

Peasant resistances value for global sustainability: three failed coastal grabs of metal mining projects in West Africa

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Abstract (ENG)

Since 2003 Senegambia and Guinea Bissau coastal areas have been the arena of 750 km square coastal grabs by outside interests in collusion with local governments. The mining of coastal Heavy Mineral Sand deposits, rich in zircon and titanium ores (ilmenite, rutile) began in 2003 in the Gambia, 2008 in Guinea Bissau and 2014 in Northern Senegal. The research analyses the power dynamics of land grabbing related to mining extractions, their rhythms, and attitudes towards peasant communities. An initial effort is aimed at delineating the plots of power in the three political contexts at the regime scale. It focuses on three articulated peasant resistances that have been forcing the mining projects to fail: Kartung-Sanyang (The Gambia) Varela-Nhiquim (Guinea Bissau) and Niafourang-Abené (Senegal). These peasant communities refuse the development model behind the mining projects for their territories, deploying endogenous mechanisms to stop land grabbing. The research interrogates future, desires, needs and value systems of these peasant resistances. It addresses failures to assess sustainability in the 'evaluative statements' of the so-called 'third evaluators' with a high degree of 'technical discretion'. The ecological counter assessments bring evidence of the vulnerabilities and risks due to climate change starting from the counterfactual scenarios for the three case studies, comparing them with the impacts that these coastal grabs have or potentially could have on the ecosystem services that are protecting communities from climate hazards. Concluding remarks debate on the value of peasant resistances for global sustainability. Finally, the study proposes an integrated monitoring system to alert communities on potential risks of mining operations that could support the institutionalisation process of a Transnational Observatory on Coastal Land Grabbing in West Africa.

Key words: land grabbing; Heavy Mineral Sand; mining; peasant resistance; risk assessment; climate hazard.

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Introduction

The paper analyses the power dynamics of land grabbing related to mining extractions of heavy mineral sands (HMS) deposits along the West Africa Coastline, their rhythms, and attitudes towards three articulated peasant resistance movements that have been forcing the mining projects to fail: Varela-Nhiquim in Guinea Bissau, Kartung-Sanyang in The Gambia and Niafourang-Abené in Senegal.

The paper tackles political ecology issues in the broader framework generated by the LDPI initiative that encompasses an interdisciplinary approach towards land deals centred on food, biofuels, minerals, and conservation (Wolford et al. 2024). In 2010, Henry Bernstein (2010) identified four fundamental issues in agrarian political economy that serve as the LDPI initiative's compass: "(i) who owns what; (ii) who does what; (iii) who gets what; and (iv) what is done with the excess wealth that has been generated" (Bernstein, 2010 in Borras et al, 2011). In 2011 LDPI introduced two more key questions, highlighting political dynamics between social groups and classes: "(v) what do they do to each other and (vi) how are political changes shaped by dynamic ecologies, and vice versa?" (Borras et al, 2011).

The studio addresses the most important question at this 10-year milestone of the LDPI effort (Wolford et al. 2024). Specifically, the LDPI conference in Bogotà, 2024 focuses on what happened to the thousands of land grabs documented by researchers, non-governmental organizations, activist groups, news media and aid agencies. What new configurations of land, labour and capital have emerged since the early 2000s and the rise of the 'global land grab'? What new dynamics of land investment are occurring—and are these continuities or changes from what we learned before? (Wolford et al. 2024). A plethora of new social movements and coalitions were formed to oppose land deals on a local, national, and international level. In several situations, organizing in support of or opposition to a specific investor and land use development plan united unlikely friends, while in other situations it shattered local communities falling into the trap set by the international investors.

The analysis targets the questions nurturing a scholar-activist dialogue, thus reinforcing transnational socio-ecological alliances at different latitudes. The studio documents twenty years of enduring peasant resistances in three case studies sourcing contributions from grassroot movements bringing practical case studies on what has happened in the wake of activist campaigns against land grabs. The paper is divided in four main sessions. After the methodological note, the second session provides some theoretical tools to interpretate the phenomena. In the third session after an initial effort is aimed at delineating the plots of power in the three political contexts at the regime scale. The three rentier states have elaborated strategies to exploit HMS resources shaping their internal political economic dynamics. The fourth session tells the success of the organized attempts to claim land ownership, it gives space for the voices in struggles to be heard and bring some reflections on distilled lessons learnt by movements into the scholar's debate. In conclusion the study discusses the most important tools and devises to empower peasant resistances and reflect on how to put in place a transnational observatory on coastal dynamics of land grabbing and climate change.

1. Methodology

People studying land deals employ a range of theoretical approaches and concepts within the broad framework of political economy. This study applies a transdisciplinary approach to the study of social ecological systems implying both ecological data analysis and qualitative socio-anthropological methods of research with people affected by mining operations. Mixed methods combined different data sources (databases, remote sensing, surveys, field observation, case studies, life stories, interactions, grey literature) and integrative, cross-disciplinary analysis to approach the topic of peasant resistance and mobilization versus land deals made globally. Landscapes analysis of social ecological systems can describe how mutual beneficial relations between humans and non-humans are generating agroecological dynamics such as the metastable mangroves-rice fields one versus the disruptive instability of resource grabbing in fragile environments.

This article is based on the life's stories of key members of the movements against land grabbing in Casamance, Gambia and Guinea Bissau in around twenty years of struggle. The research interrogates future, desires, needs of peasant resistances engaging key activists on the field. The participation in social movements of all the authors is the most important motor generator of knowledge for the elaboration of an integrated approach to the phenomena.

Another fundamental source of scientific knowledge is the observation of ecosystems dynamics along the coast during these long-term commitment in research and activism. Semi-structured interviews have been carried out with individuals and groups and textual analysis of key legal texts and project documents, including the Environmental and Social Impact Assessment (ESIA) of the three projects (Varela-Nhiquim, Nianfrang-Abéné, Sanyang Kartong).

One methodological aim is to generate knowledge that could serve policymakers, affected populations, and the scientific community implicated in land grabbing projects, especially targeting 'evaluators' who issue social and environmental impacts assessment reports with a high degree of 'technical discretion' supporting mining projects to be carried out whatever it takes, also in protected natural reserves area home to cultural survival indigenous people and endangered non-human communities.

Another important aim is to nurture the scholar and activist dialogue for enhancing socio ecological intergenerational alliances between populations facing climate change in different geographical locations. People demanding the right to the future, to reverse the trajectory that for centuries has generated unequal impacts between different geographies across the planet.

2. Dynamic of power and natural resources in the three rentier states

Political economy studies highlight the inequalities and the dependency of states due to the colonial legacy. Post-colonial states, such as Senegal, Gambia and Guinea Bissau can be described as more than 'rentier'. A rentier state is characterized by a strong dependence on external rents (royalties) produced by a few economic actors. The profits are typically generated by the exploitation of natural resources (land, fishes, heavy mineral sand deposits and so on), not by production (labour), investment (interest), or risk management (profit)" (Jensen & Wantchekon, 2004, p. 817). This phenomenon is related with the tragedy of the commons (Hardin, 1968) or 'curse of the commons' which, contrary to current perception, associates an abundance of natural resources with low growth and more frequent, more intense, and longer-lasting conflicts (Dijohn, 2002). In applying the rentier model specifically to Senegal, Catherine Boone defines 'rentier' using two specific components (Boone, 1990). In terms of the nature of accumulation, income or profits are generated from nonproductive activities, for example, from natural resources: land primarily, offshore fisheries and mineral resources (gold, iron, uranium) concentrated in Eastern Senegal and HMS along the coast. The second component is that rentier is the result of non-market forces and specifically sought by government intervention. Thus, rentier activities are defined as "politically mediated opportunities to obtain wealth through nonproductive economic activities" (Boone, 1990, p. 427; Bierschenk et al, 2000). A rentier class benefits from opportunities through client relationships. The rentiers are clients of the state, co-opted and controlled. Since the source of their wealth is not self-sufficient and self-productive, they depend on the discretionary exercise of state power (Boone, 1990, p. 431; Bierschenk et al, 2000).

