As a result, people in the Amazon developed a more horizontal and collective form of democracy to include humans and non-human entities bound together by a language where only subjects (no objects) exist.

4.5.2. A new era

A new age intended to present an institutionalized form of anti-capitalist transformation. In this future vision, we focused the analysis on the national arena by exploring the rivalry between the country’s traditional elites and an emergent political power in the Amazon. The latter was represented by the collective power of marginalized BIWOC communities, who sought to derogate the extractivism of mining and illegal/informal economies. Marginalized actors aimed to decentralize power by creating a more horizontal and collective yet institutionalized form of democracy and leadership. Thus, the end goal of this transformation was to undermine the coloniality of power that upheld the country’s extractivist economies. To do so, the marginalized consolidated a new interface between science and politics, which ensured politics attended to the greater good and politized academia. The principles of *vivir sabroso* of the Afro-descendant communities in Colombia informed these changes. On the one hand, although power was concentrated and institutionalized through state agencies, politics were rooted in different values based on empathy and community service. On the other hand, academia was kept as the ultimate institution of knowledge production, yet knowledge production aimed to meet the needs of local and marginalized people. Thus, the University was no longer a rationalized space to know what is objectively true; on the contrary, academia was recognized as a space of *seres sentipensantes*, those who recognized themselves as both rational and emotional beings, whose rationality and emotions were intertwined and inseparable.

4.5.3. The revenge of coca

Inspired by Zapatismo, this vision explored a subaltern way of living within the broader global economic order based on 1) a new way of thinking, 2) autonomy, and 3) local resistance to violence and domination. Based on the idea of double translation, as explained in (Mignolo, 2002), we proposed the Stewards’ meetings as spaces for equitable knowledge exchange. Yet, contrary to the experience of Zapatismo, which resulted from the encounter of Marxist scholars with Indigenous people, here we presented the Stewards meetings as spaces of knowledge exchange between BIWOC. These spaces consolidated the Amazonian subject as one that combines and overflows previous ways of knowing, going beyond previous Euro-Western and Indigenous knowledge systems to consolidate care practices for humans and non-humans alike. Besides, autonomy was attained when the production of cocaine in Asia made local production too costly yet satisfied the demand of cocaine consumers in the Global North. Cutting off the connections between local and

global markets enabled the downscaling of violence and led to not-for-profit local practices through the *mingas*³ and the Andean-Amazonian University. Lastly, we based resistance on BIWOC's forms of collective action in the region, which tend to avoid open confrontation. We also kept resistance practices informal and non-institutionalized, which speaks to the region's local reality and the consolidation of a subaltern life. We were inspired by the Zapatismo's use of the internet as a critical tool to consolidate collective actions. In our case, BIWOC used the internet and social media to curb environmental degradation and counteract violence.

5. Second participatory scenario -building exercise

This section describes how storytelling was used to explore the emancipation of BIWOC in the visions of the future. First, we describe how participants' feedback was incorporated into the space design for the second workshop and how the research team carried out the storytelling exercise (Section 5.1; see Appendix C and D for the agreed agenda for the second participatory workshop and the Code of Conduct implemented after Indigenous leaders raised harassment concerns). Based on the storytelling exercise, in Section 5.2, we present how the research team incorporated women's stories into the previous visions of the future, exploring pathways to emancipate the female characters of the stories from intersectional violence and oppression in the region (see also Appendix E, which provides a detailed description of the characters used in the storytelling exercise during the second workshop). Lastly, we present the analysis of the BIWOC characters and how they overcome such forms of oppression (Section 5.3).

5.1. Data collection: second participatory exercise

To jointly develop the second workshop's objective, working space, and agenda, the paper's lead author had a telephone conversation with an Indigenous leader of FHV on August 7, 2023. It was agreed that the second scenario-building exercise aimed to co-design a working space based on women's impressions of the last workshop and knowledge to foster the local and Indigenous ways of thinking and storytelling tradition. The research team aimed for women to engage with the three archetypes of the CLA-based visions of the future from an Indigenous perspective.

The research team agreed to hold the workshop at ASOMI (*Asociación de Mujeres Indígenas "La Chagra de la Vida"*), a grassroots organization dedicated to reclaiming the cultural identity and practices of Indigenous women in Caquetá and Putumayo (see Figs. 2 and 3). They also agreed to implement the following actions:

- Appoint an Indigenous leader (*Mamá Mayora*) to perform harmonization and healing at the workshop's start and end, with incense (*sahumerio*).
- Designate an Indigenous leader (*Mamá Mayora del Fuego*) to light the campfire (*tulpa*) using high-quality wood for a lasting fire.
- Implement measures to prevent harassment, especially towards Indigenous participants. For this, a code of conduct was distributed a week before the workshop and read aloud before the session (see Appendix D. Code of Conduct).
- Establish a conflict resolution protocol for Indigenous and non-Indigenous participants.
- Serve traditional Indigenous foods for all meals and provide a fermented maize beverage or *chicha* for hydration.
- Ensure active listening when non-Indigenous participants enter the participatory space (*maloca*).

Following the agreed plan, the research team conducted a second one-day workshop on November 4, 2023. Foreign researchers from Europe and Brazil were invited to participate in this workshop. The participants were divided into five groups of four local members and two foreign researchers to engage in a storytelling exercise. Each group was randomly assigned one of five female characters along with a future vision archetype. The groups were tasked with creating a story in which their assigned character is the hero. The group discussions were audio recorded, and the plenary session was video recorded.

5.2. Data analysis: incorporating women's stories into the visions of the Amazon

After the second workshop, the research team incorporated women's stories of each character into the archetypes of visions of the future. They paid particular attention to how the character overcame the different forms of oppression presented in both the vision of the future and the character description. For the first (The Amazon Desert) and third (The Revenge of Coca) visions of the future, the research team incorporated the stories of characters Amarilla and Irene, respectively. Meanwhile, the second vision (A New Era) includes stories created by two groups based on the characters of La Esposa and Miriam Anco. Ultimately, each vision represents a radical normative vision of the Amazon by exploring 1) the transformation to attain epistemic equity and 2) the emancipation of BIWOC. The character Agustina was excluded from the analysis because one group could not complete the task in time.⁴

³ *Miga* is a term of Quechua origin that describes a traditional Indigenous communal gathering where community members unite to work together on shared tasks for the greater good, often related to agriculture, construction, or social initiatives

⁴ The short stories of the final future visions in Spanish and English can be found at: <https://bit.ly/memories-forest> and <https://bit.ly/memorias-bosque>



Fig. 2. A *maloca* in the Amazonian experimental center (Putumayo, Colombia). the first photo was taken at an event organized by the *Guardianas del Agua*.



Fig. 3. A *tulpa*. The picture was taken at the second workshop in ASOMI. The organization's facilities provide a multipurpose space named *el cultivo de la palabra* with a *maloca* for hosting over 30 people. The *maloca* is an ancestral long house used by indigenous people of the Amazon to meet and, as they called it, weave the word (*tejer la palabra*). at the center of the *maloca* is the *tulpa*, which in quechua means home and is a campfire made of three stones with a space in between for the wood and cooking utensils. According to indigenous people in the Amazon, the word is woven in the *maloca*, but it is the heathen by the *tulpa* allowing it to become.

5.3. Results: the emancipation of BIWOC in the visions of the future

The first vision of the future, "The Amazonian Desert," presents the overcoming of the irrationalities of modernity through the epistemic disobedience of the female character Amarilla. Amarilla is a young woman grappling with the incoherence of life in a modern society, characterized by alienation from both nature and interpersonal connections. She dreamed of a place where all living beings could co-exist in harmony, which embarked her on a journey for a new life. Amarilla rejected the scientific determinism that deemed alternative worlds as ineffective and contested the perceived impossibility of existing beyond the confines of the modern capitalist paradigm. She defied modern rationality, following her instincts to find the Amazonian people. Her quest represented the need to transcend modernity to find a new world ruled by life rather than capital. This vision of the future explored the female character's emancipation by abandoning modern rationality to rediscover the meaning of life.

