

Catholic Approaches to Mining: Cases of Impact

Informal Gold Mining in Madre de Dios, Vicariate of Puerto Maldonado, Peru

Madre de Dios, Peruvian Amazon

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Summary

The population of Madre de Dios more than doubled between 2000 and 2026. The arrival of large numbers of gold miners have reshaped the social, political and ecological landscape of the region in unprecedented ways. These rapid changes have created several governance challenges for which neither state nor market have provided solutions. Drawing from decades of pastoral experience in the region, the Social Pastorate of the Vicariate of Puerto Maldonado has taken the role of a governance actor and filled some of the institutional gaps produced by public under-investment in the region. This case study highlights three aspects of its work: organizational support for the mining formalization process, with a focus on women artisanal miners; technical assistance in collaboration with the scientific community to introduce “responsible” mining practices such as mercury-free shake tables and reforestation; and entrepreneurial support for alternative forest-based livelihoods. The case illustrates how the Catholic Church in Madre de Dios acts as a central node in a multi-actor ecosystem that spans scientific, economic, and agricultural dimensions to promote integral ecology in the face of ecological devastation and violence. The case challenges a conflict-oriented framework that has so far characterized accounts of the Catholic Church’s involvement in mining in Latin America.

1. Background

This case study analyses the actions of the Peruvian Catholic Church to respond to the social and ecological consequences of informal gold mining in the Peruvian Amazon, in the southeastern province of Madre de Dios. Since 2000, demand for gold has increased significantly globally, and so has its price, rising more than fifteenfold from around US\$280 per ounce in 2000 to more than US\$4,000 per ounce by 2025 (Hartigan, 2025; World Gold Council, n.d.). In Peru, this rising demand has coincided with two distinct shifts in the rules governing the mining sector. First, the investment framework introduced under Alberto Fujimori in the 1990s—which placed foreign and domestic investors on equal footing and removed most barriers to foreign direct investment in mining—has remained largely intact, sustaining steady capital inflows into previously untapped areas. Second, the Canon Minero Law (2001) and the Regional Governments Law (2002) transferred a significant share of mining tax revenue and regulatory authority to regional and local governments, reshaping how the costs and benefits of extraction are distributed across the territory. Together, these shifts have had significant impacts on regions like Madre de Dios.

In Madre de Dios, the population more than doubled between 2000 and 2026, reaching more than 200,000 people today. This growth has led to the rapid urbanization of the province’s capital city, Puerto Maldonado. The arrival of large numbers of gold miners and the economic activities facilitated by the Interoceanic Highway,¹ have reshaped the social, political, and ecological landscape of the region in unprecedented ways. These rapid changes have created several governance challenges for which neither the state nor the market has provided solutions. The Catholic Church, through its Social Pastorate of the Vicariate of Puerto Maldonado, has not only provided humanitarian assistance to affected indigenous communities but has also taken the role of a governance actor to promote integral ecology and fill some of the institutional gaps produced by public under-investment in the region.

¹ The Highway, completed in 2011, connects the Peruvian Amazon with ports on the Atlantic and Pacific Oceans. It has expanded agriculture, illegal logging and gold mining in the region, and produced large-scale deforestation and water contamination (Goldstein, 2022; Klarenberg et al., 2018).

Drawing from field research in Madre de Dios between 2024 and 2025,² this case study highlights three aspects of the Vicariate's response to the challenges of illegal gold mining: organizational support for the mining formalization process, with a focus on women artisanal miners; technical assistance in collaboration with the scientific community to introduce “responsible” mining practices such as mercury-free shake tables and reforestation; and entrepreneurial support for alternative forest-based livelihoods through the Social Pastorate's COOPSSUR cooperative. The case illustrates how the Catholic Church in Madre de Dios is at the cutting edge of environmental governance, drawing from decades of pastoral experience in the region and from theological tenets in *Laudato Si'*, which strengthened its social and ecological work already taking place. It acts as a central node in a multi-actor ecosystem that spans scientific, economic, and agricultural dimensions to promote integral ecology in the face of ecological devastation and violence. Before describing the situation of gold mining in Madre de Dios and analyzing Church responses, I briefly provide some background on the Catholic Church in Peru, especially the influence of liberation theology and *Laudato Si'*, and the general context of mining in the country.



Like the Church in Brazil (see the case study on the Belo Sun gold mine in the diocese of Xingu), the Peruvian Catholic Church interpreted the Second Vatican Council through the realities of poverty and inequality. A large segment of the Peruvian Church embraced the emerging movement of liberation theology, fostering base ecclesial communities and applying the “see-judge-act” methodology of social action (Mainwaring and Wilde, 1989). Much of this momentum flowed from the work of Gustavo Gutiérrez, whose 1968 lecture “Hacia una teología de la liberación”—delivered just weeks before the landmark Medellín conference of CELAM and later expanded into his 1971 book *A Theology of Liberation*—gave the movement both its name and its foundational text. That same year, the global Synod of Bishops convened in Rome, producing *Justice in the World*, a document substantially shaped by bishops from poorer regions and noted for declaring “action on behalf of justice and participation in the transformation of the world” to be a “constitutive dimension of the preaching of the Gospel” (Helgen 2020, p. 202; Synod of Bishops, 1971). Peruvian bishops contributed actively to this current within global Catholicism, advocating for critical pedagogy in education, greater lay participation in parish administration, and human rights protections.

On the ground, Catholic activism in Peru was mobilized through channels such as the Institute for Rural Education (Instituto para la Educación Rural, IER), established in 1961 to provide technical training to agricultural communities. During the left-wing military regime of General Juan Velasco Alvarado (1968–1975), the IER, which operated from the Church's organizational structures at the local level throughout the country, became a conduit for land reform programs through education initiatives and the formation of unions and *campesino* associations. While land reform would not continue under the dictatorship of General Francisco Morales-Bermúdez (1975–1980), the IER continues to operate today, serving the needs of the most marginalized citizens in Peru.

