



HAL
open science

Sacred groves as living ecosystems of epistemic resistance in Diola territories of Lower Casamance and Guinea Bissau

Alessandra Manzini, Valetina Cirelli, Lamine Sadio

► **To cite this version:**

Alessandra Manzini, Valetina Cirelli, Lamine Sadio. Sacred groves as living ecosystems of epistemic resistance in Diola territories of Lower Casamance and Guinea Bissau. *Land, Life, Society, PLAAS*, Oct 2025, Cape Town / Le Cap, France. <hal-05311027>

HAL Id: hal-05311027

<https://hal.science/hal-05311027v1>

Submitted on 13 Oct 2025

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

Authors: Manzini Alessandra, Valentina Cirelli, Lamine Sadio

Sacred groves as living ecosystems of epistemic resistance in Diola territories of Lower Casamance and Guinea Bissau.

PLAAS Conferences DAY 3

Panel 42 11.30-13.00

Abstract (ENG)

Diola cosmoecology generates epistemic resistance to mineral extraction, rooted in Sacred Forests social ecosystem that intertwine ecological, spiritual, and political dimensions. Diola and other societies around the world articulate relational ontologies or cosmoecologies (Manzini, 2025) in which the relationship between humans, non-humans, and more-than-humans shapes the patterns of resources management including forests, water, and rice paddies, posing limits not just to extraction activities but also to subsistence and livelihood practices. The clash between the extractive growth model and local epistemology is central to understanding resistance movements, with cosmoecology offering a framework for opposing destructive mineral extraction projects. Drawing on long-term action research in the Diola territories of Niafrang (Lower Casamance) and Iale-Varela (Guinea-Bissau), both impacted by mineral exploration, this paper presents empirical evidence of how local communities organize their resistance. Applying diffractive methods, the research embraces the complexities and contradictions inherent in socio-ecological struggles. The paper also reflects on the lessons learned from the success of these efforts, which not only attempted to halt mining projects but also fostered alternative visions for rural futures. These narratives resonate at various scales, entangling socioecological alliances. The forms of tenure and economic cooperation within these communities have contributed to the emergence of resilient, egalitarian agrarian societies.

1. INTRODUCTION

Since 2003, the coastal zones of Senegambia and Guinea Bissau have been redefined as a critical arena for global mineral extraction. Over 750 squares km of coastal territory has been targeted for prospective and extractive projects focused on Heavy Mineral Sand (HMS) deposits, rich in zircon and titanium ores (ilmenite, rutile). This extraction began in The Gambia in 2003, extended to Guinea Bissau in 2008, and escalated in Northern Senegal by 2014. This is happening in other coastal areas around the world, independently of the cosmovisions of the people involved. What these conflicts have in common is the defence of local peoples, whose livelihoods and cultures are destroyed by the brutal methods of sand mining for minerals (Bisht & Martinez Allier, 2022). These projects, executed by external interests in collaboration with national governments, exemplify the global land rush, a phenomenon characterized by transnational corporate and elite control over land, minerals, and water for international commodity production (Borras and Franco, 2010; Margulis et al., 2013). This process establishes resource-making as a central mechanism of economic extraversion (Hountondji, 1994; Bayart, 2009). These land transactions consistently exhibit low levels of transparency, consultation, and respect for the rights of Indigenous Peoples and Local Communities (IPLCs) (Cotula, 2012; Borras et al., 2022).

The paper analyzes the power dynamics governing these mining operations, specifically examining their operational rhythms and the responses of state and corporate actors to opposition from IPLCs. The conflict is situated as an epistemic conflict between an extractive rentier model and the relational ontologies of subsistence economies based on ancestral values, where gift, reciprocity, and commoning constitute the generative social mechanisms (Descola, 2005; Viveiro de Castro, 2010; Ostrom, 1995). Central to this conflict is the concept of Diola cosmoecology, which generates epistemic resistance to mineral extraction (Manzini, 2025). Rooted in Sacred Forests social ecosystems, this framework intertwines ecological, spiritual, and political dimensions. The article is thereby testing SPIRAL¹ project's third hypothesis: that sacred forests are spiritual landscapes where the governance

¹ SPIRAL cross-cultural study of spiritual management practices, funded by the EUTOPIA SIF and European Commission grant agreement 945380

and knowledge value systems and relational ontologies activate resistance strategies against the commodification of natural resources, loss of sense of place and ecological heritage. These peasant communities deploy endogenous mechanisms of resistance based on Traditional Ecological Knowledge (TEK) of their territories, ecological awareness, and eco-spiritual practices to claim legitimation over the defense of common lands, asserting their right to withhold consent and, thereby, refusing the mining-driven development model.