In the second vision of the future, "A New Era," both female characters, Miriam and Arly Soraida, are older women who have suffered war. On one side, Miriam was kidnapped and sexually assaulted. Consequently, she became pregnant, and after escaping to the capital, Mocoa, she worked as a cook for a mining company. On the other side, Arly Soraida, together with her husband, lived a precarious life as her husband's pension was not being paid, and her son was assassinated years before. The coming to power of the Amazonian government opened up a window of opportunity for these women to re-imagine their futures. At a material level, Miriam was given a scholarship and a job at the University. At the same time, Arly and her husband finally received a pension and economic compensation for the murder of their son. The change of government allowed both characters to pursue their dreams. The vision illustrated a form of top-down and institutionalized change, which opened the possibility for marginalized people like war victims and rural, older, and uneducated women to emancipate themselves from structural inequity and violence and follow their previously

unattainable aspirations.

The third vision, “Revenge of Coca,” explores the love story of Irene and Rosalio. Two close friends met after Rosalio was abducted by a drug trafficking organization and forcibly expected to become a sexual worker under Irene’s watch. After meeting Rosalio, Irene joined the Guardians Revolution, a group of women who peacefully resisted armed violence, to help Rosalio escape. By doing so, Irene was inspired to change and became an undercover agent freeing kidnapped women from the coca-growing enclaves. Afterward, Irene was discovered and presumably killed by drug traffickers. On the contrary, after escaping, Rosalio survived and joined the revolution to liberate the Amazon. She later studied and became a teacher at the new Andean-Amazonian University. This vision of the future presented the power of love to catalyze individual and societal change. Both characters are upheld and inspired by each other to change, which leads them to join the collective struggle for self-determination and curb all forms of violence and oppression in the region.

6. Discussion

Scholarship and policy circles increasingly acknowledge that transformations toward more equitable and sustainable futures require a diversity of worldviews (Escobar, 2018; IPBES, 2022; Pascual et al., 2023; Trisos et al., 2021). This diversity is essential for envisioning alternatives to the colonial/modern order (Di Chiro, 2020). Imagining such futures necessitates de-universalizing Euro-Western epistemologies and an intersectional approach (Hlabangane, 2018; Zanotti et al., 2020; Zavala, 2016). It is crucial to not only document how race, gender, and ethnicity affect the unique experiences of Black, Indigenous, and other Women of Color (BIWOC) but also to employ this understanding creatively (Di Chiro, 2020). With a narrow set of values shaping how modern society, policymakers, and scientists perceive and plan the planet’s future, new imaginaries are indeed needed to alter current social-ecological trajectories (Pereira et al., 2020; Raudsepp-Hearne et al., 2020; Rosa et al., 2017). Therefore, research and methodology that seeks to identify and foster endogenous ideas and conservation initiatives are necessary, extending beyond the Amazon (Juri et al., 2021; Rosa et al., 2017). In this paper, we present a vision of what such a decolonial mediation approach might entail (Di Chiro, 2020). Hence, the paper contributed to a growing body of literature focusing on how to methodologically develop diverse visions of desirable futures and identify inclusive pathways to achieve them (Falardeau et al., 2019; Fredström et al., 2023; Juri et al., 2021; Pereira et al., 2018).

By detailing our collaborative and participatory scenario-building processes with local BIWOC, we illustrate how creating a *border* or “safe enough” space for co-creation is vital to this effort. This space facilitated numerous discussions, adjustments, and concrete visions. For example, within this space, the three radical normative visions for an epistemic transformation from a colonial/modern framework to a decolonial world were developed, aiming for a more equitable and sustainable future for the Amazon. Our research thus demonstrates how establishing a “safe enough” space for knowledge exchange in a participatory process can be accomplished, enabling the inclusion of multiple imaginaries in future scenarios of nature. Additionally, our findings stress the necessity of acknowledging the legacy of colonialism and the coloniality of knowledge, which, in our case, involved the rehabilitation of Indigenous worldviews and wisdom, when applying decolonial methodologies to create visions for the future (Juri et al., 2021). The early inclusion and active participation of Indigenous and Afro-descendant voices in future thinking and using Causal Layered Analysis (CLA) were also important. This approach unveiled assumptions that support the colonial/modern order, allowing for their critique and the reimagining of the existing paradigm.

Storytelling has played an essential role, bringing to light the unique perspectives from participants and often overlooked factors such as gender and race in scenario-building exercises (Raudsepp-Hearne et al., 2020). It empowered the participants to discuss and challenge dominant narratives, exploring potential pathways for emancipation. Utilizing Latin American counter-narratives and discourses supported this process, and we believe this method can also be applied in other contexts. Involving non-local BIWOC researchers posed specific challenges, as both workshops identified the need for an autonomous, non-male, non-White, and non-European space for forming storylines and creating the necessary safe space. Nonetheless, women participants emphasized that clearly defining the behaviors and roles of both participants and guests allowed them to recognize the genuine concern of the guests for BIWOC struggles. They also noted that it fostered a better understanding of how foreigners could help bring visibility to BIWOC’s struggles. Ongoing communication and reflexivity about the research process among the research team and the participants were critical for this mutual recognition. It also allowed us to identify the need to address power imbalances between women and the marginalization of Indigenous women in grassroots movements. Participants expressed that these ongoing adjustments made them feel “at home.” They believe this enhanced their contributions, enabled them to discuss BIWOC challenges without fear of judgment, and inspired collective actions.

The methodology outlined in our study facilitates the decolonization of human-nature imaginaries monopolized by Euro-Western knowledge (Escobar, 2014, 2018). It enables the envisioning of diverse futures beyond this framework, representing a key insight of our paper. New strategies to counter unsustainable behaviors and practices are urgently needed, with many scholars and practitioners advocating for a decolonial turn to envision plausible future paths to avert socio-environmental breakdown (Di Chiro, 2020). We assert that such a decolonial turn requires the epistemic emancipation of alternative ways of knowing (Collins, 2000; Escobar, 2014, 2018; Foucault, 2020; Grosfoguel, 2007). Our research engaged with decolonial praxis to co-create diverse, plausible, and situated decolonial futures for the Amazon region. In doing so, we illustrated that incorporating BIWOC perspectives through participatory methods and endogenous discourses can aid in imagining new equitable paths toward sustainability. This envisioning of plausible decolonial futures demands that scholars thoughtfully think about how to include the perspective of marginalized voices into the research process (Collins, 2000; Escobar, 2014, 2018). In our research, endogenous discourses like *vivir sabroso* were key for co-creating regional decolonial futures. Thus, decolonizing our future is not only a theoretical endeavor but also fundamentally methodological. Our findings, coupled with other studies (Hlabangane, 2018; Samuel & Ortiz, 2021; Terry et al., 2024; Wiebe, 2019; Zavala, 2016),

demonstrate that rethinking the Euro-Western epistemology that sustains current unsustainable pathways compels us to consider methodologically how to create alternatives pathways. We hope our work has illustrated that such pathways can be found among all people, particularly within BIWOC groups.

7. Conclusions

Ensuring an equitable transformation towards a more sustainable future demands the recognition of a diversity of worldviews on human-nature relations to de-universalize Euro-Western epistemologies and domination. Our research uses decolonial mediations to create a “safe enough” space or *border space* in participatory-scenario building to envision equitable and sustainable futures for the Amazon with local Black, Indigenous, and other Women of Color (BIWOC), offering nuanced insights into the intersection of gender, ethnicity, and conservation in decolonial studies. This study used a structured futuring approach and storytelling exercise to broaden and deepen BIWOC’s local imaginaries of equitable and sustainable futures for the Amazon. Our research shows how decolonial praxis in equitable transformations toward sustainability can be used to think with and from the perspective of local people to envision radical visions of the future. Consolidating a “safe enough” space between the community of origins and Euro-Western knowledge holders required the active and early involvement of the participants to attain meaningful levels of trust and empowerment. This allowed us to better address power asymmetries by co-designing a code of conduct for participants. This research demonstrates how incorporating decolonial mediations in knowledge co-creation can aid in the (co-)design of a space that allows for the questioning and rethinking of Euro-Western domination, leading to better forms of (epistemic) equity in efforts to attain sustainability. We hope this study will inspire the inclusion of underrepresented voices in sustainability agendas, thus further working towards the de-universalization of Euro-Western epistemologies and creating more equitable and sustainable futures.