Several publications by authors of critical post-colonial studies have denounced the unwieldiness of the post-colonial administrative machine. Chinweizu calls this *Cargo Cult maldevelopment*, specifically pointing to the enormous appetite for all forms of international exchange on credit: foreign aid, international loans and *export* payments for raw materials - resources that do not require state *elites* to rethink the colonial economy and face fundamental social reorganizations, in fact continuing the state's dependence on foreign capital, which does not stop the inertia of the state machine (Chinweizu, 1987).

Examining the nature of the 'rush' in global processes through the lens of extraction, and land grabbing (de Schutter 2011, Edelman, Oya, and Borras Jr. 2013, Hall 2011, Margulis, McKeon, and Borras Jr. 2013) becomes clear that resource-making is a core social arena of extraversion of economic models (Hountondji, 1994; Bayart, 2009). Global land rush is characterized by transnational and domestic corporate investors, governments and local elites taking control over large quantities of land (and its minerals and water) to produce

industrial commodities mostly for the international (or domestic markets) (Margulis et al, 2013). This phenomenon is known as the global land rush (Borras and Franco, 2010; Cotula, 2012; Zoomers, 2010; Borras et al., 2022). According to Borras and Franco (2010), Cotula (2012), Zoomers (2010), and other scholars, these land agreements are frequently linked to extremely low levels of transparency, consultation, and respect for the rights of the local communities that live off the land.

The self-reliance that can be learnt from the subsistence economies of villages anchored in ancestral values can be located at the opposite pole of a rentier model accentuating an epistemic conflict underpinning two incompatible ontologies. Where gift, solidarity (mutual aid support), reciprocity and sharing of resources (commons) constitute the dominant mechanisms of sociality, these keep incompatible ontological systems at the margin (Descola, 2005; Viveiro de Castro, 2010). The act of 'commoning' is based on a network of relationships created with the expectation that everyone will take care of each other and with the shared awareness that some resources belong to everyone, indeed the very essence of the commons (Ostrom, 1995). Endogenous logics widen the sphere of possible generative actions, including concrete experiences in which communities solved the problems they were in without need of external actors (Hirschman, 1967). In the context of the social and natural order scramble on the African continent (traversed by violence in the name of progress from which only imperialist forces would benefit), what must be noted in the relationship between the pace of change and the pace of adaptation is the net effect of change (Polanyi, 1974, p. 45). Some groups, have chosen to slow the pace to save the wellbeing of the community, resisting, safeguarding elements of the philosophy inherited from the ancestors, preserving their temporality (Manzini, 2021). Other societies, with uncritical faith in unconscious growth, have found themselves within a social fabric that is suffering disintegration. One difference between local communities and indigenous people is still evident: members of the local community look for jobs only for money, indigenous people don't look for jobs they have already plenty of activities for caring about the social ecosystems, maintain the quality of bonds generating alternative forms of life. Between the two opposite poles, impossible to find in their total purity, there is a magma of examples of plastic territories in transition whose cultural world is in constant tension towards the urbanization of the rural (Moyo et al. 2013).

Senegambia and Guinea Bissau have historically been integrated into international markets via the provision of labor and cash crops through households, as these were able to camouflage class dynamics inside their borders. The outcome is reflected in today's extended complex domestic relationships, which are rife with power dynamics and hierarchies that transcend age, gender, caste, and race. Significantly, sexual interactions and the division of labor by sex that were previously more flexible and ambiguous were changed by capitalism relations by separating productive and reproductive activities (Sow, 1997; Amadiume, 1997). Thus, by undergoing this particular 'reproductive subsumption', Western African women were re-constructed as reproductive labor responsible for all domestic and environmental care with no priority to access resources needed in production: land, capital, education, and wage employment (Baglioni, 2022; Federici; 2021). The reliance on commons for reproductive activities bring women in everyday connection with coastal ecosystems. Indeed, in all the three case studies women groups were motors generator of peasant resistances against extractive activities.

3. Conditions for the land grabbing to happen

The rising policy importance of climate change has resulted in a huge expansion of investments focused on the 'green transition' (Wolford, 2024). The demand for 'clean' and 'green' energy is also generating a mining rush, as rare metals for batteries are acquired by mining companies (Hernández and Newell 2022). The state is typically involved in land purchases for mining, but there aren't many social and environmental protections in place yet (Arsel, Hogenboom, Pellegrini 2016 in Wolford 2024).

The drivers behind the neoliberal value chains extractive patterns are multilevel. For multinationals, the challenge is to control mineral resources to meet growing global demand. This is the case for zircon and ilmenite and rutile (titanium), where tension between limited supply and rising demand is driving up prices (and profits) over the long term. Currently, a small number of very large multinational mining businesses dominate the extractive industry: Rio Tinto, Astron Mining, ERAMET and Base Resources are just a few examples. They oversee exporting HMS-derived metals to nations with more financial resources and technological infrastructure, either as raw materials or with very little processing.

European countries are promoting "mutual benefit strategic partnership" to secure access to mineral resources, investing public money to support overseas joint venture and long-term relationship, posing the ESG criteria as guaranty of socio environmental respect. Partnerships are described as mutually beneficial in memorandum of understandings for their investments in development of infrastructures (road, ports, transport systems), whose accessibility especially in certain cases is not for all (for example the motorway tolls are too high for local people). Most of the time these roads serve just the mining infrastructure and go through very fragile ecosystems fragmenting littoral dunes 'habitats.

The financial spin-offs for the countries hosting the mining project are manifolds: increased exports to finance development; promising infrastructures; health and education facilities, however the realization of these projects is limited and guaranteed just by a few international players. High level of corruption makes this promising plan vanish in the pockets of a few political leaders.

Some members of the local communities see the mining activities has a way to mitigate the massive underemployment of young people, amplified by the demographic explosion; an alternative to the timber industry (destruction of the forest), to the rural exodus, or to joining the rebellion. In the following paragraphs we will see that in Casamance the mining project raises two sets of risks in a region that is already naturally and politically sensitive.