Under the Morales-Bermúdez regime and during the democratic transition era, the Church's role in local community development shifted away from economic support toward human rights advocacy. Church leaders were largely unified in condemning state violence under the repressive military regime, and continued to do

²This case study draws on the author's doctoral research project, *Conflict Settlements and Extractive Governance in Colombia and Peru*, at the University of Notre Dame.

so during the political violence of the 1980s and 1990s, when state forces confronted the guerrilla insurgent groups, notably *Sendero Luminoso* and *Movimiento Revolucionario Túpac Amaru*. Parishioners organized para-ecclesial human rights associations such as the Association Pro-Human Rights (APRODEH) and the Legal Defence Institute (IDL), both established in 1983, and the Association for the Families of Victims of Terrorism (AFAVIT) in 1992 (Zegarra, 2023, pp.22–23).

During this period, however, the Church's social action began to face external and internal resistance over how to respond to new social and economic challenges, especially around mining. At the time of the Second Vatican Council and its aftermath, between 1950 and 1975, the mining sector contributed a relatively modest share (around 11%) to national gross domestic product (GDP) compared to previous and subsequent periods. This trend changed sharply with the introduction of early neoliberal reforms under the Morales-Bermúdez dictatorship and through the democratic transition period, when the sector's share rose to around 17%, remaining at slightly higher levels (around 13%) consistently since 1990 (Banco Central de Reserva del Perú, various years).

The 1978 election of Pope John Paul II marked the beginning of a new phase in the Catholic Church globally and in Peru. Hailing from Poland under the Soviet Bloc, the new Pope was skeptical of the Marxist elements of liberation theology, including the structural analysis of class conflict. In Peru, he appointed several bishops who would be deeply opposed to liberation theology's tenets that action for justice is an essential part of the Church's mission, such as Opus Dei priest Juan Luis Cipriani Thorne in Ayacucho, who would later become the Archbishop of Lima between 1999 and 2019. This position regarding the Church's mission coincided with record hyperinflation, civil war, and government corruption, each creating legitimization crises for the political projects of Fernando Belaúnde (1980–1985) and Alan García (1985–1990). These circumstances led to a fundamental questioning of the Church's role in the economic and social life of the country, and there was internal division between those advocating for action for social justice and those who saw the role of the Church as purely sacramental and humanitarian, assisting those in need without questioning the structures that keep people in poverty.

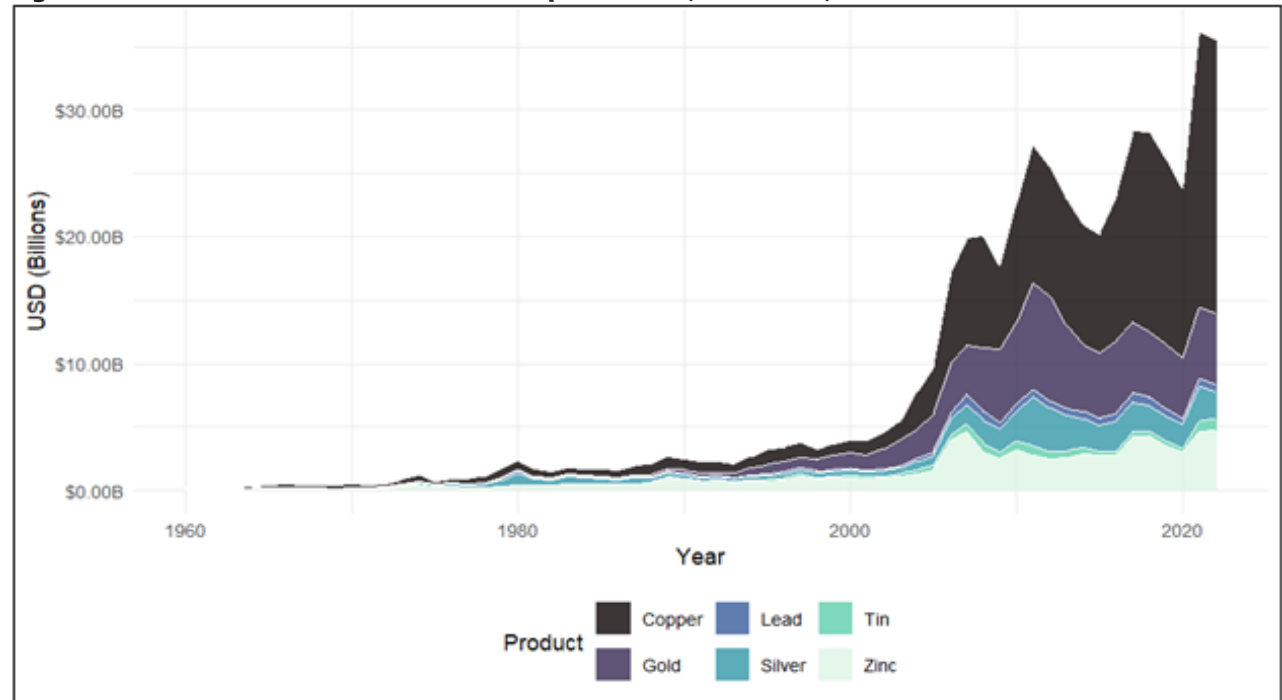
Alberto Fujimori (1990–2000) further transformed Peru's political and economic structure, and in the process further inhibited the Church from participating in social and political action. Fujimori's autocratic style—epitomized by the 1992 *autogolpe* and the systematic use of intelligence services to discipline civil society—narrowed the space in which Church-linked unions, *campesino* associations, and human-rights groups could operate, even as his administration privatized hundreds of state-owned companies across multiple economic sectors, including mining, and removed state subsidies and price controls that had benefited the poorest citizens of Peru. Looser economic restrictions empowered multinational corporations, many of which came to eclipse the State in terms of resources and power. Together with the decentralization reforms of the early 2000s, these policies resulted in sustained growth in the mining sector's share of Peru's economy.