Funding

This work was supported by the German Federal Ministry for Education and Research (Bundesministerium für Bildung und Forschung/BMBF; Grant Number 16LC2029A, the Swedish Research Council for Sustainable Development (FORMAS – Grant Number 2020–0234) and the BiodivERSA program of the European Union [grant BiodivClim-64].

CRediT authorship contribution statement

Laura Pereira: Writing – review & editing, Conceptualization. **Jonas Østergaard Nielsen:** Writing – review & editing. **Lasse Loft:** Writing – review & editing, Funding acquisition. **Sánchez-García Paula Andrea:** Writing – original draft, Visualization, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Barbara Schröter:** Writing – review & editing, Project administration, Methodology, Investigation, Funding acquisition. **Torsten Krause:** Writing – review & editing, Methodology, Investigation, Funding acquisition. **Andrew Sean Merrie:** Writing – review & editing, Conceptualization.

Declaration of generative AI and AI-assisted technologies in the writing process

During the final review of this work, the author(s) used AI Grammarly, Inc. to check grammar and spelling and shorten, streamline, and improve portions of the text. DeepL Pro was used to translate Spanish content into English. After using these tools/services, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the publication’s content.

Declaration of Competing Interest

The authors have no competing interests to declare concerning the content of this article.

Acknowledgements

We appreciate all participants for their valuable insights and the time they allocated to this research. Special thanks to Azucena Castro for her valuable insights and contributions to this article and William Silva for helping us organize the second workshop. Also, we thank all the researchers and external participants who voluntarily participated in the data collection and meaningfully engaged in the workshops. *J.G.*

Appendix A. Agenda of the First Participatory Workshop, March 2023 – Combining The Guidelines And Timeline For Facilitators Translated to English

Day 1	
9:00–9:10	Welcome greeting <i>Music: Betsacante - Grupo Putumayo</i>

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Day 1

9:10–9:15	Introduction to the research project by Barbara Schröter
9:15–9:20	Explanation of workshop objectives
9:20–9:30	Introduction to the three dimensions of equity by Barbara Schröter (For facilitators, use the following information if necessary to clarify concepts). Distributional equity: refers to how burdens and benefits are allocated and shared among people. Benefits and burdens may, for example, be shared equitably among stakeholders, shared in a way that contributes to the well-being of the most vulnerable, or shared according to the cost incurred (i.e., opportunity cost). Procedural fairness: refers to how decisions are made regarding issues such as who should or should not receive benefits and burdens, and how inclusive stakeholder participation is ensured, including transparent management approaches, access to justice for conflict resolution, and participation of all stakeholders in decision making. Recognition: this is linked to who can make decisions and refers to the value attributed or denied to social and cultural diversity, including respect for people's values, rights and beliefs. Thus, recognition justice addresses issues linked to discrimination and domination produced by structural inequalities that are expressed through institutions, languages, practices and symbols at multiple scales, and that strongly influence distributive and procedural equity. Equity of recognition is the least understood aspect of environmental justice, but very important to ensure respect for all forms of knowledge and cultures.
9:30–9:45	Recess
10:00–10:10	STEP 1 (Third Horizon) in the 3 H vision: What does an equitable future for the Amazon look like? Let's close our eyes and imagine we are suddenly 200 years old and standing around a fire in the forest, 50–70 years in the future, telling our great-grandchildren what our equitable society looks like today. "A future where everyone has access to the benefits and shares the costs of living well. There is fair and transparent participation by all and the cultural and thought diversity and rights of local communities are recognized and respected. In this future humans live in harmony with the forest and nature."
10:10–11:45	STEP 1 (Third Horizon): What does an equitable future for the Amazon look like? Group work: Create a story where women tell how they managed to consolidate an equitable society (see previous passage). (For facilitators, do not communicate to participants). Participants may take notes, draw and/or annotate the story they create using the board on the table make sure these are located in the upper right hand corner of the 3 H diagram - Horizon 1 (Step 1 - Figure 1. A.) and assist with annotation/writing if necessary.

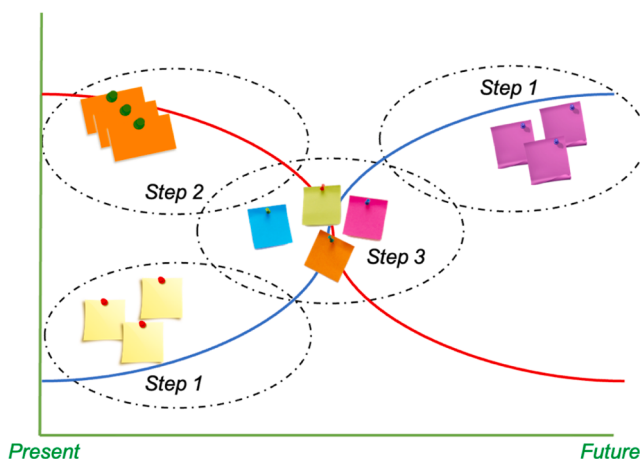


Figure 1. A. The 3 H diagram sheet per group with the parts

Present

Future

emerging from the three steps noted with the dashed circles

Consider the following guiding questions to facilitate the discussion and be sure to make the appropriate notes

(Start the conversation with the following questions/phrases):

Once upon a time... / Once upon a time... / Erase hace una vez...

Who are the characters in the story?

What is the main plot of the story? What challenges did/do the characters face?

As the discussion progresses you can use the following guiding questions:

Distributive equity: What are the benefits/costs of living in this equitable society and how are they shared?**Procedural fairness:** How is everyone's participation guaranteed and how do we ensure that it is fair and transparent?**Recognition:** How is respect for cultural diversity and diversity of thought achieved?**Recognition:** How are the rights of local communities guaranteed? Which are the most important?**Human-nature relations:** What do you think a harmonious coexistence with the forest and nature would look like?

11:45–12:15

Socialization

(For facilitators, do not communicate to participants).

Assist in the communication/dissemination of results if necessary/requested by the group, but avoid speaking or talking more than

necessary during this time.

12:15–13:15

Lunch

13:15–15:15

Group work: Use post-its to make notes/answer the following questions, where the objective is to understand what role these organizations play in

the equitable future/history that women created earlier.

Avoid introducing or naming current traditional forms or organizations such as the Mayor's Office, Governor's Office,

CORPOAMAZONIA, civil society unless the group does so and be sure to let them know that anything is possible in this future (e.g.,

dissolution of states/nation, multilateral agencies, NGOs, etc.).

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Day 1

What is the role of local communities (use blue post-its)?

What is the role of local and regional stakeholders (e.g., Mayor's Office, Governor's Office, CORPOAMAZONIA, civil society, etc.) (use yellow post-its).

What is the role of national and international actors (e.g., Ministry of Environment, civil society, NGOs, EU, etc.) (use pink post-its)?

(For facilitators, do not communicate to participants).

Participants may take notes, draw and/or annotate the story they create using the post-its on the table, **make sure these are located in the upper right corner of the 3 H diagram - Horizon 1 (Step 1 - Figure 1. A.) and assist in annotating/writing if necessary.**

Make sure that participants use the color code assigned above.

15:15–15:30

Recess

15:30–17:30

STEP 1 (First Horizon): What are the seeds for an equitable future?