3.1 Mineral Economics

The coast of Senegal, Guinea Bissau and Gambia are particularly attractive for the formation of paleo dunes deposits of Heavy Mineral Sand valued by the above-mentioned global players for the presence of crucial minerals for the global economy. Heavy Mineral Sand (HMS) are sedimentary deposits that accumulate in coastal environments with sand, silt, clay, and other materials to form localized concentrations of dense or heavy minerals (Van Gosen et al, 2010). Many HMS-rich locations have several individual deposits dispersed along historic or present coastlines. Individual HSM bodies are typically deposited in the range of 1 km width to 5 km length (Van Gosen et al., 2014). They can be classified as alluvial deposits concentrated by non-marine or riverine water, aeolian deposits shaped by wind and producing dunes, or sedimentary deposits found on paleo-shorelines and marine placer deposits (concentrated along beaches as the ones in the three study cases) (Mudd and Jovitt, 2016). Most HMS mining activities typically take advantage of historical or contemporary coastlines and marine placer deposits, even though there are numerous functioning ecosystems services (Mudd & Jovitt, 2016). Mineral Sands deposits can be mined using dry mining or wet mining techniques. Wet mining can involve dredging the ore from a pond or using powerful hoses to create a slurry. Dry mining uses traditional earth moving equipment such as dozers and trucks. Mineral sands deposits generally host a heavy mineral percentage of 1%-15% in the ore but the relative content of the individual minerals within the ore varies widely from deposit to deposit (Mineral Sands Factsheet: Base Resources). HMS deposits contain a concentrated amount of economically important minerals known as 'heavy minerals', which are much heavier than common sand minerals such as quartz, zircon; rutile; leucoxene; ilmenite; monazite; xenotime. Zircon is rich in the element zirconium. Rutile, leucoxene, and ilmenite contain titanium. Monazite and xenotime contain rare earth elements (REE). Other minerals such as magnetite and garnet may also be present including praseodymium and neodymium used in battery industry.

Titanium

The greatest part of HMS is usually the Titanium dioxide (TiO2). HMS can be separated into three groups according to the amount of titanium dioxide they contain: rutile (90%–100% TiO2), leucoxene (65%–90% TiO2) and ilmenite (45%–65% TiO2) (Mineral Sands Factsheet: Base Resources¹).

Since 2020, criticality assessment in global supply chain listed *Titanium and rutile* among Critical Raw Materials (JRC, 2023). Titanium is also on the list of materials covered by a double-stage supply risk assessment in Europe (JRC, 2023). However, the ephemeral nature of the investor profile makes the traceability of its supply chain difficult. It is estimated that about 2 billion tons of titanium-bearing minerals (such as rutile and ilmenite) are available worldwide (USGS, 2022). Rutile and Ilmenite constitute most of the titanium mineral concentrations found in the world. China leads the world in ilmenite production because, according to the US Geological Survey, it has the biggest ilmenite deposite (WIPO,2020). Australia leads the world in the production of rutile; it accounts for over 50% of global rutile production and has the greatest rutile

¹ Mineral Factsheet Report https://s3-ap-southeast-2.amazonaws.com/assets.baseresources.com.au/wp-content/uploads/2019/05/20131834/BSE-Mineral-Sands-Factsheet-May-19.pdf

deposits, comprising 43% of global reserves (WIPO, 2020). It is important to note that ilmenite resources are greater than rutile resources, designating HMS deposits as the most abundant form of titanium resource available for global supply.

China's vast size and commitment to tech advancement frequently make it a world leader across multiple industries, and the titanium industry is no exception (WIPO, 2023). With an annual yield of about 120,000 metric tons, it's easily the world's leading titanium producer. Chinese demand for titanium is largely driven by booms across certain industries, including aerospace and the military². Patents worldwide are including titanium metals and alloys also in the production of ceramics, electrodes for batteries, cosmetics, water treatment (WIPO, 2023).

Zirconium-Hafnium

Zirconium and hafnium are considered twin elements because they are always found together mostly in the mineral: zircon (zirconium silicate) and baddeleyite (zirconium dioxide). Zirconium is a corrosion resistant metal that is used in high performance pumps and valves. Since it also does not easily absorb neutrons, zirconium is widely used in nuclear reactors. The nuclear power industry uses nearly 90% of the zirconium produced each year, which must be nearly free of hafnium. Zirconium is also used as an alloying agent in steel, to make some types of surgical equipment and as a getter, a material that combines with and removes trace gases from vacuum tubes.

Zircon, a by-product or co-product of most mineral sands deposits, is mostly utilized in the ceramics industry. Hafnium is a good absorber of neutrons and is used in the control rods of nuclear reactors (Bechade, & Parmentier, 2000). Hafnium has been used as an alloying agent in iron, titanium, niobium, and other metals.

The three rentier states have elaborated strategies to exploit HMS resources that influence their internal political economic dynamics. By examining these processes through the lens of extraction becomes clear that mining is a core social arena of extraversion of economic models (Hountondji, 1994; Bayart, 2009).

3.2 Senegal

Plan Senegal Emergent³ (PSE) is a ten-year strategy elaborated by government of Senegal to meet the objectives 2035 for the Financial Stability of Senegal posed by the International Monetary Fund (IMF, 2015). A first objective of the plan is to enable Senegal to produce 90,000 tones of zircon per year by 2023, making it one of the world's top producers. Therefore, Senegal, with its ambitious PSE, is becoming a mining country. In addition to the phosphates from Thiès, which have been exploited since 1991, there are gold mines in the south-east (Sabodala); zircon from the Grande Côte, and iron ores in the south-east (Falémé) plus extraction perspective in offshore oil and gas reserves.

Mineral Deposits Ltd. (MDL) of Australia and ERAMET S.A. of France have been continuing to work on the development of the Grande Côte Mineral Sands project (GCMS) through their joint-venture company TiZir Ltd. In 2011, the joint-venture partners combined MDL's 90% interest in GCMS with ERAMET's 100% interest in the Tyssedal ilmenite processing plant to create a vertically integrated titanium minerals operation in Senegal. In 2012, the joint-venture partners invested \$271 million in the development of the project. The average annual production from the GCMS project was projected to be 575,000 t of ilmenite (including small amounts of rutile and leucoxene) and 85,000 t of zircon. The partners planned to commission the project in late 2013 and to transport the ore by rail to the Dakar Port (Mineral Deposits Ltd., 2013, p. 11–13).

The institutional anchor of the project is the Ministry of Mines and Geology. From an operational point of view, the objective is being achieved through full exploitation of the Diogo mineral sand deposits (by Grande Côte Opérations, a subsidiary of the ERAMET group) plus Sud Saint-Louis. In 2022 the flagship project accelerated by Zircon Mining saw the production startup at the Sud-Louis mine by SENHMC (formerly AFRIG). Finally, although much smaller than the Grande Côte deposit, the promising Niafourang project proposed by the private company Astron Corporation Limited in Lower Casamance. Combined with the GCO (operational since 2014), total production in 2022 has been estimated at 94,747 tons, against a target of 90,000 tons. To date, the objectives initially set as part of the PES have been largely exceeded, despite the delay in

² https://worldpopulationreview.com/country-rankings/titanium-production-by-country

³ Plan Emergent Senegal https://www.senegal-emergent.com/projetphare/acceleration-de-lexploitation-du-zircon/

the start-up of operations at the Niafourang mine (Ziguinchor region) due to a blockade by the peasant resistance (PSE, 2023). In 2023 ERAMET has already completed the exploitation of Heavy Minerals Sand in Diogo mine, part of the Grande Côte exploitation programme in Northern Senegal. Its operations relocated several villages, and it was planned to run until 2040. The ERAMET operation is running fast, and pressure is kept high on extraction until the sand of last the village of Loumpoul will be exploited, to keep Senegal's royalties forecast unchanged (around 11-15%). As the on-site processing of HMS requires the use of a lot of water, it has been taken from the oldest aquifer, the Maastrichtian. The impact of refining the water table on interdunal gardens in the Niayes area, known to be the most fertile in Senegal, is well known and documented (Ndioufa, N et al, 2019). It is highly likely that when the Grande Cote operation will terminate the authorizations granted by the Senegal government, the exploitation projects in Casamance will also be implemented, whatever it takes, to meet the growth forecasts for royalties.