As private investment expanded, the Church's advocacy efforts shifted away from the public sector toward the private sector. Under this new context, “entrepreneurial” leaders emerged who sought to strengthen the position of the poor within the neoliberal political economy. Writing at the end of the Fujimori era, Sarah Brooks (1999) documented how local church leaders forged alliances with the private sector to campaign for children's rights, worker compensation, and other social and economic protections. In one striking case, the Episcopal Commission for Social Action (Comisión Episcopal para la Acción Social, CEAS) purchased a gold-processing factory in Caravelí, Arequipa, to expand its mining-sector outreach (“Pastoral Minera”). Church workers, Brooks writes, “trained the local population to manage the processing plant and engage in productive enterprise with the goal of ending their dependence on external subsidies and government food assistance” (Brooks 1999, p.71). These activities in part represented a continuation of the social justice tenets of the post-conciliar Church

in Peru, but they also reflected a substantive transformation in terms of structure and strategy, aimed at supporting human development through economic empowerment in the private sector.

While mining today represents a more stable source of macroeconomic growth for Peru, it has come at a high ecological and social price for some communities. The global commodity boom beginning around 2007 and demand for rare-earth minerals have incentivized the mining sector to grow at unprecedented levels (see Figure 1). Copper and gold dominate Peruvian mineral exports, and because these are relatively accessible to artisanal miners, they also have expansive informal mining sectors today.

Figure 1. Economic value of Peruvian mineral production (1960–2024)



Sources: Banco Central de Reserva del Perú (BCRP) and World Bank (estimated export values).

Despite the shifts described above, the position of the Catholic Church in Peru toward mining has remained overall consistent since the 1960s. Rather than proposing policy solutions per se, the Church has taken moral positions on key issues, acting as a mediator in local conflicts emerging in contexts where the interests of mining companies and communities are at odds, as in the cases of Tambogrande (province of Piura) and La Oroya (province of Junín), where commercial mining companies acquired concessions on valued and sacred land, precipitating community backlash that was channeled by Church representatives in negotiating with State officials the postponement of mining activities (Ávila Fernández, 2004; Barreto, 2005). Since the 1990s liberalization reforms, the Church became active in civil society as a broker of solutions in mining conflicts (Arellano-Yanguas, 2014). The publication of *Laudato Si'* in 2015 united the Peruvian Catholic Church around human rights advocacy and environmental protection within the mining sector, together with the appointment of bishops by Pope Francis, aligned with the Second Vatican Council, and the replacement of Cardinal Cipriani in 2019. But since at least 2000, Madre de Dios has been a key site where the Peruvian Church has innovated in this direction, representing the cutting edge of an environmentalist era in social pastoral care, and bringing innovative responses to the social and ecological challenges that arise from mining. The expansion of informal mining in particular raises specific problems that require responses beyond mediation.

2. Informal gold mining in Madre de Dios

The territory of Madre de Dios is not part of a diocese but of a mission territory: the Apostolic Vicariate of Puerto Maldonado (*Vicariato Apostólico de Puerto Maldonado*), which is the institutional representation of the Church in the region. First established as an apostolic prefecture in 1900 by Pope Leo XIII and elevated to a vicariate in 1956, it has been led by the Dominican Order and is currently led by bishop-vicar David Martínez de Aguirre Guinea, OP. Its pastoral jurisdiction, divided into 19 parishes and 7 mission posts, encompasses a territory of approximately 150,000 square kilometers (five times the size of Belgium) in one of the most biodiverse and least densely populated regions in Latin America. The area is over 90% tropical forest and home to more than 37 native indigenous communities (Torre-Marín Rando et al., 2021).

The Vicariate is composed of an array of ecclesial and lay members and collaborates with a cluster of institutions to carry out its social and environmental mission (Vicariato Apostólico de Puerto Maldonado, n.d.). Caritas Madre de Dios (or *Pastoral Social Madre de Dios*), the Vicariate's institutional arm for development work, manages field programs in agroforestry and social service support. This includes COOPSSUR (*Cooperativa Agraria de Servicios Múltiples Sur Oriente*), a core initiative for entrepreneurial leadership that pools land management and resources among farming communities along the Interoceanic Highway corridor and extending to communities along the Tambopata and Madre de Dios rivers' tributaries. Outside the Vicariate's organizational structure is the Centre for Amazonian Scientific Innovation (Centro para la Innovación Científica Amazonica, CINCIA), a local non-governmental organization established in 2016 in collaboration with Wake Forest University. It is led by a biologist and the founder of Caritas Madre de Dios, Cesar Ascorra. CINCIA conducts scientific research on mining impacts in the region and leads efforts in ecological restoration. More recently, the Amazon University Program (Programa Universitario Amazónico, PUAM) was created as a response to the conclusions of the Pan-Amazonian Synod in 2019 to provide higher education across the region, in coordination with the Ecclesial Amazonian Conference (Conferencia Eclesial de la Amazonia, CEAMA) and the Pan-Amazonian Ecclesial Network (Red Eclesial PanAmazonica, REPAM). These institutions are not formally constituted as a network or program, but their overlapping personnel and missions inform the Vicariate's multi-pronged social pastoral strategy. Much of the centripetal force bringing this network together has been the dramatic expansion of informal and illegal gold mining³ in Madre de Dios (MDD) since the early 2000s, and the specific challenges it brings to the region.