Phase 1: The groups will use the NNF triangle to classify their seeds and the list of seeds on the table. The classification will be based on the following categories:

(For facilitators, use the following information if necessary to clarify concepts).

Nature for/by nature: Refers to the intrinsic value of nature (e.g. animalists, declaration of parks/natural areas/water bodies as subjects of law, bioethics).

Nature for society: Refers to the instrumental value that society assigns to nature (e.g., ecosystem services, economic valuation of biodiversity, environmental compensation).

Nature for culture: Humans are perceived as an integral part of nature and, therefore, what is valued is the reciprocal nature of the human-nature relationship (e.g., hunting and gathering activities, Indigenous cosmogonies, biocultural landscapes).

For the list of seeds, read the description of the seeds aloud and allow the group to decide.

In a plenary session, we will then integrate all the triangles into one.

In a plenary session, we will then integrate all the triangles into one. Facilitators will bring their seeds and place them in the unified triangle.

Phase 2: Each group will be randomly assigned a corner of the NFF. We will have only one of the groups working with the Nature for society side (i.e. 2 groups: Nature as culture; 2 groups: Nature for nature; 1 group: Nature for society). The groups will select three seeds by voting. Each participant will vote by placing a colored sticker on the sticky note of the corresponding seed **(on the table you will find four different stickers, make sure that each participant has a different color)**. Each participant will have 3 votes for it.

The women will elaborate a Future Wheel around each of the chosen seeds. Here, the women will imagine a mature version of the seed that has been institutionalized and will become widespread in the future. This mature vision of the seed will be at the center of the Future Wheel and the groups should reflect on the effects of this vision.

The groups should then work to identify the direct and indirect interactions among the three dimensions of equity by placing them around the center. After developing the Wheels of the Future, the groups should work to identify the interactions among the three wheels (Figure 2). The result of this exercise will be a rich vision of how the seeds interact to achieve an equitable future in the Amazon.

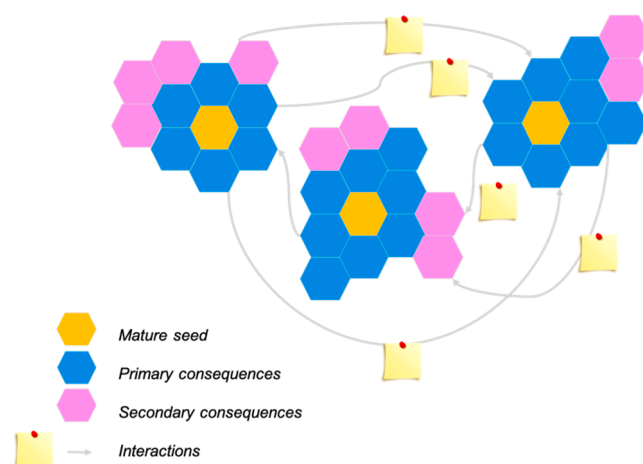


Figure 2. A sketch of a Future Wheel diagram.

Facilitators will place their randomly assigned seeds in the lower left corner of the 3 H diagram (see Figure 1.A.), help build a future wheel for the 3 most voted seeds, draw their interactions and take notes

Day 2

8:30–8:50

What is the current state of the Amazon? Challenges and opportunities by Torsten Krause

9:15–10:15

Step 2 – First Horizon (Step 2 - Figure 1. A.): Challenges facing the region

Group work

Guiding questions: What are the challenges/difficulties in achieving an equitable future for conserving the Amazon? What are the challenges/difficulties faced by women in the Amazon? What are the challenges/difficulties faced by other vulnerable groups such as Indigenous, Afro-descendant and ethnic communities in the Amazon?

We will ask participants to identify in groups the main challenges to achieving an equitable future for conserving the Amazon using the S.T.E.E.P. categories (social, technological, economic, environmental and political; **be sure to use the following color code: orange: social; technological: salmon; economic: pink; environmental: blue; political: green**). Women will then vote on the **top 5 challenges that hinder the well-being of women and other vulnerable groups (e.g., Indigenous, afro-descendants) by placing a colored sticker on the sticky note (on the table you will find four different stickers make sure each participant has a different color)**. Each participant will have 6 votes. Participants will use an importance versus effort matrix to reflect on how important and difficult these 6 challenges are (Figure 3).

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Day 1

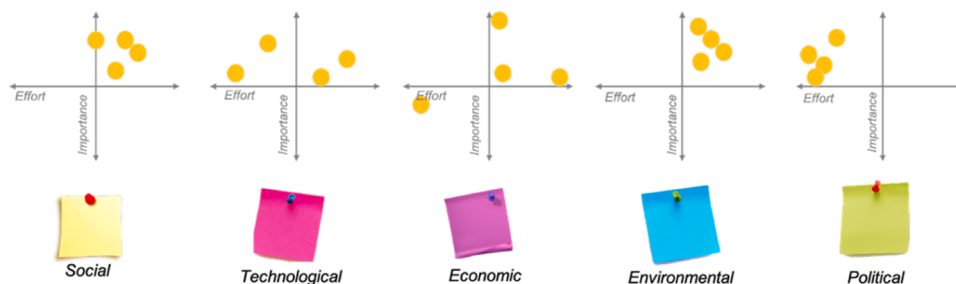


Figure 3. A

sketch of an importance-vs-effort-to-solve matrix for the 5-top challenges in one of the groups. Each S.T.E.E.P. category will have its own color-coded sticky note.

Facilitators will place the challenges in the upper left corner of the 3 H diagram (STEP 2 see Figure 1.A.), assist in the construction of the matrices and take notes (see Format B).

10:15–10:30 **Recess**10:30–11:15 **Introduction to Intersectionality** by Paula A. Sánchez11:15–12:00 **Film: Green River: The Time of the Yacurunas**

A Decolonial Look at Latin America and the World by Azucena Castro

Q&A session by Azucena Castro online

12:00–13:00 **Lunch**13:00–15:00 **Step 3 (Second Horizon): What are the necessary transformations?****Teamwork**

Phase 1: The women will locate the challenges in the iceberg model, categorizing each challenge as an event, a behavioral pattern, a system structure or a mental model in groups (Figure 4).

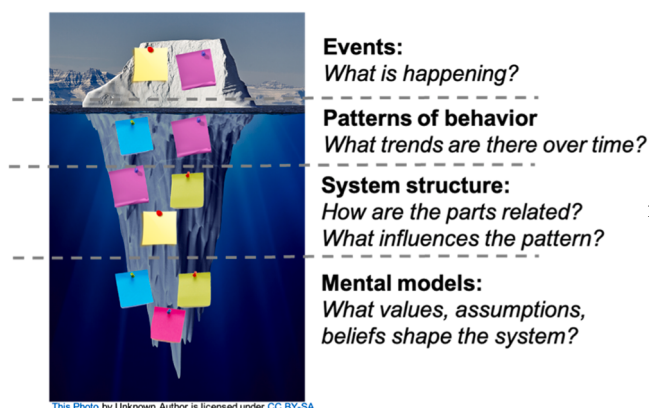


Figure 4. Diagram of the Iceberg Model.

Phase 2: Based on this categorization, each group will select two challenges, 1) identify all relevant actors and the level at which they act (i.e., local, regional, national, international; 2) think about the actions and measures that each actor must take to achieve an equitable future for conserving the Amazon and the indirect and direct consequences of such actions, and 3) identify potential barriers to these actions. The objective here is to identify transformative pathways and leverage points for the Second Horizon.

Phase 3: We will ask the women to reflect on the assumptions and values they used in formulating the two challenges and their solutions and to think of a proverb, fable or expression that captures the essence of the problem.

Facilitators will place the challenges in the center of the 3 H diagram (STEP 3 see Figure 1.A.), assist with discussion and take notes.

