CALL FOR PAPERS

APPEL À CONTRIBUTION

Book Publication

ACTIVE MINING ECOSYSTEM (EMA), HEALTH AND SUSTAINABLE DEVELOPMENT IN ACP[1] COUNTRIES

Deadline for submission of complete article: October 1st, 2025

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Summary:

An Active Mining Ecosystem (AME) is a natural or human-affected environment with mining potential and subject to exploration, exploitation or post-mining activities (restoration); a mining ecosystem subject to the process of valorizing its mineral resource potential. These territorial entities are experiencing chronic degradation which impacts ecological and human health in the ACP countries where there is a resurgence of risky mining activities coupled with neglect of environmental protection. This transdisciplinary call for papers anchors on this reality to address the problem of unsustainable management of EMAs in the ACP countries. The objective here is to mobilize academics, researchers, international, state and municipal experts, private sector and civil society actors, etc., in order to establish a local situational diagnosis accompanied by pragmatic proposals and ways forward on the crisis of sustainable management of EMAs in the ACP countries. The aim is to contribute to the improvement of political and programmatic frameworks for the management of EMAs, as well as to the strengthening of the capacities of actors, management mechanisms and processes for the purposes of sustainable development.

Keywords: *EMA, health, management, sustainable development, ACP.*

[1] ACP: Group of African, Caribbean, and Pacific countries.

Statement of the Call

An Active Mining Ecosystem (AME) refers to a natural or human-affected environment subject to mining exploration, exploitation, or post-exploitation (restoration) activities; a mining ecosystem in the process of valorizing its mineral resource potential. These activities provide essential raw materials for various industrial sectors such as metallurgy, energy, goldsmithing, jewelry, advanced technologies, etc. They generate significant foreign exchange and contribute substantially to the GDP and socioeconomic development of countries with widespread extractive industries (Franks et al., 2016; Bossom and Varon, 1978; Hilson, 2013).
For instance, mining exploitation generated an average of US$5,554.52 million in Jamaica's GDP from 1996 to 2024, with peak levels of US$8,526.00 million in the 2nd trimester in 2006 and US$1,346.00 million in the 2nd trimester in 2022.[2] While diamond mining alone generates 30% of Botswana's GDP, gold mining accounts for 48.4% of Ghana's GDP in 2024[3]. Mali's national budget was 21.5%, from the extractive industry in 2023[4]. The mining sector's contributions to South Africa's and DRC's GDP in 2024 were 6 %[5] and 12, 5 %[6] respectively. This contribution to GDP has almost tripled within three years in Cameroon, leaving from 2.20% in 2020[7] to 6, 29 % in 2022[8], etc.

This relevant contribution is, however, contrasted by the ecological and societal impacts of mining, which are increasingly becoming a call for concern in the ACP countries with overwhelming administrative tolerance for violations of current procedures and regulations (Hilson and Potter, 2005). On the ecological view, the use of chemicals in mining sites, for example, causes significant environmental pollution, as highlighted by Fopa Fodo (2023), Ndewe (2021) and Wolfe et al. (1998). Mercury, for example, is used to amalgamate gold and cyanide in the leaching process to extract gold. Some hazardous products (acids, lead, arsenic, activated carbon, xanthates, copper, cadmium, uranium, antimony, selenium, etc.) are used to dissolve, separate or identify ores (Gourdon and Lapeyronie, 2024; Lakrim et al. 2011).

Toxic waste from the extraction of these minerals is dumped into nature. Lakes of toxic residues that will remain dangerous for between 5,000 and 10,000 years are created, as well as the contamination of surface waters, for example, the Indonesian Ajkwa River, which receives 87.6 million tons of residues loaded with lead and arsenic each year (Izoard, 2021). In addition to water, soil, biodiversity, and air are also contaminated. Mining development work destroys the habitats of various animal and plant species by disrupting, and even denaturing ecosystems in a context where stakeholders refuse to practice environmental restoration (Meva'a. Abomo. Ndewe, Ejuande, Moukam Ngueudeu, 2023; Ndewe, 2021; El Hachimi, Bouabdli, Fekhaoui, 2013 ;).