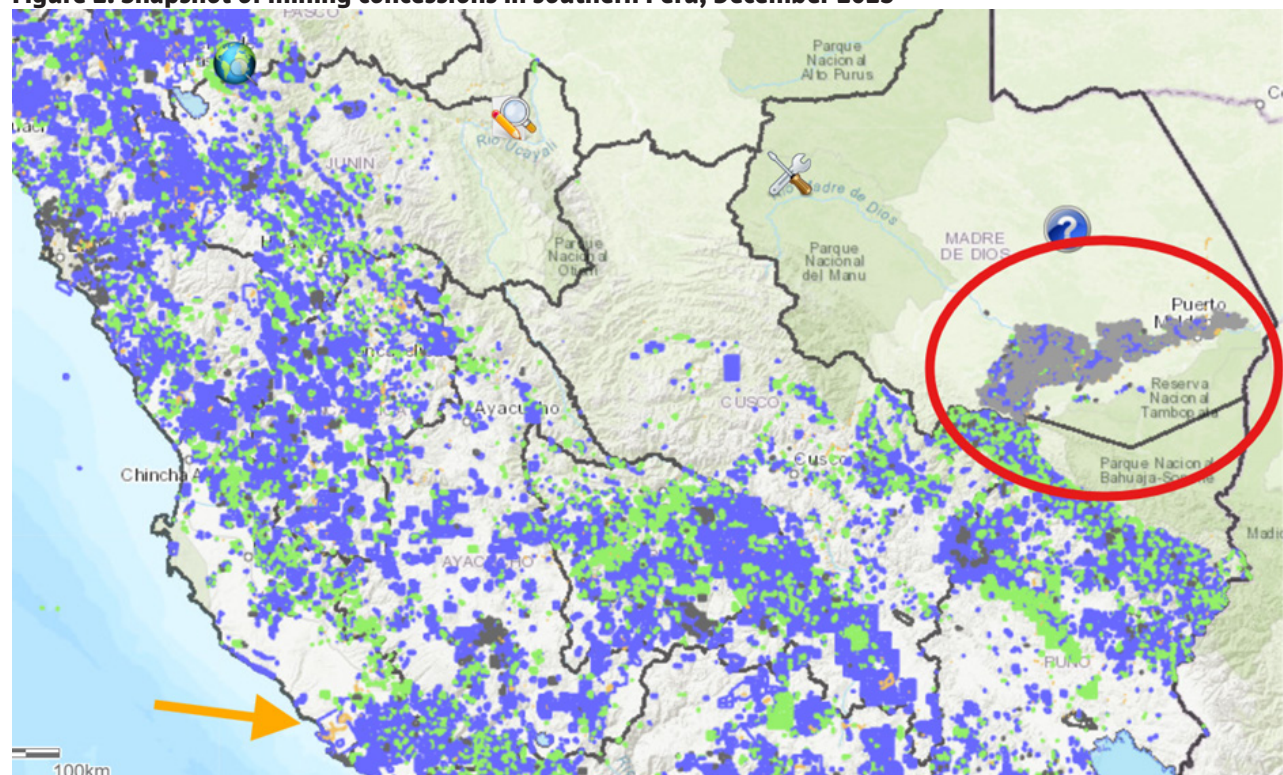
Unlike other conflicts around extraction sites, in which mining companies with land concessions stake a claim to initiate operations and the local community responds, the conflicts around informal mining are more amorphous and harder to observe. This is due to two partially related factors. First, informal mining is an unregulated activity. Rather than public-facing companies with corporate boards or executives who can be brought to the negotiating table, informal mining is a fragmented collective enterprise with several informal brokers involved. There is no single informal mining "sector" per se, but instead a composite and dynamic assemblage of operations, from small to medium scales, that attract a range of speculative actors and activities. Church leaders, civil society organizations, and even local ombudsperson offices have no clear counterparts with

³ Informal and illegal artisanal and small-scale gold mining (ASGM) refers to small, labor-intensive, low-capital extraction—typically by individuals, families, or unregistered cooperatives—that uses rudimentary technology (sluices, dredges, mercury amalgamation) and operates outside or only partially within national regulatory frameworks. "Informal" miners are sometimes registered under Peru's REINFO (Comprehensive Registry for Mining Formalization) transitional regime but not yet in full compliance with environmental, labor, and tax requirements; "illegal" miners are those operating without any registration at all, or inside legally protected areas such as national parks or indigenous reserves where mining is prohibited. Globally, ASGM produces an estimated 15–20% of the world's gold and supports the livelihoods of roughly 15 million miners across more than 70 countries, while also constituting the largest source of anthropogenic mercury emissions (Gibb and O'Leary, 2014; Keane et al., 2023).

which to engage in order to establish rules of governance over the extractive sector. Second, the predictability of informal mining conflicts is low to non-existent. Because its boundaries are undefined, and because there are relatively low costs to entry, informal mining areas are fluid environments where conflicts over territory, machinery, pricing, and other elements can flare up sometimes daily.

These two facets of informal mining—unregulated activities and unpredictability—create many challenges for governance, and thus for Church action in social justice and environmental protection. This complexity is underlined by legal anomalies as well, as reflected in the status of mining concessions in areas like Madre de Dios. A December 2025 snapshot of mining concessions registered in the southern regions of Peru, available publicly on the GEOCATMIN website, shows that in Madre de Dios, the majority of mining concessions are expired (*extinguidas*), mixed with a few unexpired (*vigentes*) ones (see Figure 2). This expired-concession landscape is exactly where informal mining expansion takes root: a 2024 study of the regional concession registry found that, of the 2,702 mining rights registered in Madre de Dios as of July 2022, 50.9% had expired and could not be re-granted, yet roughly 45.3% of active mining was being carried out inside those expired concession areas (Cardó, 2024, p. 32). Informal operations in these areas benefit from the inputs supplied to formal operations—machinery, workforces, security—and from the supply chain linkages they provide, which in this case are mostly gold and timber traders. Outside Madre de Dios, a significant portion of concessions across southern Peru are under review (*en trámite*), and there are very few concessions with refinement plants (*plantas de beneficio*), reflecting how the sector is dispersed geographically and only partially industrialized. According to recent reports in Congress, there are over 37,000 unexpired concessions nationally, but only 3.2% are being actively explored or exploited by mining operations (Olano, 2025).