3.3 The Gambia

The economy of The Gambia was not significantly influenced by mining. The only industrial minerals produced were clay, ilmenite, laterite, silica sand, and zircon. There was insufficient data available to produce accurate estimates of mineral output (U.S. Central Intelligence Agency, 2014; International Monetary Fund, 2016). The Department of State for Trade, Industry, and Employment is the government entity responsible for the administration of the mining sector. A new mineral and mining law was approved in 2005 by the Government⁴. The government has implemented measures that encourage foreign direct investment, such as the unrestricted repatriation of earnings and capital, special investment certificates, and constitutional protections against investment expropriation and nationalization. The HMS deposits are distributed in 9 known localities and is estimated to be over 50 million tons of prospective reserves. Carnegie Corporation Ltd. (PCL) of Australia (50%) in joint venture with Astron of China (50%) held an exclusive prospecting license for the Batukunku, the Kartung, and the Sanyang mineral sands deposits in Brufut. In 2005, the joint venture completed a second-round trial dredge program at the deposit. Following the completion of this dredge program and of an environmental impact assessment study completed in 2010, the company applied to convert its prospecting license to a mining lease. As of 2005, total measured, indicated, and inferred resources at the Batukunku, the Kartung, and the Sanyang deposits were estimated to be 18.8 million metric tons (Mt) that contained approximately one Mt of heavy minerals at a cutoff grade of 5,2%. The heavy-mineral assemblage for these deposits was estimated to be about 71% ilmenite, 15% zircon, 3% rutile, and 11% other (U.S. Central Intelligence Agency, 2014). In 2008, the Government seized the assets and revoked the mining licenses for the heavy-mineral-sand (ilmenite, rutile, and zircon) mines located near the towns of Batukunku and Sanyang. These mines were owned by Carnegie Minerals (Gambia) Ltd. The Government alleged that Carnegie Minerals had commercially exploited minerals outside of the mining license bringing Carnagie PLC to court (Astron Ltd., 2015, p. ii; International Centre for Settlement of Investment Disputes, 2015; Roskill Information Services, 2015; Sharp, 2015, EJ Atlas).

Since 2019 the listed companies with mining licenses and quarrying authorization are GACH Mining Co. Ltd: Heavy Mineral Concentrate (Heavy Mineral Sands) and Construction Sand; Unity Mining Co. Ltd: Construction Sand.

3.4 Guinea Bissau

The country's prospective mineral resources include bauxite, diamond, gold, heavy minerals, petroleum and phosphate rock. Exploration activities for bauxite and phosphate rock are ongoing since 2012 (USGS, 2015) by *Sociedade Mineira de Investimentos Bauxite Angola* (SMIBA), 70% owned by *Sociedade Nacional de Petróleos de Angola* (Sonangol) and *Banco Africano de Investimentos* of Angola. The remaining 30% interest in the project was held by private Angolan and Guinean investors (Bauxita Angola Sociedade Mineira e Investimentos S.A., 2011; Macauhub, 2012).

The company planned to build a 3-million-metric-ton-per-year (Mt/yr) bauxite mine in the Boe region about 280 kilometers (km) east of the capital city of Bissau, a Deepwater port in the city of Buba in the southwest, and a hydroelectric plant along the Corubal River.

⁴ Mines and Quarries Act, 2005

Accordingly, to the vision 2030 of Guinea Bissau strategic development plan (Terra Ranka, 2015) the mining sector will serve as the fourth growth engine of the country. The government presents the potential for mining as significant. However, it is written in the document that their rational exploitation will require the establishment of a legal framework that supports the negotiation of contracts for agreeing mutual benefit partnerships for the Bissau-Guinean people and safeguard the environment referring to the building of transportation and extraction infrastructure, and the development of the country's labor force.

4. Three peasant resistances.

4.1 Kartong-Sanyang, The Gambia

The problematic nature of sand mining in The Gambia stems from its past of resource exploitation carried out with impunity by the government during the formal dictatorship of former President Jammeh⁵ (1994-2016). In the middle of the 1990s, The Gambia decided to ban sand mining, to safeguard its coastlines. However, in June 2003, Carnegie PLC began exploring and economically exploiting the Gambian three sand mineral deposits, even though Gambia government's own geology department in collaboration with the National Environment Agency in a joint impact assessment of coastal sand mining identified the practice as one of the biggest threats for coastal communities (EJ Atlas). The mining sites are considered illegal after the departure of Carnegie PLC. As mentioned previously the permission given to Carnegie PLC (in collaboration with Astron Limited) was revoked in 2008 to maximize the benefit of Gambian enterprises involved in joint ventures or directly owned by Yahya Jammeh.

It could be recalled that mining activities at Sanyang and Batokunku at the beginning found a population not aware of the potential harms that the mines could cause to their agricultural and living habitat. The mining sites were far from villages, so it took time before people started to take consciousness of what was at stake. It took a while but then the mining activities became the major concern for many Gambians during the dictatorial regime. By the end of 2015, the villagers of Kartong organized a strong protest "No Sand Mining In Kartong" asking for the closing down of the illegal mines surrounding their village and they were violently repressed. At least 45 people were arrested and sued, amongst them young people and women ⁶.

By early 2016, Kartong mining site was closed by the National Environment Agency. In June 2018 there were murders at Faraba Banta⁷, 40 kilometers from Banjul. During a protest against mining operations, officers of the Gambia Police Force fired on protesters. Two persons were killed instantly, with a third dying two days later. Several other demonstrators and police officers were injured during the confrontation.

The resistance of Kartong was enduring as the community bonds are strong, land ownership is collective and local peasants have been in the constant contact with the dunes landscapes during the gardening activities and daily practice of subsistence in livestock systems near the area of exploration.

The forms of mobilization included actors at different levels involving national and international NGOs judicial activists that opened court cases. The strongest resistances were generated by peasant communities relying on their fields for subsistence, they were the ambassadors of a movement in Gambia to protect the dunes environment and their rice-field. The problem in the other sites was the reform of land tenure in The Gambia that has fragmented the propriety rights and left the families the choice of what to do with their land. In Gujur families leased their land tenure rights for money. When they started to realize the consequences of dredging on the dunes' ecosystems and on the ground water and rice fields, also other groups started to mobilize. Therefore, where the community exists with solid norms for land access grabs were not accepted. Where the grabbing took place, it left evidence on the landscapes that are visible also at from the cartography (fig.2, 3 and 4).

⁵ The Fatu network, <u>Gambia Government Issues License to GACH Mining Company to Export Black Sand</u>, 28, August, 2018

⁶ Kairo News, <u>Kartong in chaos dozens get arrested</u>, 23 november 2015

⁷ The Gambia's history of sand mining at https://ejatlas.org/conflict/Carnegie-zircon-mining-the-gambia.



Figure 1-3 The three coastal mining projects of Carnagie Minerals PLC in Kombo South: Sanyang, Gujur and Kartong. 1:250.000 Fig. 3 Sanyang coastline and the ores visible at 1:24000 scale.



Figure 2 Gunjur's ores are visible also at scale 1:24000.