Diola and other societies articulate relational ontologies or cosmoecologies in which the relationship between humans, non-humans, and more-than-humans shapes the patterns of resource management—including forests, water, and rice paddies—imposing limits on extraction directly linked to subsistence and livelihood practices (Manzini, 2021, Manzini, 2022, Manzini, 2024). The core of this struggle is the clash between the extractive growth model and Diola local ontoepistemologies of reciprocity (Vaccaro, 2025; Manzini 2025).

Consistent with the concerns of the Land Deal Politics Initiative (LDPI) (Wolford et al. 2024), the paper documents two decades of sustained peasant resistances, providing empirical case studies on forms of mobilization, groups involved in the struggles and endogenous mechanisms employed by IPLCs to stop mineral extraction. On the other hands it shades light on the impacts of projects on livelihood and socio ecosystems, following the comparative grid framed by the environmental justice atlas² (ejatlas). Finally, the paper give space for the voices of communities in struggle to express their needs, priorities, and desires, especially focusing on two articulated peasant resistances that have sought to halt harmful projects on their lands: Varela-Nhiquim (Guinea Bissau) and Niafourang-Abéné (Senegal). These sites are in territories inhabited by mixed communities where different nuances of Diola language are prevalent. The territories are impacted by mineral exploration projects driven by colluding interests between states and private transnational companies (G-SAND) Abéné and GMG International in Guinea Bissau.

The methodology is informed by long-term action research, grounded in the analysis of life stories of key local activists and members of civil society and indigenous organizations engaged in twenty years of continuous struggle to defend their land. The authors' direct participation in social movements is central to generating an integrated understanding of the environmental conflict, interrogating the futures, desires, and needs of these peasant resistances.

Initially delineating the plots of power at the regime scale in Senegal and Guinea Bissau, the paper frames the political ecology drivers of the extraction. A core analytical focus is questioning the efficacy of international and national legal instruments in addressing the IPLCs' urgent needs for control and sovereignty recognition over their common lands facing imminent extractive threats. The current international laws that should provide protection of these core rights include:

- The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), expressed in the right to self-determination (Article 3) and the principle of Free, Prior, and Informed Consent (FPIC).
- The International Labor Organization's (ILO) Convention 169.
- National legal frameworks for land rights and cultural preservation.

The central problem addressed here is the mechanism by which these top-down legal instruments can be operationalized to meet the immediate needs of people struggling against projects that threaten their subsistence, spiritual and livelihood practices. The process of rights over the land recognition is deemed procedural and long; there is no precautionary principle applied to potential territories belonging to IPLCs. Here, research activists are crucial to supporting people by providing evidence and ethnoarchaeology material records attesting their presence and belonging to a territory.

The paper also critiques the deficiencies in sustainability assessment within the Environmental and Social Impact Assessment (ESIA) process. It addresses the failures embedded in the 'evaluative statements' produced by 'third evaluators' who operate with a high degree of 'technical discretion' in formal environmental impacts evaluation carried out for their clients' interests to comply with the minimum standardized requirements. Hence, in the two cases, ecological counter-assessments were

² Environmental Justice Atlas, ERC Martinez Allier

requested by IPLCs to provide evidence of coastal vulnerabilities and risks exacerbated by climate change. These counter-evaluations are crucial for comparing counterfactual scenarios with the imminent or potential impacts of these coastal extraction processes on the ecosystem services that foremost shield communities from climate hazards. Also in this operation, the alliance between scientific research and the IPLCs is of relevance.

In the fourth part, the paper tentatively scales up the analysis to compare the two cases with other conflicts in the Gulf of Guinea collected by research activists of the Environmental Justice Atlas.

The concluding discussion evaluates the significance of these peasant resistances for global sustainability, reflects on the crucial role of the research activism in supporting IPLCs, and questions the efficacy of rigid, top-down definitions of who Indigenous People and Local Communities are empowering them in their struggles to defend land, life, and resources. Moreover, it examines a system of livelihood and knowledge that has been conserving living ecosystems thanks to the metastable balance of interdependence between humans, non-humans, and more-than-humans shaped by local cosmoecologies's value systems, with practical implications for territorial governance. Finally, the study proposes an integrated monitoring system designed to alert communities to potential risks from mining operations. This proposal supports the institutionalization of a Transnational Observatory on the Coastal Extractive Frontier in Africa; a mechanism intended to empower resistances and translate the operational lessons of these movements into scholarly and policy debates.

References

Bernstein, H. (2010). *Class dynamics of agrarian change*. Halifax: Fernwood; MA: Kumarian.