Figure 2. Snapshot of mining concessions in southern Peru, December 2025



Note: Blue indicates active concessions; green indicates concessions under review; gray indicates expired concessions; orange indicates refinement plants. The red circle highlights Madre de Dios. Data Source: GEOCATMIN (December 2025).

Located at an ecological transition zone between the tropical Andes and Amazon basin, the rivers and watersheds in MDD contain accessible alluvial gold deposits that attract migrant miners from towns in the Peruvian Andean highlands and elsewhere. Gold mining is the dominant economic activity in MDD, representing upwards of 40% of the local gross domestic product (GDP). A 2022 study by Conservación Amazónica (ACCA) and the USAID/Prevenir project, drawing on sub-metric satellite imagery, identified 3,551 active mining sites in MDD employing an estimated 46,601 people: 12.6% (5,888) operating formally, 67.4% (31,390) operating informally, and 20.0% (9,323) operating illegally inside legally protected zones (Conservación Amazónica & Proyecto Prevenir de USAID 2022, 18; see also Damonte, 2018; Valdés, Basombrío, and Vera, 2019; USAID/PERU, 2020).⁴ The commodity-driven gold rush and the completion of the Interoceanic Highway in 2011 also accelerated population growth, which rose 50% from 109,000 in 2007 (Instituto Nacional de Estadística e Informática, 2018) to 163,000 in 2024 (CPI Research, 2024). The highway dramatically reduced the cost of transporting fuel, machinery, and gold across the region, and redefined the geography of governance. It also expanded the La Pampa informal mining zone along the highway's margins—today the most heavily deforested and contested mining frontier in MDD, and the principal site of state enforcement operations.

Informal mining has been addressed through public policies that have been ineffectual at best, and corrosive at worst. The Peruvian State created the Comprehensive Registry for Mining Formalization (Registro Integral de Formalización Minera, REINFO) and set environmental regulations under the 2005 Environment Act, but the probationary period during which miners under REINFO would be allowed to operate while complying with Ministry of Energy and Mining (Ministerio de Energía y Minas, MINEM) requisites—a period of three years originally—has been amended subsequently by the National Congress in order to accommodate longer transition periods for miners to formalize (Wilson, Quiñón, and Sánchez-Ancochea, 2024). The State lacks the institutional capacity to implement this policy consistently. For example, the Special Prosecutor for Environment (Fiscalía Especializada en Materia Ambiental, FEMA) in Madre de Dios runs five offices charged with investigating environmental crimes such as the use of mercury or unlicensed heavy machinery, but the entire province is covered by only fourteen prosecutors. According to the environmental prosecutor, this reflects a pattern of investment well below what the problem demands. Major enforcement operations, including the landmark *Operación Mercurio*, launched in February 2019—a multi-agency intervention that deployed around 1,200 police and 300 military officers to dismantle illegal mining camps, fuel depots, and gold-buying outposts in the La Pampa corridor—produced short-term reductions in deforestation but proved unsustainable (Dethier et al., 2023; SPDA, 2019). Miners returned to the area as enforcement fell during the COVID-19 pandemic, and deforestation has rebounded (Araújo-Flores et al. 2024). The criminal economy that *Operación Mercurio* sought to dismantle has since reconsolidated under armed groups such as *Los Guardianes de la Trocha*, which by 2025–2026 controlled mine access, “security,” and gold flows across much of La Pampa, and have been linked to extortion of formal miners and journalists alike (Colombié, 2026). Corruption of local authorities, which has been the subject of journalistic and academic investigations in the region, further complicates enforcement (Asociación para la Investigación y Desarrollo Integral, 2020; Cortés-McPherson, 2019; Orozco and Arce, 2024; Paredes, Gianella, and Olivera, 2024). The current governor of MDD, Luis Otsuka Salazar, has a background in mining and has demonstrated limited commitment to regulation.

In this governance context—characterized by elaborate regulatory mandates, inadequate enforcement capacity, high levels of informality, and structural economic dependence on a sector resistant to regulation—the Vicariate of Puerto Maldonado and allied organizations have developed several responses. These responses are neither moral condemnation nor mediation, as in the case with large-scale industrial mining. Rather than confronting

⁴ Subsequent academic work has used satellite imagery to refine these estimates and assess mining's environmental impacts (Araújo-Flores et al., 2024; Caballero Espejo et al., 2018; Torre-Marín Rando et al., 2021).

mining companies, the Vicariate has had to navigate a landscape in which no identifiable corporate counterpart exists. By definition, informal mining is a fragmented and amorphous sector with no executives to summon to a negotiation table, nor shareholders to hold accountable. Instead, the Vicariate has performed what resembles governance functions of the State, helping citizens navigate mining regulations and alternative livelihood opportunities because public institutions are often incapable of doing so. The next section examines this substitutive governance role across three dimensions: formalization support, technical scientific assistance, and alternative livelihoods through cooperative agroforestry.

3. The Vicariate's collaborative responses to informal gold mining

Improving Governance: Supporting formalization and the Women's mining network

One of the most distinctive features of the Vicariate's engagement with informal mining in MDD is its role in supporting the formalization process, which is ineffectively implemented by the State. This positions the Church and allied institutions as active facilitators of compliance with government regulation, often at their own expense and without reciprocal State support.