In 2018 the Gambia Angola China (GACH) Mining Company was granted a mining license by the Gambian government to mine Heavy Mineral Sand in Sanyang village, Kombo South. There are rumors that GACH also mines black sand covertly in the neighboring villages of Kitty and Batokunku. The company has a turbulent history since, despite tough gun laws, it also imports firearms into the nation with assistance from the police force. Without the permission of the local community, GACH's mining projects invaded and occasionally damaged subsistence gardens and rice farms, which primarily affects women whose families frequently depend only on this subsistence agriculture. Several women rice farmers at Sanyang Kayanko have accused GACH of destroying their rice farms following saltwater intrusion and the demolition of fences due to mining operations. Hundreds of women who have been working in gardens for more than 20 years are at risk due to mining. The loss of forest cover altered water levels, intrusion of seawater, and other environmental effects are caused by mining activities. At the end of 2020 a local newspaper, *The Point*, made evidence that the mining company demolitions of fences changed land tenure rights9. The Brikama Area Council (BAC) continues to deny that any mining is taking place on their land or that they were ever granted a mining license in the first place, despite the women's vocal opposition to the mining and the support of neighborhood groups like Kitty One Organization for Poverty Alleviation (KOOPA). Women from Sanyang filed complaints with the Village Development Committee (VDC) in November 2020, alleging that GACH had damaged their fields and demanded monetary reparations.

The local resistance in Kartong and Sanyang was transnational, several groups were mobilizing such as Sandele Foundation one of the local NGOs, neighbors, citizens and communities, woman gardeners and peasants.

⁸ The voice gambia, <u>Kitty women gardeners threaten by GACH mining</u>, 11 September 2017 /

⁹ The point, Yusupha Yobe, Sanyang women rice farmers demand compensation from GACH 1 December 2020



Figure 3 Kartong aftermath of mining operations on the left gardens affected by salt intrusion on the right dunes' ecosystem disruption @courtesy Sandele Foundation.

In 2021 the collaboration of Sandele Foundation and People's Coast as launched a restoration camp¹⁰ project that will be working with 9 villages, including Sanyang, Sambouya, Gunjur and Kartong, with an initiative that will span 30 kilometers along the Atlantic Coast. These villages have been severely affected by the aftermath of intensive sand mining in the region, which has led to extreme land degradation and opened the land to frequent water inundations due to the lack of environmental protection that healthy ecosystems provide. This has created ongoing hardships for the local communities, making living off the land nearly impossible. Camp People's Coast has courageously taken on the initiative of large-scale land restoration and replanting of thousands of trees that are being grown in local village nurseries.

4.2 Nianfrang- Abéné, Casamance Senegal

Announced as imminent, the start-up of the extraction of metal-bearing heavy sands mining in southern Senegal is raising both hopes and concerns, reflecting the major scrambles of the African continent, where the race for raw materials and their expected royalties raises environmental and social questions, ultimately leading to political choices.

The Lower Casamance gives the impression of a naturally rich region because it receives more water, and it is penetrated by the sea. But that's precisely where the danger lies: this fragile environment is threatened on two fronts: by climate change (rising temperatures) and its consequences (coastal erosion, flooding, salinization-acidification of soil and water, loss of plant biodiversity, etc.); and, by human activity: deforestation, over-exploitation of fish stocks and, perhaps in the future, mining. The risks associated with mining must be assessed against the prospect of rising sea levels because of global warming. Along the West African coast, the consequences of sea level rise have already been felt. The penetration of the salt tongue is leading to salinization and acidification of the water and soil throughout the area, facilitated by the shallowness of the water table.

A more worrying consequence is the acceleration of marine erosion since the early 2000s: the beach is disappearing, and the coastal dune is retreating. The mangrove swamp and inland dune are under threat. The mangrove will undoubtedly be able to resist for a while, mitigating the erosion of the large dune, but it won't be able to prevent it.

¹⁰ People coast The Gambia> https://www.ecosystemrestorationcommunities.org/community/peoples-coast-gambia/



Figure 4 See level rise and sea storm already affecting dunes ecosystems in Niafrang. Picture 2020 @courtesy Lamine Sadio

HMS extraction causes significant and widespread ecological degradation locally, with detrimental effects on ecosystems and affected populations. Additionally, a substantial quantity of resources is exported from extraction sites. Destruction of the dune threatens all the amphibious area behind the dune, mangroves and ricefields, as well as fisheries (in mangrove, rivers and the ocean) and touristic areas and activities; littoral must be protected against coastal erosion, when mining will make dunes more vulnerable to erosion factors.

Located at the mouth of a *bolong* (branch of the Casamance river delta), the Niafourang-Abéné sites chosen for the operations show many fragilities. The multinational corporation wants to exploit the dune which is the villages' natural defence. A fossil dune 6 kilometres long and 200 metres wide on average, just a short distance from the shore, from which it is separated by a first line of small dunes, then by a mangrove swamp 200 to 300 metres wide, on either side of the mouth of the Allahein (formerly San Pedro) river, the border with Gambia (Descroix, Marut, 2015).

The mangrove is a very rich ecosystem - one of the richest in the world in terms of biodiversity - and economically very productive: it provides enormous SES (social ecosystem services) to the inhabitants. But it is threatened by rising sea levels. These waters are rich in fish, attracting large numbers of fishermen. There are suspicions of water pollution from operations near the Sanyang site in Gambia. But it is the future of the dune that is most worrying: it is being destroyed by coastal erosion resulting from rising sea levels. This erosion has been accelerating since the early 2000s (a camp was destroyed in August 2015) (Descroix-Marut, 2015). And beyond the dune, what is at stake is what it protects the villages and rice fields.



Figure 5 Elaborated by the author based on the EIES Niafourang completed by Harmony srl 2010 for Carnagie Minerals PLC. Fig, 5, Perspective mine de Abéné, source EIES Abéné done by Pyramide Environnemental Consultants for G-SAND, November 2023.

The ore deposits of the Niafourang dune are estimated at 4.9 million mineralized sands of zircon and titanium (ilmenite). The exploration license was first awarded in 2004 to the Australian group Carnegie, known by the inhabitants of Niafourang for the adverse consequences of the Sanyang zircon mine that the company operated in the Gambia. As previously mentioned Carnagie was accused by the Gambian government of exporting more zircon than the operating license allowed, and the dispute was brought in front of international justice. This case had the effect of urging Carnegie to exploit the dune of Niafourang. In 2008 it was absorbed by the company Astron Limited to start operations in 2009, but to date, in January 2024, the project remains in the exploration phase.

Since 2004, the International Committee against the exploitation of Zircon in Casamance has been fighting with protests, debates, and international petitions preventing the Astron Limited project to begun.

The Committee was founded by Ousmane Sané in 2004. It has been including different stakeholder: local and international NGOs, local municipalities and political parties, farmers and peasants, neighbors, citizens, and communities as well as a scientific committee. The committee coordinated multiple actions: petitions, demonstrations, ESIA counter-assessment to name a few. It has employing multiple forms of mobilization in its pacific action: artistic and creative actions (e.g. guerilla theatre, murals, music, poetry), collective actions in network, involvement of international platforms like Advocate Community Alternative¹¹ and Natural Justice¹². It has produced articles both in the alternative media and local newspaper as well as scientific literature (Descroix & Marut, 2015). It has sent compliance letters and gathered firms with petitions. Cyclically it has organized street protest/marches.