15:00–15:15 **Recess**15:15–16:30 **Group work**

Each group will jointly create a visual representation of each of the Horizons (present, transformation and future) using paint, markers and colors. Later, in a plenary session, participants will share their views. The idea here is to better understand what different trajectories would look like from the present to an equitable future.

Facilitators will assist in the construction of the illustrations and take notes (see Format B).

16:30–17:30 **Socialization and final comments**

Appendix B. Overview of the causal layered analysis, which unpacks the five levels of analysis (litany, social causes, discourse or worldview, and myth/metaphor) per each theme of analysis as 1) problematized and 2) reimagined - i.e., uncovering potential solutions - by women

Themes	Levels	Examples of the problematized theme	Examples of the reimagined theme
Loss of cultural identity	Litany	“Desgraciadamente nosotros a veces olvidamos los conocimientos ancestrales que nos dejaron, nos olvidamos y por eso muchos se van a trabajar en empresas mineras sin pensar en un futuro sin pensar en sus hijos sin pensar en sus nietos y eso es la pérdida de esos consejos, que se están perdiendo.” (G.2.Part.4)	“Yo creo que la educación está en el rescate de nuestro usos y costumbres a partir de nuestro Taitas y nuestras Mamitas que son los sabedores tradicionales de cada comunidad, entonces en el rescate de eso está el futuro idóneo.” (G.2.Part.2)
	Social causes	“¿Pero sabe lo que nos ha dañado mucho el tema aquí? Lo mucho occidental. Nosotros, mi papá, por ejemplo, él dice < yo se coger mis pescados a mí manera > Pero viene un proyecto, un técnico, < no, es que esto es así. No, es que eso no sirve > >” (G.3.Part.4) “(…) nos han venido orientando mal con un sistema de educación que no es conveniente a la amazonia y como los europeos siempre han venido (…) a imponer y a manipular.” (G.1.Part.1) “Nos educan para obedecer a un jefe, es que allá ese es el jefe, entonces es también desde eso. Nos educan para no ser independientes, para ser empresarios (…) Para seguir siendo esclavos.” (G.2.Part.1&3) “Otra cosa es que los Resguardos, los Cabildos, no están valorando su lengua. (...) Es que, si nosotros nos empoderamos de lo que es la lengua materna, de nosotros, esto fuera diferente.” (G.3.Part.1) “< Si ustedes vienen hablando en español, les hacemos el crédito. Así en esos enredos que ustedes creen no les vamos a hacer nada > > ¿Qué les tocó hacer a ellos? Aprender a hablar el español obligados. Tanto en lo religioso, todo lo que sea porque los obligaron a que tenían que dejar la lengua materna y empezar a hablar el español. ¿A cambio de qué? De unos beneficios y los que se oponían a eso ¿qué pasaba? Los decapitaban. Entonces, ahí viene lo chistoso, si le arrancan la cabeza, pues ahí se perdió la lengua no ve que la lengua se fue pegada de la cabeza” (G.3.Part.1) “Sí, los intereses propios que uno tiene a veces. El interés individual.” (G.2.Part.2)	“Entonces, en ese futuro debería existir una educación que digamos surja del territorio, de las personas digamos acá del territorio, que no sea Eurocéntrica y que nos permita enraizar y reconocernos como amazónicos” (G.1.Part.1) “Cada hay diferentes pueblos. Cada pueblo tiene su cultura diferente, entonces igual sus enseñanzas. Cada territorio entonces tener nuestra casa cabildo. Es ahí donde nosotros nos concentramos en Mingas de pensamiento para dialogar con toda la comunidad, pues de acuerdo al culto.” (G.1.Part.2) “La mayoría de las comunidades étnicas manejamos lo que se llama: la tulpa, entonces es ahí donde se tejen saberes, donde se reúnen jóvenes, niños, ancianos y más que ancianos nuestros maestro, Taitas y Mamitas, son los que nos enseñan ahí es cuando se da a conocer la verdadera sabiduría. Más que buscar espacio como estos, como públicos y sociales, es como eso. Desde ahí, desde la Tulpa, desde el tejer la palabra es donde parte realmente el conocimiento y es donde se replica toda la información” (G.1.Part.4) “Nosotros en un espacio de educación con algunos < <capillasas> >, profesores, lo hablábamos y decíamos que es necesario articular, así como la educación es necesaria la occidental y también la propia, porque tampoco nos podemos quedar en ahí un espacio, hay que utilizar las dos (...)” (G.1.Part.1) “Un eco-colegio para que, a nuestros nietos, bisnietos, todas las generaciones se le concientice, se les sensibilice de que podemos realizar unas buenas prácticas agrícolas. Desde el colegio se implemente la ejecución de huertas, los padres de familia que también estén empapados de esto. Anualmente se pueden realizar mingas, de que el padre de familia o a la madre de familia vaya al colegio. Bueno cada salón va a tener este espacio para acondicionamiento de una huerta casera que se van a implementar instructores que sepan de cómo se hace un bioinsumo con el fin de que haya un cuidado de la tierra, que podamos usar extractos totalmente naturales y que el consumo y los productos después se pueda hacer un trueque y podamos tener acceso a una alimentación que sea digna y pues buena para la salud.” (G.5.Part.1) “Lo que mi compañera también les hablaba de la universidad Andino-Amazónica donde nos caracterizamos principalmente por la parte de la naturaleza. Implementar más que todo las carreras de ingenierías agroforestales, ambientales, agronómicas de que nosotros mismos tengamos las capacidades de poder nosotros mismos cultivar nuestros alimentos, de que no todo sea necesario que los traigamos de otros lugares, sino que nosotros mismos lo vamos a producir, lo vamos a consumir, es de buena procedencia por así decirlo.” (G.5.Part.1) “Es como quitar esas instituciones del medio y que haya una línea directa entre las comunidades y los recursos [económicos] nacionales.” (G.2.Part.1) “Nos toca volver a nuestras raíces. Y ¿Qué pasa cuando volvemos a nuestras raíces? Que somos los nativos, los que tenemos la sangre india, negra, los que tenemos que valorar lo que tenemos” (G.3.Part.1) “Tenemos que auto-apropiarnos de lo que tenemos y auto-reconocer los que somos para poner... porque es que
	Discourse or Worldview	“Por eso, vuelvo y resalto, es que esos indios es pida, pida y pida tierra y no trabajan.” (G.3.Part.3) “Ellos están entrando porque ellos mismos dicen: < Estos pobres indiecitos ahí mismo los cogemos y les damos cualquier cosita y hasta luego > >” (G.3.Part.1) “Es que el problema es que hay muchos cruces. Por	“Nos toca volver a nuestras raíces. Y ¿Qué pasa cuando volvemos a nuestras raíces? Que somos los nativos, los que tenemos la sangre india, negra, los que tenemos que valorar lo que tenemos” (G.3.Part.1) “Tenemos que auto-apropiarnos de lo que tenemos y auto-reconocer los que somos para poner... porque es que