Legislative decrees starting in 2002 have required informal miners to register with MINEM's Comprehensive Registry for Mining Formalization (REINFO), to demonstrate ownership over a valid concession, and to comply with the Environmental Management Instrument for Mining Formalization (Instrumento de Gestión Ambiental y Fiscalización para la Formalización de Actividades de Pequeña Minería y Minería Artesanal, IGAFO), which specifies water-use protocols, topsoil preservation procedures, periodic monitoring schedules, and infrastructure standards. The process is expensive, technically demanding, and administratively intensive. Registration alone requires upwards of S/ 25,000 (around USD \$7,500). Technical specialists and documentation capacity produce additional costs. Critically, the normative framework was designed for "point" mining—small underground or open-pit operations extracting from a fixed mineral vein, common in the Andean highlands—but not for the lowland alluvial mining characteristic of the Amazon, where gold is dispersed through riverbed sediment and extraction follows shifting waterways. As a result, miners in MDD face compliance requirements conceived for a different geography, generating gaps between regulatory intent and practical feasibility. One CINCIA technical specialist working with mining communities in the region noted at the October 2024 inauguration of the National Network of Women in Small-Scale Artisanal Mining (*Red Nacional de Mujeres en Minería Artesanal y Pequeña Escala*, or RNM-MAPE) that the post-2002 formalization policy has stalled, that some MDD concessions overlap with forestry rights, and that as of 2024, the MAPE legal framework does not yet contemplate the operational realities of waterway mining in Amazonia. The reach of formalization confirms this gap: as of 2023, approximately 9,255 miners in MDD were registered in REINFO, but only about 2,043 were actively formalizing, and fewer than 3% of all registrants had presented more than one of the five required accreditations (Cardó, 2024, p. 7).

The experience of Lucila Huanca, a female mining operator and RNM-MAPE leader, illustrates the formalization process and the anomalies it creates (Artisanal Mining Grand Challenge: the Amazon, n.d.). A former schoolteacher from Puno in the southern Peruvian highlands, Lucila entered mining alongside her husband and family in the early 2000s, during the initial years of the MDD gold rush. Interviewed in the context of the author's doctoral research, she recalls that she felt pressure to formalize, but that navigating IGAFO was complex and took years: presenting documentation to MINEM and the Ministry of Environment, paying the upfront costs, learning

about monitoring and water management, hiring specialists as required by monitoring protocols (failure to do so entails being fined), maintaining infrastructure for the operations, housing, and a kitchen for the workers up to code, and receiving observations repeatedly from inspectors without clear pathways to compliance. She also noted that none of the machinery at the site was new—all had been purchased on credit—and that the ongoing costs of formalization compliance competed directly with operational expenses and salaries for the approximately ten rotating families that depended on the mining site for their livelihoods. Lucila concluded, however, that despite these costs, formalization was a condition of collective dignity and sustainability.

The significance of Lucila's experience is not the technical difficulty of formalization, but the structural context in which it takes place. She bore the full cost of compliance, while the State provided almost no positive incentives for doing so. In addition, the State has unevenly enforced the formalization policy against non-compliant miners nearby. The disparity was echoed forcefully by other women miners of RNM-MAPE: as formalized miners, they felt disadvantaged in comparison to informal miners, free to work without constraints or monitoring. Moreover, machinery costs are higher for formal miners because they do not receive state subsidies as informal miners do. For Lucila, formalization requirements also obligated her to take on agroforestry commitments that added costs without immediate returns. The women of RNM-MAPE felt abandoned by the State, leaving them to bear all the costs of the formalization process while the State did nothing to prevent informal mining.

This paradoxical dynamic—in which the Peruvian State requires high costs of compliance for small-scale miners but simultaneously fails to enforce the framework against informal operators at scale—ultimately delegitimizes its role. It penalizes those who attempt to comply while providing no credible deterrent to those who do not. As such, it functions as a regressive policy that structurally disadvantages the most responsible-minded actors in the mining sector. At the crux of this paradox, CINCIA and Caritas MDD have assumed a governance function that compensates for a resource-deficient State by providing guidance, technical support, organizational backing, and credibility to miners who want to formalize but lack the resources or knowledge to do so independently. The RNM-MAPE inauguration meeting in October 2024, which was attended by the author and which opened with prayer and greetings to Church leaders in attendance, like Manuel Jesús Romero, OP from the Apostolic Vicariate of Puerto Maldonado, illustrates how Church-linked institutions make the formalization process navigable for a population that would otherwise have no reliable interlocutor.

While the relationship between the Vicariate of Puerto Maldonado and RNM-MAPE is often indirect, it is consequential for institutional legitimation. The women's network is organizationally supported by *Solidaridad*, the Peru office of the international NGO Solidaridad Network, which, since 2021, has accompanied women miners in Puno, Arequipa, Madre de Dios, and Junín through its RECLAIM Sustainability program (Solidaridad Network, n.d.). Solidaridad helps coordinate and record meetings and convene partners like CINCIA, Wyss Academy (a Wake Forest University affiliate), and even state institutions such as Peru's Ministry of Women. CINCIA itself was founded by researcher Cesar Ascorra, with long-standing ties to the Amazonian social pastorate. Caritas MDD personnel are consistently present at network events. The relationship exemplifies a broader pattern in the Vicariate's "ecosystem" in which the Church's influence is proximate, operating through organizations with deep institutional ties. This puts the Church in a strategic position in which it can maintain connections across ideological and professional societal groups without creating liabilities that more formal ties with the Church might carry—among them, the risk of fragmenting the Vicariate's own constituency by appearing to take sides in disputes between mining, indigenous, and conservation interests, and the more immediate security risks of visible institutional endorsement in an environment where formalization advocates face criminal pressure.