The proposed mining operations threaten the community in at least two ways. First, the zircon would be extracted from the protective sand dune that extends along the outer edge of the village and prevents the

¹¹ ACA: https://advocatesforalternatives.org/cases/senegal/

¹² Natural Justice, lawyer for the community and the environment https://naturaljustice.org/

seawater from flooding the rice paddies. The area behind the dune has 25,000 inhabitants in around 40 villages, their allotments and rice fields. Astron has done little to reassure the community that its activities will not destabilize the dune, allowing saltwater intrusion that would destroy the fresh water supply and the residents' traditional lifestyle.

Secondly, the *Mouvement des Forces Démocratiques de Casamance* (MFDC)¹³, a secessionist guerrilla armed group active since the annexation of Casamance in occasion of the Independence of Senegal, has declared its opposition to the project recalling it "a pillage of Casamance's natural resources" (Foucher, 2018; Marut, 2010). The MFDC has threatened that any move to start the extraction of zircon at Niafourang site would lead to a new outbreak of violence. While the company could expect to be protected by the Senegalese government, it is the villagers who would be caught in the crossfire. During surveys carried out on site, by a team of investigators and students of Université Assane Seck de Ziguinchor (UASZ, depts of geography and agroforestry) in August 2015, it was almost impossible to find anyone in favour of the project probably for fear of getting into trouble with the committee, or even with the rebellion (Descroix & Marut, 2015).

In 2022 the mining license was renewed to Astron Limited and Niafourang's conflict flamed up again. At the end of 2023 the Ministry of Ecological Transition has redrawn the permit to Astron for not having exploited the mine¹⁴. On the other hand, the government urged the investors to get a strong consent in the territories before starting new projects. The company has tried to change the attitude of the locals by committing to implement local development projects, intimidating the residents of Niafourang (e.g., by visiting the extraction site accompanied by numerous security force personnel), falsifying the results of public consultations, and even sponsoring the extremely popular local football team, Casasport. But all these efforts have been in vain; the village of Niafourang remains completely opposed to the extraction project.

The new strategy of the government to win over the unite movement of several peasant resistances in the villages along the Lower Casamance coast is to divide the large concession in smaller operational mining authorizations, thus fragment the strength of the committee to divide communities. Results of this strategy were already seen in Abéné in February 2024, where G-Sand a Gambia-based company has started to clear trees for developing the road to the mine (infrastructure) under the blessing of the Imam and the Mayor¹⁵, that celebrated the operation with the company officials offering of a beef to locals. A small group of notables and religious people, mostly men have publicly demonstrated their consent to the mine and pretend to represent the entire community. However, more developments to date on this ongoing conflict are impossible to predict.

Counter environmental impact assessment.

The *Etude d'Impact Environnemental et Social* (EIES), provided by Astron Limited-Carnegie PLC is contested by the inhabitants. The EIES after listing several impacts on social ecosystems concluded that there would be no harm to the environment sustaining the positive impact of creating new jobs opportunities for local people. The report says that: "the dune would only be stripped to a depth of 5 m (down to the impermeable layer), and the ore would be recovered by purely mechanical means (washing and gravitational sorting to separate it from the sand). Water would be pumped from the water table and discharged as pure as it was at the start. The only accounted impact is for the Carbon emissions would be the fuel used for the machines. Harvesting and reclamation would go hand in hand: the dune would be reconstituted as harvesting progressed (reprofiling) and a vegetation cover would be put in place (revegetation), reinforcing its resistance to erosion" (Carnagie Ltd/ Harmony Suarl, 2010). The EIES non-technical report states that: "to avoid disturbing a fragile environment (the mangrove), only the eastern part of the dune would be mined, leaving a buffer zone on its seafront. As for the local population, not only they would have nothing to lose, but they would also have everything to gain from the project. For local users, compensation measures (indemnities, reconstruction, etc.) that the project promise will be provided" (Carnagie Ltd/ Harmony Suarl, 2010).

¹³ The MFDC first declared its demand for independence on December 26, 1982. This demand set off the bloodiest conflict that has lasted the longest in Africa to date. Following the first secessionist phase of the 1960s, the MFDC may thus claim to have led Africa's second "secessionist moment" in the 1980s (Foucher, 2018; Marut, 2010).

¹⁴ Le Courrier, Ferray, Baptiste, 23 November 2023, Géant minier défait, p.3.

¹⁵ Local informant in Abéné, News received on 28 February 2023.

Instead, to keep it operational and cost effective the Niafourang mine requires the extraction and export of an estimated total of 3.424.000 tons of raw minerals sifted in 6 years ¹⁶. The operating method planned is mainly the so-called dredging with an estimated water usage of 50 ml/ha to 70 ml/h (EIES,2010). The associations and the communities emphasize that this zone is unsuitable for such an activity, since the extraction requires to catch water down to 13 or 14 meters of depth whereas in Niafourang the ground water is located at 4 meters of depth. The villagers worry that water would be instantly polluted and that the rice field will be salinized by the intrusion of marine water.

The project according to the official discourse of the state and the company has a recovery plan that consist in the creation of 180 to 200 jobs during the construction period, but also funding for local communities to build infrastructure and create new resources (development of fruit production and marketing, processing unit project, etc.). Concretely, around thirty temporary employment positions can be expected for 3 years and half: guards and unqualified jobs. On the other hand, hundreds of thousands of subsistence practices will disappear with the destruction of social ecosystem services and agroecology practices: production of fruits, orchards, rise production, oyster, and shrimps farming in the mangrove ecosystem together with other activities like fishing and tourism will be heavily impacted by the mining activities.

The citizens of Niafourang have rejected the project and the impact assessment and were engaged in a counter evaluation together with Advocates for Community Alternatives (ACA) and Natural Justice, taking legal actions against Astron¹⁷.

The coastal ecosystem that extends south from the Saloum is unique in Senegal: it is both very rich in terms of biodiversity (flora and fauna) and very fragile (in stark contrast to the semi-arid environment of the Grande Côte, where the mine site is also far from the shore). This ecosystem is already threatened by the consequences of global warming (rising sea levels, an upsurge in violent storms, ignored by the ESIA, etc.). Mining would only exacerbate these existing risks and create new ones:

- Weakening of the dune through excavation (even partial excavation), aggravating the risk of submergence of the area it protects thousands of hectares of crops (rice paddies palm groves, orchards) and around thirty villages where thousands of people live.
- Aggravated threats to the water table, on which people and crops depend quality (increased salinization, pollution) and quantity (disruption of underground circulation).
- Threats to biodiversity resulting from interactions between the ocean, *bolons*, mangroves and dunes. This fragile ecosystem is the same all along the coast. Abéné, is a marine protected area (MPA) and the mining is forbitten.

Local community elaborated an alternative plan for their territory. The *Appel a la dune project*¹⁸ was developed with the residents (public meeting on 6 December 2017) based on known examples of development in sensitive areas. The principles that have been tried and tested are simple: rather than letting investors deplete natural resources in the hope of spin-offs (jobs, roads, buildings), it is more profitable for the inhabitants to make the most of existing resources by organizing themselves in autonomy for greater good.

4.3 Varela-Nhimquin, Guinea Bissau

In Guinea Bissau, the mineral richness is even greater than Senegal, but the resistance of the local population is strong as much as in Lower Casamance territories. In 2014, the women group of Varela surrounding villages have forced the closure of the Varela-Nhiquin mine¹⁹.