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Themes	Levels	Examples of the problematized theme	Examples of the reimagined theme
	Myth/ Metaphor	ejemplo, hay personas que dicen: < <no, yo no soy indígena porque mis apellidos no son indígenas> > (...) Entonces, para eso es el árbol genealógico porque hay muchas personas que dicen: < <No, yo no soy indígena> > Y vea que hay personas con rasgos más indígenas que dicen < <yo no soy indígena> > Y pues ahí está el problema si usted dice que no es indígena, no es indígena y punto.” (G.3.Part.1)	muchos no las picamos, digamos, así del gringo o amigos de yo no sé quién y vamos ahí tirando la basura. ¡Ay, no! Pero los únicos que cuidan son nuestros hijos.” (G.3.Part.2) “No solo la cultura de los trajes, las danzas, sino que también tienen la cultura de la chagra. La cultura de la conservación del ambiente, viene la cultura de la descontaminación porque a eso le estamos apuntando. Porque hoy en día la gente cree que cultura es ponerse un traje y unas plumas y andar gritando por las calles es < <que yo soy indígena> > No, es que eso tiene algo más al fondo” (G.3.Part.1) “Y ya salen desde la casa medicinal a una nueva visión y a caminar bonito” (G.2.Part.1) “[Q]ue la memoria no muera” (G.5.Part.1) “Aquí ya vemos al ratón [de nla corrupción] transformado en una persona y aquí ya hay una boa alrededor representando el amor a la naturaleza y ese ser libre con ella misma, como al final él/ella al final no le está haciendo daño. Esa unión entre la naturaleza y el hombre.” “Dentro de doscientos años tendremos todos estos proyectos empoderados. Saliendo bien económicamente y libres de la coca.” (G.5.Part.2)
Violence and dispossession	Litany	“Moriremos muchos en esa lucha. No solamente indígenas sino todos. Todo el planeta ¿Sabe dónde es que vamos a ir a vivir bonito y rico? Al cielo, al paraíso.” (G.3.Part.1) “Pero, de qué nos sirve hablar si nuestros compañeros de guardia están siendo asesinados” (G.2.Part.1) “Las compañeras explicaban que hay grupos de mujeres que se han visto amenazadas por entidades que nos están de acuerdo con estos proyectos, entonces ellas decían que, bueno, asimismo como existían resultados o consecuencias positivas sobre el cuidado del medio ambiente también hay experiencias negativas como son estos enfrentamientos que tienen estos pueblos con los grupos al margen de la ley.” (G.2.Part.1)	
	Social causes	“Mucha importancia porque [el cultivo de coca] es una de las segundas economías más rentables de las familias. (...) Hay que hacer mucho esfuerzo porque si usted se pone a defender su territorio arriesga su vida.” (G.5.Part.2) “[Las concesiones mineras y petroleras] les cobran peajes y si usted no paga la vacuna ¡bum! (G.2.Part.1) “Empresas petroleras y mineras. (...) Las urbanizaciones compran una tierra de no sé cuántas hectáreas y venden la tierra para hacer casas. Los cocaleros.” (G5. Part. 1) “(…) ya el mestizaje es una cosa que no es culpa tuya ni... es culpa de los españoles que violaron a nuestras mujeres, a nuestros antepasados, por eso vienen algunos mestizajes... Porque aparte de robar las mujeres, robaron el oro y las riquezas de estos territorios.” (G.1.Part.1)	“Allá es, al contrario. Las JAC no hacen acompañamiento, sino que son las asociaciones. Por ejemplo, usted tiene su asociación usted la suya, usted la suya y a Pepita Pérez la amenazaron, entonces las que nos damos cuenta somos las organizaciones para mirar cómo hacemos, cómo la sacamos, cómo la vamos a proteger. Allá somos las organizaciones las que hacemos eso.” (G.4.Part.2)
	Discourse or Worldview	“Yo soy abogado. Tengo 5 amenazas de muerte, ¿usted me mira a mí con un Policía? No y yo soy funcionario público y a mí nadie me cuida. A mí me toca cuidarme solo como pueda> > O sea, yo lo entendí así, si yo que valgo más, no tengo para un policía que me cuide ahora usted (...) Y para mi suerte que ahí entraba la Personera (...) y le dijo: < <Recuerde que ella es una gobernadora indígena> > < <Ah sí, usted de aquí no me sale hasta que yo no le traiga la policía> > Hasta las once de la noche me llevaron con policía con todo. O sea, ¿si yo no hubiera sido gobernadora sino una mujer del común y corriente? Que me maten que me pierdan que me lleven” (G.3.Part.3) “Es como una discriminación diría yo. Sí, perdón. Es que, por ejemplo, nosotros los Pastos estamos acá en el Putumayo, nuestros compañeros < <es que los Pastos no son de aquí del Putumayo> >. Nosotros somos de aquí del Putumayo, los Ingas y los Kamsa, pero es mentira, los indígenas somos todos. Pero, el decir de ellos, entre los mismos compañeros indígenas hay como una discriminación porque ellos dicen < <No los Pastos son aparecidos. Ellos no tienen derecho> >” (G1.Part.3)	“Somos una América de pueblos originarios... Una vez decía una niña de México en un video, ojalá vean el video < <porque tú te creas blanco no quiere decir que seas colono o que seas blanco> >” (G.1. Part.1) “Independiente que sea indígena, que sea afro, que sea... Independiente de quien sea. Acá es un ser, una persona, hagámosle, ayudémosle. En ese caso, solidaridad, la solidaridad se manifiesta.” (G.4.Part.1)
	Myth/ Metaphor		“[L]o que uno no quiere para uno, no lo quiere para el otro” (G.4.Part.1)

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Themes	Levels	Examples of the problematized theme	Examples of the reimagined theme
Environmental degradation	Litany	“[E]lla hacía referencia a reutilizar y cuando se habla de los residuos y todo eso para preservar el agua que es como el recurso más vital el que, evidentemente cuando pasamos por todo el centro, nos damos cuenta que los ríos están pequeños, que los ríos están, que los ríos están contaminados y a futuro sería eso conservar el agua.” (G.2. Part.1)	“Sino por ejemplo podemos usar la tecnología para obtener noticias, para informarlos de lo que está pasando alrededor del mundo, más no desde esa vista consumista de aparatos electrónico, porque como bien sabemos la extracción de los materiales con los que se realizan ese tipo de electrodomésticos es muy dañino para el planeta tierra.” (G.2.Part.2)
	Social causes	“Siguen tumbando bosque con el permiso de la alcaldía, gobernaciones, INVIAS” (G5.Part.1) “Los consumidores de mariguana y coca” (G5.Part.3) “Yo lo pongo acá porque todos tenemos opiniones diferentes sobre lo ambiental y es muy difícil lograr un consenso.” (G.2. Part.2) “Que tenemos a las petroleras contaminando el aire, contaminándonos el río. La tala indiscriminada de bosques, basura en los ríos. Sí, o sea, acabando con lo que tenemos haciendo con estas acciones que los animales se vayan generando también conflictos entre nosotros mismos porque hoy en día hay muchas demandas a las empresas petroleras que han hecho daño y que no han querido remediar las demandas y demandas tras demandas.” (G.4. Part.1) “Si no fuera por el apoyo de otros países, Tejedoras de Vida no tendría ni un peso. Ellos hacen sus proyectos y es el apoyo de las organizaciones internacionales, entonces ellas hacen los proyectos a las 65 organizaciones que tiene adscritas. Ellas no tienen un peso que digan esto es para mí, no. Esto es para los proyectos. Hay un saldito de tal y tal para pagarle a usted y usted.” (G.4.Part.2)	“El Senado debería cambiar la ley que hace que los recursos del subsuelo sean del Estado y no de la gente que vive ahí. (...) Eso que el gobierno es dueño del subsuelo. Nosotros de lo único que somos dueños es del aire y eso porque lo respiramos.” (G.2.Part.2) “[P]ensamos que no más Ecopetrol S.A., no más Gran Tierra, sino que las nuevas carreras de la universidad Andino-Amazónica nos llevaría a las energías renovables.” (G.5.Part.2.) “Precisamente como parte de la participación justa es la conciencia ambiental. No ser individualistas. Digamos que aquí estamos entre comunidades étnicas, pero precisamente la defensa del territorio es algo que involucra a todos los sectores. No solamente comunidades étnicas.” (G.1.Part.4) “Unión (...) Pues la tarea es ahí unirse toda la comunidad para trabajar en los proyectos (...) Trabajar en comunidad” (G.3.Part.1) “Que si volvemos a los encuentros de saberes [de Guardianas del Agua] fortalecemos lo que es los encuentros de las semillas nativas y fortalecemos lo que es el territorio entonces fortalecemos las semillas” (G.1. Part.1)
	Discourse or worldview	“Los colonos también tiene que preocuparse porque no es solamente el indígena porque los colonos cuando hacemos Mingas, resistencia, nos señalan mal, nos dicen < <vea ya salieron esos indios a fregar. Allá salieron, desocupados> > No se dan cuenta que estamos defendiendo la naturaleza.” (G.1.Part.3) “Entonces, el tema económico nos divide mucho. (...) Sí, los intereses propios que uno tiene a veces. El interés individual.” (G.2.Part.2&4) “[Una de las barreras] es que los intereses sociales son los mismos, pero los individuales no.” (G.2.Part.3) “Nosotros somos negocio para los países primer mundistas.” (G.2.Part.1) “Lo que se ve ahora es que los muchachos que trabajan en las grandes empresas no conocen tanto lo espiritual como la emoción y el valor que tiene la madre tierra, entonces puede más es la plata, entonces eso es que se creen escuelas, institutos o universidades que haya lo espiritual, lo emocional en cuanto a todo lo ambiental.” (G.3. Part.3)	“Entonces, pusimos, no más a la megaminería. Sí a la vida, sí al agua, sí a la vida. No al capitalismo.” (G.2.Part.1)
	Myth/ Metaphor		“Viviríamos sabroso” (G.2.Part.2) “Sí, que la tierra no se vende. Que la tierra no se compra ni se vende.” (G.2.Part.2)