Bertrand-Bocande, E. (1849, November). Notes sur la Guinée Portugaise ou Senegambie Meridionale, Part I. *Bulletin de la Société de Géographie*, 3/11, 265-350.

Bisht, A. (2021). Conceptualizing sand extractivism: Deconstructing an emerging resource frontier. In *Extractive Industries and Society* (Vol. 8, Issue 2). Elsevier Ltd.

<https://doi.org/10.1016/j.exis.2021.100904>

Bisht, A. (2022). Sand futures: Post-growth alternatives for mineral aggregate consumption and distribution in the global south. In *Ecological Economics* (Vol. 191). Elsevier B.V.

<https://doi.org/10.1016/j.ecolecon.2021.107233>

Bisht, A., & Martinez-Alier, J. (2023). Coastal sand mining of heavy mineral sands: Contestations, resistance, and ecological distribution conflicts at HMS extraction frontiers across the world. *Journal of Industrial Ecology*, 27(1), 238–253. <https://doi.org/10.1111/jiec.13358>

Boaventura de Sousa, S. (2014). *Epistemologies of the South*. New York: Routledge.

Boone, C. (1990). The Making of a Rentier Class: Wealth Accumulation and Political Control in Senegal. *The Journal of Development Studies*, 26(3), 425–449.

Boone, C. (1998). State building in the African countryside: Structure and politics at the grassroots. *The Journal of Development Studies*, 34:4, 1-31.

Borras, S. M., Hall, R., Scoones, I., White, B., & Wolford, W. (2011).¹ Towards a better understanding of global land grabbing: An editorial introduction. *Journal of Peasant Studies*, 38(2), 209–216.

<https://doi.org/10.1080/03066150.2011.559005>

- Borras, S. M., & Franco, J. C. (2010). From threat to opportunity? Problems with the idea of a 'Code of Conduct' for land grabbing. *Yale Human Rights & Development Law Journal*, 13(1), 507-523.
- Borras Jr, S. M., Franco, J. C., Moreda, T., Xu, Y., Bruna, N., & Demena, B. A. (2022).² The value of so-called 'failed' large-scale land acquisitions. *Land Use Policy* 119: 106199.
- Chinweizu. (1975). *The West and the rest of us*. New York: Vintage Books.
- Chinweizu. (1987). *Decolonizing African Mind*. Lagos: Pero Press.
- Cotula, L. (2012). 'Land grabbing' in the shadow of the law: legal frameworks regulating the global land rush. Edward Elgar Publishing Limited, Cheltenham. Available at <https://www.iied.org/go3450>
- De Schutter, O. (2011). How not to think of land-grabbing: Three critiques of large-scale investments in farmland. *Journal of Peasant Studies* 38(2): 249-279.
- Descola, P. (2005). *Par-delà nature et culture*. Paris: Gallimard.
- Descroix Luc, & Marut J. C. (2015). L'exploitation des sables métallifères du littoral casamançais (Sénégal): un projet à risques. *Regards Géopolitiques* (CQEG).
- Dijohn, J. (2002). Mineral Resource Abundance and Violent Political Conflict: A Critical Assessment of the Rentier State Model. *Crisis States Programme Working Papers Series No. 1*, 5807(9), 1-25.
- Edelman, M., Oya, C., & Borras, S. M., Jr. (2013). Global Land Grabs: historical processes, theoretical and methodological implications and current trajectories. *Third World Quarterly* 34(9): 1517-1531.
- European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Grohol, M., & Veeh, C. (2023). *Study on the critical raw materials for the EU 2023 – Final report*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2873/725585>
- Federici, S. (2021). *Reincantare il mondo. Femminismo e politica dei commons*. Verona: Ombre Corte.
- Hall, R. (2011). Land grabbing in Southern Africa: the many faces of the investor rush. *Review of African Political Economy* 38(128): 193-214.
- Hanaček, K., Tran, D., Landau, A., Sanz, T., Thiri, M. A., Navas, G., del Bene, D., Liu, J., Walter, M., Lopez, A., Roy, B., Fanari, E., & Martinez-Alier, J. (2024). "We are protectors, not protestors": global impacts of extractivism on human-nature bonds. *Sustainability Science*, 19(6), 1789-1808.⁵ <https://doi.org/10.1007/s11625-024-01526-1>
- Hardin, G. (1968). The Tragedy of the Commons. *Science*, 162(3859), 1243-1248.
- Hirschman, A. O. (1967). *Development Projects Observed*. Washington (DC): The Brookings Institution.
- Hountondji, P. J. (1994). *Les savoirs endogenes. Pistes pour une recherche*. Benin: Star Editions.
- Jensen, N. and Wantchekon, L. (2004).⁷ Resource Wealth and Political Regimes in Africa. *Comparative Political Studies*, 37, 816-841. <http://dx.doi.org/10.1177/0010414004266867>