The gender dimension of the formalization process in MDD deserves added attention. As noted by speakers at the RNM-MAPE inauguration event, women occupy a structurally distinctive position in the mining sector. They are at once more vulnerable—stigmatized as miners who destroy the environment, exposed to trafficking networks that prey on women and girls in mining settlements, and disproportionately represented as heads of household—yet also visibly committed to long-term community and environmental responsibility in ways that male miners are not. The women in attendance at the inauguration, representing networks from MDD, Puno, and Arequipa, reiterated the view, in both their verbal presentations and in a documentary of their network, that formalization, clean technology, and land restoration were not merely regulatory standards but ethical commitments. As Lucila stated, “I am from this land, and I won’t leave it; we use innovative processes to keep the momentum going. In my case, we use the shake table rather than mercury.” Another woman emphasized that the objective of RNM-MAPE is to connect all women working in gold mining in the country and to create an institutional platform to share experiences. This underlines a more ambitious political project beyond technical support for formalization.

In this case, the Church functions as a bridging agent, mediated through organizations like CINCIA, and provides valuable support for these female informal gold miners. As the first women’s network in mining in the country, one leader remarked at the network inauguration event, “We have been forgotten until now by national policy; we are born again, and we must be recognized nationally.” By supporting the meeting, offering technical expertise, and connecting to international actors such as universities in the USA, CINCIA, and the Vicariate have enabled the female informal miners to have a political voice that otherwise would be at risk. Not only does this partnership between the Vicariate and technical organizations help individuals navigate the formalization process, but it also helps build organizational capacity for marginalized social groups to make collective demands of the State.

Technical Assistance: Mercury-free technology, land restoration, and State incentives

A second dimension of the Vicariate’s engagement with informal mining in MDD is technical in nature. It collaborates with scientific and agricultural extension institutions to support the adoption of ecologically friendly and restorative practices. This collaborative dimension of the Peruvian Church has also been observed in Graeter’s (2017) study of the “Revive the Mantaro Project” in the central highlands’ province of Junín, which documents a similar combination of pastoral care and scientific expertise to address lead contamination produced by smelting plants. As in the Mantaro case, the Church’s long-term presence among MDD communities allows it to mediate collaboration with scientific institutions and active informal mining populations who might otherwise be resistant to external researchers.

CINCIA is a central vehicle for this technical collaboration in informal gold mining in MDD. Founded in 2016, it has maintained active relationships with Caritas MDD throughout its development into a regionally and internationally recognized research center. It has created partnerships with the local National University of Madre de Dios (UNAMAD), the Lima-based Universidad de Ingeniería y Tecnología (UTEC), as well as Wake Forest University and the University of Notre Dame. Its work includes satellite monitoring of deforestation and informal mining expansion, hydrological analysis of mining impacts on river systems, sediment analysis of mercury and other contaminants, and ecological restoration of deforested and degraded mining lands. CINCIA occupies an unusual institutional position as a secular NGO with academic peer-reviewed publications, but with institutional and personnel relationships with the Catholic Church. It maintains a level of community embeddedness that reflects the pastoral history of the Vicariate, engaging with mining communities who would normally be

suspicious of external scientists measuring environmental features of mining or evaluating artisanal mining methods.

CINCIA's technical assistance in two areas is relevant for the Vicariate's environmental mission of "caring for our common home." The first is removing mercury from mining sites, which entails supporting both backward and forward linkages in artisanal gold processing. Conventional alluvial gold mining uses mercury to amalgamate gold dust from sediments extracted from riverbeds. This process generates pervasive environmental contamination not only in the immediate vicinity of mining sites, but also in downstream or deforested areas, including atmospheric mercury pollution (Gerson et al. 2022). CINCIA has helped miners integrate low-technology shake tables that separate gold from sediment through gravity and vibration rather than chemical amalgamation, eliminating mercury from this process without stalling mining operations. The Playa Marta concession, where Lucila Huanca works, represents one of CINCIA's major achievements in this initiative, showing that the technology is both technically viable and ethically important for the miners themselves.



The forward linkages in the supply chain for artisanal gold in MDD provide another set of challenges for "clean" (non-mercurial) gold. As emphasized by participants of the RNM-MAPE meeting, incentives are fundamental for making best practices possible. As it turns out, local gold buyers do not offer a premium for mercury-free gold; in fact, they are resistant to buying gold that does not have the traces of mercury that have for so long characterized artisanal products. As an alternative, some of the women miners described transporting their mercury-free gold personally in their clothes or as jewelry, to sell it in central markets in Lima or Cusco. CINCIA has proposed the idea of a state procurement mechanism—a public company that would purchase certified clean gold at a premium price—which would shift market incentives, but this would require national reforms.⁵ Absent this mechanism, the adoption of clean technology remains dependent on the ethical commitments and longer-term perspectives of individual miners and the speculative investors who finance them, of which only a small portion are formally registered. CINCIA and the Vicariate's networks are only reaching the most motivated miners, while market conditions compel most miners to continue using mercury on a mass scale.

A second area of activity led by CINCIA that aligns with the Vicariate's environmental mission is restoring mined land. Alluvial mining strips topsoil, compacts subsoil, fills rivers with dredged sediment, and leaves barren gravel pits with stagnant and mercury-contaminated water. CINCIA has developed methods for restoring these once-thriving jungle lands, drawing on field research collaborations with international universities. Techniques include progressive mining closure, topsoil preservation prior to extraction, native-species replanting, and sedimentation ponds to limit downstream contamination.

At the Playa Marta concession actively undergoing formalization, these land-management practices even allowed for aquaculture (*piscigranja*), freshwater clams for consuming organic waste, and fruit trees. As Lucila described to this case study's author, "We have nature. A fishpond with plenty of fish. Many zones are improved

⁵ There had been a national mining bank—*Banco Minero del Perú*—for several decades that could intervene in markets in this way, but it was liquidated in 1992 during the Fujimori era.

now. We work on many elements.” The integration of aquaculture into the ecological restoration of mining sites connects directly to the alternative-livelihoods strategy of the Church (see section 3.3) and illustrates how technical assistance in ecological best practices can reinforce ethical commitments among miners.