Appendix C. Agenda of the Second Participatory Workshop in November 2023

Día 1	
9:00 – 9:30	Firma del código de ética y conducta durante el taller (antes de ingresar a la maloca)
9:30 – 10:00	Apertura del espacio con armonización a cargo de una Mamá o Mamita Mayor
10:00 – 10:30	Encender la tulpá a cargo de una Mamá o Mamita Mayor del Fuego
10:30 – 11:00	Explicación de la actividad a cargo de Paula A. Sánchez
11:00 – 11:30	Refrigerio e intercambio de sabores y saberes
11:30 – 13:00	Ejercicio de cuentos cortos o narrativas
13:00–14:00	Almuerzo
14:00 – 15:30	Intercambio de experiencias y resultados del ejercicio
15:30 – 16:30	Cierre del espacio con armonización a cargo de una Mamá o Mamita Mayor

Appendix D. Code of conduct • This code was inspired by the CES Summer School “Endangered Theories” in 2023 and BIWOC* Rising, which promote anti-racist, anti-colonial, and intersectional approaches to community building and knowledge exchange

Scope and objectives

The workshop’s main objective, “*Futuro y presente en la Amazonía colombiana*” - *Retos y oportunidades*, is the knowledge and cultural exchange among participants, fostering inclusiveness and respect, to reflect on the current and future of the Colombian Amazon. To this end, the following code of conduct provides a framing to ensure respectful, inclusive, and responsible community building.

The workshop organizers are committed to ensuring meaningful engagement through the workshop. Participants in the workshop are researchers, both men and women, from Colombia, Ecuador, Brazil, Indonesia, and Germany, as well as women who are activists and leaders in their communities across the department of Putumayo. Please be aware that we will be hosting women from different ethnic minorities, too. The diversity of participants offers a valuable opportunity to engage with various experiences and perspectives. This code of conduct is a collective agreement to ensure a safe and constructive space for a meaningful exchange.

Participants are asked to:

1. Be respectful of participants’ positions and interventions. Avoid criticism. Our aim here is to exchange ideas and practices, and we are interested in learning about how others think.
2. When referring to women, ethnic minorities, people with disabilities, and other vulnerable groups, avoid using collective nouns (e.g., the Indigenous, women, people who are deaf or hard of hearing) and remember to use person-first language (e.g., an Indigenous person, a woman, a person with disabilities).
3. Avoid using any language that might iterate the dehumanization/degradation of differently vulnerable subjects or turn the suffering of others into a spectacle.
4. Avoid stereotypical communication when talking about ethnicity, women, people with disabilities, aging and older people, and other vulnerable communities.
5. Remember, the workshop’s content might be perceived as emotionally challenging for some of us, triggering different emotional responses, including sadness, anger, and fear. When someone shares such feelings with you, we encourage you to actively listen, show respect and empathy, and reach out to the organization team when needed.
6. Whenever you are unsure about preferred pronouns, use neutral pronouns (“they/them”) when referring to or talking about a person.
7. Respect the work of the people involved in organizing the workshop, including researchers and administrative staff. Respect the ASOMI space where the activities occur, especially the common areas.
8. Inform the workshop organizers if you are subject to or witness any incident that requires assistance.

Participants must carefully read through the code of conduct before the workshop. The code of conduct will be discussed with participants during the workshop’s first session. Please do not hesitate to ask if you have any doubts or concerns throughout the workshop. Any comment or suggestion will be thoroughly discussed and incorporated if needed.

Prioritizing local women’s participation

The workshop aims to foster local women’s learning and exchange; thus, their participation is a priority throughout the program. We ask facilitators and foreigners to limit their interventions during storytelling sessions to allow women to think about their present and future realities. There will be opportunities for knowledge and experience exchange during the breaks and general discussions.

Anti-harassment policy

If conflicts emerge throughout the week, we recommend that participants speak to each other directly whenever possible and appropriate. Please reach out to the organizers immediately to ensure disputes may be addressed promptly and justly whenever communication between participants is not possible. The organizers underline their commitment to providing a space free from harassment. This policy applies to all programmed events and social gatherings throughout the workshop.

Please keep in mind that harassment includes but is not limited to:

- Verbal comments that reinforce domination
- Comments that are lewd, lascivious, demeaning, or derogatory
- Racist, sexist, or otherwise discriminatory jokes, comments, and behaviors
- Unwelcome discussion of sexual orientation or gender identity
- Unwelcome discussion of racial or ethnic background
- Unwelcome discussion of physical appearance or body size
- Unwelcome discussion of ability or impairment
- Photography or video/audio recording without consent

- Distribution of photographs or recordings of anyone without their permission, including posting on Twitter or other social media without permission
- Inappropriate physical contact
- Unwanted touching, exotification, or verbal comments about someone's body or heritage that are specifically racialized
- Advocating for or encouraging any of the above behavior

Content warning

The workshop discussions might be associated with violence and oppression in the region. Thus, participants may find content emotionally challenging to engage with. We will do our best to make this space where we can engage empathetically and thoughtfully with challenging content. If you ever need to step outside, either for a short time or for the rest of any intervention, feel free to do so without permission or warning. You are welcome to discuss your reactions with the rest of the participants or the organizers afterward.

Appendix E. Short description in English of the characters used for the storytelling exercise in the second participatory scenario-building workshop