- Kireyev, A., & Mansoor, A. M. (2015). *Making Senegal a hub for West Africa*. International Monetary Fund. African Department.
- Lasserre, F. et Descroix, L. (Dir.) (2011). *Eaux et territoires*. Presses Universitaires du Québec, collection Géographie contemporaine, 480 pages. 3e édition actualisée.
- Linares, O. F. (1985). Cash crops and gender constructs: the Jola of Senegal. *Ethnology*, 24(2), 83–93.
- Manzini, A. (2021). Il ruolo femminile nelle pratiche di resistenza contadina dei territori Diola Kasa. *CONTESTI. Città, territori, progetti. Ruralities* 2/2022. <https://doi.org/10.13128/contest-13042>
- Martinez-Alier, J. (2023). Environmental conflicts and the making of world movements for environmental justice. In *Economia Politica* (Vol. 40, Issue 3, pp. 765–779). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1007/s40888-023-00306-x>
- Martínez-Alier J. (2023). The EJAtlas and the Making of the World Movement for Environmental Justice. A “Sociology of Absences”? *The Tocqueville Review* 44:1, 25–48.
- Marut, J.-C. (2010). *Le conflit de Casamance. Ce que disent les armes*, Karthala, Paris.
- Marut, J.-C. (2015). *Changement climatique, paix et développement: des choix citoyens*, actes de l'atelier Eaux et sociétés face au changement climatique dans le bassin de la Casamance, Zinguinchor, Sénégal, 15-17 juin 2015, L'Harmattan, Paris.⁸
- Moyo, S., Yeros, P., & Jha, P. (2012). Imperialism and primitive accumulation: Notes on the new scramble for Africa. *Agrarian South: Journal of Political Economy* 1(2): 181–203.
- Ndioufa, N., Alassane Sow, S., Ahmed Tidiane Faye, C., Lamine Diallo, M., Khoudoss, D. (2019). Activités extractives minières et horticulture dans les Niayes de la Commune de Darou Khoudoss. 15(6), 130–142. <http://www.afriquescience.net>
- Ostrom, E. (1990). *Governing the commons. The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Sarr, A. (2014). : Le code minier sénégalais : quel équilibre entre les intérêts de l'État et les besoins des investisseurs, 38 pages.
- Scheidel, A., Fernández-Llamazares, Á., Bara, A. H., Bene, D. del, David-Chavez, D. M., Fanari, E., Garba, I., Hanaček, K., Liu, J., Martínez-Alier, J., Navas, G., Reyes-García, V., Roy, B., Temper, L., Thiri, M. A., Tran, D., Walter, M., & Whyte, K. P. (2023). Global impacts of extractive and industrial development projects on Indigenous Peoples' lifeways, lands, and rights. *Science*.
- Schulz et al. (2017). “Critical Mineral Resources of the United States—Economic and Environmental Geology and Prospects for Future Supply”. U.S. Geological Survey Professional Paper 1802. <http://doi.org/10.3133/pp1802>
- Scoones, I. (2009). Livelihoods perspectives and rural development. *Journal of Peasant Studies*, 36(1), 171–196. <https://doi.org/10.1080/03066150902820503>
- Van Gosen, B. S., & Ellefsen, K. J. (2018). Titanium mineral resources in heavy-mineral sands in the Atlantic coastal plain of the southeastern United States:U.S.

Van Gosen, B. S., Fey, D. L., Shah, A. K., Verplanck, P. L., & Hoefen, T. M. (2010). Deposit model for heavy-mineral sands in coastal environments. *Scientific Investigations Report 2010-5070-L*. <https://doi.org/10.3133/sir20105070L>

Van Gosen, B. S., Fey, D. L., Shah, A. K., Verplanck, P. L., & Hoefen, T. M. (2014). Deposit model for heavy-mineral sands in coastal environments. *US Geological Survey Scientific Investigations Report 2010-5070-L*, 51. <https://doi.org/10.3133/sir20105070L>

Viveiros de Castro, E. (2010). *Metafísicas caníbales. Líneas de antropología postestructural*. Madrid: Katz.

Wolford, W. W., White, B., Scoones, I., Hall, R., Edelman, M., & Borrás, S. M. (2024).⁹ Global land deals: What has been done, what has changed, and what's next? <https://plaas.org.za/ldpi/>

Zoomers, A. (2010). Globalisation and the foreignisation of space: seven processes driving the current global land grab. *Journal of Peasant Studies* 37(2), 429-447.