At the societal level, chemical pollution from EMAs generates a range of human health problems in a context of general human rights threats (SystExt, 2025). These include, for example,

[2] https://fr.tradingeconomics.com/jamaica/gdp-from-mining; consulted in April 05, 2025.
[3] https://ornoirafrica.com/afrique-lexploitation-miniere-un-levier-pour-la-croissance-economique/; consulted in April 22, 2025.
[4] Idem
[5] Idem
[6] https://acp.cd/economie/rdc-la-croissance-du-pib-devrait-ralentir-a-51-en-2025-ministere-du-plan/; consulted in April 30, 2025.
[7] https://www.minmidt.cm/wp-content/uploads/2022/12/Rapport-ITIE-Cameroun-2020-Final.pdf; consulted in April 30, 2025.
[8] https://ecomatin.net/cameroun-la-part-du-secteur-extractif-au-pib-triple-en-trois-ans-itie; consulted in April 30, 2025.

skin rashes and burns, neurological and digestive disorders associated with forms of intoxication or poisoning. This water pollution contributes to the water tragedy in Africa, where waterborne diseases kill 115 people every hour (WHO, 2024). Agricultural and pastoral cycles as well as local economies are disrupted by this widespread ecological degradation, leading to famines and the impoverishment of local communities. Furthermore, precarious mining developments are at the origin of several human disasters, such as the tragedy at the Vaal Reefs gold mine in South Africa where more than 104 miners died in 1995[9]. These impacts of EMA get worsen in situations of armed conflict where the extraction of "blood minerals" develops, as coined by Jacquemot (2024), Amsterdam and Partners (2024), Bossé (2019) and Boltansky (2014). Generally speaking, the ecological and societal peril is becoming an identifying mark of EMA in ACP countries.

This ecological and societal peril is generally indicative of a crisis of alignment or compatibility between the valorization of EMAs in the ACP with the objectives of sustainable development relating to human and ecosystem health (Barma et al., 2012). This crisis of alignment is the basis of the present collective work project which poses the problem of unsustainable management of EMAs in the exploration, exploitation or post-exploitation (restoration) phase. This problem is surrounded by five major questions to be explained and deciphered.

The first question concerns the political-institutional, legislative, legal-regulatory and normative frameworks for the management of EMAs in the ACP countries. It opens a debate on the genesis and historical evolution, typologies and trajectories of these frameworks at the international, national and local levels. It questions the relevance and effectiveness of these frameworks, which should logically guarantee sustainable management of mining ecosystems (EITI, 2023; World Bank, 2009). It questions their applicability and the effectiveness of their application and/or implementation, emphasizing the flaws and limitations of the provisions, mechanisms, procedures and processes relating to them. Reflections may also be geared toward the flexibility, inter-operationality and capacity of these frameworks to resist different forms of pressure, as indicated by Hilson et al. (2014). Their perpetual updating and adaptation to new contexts of uncertainty and global crisis (COVID-19, Russo-Ukrainian war, high customs dues, etc.) are also being debated. Particular interest is given to deciphering the tangible contribution of their application to the protection of EMAs in each of its three phases (exploration, exploitation and post-mining) with an emphasis on the promotion of equity and social justice in the view of Voundi (2021). The contingencies and challenges of mining litigation, mining diplomacy as well as mining cooperation in relation to the sustainability of mining ecosystems within the ACP are all avenues of reflection that have been marginal till present day, but which need to be explored and documented.

The second question focuses on the logic, strategies and practices of mining stakeholders in the management of EMAs in relation to sustainability. In fact, it is a question of identifying, characterizing and evaluating the profiles of mining stakeholders according to the typologies of activities, the conditions relating to the three mining phases (exploration, exploitation and post-exploitation) in the ACP. The divergence of logics between the different stakeholders and the recurring changes in these logics according to opportunities and challenges complicate the trajectories of the resulting stakeholder policies.

The reconstruction of the trajectories of stakeholders' logics and their characterization according to stakeholders' typologies is a real scientific challenge to be addressed in this call for contributions. As much as these logics are in line with the policies, forge strategies and determine stakeholders' practices, they also shape the trajectories of these same policies, strategies and stakeholders' practices. This is the continuum between stakeholder dynamics and the associated trajectories whose historical evolution must be reconstructed and profiled over several decades.

[9] https://www.humanite.fr/-/-/vaal-reefs-dernier-hommage-aux-mineurs; consulted in May 3, 2025.

Great interest is given to decoding and analyzing the practices of stakeholders considered as the concrete manifestation and tangible materialization of the logics, policies and strategies of stakeholders in their mutations in space and time. This analysis integrates the identification and characterization of the risks to which they are exposed. It is also invested in the evaluation of the ecological commitment of the stakeholders; an eco-activism determined by the considerations and prioritization of the sustainability issue which often contrast with capitalist ambitions (Bonnet et al., 2014; Hedouin et al., 2007).