Miriam Anco	<i>La hora azul</i> was written by Alfonso Cueto. The novel tells the story of Adrian Omache, a lawyer of the Lima bourgeoisie, who discovers the sexual crimes that his father, head of an anti-insurgent military squadron in Ayacucho, committed against Miriam Anco. Miriam was forcibly separated from her family and remained a prisoner of Adrian's father. As a result of the sexual violence Miriam suffered in captivity, she became pregnant and gave birth to Miguel Anco. Adrian searches for Miriam after the death of his mother as a desperate act of vindication of his personal and family history that will lead him to have a love affair with Miriam.	I am Miriam Anco. My ghost has come to tell you a story forgotten by many. I was taken by those who claimed to be the defenders of justice, of what is good. That night, I was sleeping, at home next to my parents and my siblings. They came without warning, broke down the doors, and between shouts they accused me of helping those whom not even the wind dared to name. I closed my eyes and heard gunshots, I lost consciousness. I remember his hard face and his tubercular nose, his appearance looked like that of a gnome, but it was frightening, he commanded the squadron of the region. Beside him were the bodies of our neighbors, friends, relatives. I guessed to be next, waiting for the final sound of the cannon, I closed my eyes. The gnome, the ogre spoke and there were no shots, instead, they took me with them. For a moment I thought, <I am saved> >. The Commander, the man who took me with him, who saved me and condemned me. Now that I am dead, I remember those days, and I feel sorry for those who are alive, those like me who live in hell. The days at the Commander's side were eternal, but especially the nights. He slept by my side, looking for my body to forget the blood, the faces, the bodies. I would fade away, fantasize, go to the forest, smell the jungle, listen to the birds until he finished. I don't know how many days I was there, but one day I escaped. I plucked up my courage, took an officer's uniform and walked without looking back. I arrived in the city. I got a job, as a cook in one of those companies that get rich by stirring up the earth's entrails. In the following months, I saw my belly grow. Miguel, that's how I named him, after the Archangel Michael and that's what he became. He would be my protector, my guardian against pain, against the marks of hell. He would watch over me, keeping away the ghosts of memories. I kept quiet and moved on. One day Adrian came into our lives, he brought the past with him, a lawyer from the capital, prestigious and, although more elegant, more refined, I could see the Commander in him. I knew it. He wanted to help us, to wash his conscience, to make sense of what we had lived. I melted into his arms, also wanting to forget, but the memories became strong and my heart was weak. He promised to help Miguel. I faded away, tired, I wanted it to end. I surrendered, closed my eyes, said goodbye to Miguel and embraced the deep sleep of death. Today, I wander like a ghost, telling the story of what is left in the jungle, for those who want to hear it, for those who want to learn from it.
Irene	<i>O voo da guará vermelha</i> or <i>El vuelo del ibis escarlata</i> tells the story of two anonymous characters that meet in a forest city, Rosalio and Irene. He is an orphan, an illiterate man who has had a difficult life. Rosalio works as a housebuilder and dreams of learning to read and write. Irene is a prostitute from northern Brazil who has contracted AIDS and has little time left to live. The story is marked by the pain and hopelessness of these anti-heroes who fall in love looking for a way to survive and fulfill their dreams.	Irene, that was the name I was given at birth. I don't remember much of my past, but when I think of my life I think of the good things, and inevitably I think of Rosalio. Rosalio arrived from the country, with a smell of soil and vegetation, full of life, and in his hands a box full of books. So new, so innocent, I thought he would have no problem using "protection". I took courage and offered him my services... I did not imagine that it would be Rosalio, with his stories, who would restore my will to live, the hope of a better tomorrow, but it was too late for me. I didn't know how I contracted it, I suppose that with so many clients, it must have been one of them. The social worker reproached me for my carelessness, but in the mine, if one gets demanding there is another

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- La esposa *El coronel no tiene quien le escriba* tells the story of a colonel who has been waiting 15 years for his army pension. The colonel lives with his wife in a modest house in the Colombian Caribbean. Every Friday the colonel goes to the port office waiting to be notified about his pension without success. The Colonel and his wife live in precarious conditions without enough money to buy food. Besides, they have a fighting rooster, which belonged to their son Agustin, who a few months ago was killed for distributing clandestine political information.
- Amarilla *Opio en las nubes* written by Rafael Chaparro exposes the suffering, love, hate, and pleasure of several urban characters in daily life. Through the novel the writer exposes the psychic journey of his character in a Bogotá crossed by the crisis of modern life.
- Agustina *Delirio*, written by Laura Restrepo, narrates the violence and decadence of the Colombian society at the end of the 20th century and how it has been permeated by drug trafficking societal levels. The writer uses an anachronistic style and an omnipresent narrator to tell four stories that reveal the origin of Agustina's madness. A girl from the Colombian aristocracy marries Aguilar, a literature professor, who one day returns from a trip to learn that his wife has gone mad.
- woman who takes the clients, and one has responsibilities, has to eat, to provide for the children. What could I do? Well, that doesn't matter now that I'm dead. I only remember Rosalio's stories that gave me back my smile and my will to live, through his stories I traveled, I cried, I laughed, I loved and was loved. I knew that my desire to live would not be fulfilled, but at least his words brought me back to live.
- We have been waiting for 15 years, my husband and I, for his pension. So many years of work and my husband and I sometimes don't even have enough to eat. I never imagined that our last days would be like this. Since our only son Agustin passed away, the situation got worse. In this town, you can't think differently, especially in political matters. I warned him, but my boy didn't listen. A fighting rooster, that's all he left us. My husband does nothing but take care of him, but we have no way to support ourselves, let alone the rooster. I already told him to sell it, that it was the rooster or me. Between the asthma and the hunger, I don't know how much more I can take but my husband is so stubborn. He won't listen to me. I doubt he will be pensioned off. There is no one who can help us out and we can pay anyway, so it is impossible for someone to help us. Our only hope is to sell the rooster. An acquaintance of my husband's, a man named Sabas, offered us 400 pesos for the rooster. He had to leave on a trip, but he gave us an advance of 60 pesos, and with that we were able to buy food and new shoes for him. Ah, but my husband is stubborn! He went to town, saw the rooster fighting and brought back home. We argued, I asked him what we were going to eat. *Mierda* [shit], he answered me.
- Yellow, who would decide to name a girl after a color, especially a girl like me. It seems like one of those strange coincidences of life, perhaps a divine sign. Oh no, I almost forgot what science taught us, with its Big Bang and the theory of evolution, that life is just the result of a random chemical combination.
- Religion? Well, let me think. I tried to be Hare Krishna, but that didn't work, so I got kicked out. I tried being a vegetarian, but that didn't work either. I joined a whale defense league, that must count for something, right? No, well, as far as I know, my mother baptized me, and I made my first communion.
- Pink tomatoes! My cat, I present to you. Come Pink Tomatoes, you want some. He loves whiskey. One day he got lost and we went out looking for him with Sven. Sven, he's no one, just someone I hang out with sometimes, you know nothing too serious.
- My routine? Ah, you want to know what I'm doing today, well... Sven and I are going out to the movies, really because we're not sleepy, I don't feel like walking either. Better some cookies, brandy and cigarettes, I'm sure Sven wants some too.
- The movies? Not bad, not good either. When we went out we saw the *urapanes* through the window. When I was a child I always counted the branches of the trees and the ones with birds counted by two. We counted one, two, three, four, five *urapanes*....
- I'm moving today, did I tell you? I'm saying goodbye to Sven. I'll take a boat with Pink Tomatoes. We leave, never to return. I pack a bottle of whiskey, some cigars and the cat, where are you Pink Tomatoes? Come, we're leaving.
- I love you Sven. Give me a hug, don't be sad. My yellow T-shirt goes with the white boat, right? Let's see, where did I leave the cigarettes? ... A little sand on the shoulder, like salt, for good luck on the journey, because dust we are and to dust we shall return. Wherever the wind takes us.
- Come on Pinky Tomatoes.
- I inherited these powers from our Granpa Nikolai, Bichi. He also had visions like me, he saw the future. Mom said he was delusional, but I know that Granpa Nikolai had a gift. Thanks to him I was able to protect you, Bichi.
- As a little boy you looked like a child of God, one of those that painters do not paint blond but with dark hair. Not to mention how sweet and kind you were, an angel.
- Although... Dad didn't think so. He almost never hit me, but with you Bichi... he was so angry. Thank God Granpa Nikolai inherited his gift to me, so I could warn you Bichi. I protected you.
- You mustn't believe those things that Midas says about daddy, we have always been good people, it's Midas who is into weird things, not daddy. He was hard on you, so hard Bichi, but he wasn't bad.
- At least he paid attention to you. He didn't even visit me that time in the hospital, do you remember Bichi? That time Midas should have been with

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me, because he was my boyfriend, and he was the one who didn't want babies. < <Sin rollos> > he said. Thank God you never had to worry about that, Bichi. Girls were never your thing, that's why daddy was hard on you, but it was only because he wanted the best for you. Don't judge him Bichi. Better blame Midas, he really screwed up our lives. When are you coming Bichi? I'm so excited to see you. I'm sure daddy and grandpa Nikolai will be happy too. Just come soon. I'm eager to see you.

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