In 2008, the Guinean authorities approved the Chinese company West African Union to carry out a nationwide prospecting study, leaving out the Varela area, which at the time was awarded to another Russian company²⁰.

¹⁷ Legal papers can be found on the ACA website: https://advocatesforalternatives.org/cases/senegal/

¹⁶ Harmony Suarl, EIES Juin, 2010

¹⁸ Complete text can be accessed here: https://advocatesforalternatives.org/wp-content/uploads/2020/11/Appel-de-la-Dune-2018.pdf

¹⁹ Communication of Intellectuals Balante, 9 Februay 2015 https://www.odemocratagb.com/?p=3589

²⁰ DW, Areias pesadas preocupam aldeia guineense de Nhiquim Tchumá Camará (Bissau)29/05/201429 de maio de 2014

According to the Directorate General for Geology and Mining of Guinea Bissau, the Chinese company West African Union, even without carrying out feasibility studies on the socio-economic and environmental impacts, began exploration and exported 10 containers of HMSs to China, the equivalent of 260 tons²¹. This led to the arrest of senior officials of the Ministry of Natural Resources in 2012 by the Public Prosecutor's Office. In 2010, the government granted a lease license to the Russian company PÔTO SARL to carry out additional prospecting. According to a resident of the village of Nhiquim, this prospecting activity began to have negative impacts due to the salinization of the water in the village. "We're short of water. Since the exploration began, the water we drink has become salty. We must walk three kilometers in search of water," he says²². The PÔTO SARL company has only complied with six of the 14 recommendations made by the Environmental Impact Support Cell (CAIA), which served as conditions for the start of exploration.



Figure 6 Maps elaborated by the authors, 2024

²¹ DW, 2014

²² DW, 2014



Figure 7 based on EIES available studies presented by the third-party company, Gestplan consulting multiservice, sarl, August 2023

The village of Nhiquim Sector of São Domingos, Cacheu Region, is considered an important heavy sand deposit and has a limited area of 350 hectares ready for exploitation. However, the Guinean government declared to have posed obligations to investors: the quality of the living of the inhabitants must be improved in return for exploiting the deposits. Nhiquim is a village that is completely isolated due to the poor road conditions. The peasants complain of difficulties in transporting agricultural products. The absence of state institutions is visible: there is no drinking water, there is a lack of teachers in schools, there is a lack of health technicians for first aid and the people are living constantly under threat of an evacuation since the discovery of the HMS deposit.

Despite its non-compliance, the Russian company in 2010 had already received a declaration of environmental compliance from the transitional government's Secretary of State for the Environment. As reported in the local newspaper, Sons and Friends of Varela, declared that the revenues from the exploitation do not go towards improving the living conditions of the population and also cause damage to agriculture²³.

In addition to the lack of infrastructure, the population also criticized the fact that the exploitation of heavy mineral sands was disrupting ancestral practices in the area. The representative of Varela in 2014, protested on the same journal about the fact that the area of exploitation itself is a sacred place and accordingly to the local beliefs, this can lead to the death of the entire village.

As part of the community development programme, the Russian company PÔTO SARL promised to spend 40 million cfa francs, around 100,000 dollars, on the people²⁴. Finally in 2014, they left the country due to mysterious circumstances that the local community account as the effects of the "magi" a cruse ceremony made by the indigenous women groups. The story says that a circle of women has carried out a ritual and after three days an electrical blackout forced the project of the Russian company to a halt.

²³ DW, 2014

²⁴ DW, 2014

After almost ten years precisely in 2023 a new subject intervened in the area: GMG International (fzc), a local firm whose executive manager is a relative of the Guinean Ministry of the Environment²⁵. GMG International has international ties with Saudi Arabia, Australia and China. This new subject tried to find an agreement with the previous Russian company which had an exclusive concession to exploit the HMS deposits of the coast from Sunjaque to Varela and beyond, but the deal wasn't made²⁶. They started to deal directly with the state of Guinea Bissau asking to issue a new authorization based on a contextual study of Environmental and Social Impact of the project, presented in August 2023. The study reported preliminary local audition with the local communities. Communities didn't give their prior and informed consent, but they found themselves included in a report that attested the viability of the project. Indeed, one of the community leader's speeches reported in the report attracted a lot of attention when he started by emphasizing the government's inattention to them. The local person found it impertinent to consider this project in the locality they have occupied for decades without even prior notice. He also said that even if the company holds an authorization to exploit this mine, the population of Varela should be informed of the agreements that have been signed between the company and the Guinean government. King Lamine Diatta, decided never to accept this project. (Resumen nao tecnico, p.28). Then, he gathered the elders of the village, the young leaders, to hold a meeting to make the right decision for the future of his land. This meeting was reported in the EIA preliminary report submitted by GMG International in April 2023.

The Company GMG International (FZC) SA, before writing the report, signed a contract called "Lease Agreement of Land Use Rights for the Exploitation of heavy sands in the Village of Nhiquim, Sector of São Domingos, Cacheu Region" with the Government of Guinea-Bissau through the Ministry of Natural Resources, effective from May 22, 2023, valid until June 28, 2028. The permission to exploit the coast was given before the presentation of the last version of the Environmental and Social Impact Assessment, in August 2023. This practice is common in all the three studies provide authorization of exploitation before learning the impacts assessment of activities and whatever the results of the assessments are attesting or even without the Free, Prior, Informed Consent. In January 2024, the investor GMG International (fzc) demanded the eviction of the population of Nhiquim village, which was already a victim of the Russian operator dismissed at his request in 2014.

In the final consideration of the definitive ESIA study for Varela-Nhiquim there is written that the analysis as summary of the impacts' evaluation: "In terms of the surrounding environment (fauna, flora, and ecological heritage), the mine does not significantly alter anything because it is not expected to cause any local or regional climate change.[...] Extractive activities, when combined with the recommendations made in the Environmental and Landscape Recovery Plan for the intervened area, aims to rehabilitate it and restore its natural characteristics to the physical environment."[...] They also said that any cultural built elements was mapped or any buildings of historical significance, or other heritage elements of a natural or geological type. Thus, the exploitation of HMS of "Nhiquim parcela:12", reveals itself as an activity capable of generating jobs and wealth at the local level, and capable of maintaining the economic power of families, extremely important conditions for the populations and for the development of local economic activities. The impacts resulting from extractive activity on the socio-economic environment may be classified as positive and very significant." In this way the environmental and social impact assessment justify the project based on its positive impacts on the local development.

This kind of formal assessment made just to be compliant with procedures are the crucial tools that could empower communities, map the ecosystem services of the territories with social groups that are sustaining themselves with economic activities related to fishing (oysters, shrimps and others small scall artisanal fishing techniques) in the mangroves ecosystems or are impacted on their religious practices and social norms which have sacralized the dunes-mangroves-rice-fields ecosystem preserving them in a metastable equilibrium until nowadays. On the contrary ESIA are malfunctioning tools due to the collusion of third-party technicians with clients.