The in-depth analysis of the stakeholders' practices also includes reflections on the process and effectiveness of the control, monitoring and evaluation mechanisms as well as the surveillance of mining activities during the three phases of an EMA (exploration, exploitation and post-exploitation). This involves questioning the availability and relevance of the reference documents for the said processes, as well as their compliance with the laws and regulations in force at national and international levels; providing information on the capacities and operational performances of the personnel in charge of these processes, without leaving out the quality and efficiency of their actual implementation.

Particular attention is placed on analyzing community perceptions of mining according to the impacts on EMA and in relation to each of its three phases (exploration, exploitation and post-exploitation). The identification and drawing up of typologies of societal and ecological responses as well as the associated induced effects constitute a priority subject of reflection. The in-depth analysis of the dynamics of stakeholders in charge of mining issues in the ACP also revolves around the evaluation of the gaps, disparities and conflicts which underlie the networks of collaboration and partnership (LMI AMIR, 2020), the mining scams which maintain smuggling networks as indicated by Hilson et *al*. (2014), from the acquisition of mining permits to the declarations of mining production.

The third question concerns the environmental impacts (ecological, social, economic, cultural and political) of mining activities on the EMAs in the ACP. To go about, an initial reflection is opened on the positive impacts. This involves questioning the ecological benefits of the said activities, if applicable; questioning the substantial economic contributions of mining activities in terms of economic and financial profitability. It will be necessary to show the dividends of mining activities on the social, cultural and political levels as well as their tangible contribution to the sustainable development of the EMAs. For each of the positive impacts, it is appropriate to highlight the challenges of their optimization and the associated issues. The interconnections, interactions, and arrangements between these ecological, economic, and social impacts must be reconstructed, as well as the induced effects that depend on them. Particular interest is given to evaluating the contribution of this chain of positive impacts in the progress of territories towards achieving the Sustainable Development Goals (SDGs) by 2030 as defined by the UN.

A second reflection opens on the question that surrounds the negative environmental impacts of mining activities on EMAs. It is all about describing, characterizing and evaluating the mining ecological footprint of both EMAs and EMPs (Passive Mining Ecosystems, i.e. a mining ecosystem in hibernation, restored and/or abandoned) in relation to sustainability issues such as acid mine drainage and leaching contaminants as denounced by Aubertin et al., (2002). Reflections are expected on the threats that mining activities impose on biodiversity and sensitive ecosystems such as the destruction of the coral reef in the Pacific during phosphate mining in accordance with the observation of Shérazade Zaiter (2024). Mining geopolitics, crises, tensions and mining conflicts in the ACP are all avenues to explore.

The fourth question focuses on perspectives and prospective. Regarding perspectives, reflections are expected on realistic and achievable prescriptions contributing to the improvement of political-institutional frameworks and reinforcing stakeholders' capacities. These proposals must promote the reorientation of stakeholders' dynamics in favor of achieving the Millennium Development Goals. Proposals on measures for the sustainable regulation of the chain of negative environmental impacts are also expected, as well as the measures for optimizing the chain of positive environmental impacts. Proposals for improving the control, monitoring-evaluation and surveillance systems for mining activities within EMAs, as proposed by Ndewe et al. (2024) concerning the use of drones, are eagerly awaited. Regarding the prospective, the aim is to question the future evolution of EMAs within the ACP countries, taking into account the ongoing geopolitical changes towards a new world order with a multipolar vocation. Future changes in political, institutional and regulatory frameworks, as well as the evolution of the logic and practices of actors linked to continuous technological innovation within the ACP countries, are reflections to be explored and documented. Interest is given to the evolution of impact chains in terms of intensification, aggravation or regression, as well as in terms of the emergence of new types of impacts.

The fifth question concerns the concept of "EMA" developed for the first time in this essay. The aforementioned questions and the prospective initiated in this regard give rise to an in-depth academic reflection. Could the latter not serve as a starting point and a food for thought in the construction of a new transversal disciplinary field to all mining sciences to be explored and constructed? From this standpoint, one can be tempted to say, what might be its epistemological base, its specific theoretical drivers? And its methodological innovations?