Guinea-Bissau's environmental authorities are informed; depending on their reaction, or lack thereof, we will know whether they are at the origin of this new obvious monopolization or whether, as in Casamance, they have been partially circumvented thanks to the corruption of the local elite and a few well-placed officials. Nhiquim is just a small piece of a constellation of mines that are threatening the indigenous people living in the Varela area and beyond. The voices desires and aspirations of the local populations and indigenous people are heterogeneous, but united against the mining project. On the third of February 2024 a mobilization was

²⁵ Key informant revelation January 2024, 19 January 2024

²⁶ Interview with a local key informant, 19 January 2024

organized by the female groups protecting the social ecosystems, the local community and indigenous people are overlapping in this case, just a few young male individuals are interested in the kind of jobs that the mining operators are offering. From the interview carried out with member of the spontaneous social movement we have learnt that the epistemic and ontological conflict is verified also in Varela-Nhiquim ²⁷. The rice fields are sacred spaces for the indigenous group and their social ecosystem function in symbiosis with mangroves as water table main regulator. Therefore, the mining project in this land is incompatible, as we didn't find consent among the local inhabitants towards the project.

Conclusions

Here, as elsewhere, the choice seems between extraction of resources that could benefit a few versus the protection of unique social ecosystems, providing land for agroecological practices for subsistence of ten thousand peasants. What is found is that countries rich in minerals have fallen behind infrastructures' development in so many areas: electrification, drinking water, roads, etc. The new land deals so far didn't improve quality of living and benefits for local population are not evident. The partnerships signed by national and international institutions based on raw materials extraction create inequalities and injustice in the repartition of the socio-ecological impacts and there are no strategies for avoiding those impacts, indeed extraction is done whatever it takes. The tools designed to inform and consult to verify the consent of the inhabitants are instrumentalized and disempowered. Official discourses on sustainable development appear as rhetoric of circumstances as the involvement of local people in public life. The indigenous people misrepresented by the state's authorities are untied from the objectives of international aid projects and programmes and kept at the margins of the beneficial mutual exchanges based on grabbing of natural resources whose they are the custodians.

Comparing these experiences is clear that the desires of people engaged in the struggle against the coastal grabbing, especially women organization, local peasant communities' members is to honor the norms of ancestors protecting their value systems (Manzini, 2021; Linares, 1985). The cosmology of Diola foresees a strong relationship human more-than-human materialized in the water rice-field, mangroves and dunes ecosystems which are considered sacred elements protected by cultural and social norms.

Counternarratives of alternative forms of land tenures and agrarian livelihood tell the existence of solid norms of access to land generated by contemporary ancestral value systems. First and foremost norm is: the land cannot be sold to any outside investors. The second is that the mangroves-rice-fields-dune ecosystem are sacred.

Epistemic conflicts have been taking place at different intensity along the history of political dynamics between groups in the three territories leaving visible signs on landscapes and bodies of how institutional violence took place, grabbed resources, murdered people, and repressed dissent.

Given that the three areas have their own unique temporalities and dynamics of agrarian change, it is necessary to understand the resilience of households as units of production and reproduction in those contexts. Mining is a sector that attracts mostly young male especially during the dry season. Therefore, mining activities have an impact on the households and the sex division of labor, and these aspects deserve further studies.

The strongest resistances to the mining operations were found where alliances between local communities, indigenous people and transnational organizations were based on compatible value systems. Consciousness about the existence of epistemic conflicts among the different groups leverages peasant values to make a difference in global sustainability discourses.

The study of peasant resistances suggests that an integrated transnational monitoring supported by a scientific community of reference is needed to systemically alert people on potential risks of climate change, environmental hazards, and mining operations. One of the most effective tools available to local communities and the indigenous people to defend themselves is the Free, Prior, Informed Consent (FPIC). The study proposes the progressive institutionalization of a diffuse Transnational Observatory on Coastal Land Grabbing and Climate Hazards in West Africa as a supportive platform for local communities and indigenous people to be freely informed and consulted before suffering multiple impacts in their coastal livelihood systems. The FPIC should be empowered by accredited members of the Transnational

²⁷ NÔ KA MISTI! Let's avoid the destructive mining of the Varela coastline https://chng.it/T55xYHzNxg

Observatory. The evidence of malfunctioning of Environmental and Social Impact Assessment ESIA in the three case studies bring to the proposal of a double stage review process for its validation in first place by members of local civil society, scientific community and in second place by international organizations that defend nature' rights by constitution together with the technical environmental protection agencies of the member states.

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LDPI Working Paper Series 2024

More than a decade ago, the Land Deals Politics Initiative (LDPI) was launched as a loose network of scholars and activists concerned about the rise of land, water and green grabs across the world and the consequences for rural livelihoods and agrarian relations. A massive wave of investment in land, resulting in expropriation and displacement had emerged following the financial, food and energy crises of 2008-09. We wanted to understand what was going on and how best to respond. Between 2009–2019, LDPI organised a series of events to analyse the social, economic, political and environmental dynamics of large-scale land deals and their implications for policy and social movements. LDPI funded significant research and contributed to a considerable body of published scholarly research on land deals, all of which shaped policy discussions and informed numerous initiatives such as the FAO's Tenure Guidelines. The global debate around land deals has diminished in the last several years, but important research and political questions remain. What happened to the thousands of land grabs documented by researchers, non-governmental organisations, activist groups, news media, and aid agencies? What new configurations of land, labour and capital have emerged since? How has the rise of authoritarian, state-led populism and politics re-shaped the tensions between 'foreignisation' and extraction?

The 2024 Global Land Grabbing Conference addresses urgent challenges related to land, water, and natural resource grabbing. It provides a space for exchange and action that brings together diverse perspectives, including academics, social movements, and government entities. This event is organized by the Land Deals Politics Initiative (LDPI) to study and confront landgrabbing. The selection of Bogotá as the venue for 2024 stems from the significance of land debates on the Colombian public agenda.

For more information about the 2024 Global Land Grabbing Conference, see the conference website: https://cisocial.es/land-grabbing-2024

Peasant resistances value for global sustainability: three failed coastal grabs of metal mining projects in West Africa

Alessandra Manzini, Lamine Sadio, Luc Descroix

Since 2003 Senegambia and Guinea Bissau coastal areas have been the arena of 750 km square coastal grabs by outside interests in collusion with local governments. The mining of coastal Heavy Mineral Sand deposits, rich in zircon and titanium ores (ilmenite, rutile) began in 2003 in the Gambia, 2008 in Guinea Bissau and 2014 in Northern Senegal. The research analyses the power dynamics of land grabbing related to mining extractions, their rhythms, and attitudes towards peasant communities. An initial effort is aimed at delineating the plots of power in the three political contexts at the regime scale. It focuses on three articulated peasant resistances that have been forcing the mining projects to fail: Kartung-Sanyang (The Gambia) Varela-Nhiquim (Guinea Bissau) and Niafourang-Abené (Senegal). These peasant communities refuse the development model behind the mining projects for their territories, deploying endogenous mechanisms to stop land grabbing. The research interrogates future, desires, needs and value systems of these peasant resistances. It addresses failures to assess sustainability in the 'evaluative statements' of the so-called 'third evaluators' with a high degree of 'technical discretion'. The ecological counter assessments bring evidence of the vulnerabilities and risks due to climate change starting from the counterfactual scenarios for the three case studies, comparing them with the impacts that these coastal grabs have or potentially could have on the ecosystem services that are protecting communities from climate hazards. Concluding remarks debate on the value of peasant resistances for global sustainability. Finally, the study proposes an integrated monitoring system to alert communities on potential risks of mining operations that could support the institutionalisation process of a Transnational Observatory on Coastal Land Grabbing in West Africa.