In a nutshell, this present call for contributions aims to mobilize teacher-researchers, researchers and experts from international and state organizations, actors from NGOs or consultancy firms, public institutions and the private sector and civil society of all nationalities, in order to establish a situational diagnosis accompanied by prescriptions and prospective reflections on the dynamics of unsustainable management of EMAs in the ACP. The aim here is to contribute significantly to the improvement of the political, strategic and programmatic frameworks for the sustainable management of EMAs on the one hand, and then to strengthen the capacities of the stakeholders as well as the managerial mechanisms and processes of these highly sensitive, heterogeneous and complex risk territories on the other hand. As such, contributions must fall within one of the following thematic areas:

THEMATIC FIELDS

SUB-FIELD 1: Political, institutional, strategic, legal, normative, and regulatory framework

1- Development Policies and Strategies of the Mining Sector
2- Mining Governance and Ecosystem Health
3- Administrative Procedures in the Mining Sector
4- Mining Sector Law and Regulation (International, National, and Local)
5- Mining Diplomacy and Foreign Interference in the Mining Sector
6- Community Rights and Claims in the Mining Context
7- Mining Litigation in the Context of Ecosystem Sustainability
8- Mining Cooperation and Ecosystem Sustainability
9- Conflict, Embargo, and Conflict Management in the Mining Sector
10- Decentralization and Local Governance in the Mining Sector
11- Mining Taxation and Ecosystem Sustainability
12- Governability of the Informal Mining Sector

SUB-FIELD 2: logic, strategies and practices of Stakeholders

1- Mining Exploration: Stakeholders, Logics, Strategies, and Practices
2- Mining: Stakeholders, Logics, Strategies, and Practices
3- Environmental Rehabilitation: Stakeholders, Logics, Strategies, and Practices
4- Technological Innovation and the Contribution of AI in the Mining Sector
5- Monitoring and Evaluation in the Mining Sector
6- Surveillance in the Mining Sector
7- Safety and Health at Mining Sites
8- Child Labor and Gender Issues in the Mining Sector
9- Corporate Social Responsibility (CSR) in the Mining Sector
10- Artisanal/Informal Mining, Smuggling, and Mineral Trafficking
11- Civil War, Blood Minerals, and the International Community
12- Civil Society and the Mining Sector

SUB-FIELD 3: Impacts of Mining activities

1- Surface and groundwater pollution, acid mine drainage
2- Pollution and soil degradation
3- Air pollution and climate change
4- Geological and geotechnical hazards, Noise and vibration disturbances
5- Deforestation and destruction of natural habitats
6- Degradation of biodiversity and landscapes
7- Impacts on human health and well-being
8- Sociopolitical impact and mineral conflicts
9- Social conflicts, social justice, psychological effects, and changes in cultural identities
10- Mining migration and mining tourism
11- Impacts on national and local economies
12- Local dues and socioeconomic transformations

SUB-FIELD 4: perspectives for sustainable management of EMAs

1- Mining Policy
2- Mining Governance
3- Mining Transparency
4- Stakeholder Dynamics
5- Biodiversity Preservation within EMAs
6- Water Resource Management within EMAs
7- Community Participation and Development in the Mining Context
8- Governance and Regulatory Framework in the Mining Context
9- Restoration of Mining Ecosystems
10- Environmental Assessment
11- Civil Protection and Emergency Response
12- Risk and Disaster Prevention

SUB-FIELD 5: Heuristics of mining sciences

1- The Active Mining Ecosystem Concept
2- Epistemological Elements

3- Theoretical Elements
4- Conceptual, Theoretical, and Methodological Innovations
5- Quantitative Research
6- Qualitative Research
7- Methodological Constraints
8- Fieldwork and Specific Features
9- Sensitive Data and Data Collection Mechanisms
10- Risky Research and Disastrous Research Experiences
11- Gender and Scientific Research
12- Feedback on Blood Mineral Research

Procedure for Submitting Article

This call for papers is open to academics, researchers, international, state, and municipal experts, private sector and civil society stakeholders interested in the topic being addressed. Those wishing to contribute to this collective work are invited to submit a complete, original article that has not been published or submitted for publication. Articles written in French or English must be sent latest octobre 1, 2025, at midnight, to the following address:

E-mail : ouvrage-collectif-ema-acp@ss-cad.org

The text must scrupulously respect the instructions for authors to download from the website: https://ss-cad.org/index.php/fr/instructions-aux-auteurs

Key deadlines:

Dates	Activités
20 juin 2025 :	Publication de l'appel à contribution
01 octobre 2025 :	Date limite de soumission des articles complets
15 oct.2025 – 15 fév. 2026 :	Processus de double expertise à l'aveuglette
15 juin 2026 :	Publication de l'ouvrage

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Scientific Board

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