Apart from CINCIA, the Vicariate has also collaborated with state institutions, adding another dimension to its governance ecosystem in MDD. The agricultural-industrial extension office under the Ministry of Production (*Centro de Innovación Productiva y Transferencia Tecnológica Productivo Madre de Dios*, or CITE-MDD) has maintained a partnership with the Vicariate’s agricultural cooperative COOPSSUR since 2017. CITE-MDD provides laboratory analysis, food processing, and product innovation assistance for COOPSSUR, helping transform *copoazú* (a local relative of the cacao plant) into butter, as well as quality management of cacao and Brazil nut (*castaña*).

The competitive advantage of this collaboration between the state institution CITE-MDD and the Church-affiliated COOPSSUR is notable. Without the cooperative’s member base and reliability, CITE-MDD would lack an effective counterpart in the communities it serves. Without the Church’s investment in maintaining the relationships among farmers in the cooperative, CITE-MDD (and the State’s technical capacities) would remain stagnant. A representative from CITE-MDD acknowledged that the partnership with COOPSSUR was among the most productive in their portfolio, and the potential for further innovation was noted.

During a COOPSSUR coordination meeting in March 2025 that this case study’s author attended, an important characteristic of the Vicariate’s activities in MDD came to light. The COOPSSUR president observed that even though the religious dimension of the Vicariate and its agricultural cooperative was almost never discussed directly with producers, how it influences participation and organization needed to be better understood. His remark reveals how the Vicariate’s religious identity is more of a contextual feature of its technical engagement, rather than its operational content. The theological mission of the Vicariate, which centers on an integral ecology of the Amazon aligned with *Laudato Si’*, shapes the institution without visibly penetrating the operations through which the work is accomplished. This invites a broader reflection, taken up in the concluding section, about what is distinctively Catholic about the Vicariate’s technical engagement, and what the Church contributes to environmental governance in MDD that a secular organization operating in the same space would not.

Alternative Livelihoods: COOPSSUR and Agroforestry

The third dimension of the Vicariate’s response to informal mining in MDD is the promotion of alternative forest-based livelihoods through cooperative agroforestry. This effort is an attempt to shift the dominant economic logic of the region away from extraction and toward regenerative practices and land stewardship. It requires building an organizational and market infrastructure through which an agricultural sector in the Amazon can provide a viable alternative livelihood to gold mining for the regional population. That this ambition is pursued at considerable cost, and largely in the absence of state investment, makes it, as will be argued below, less a program than a form of governance through stewardship that no public institution in the region is currently equipped to deliver.

Founded in 2014 under the entrepreneurial impetus of the Vicariate’s Social Pastorate, COOPSSUR pools land, resources, and marketing processes among dozens of producer families along the Interoceanic Highway corridor. It provides farmers with technical assistance, market access and branding support, financial management, and legal and organizational support that individual smallholders in MDD could not easily access independently. Its tagline is “the true gold of Madre de Dios” (COOPSSUR, n.d.).

A structurally distinctive feature of the cooperative is its land-tenure architecture. COOPSSUR does not rely on collective land titles but rather pools organizational and market resources while maintaining individual ownership rights. Such individual ownership provides members a legal basis for resisting encroachment from miners or loggers, but it also means the cooperative lacks the territorial protections that indigenous communal titles can confer, even though, as the COOPSSUR legal advisor noted, there are many legal grey areas, and the social and ecological realities do not always match the legal map.



This individual-tenure structure leaves cooperative members directly exposed to the criminal governance dynamics that pervade the region. Conversations with local farmers revealed that criminal organizations extort landowners by selling them “security” against informal and illegal mining operations, while miners and their affiliates intimidate those who invoke state legal action. According to the cooperative’s legal adviser, some bad-faith landowners have even learned to use the *proceso de denuncia*—the administrative complaint process for reporting an invasion or environmental crime— as a form of strategic self-protection. Knowing the process moves slowly and rarely produces enforcement, they file complaints not in genuine expectation of state action, but to create a paper trail. Should their land eventually be taken by criminal-affiliated mining operations, the documented complaint allows them to assign blame to the state for its inaction rather than face accusations of having tacitly permitted or cooperated with the encroachment.

Official corruption compounds these pressures. In 2020, a major criminal network known as “Los Hostiles de la Amazonía”—involving regional forestry officials, customs agents, and National Police officers—was dismantled following an operation led by the Peruvian Public Ministry (Ministerio Público Fiscalía de la Nación, 2020). Rather than narcotics, this ring trafficked timber, with illegal extractors, financiers, and public officials systematically falsifying documentation and bypassing checkpoints across Madre de Dios. Criminal control of mining zones has since escalated. By 2025–2026, armed groups such as *Los Guardianes de la Trocha* exercised quasi-governmental authority over much of the *La Pampa* corridor, levying tolls, controlling gold-processing outposts, and intimidating journalists, prosecutors, and formal miners alike (Colombié 2026).

COOPSSUR’s members are smallholder property owners whose individually titled parcels sit near this corridor, exposing them to the same dynamics of extortion and territorial pressure. As the cooperative’s legal adviser observed, landowners here live in a permanent state of legal precarity, navigating threats from criminal “security” providers on one side and the slow machinery of state enforcement on the other. This environment shapes COOPSSUR’s organizational logic in profound ways, motivating collective documentation, legal representation, and formalized market relationships that strengthen commerce while shielding members from criminal encroachment.

COOPSSUR is also implementing an agroforestry model at varying stages of maturity and ecological complexity. One cooperative farm visited by the author integrates silvo-pastoral cattle ranching with cacao production and other food crops, illustrating a sophisticated ecological and economic logic. The farm manages close to 150 cattle whose manure provides organic fertilizer for cacao and intercrop plantings. To ensure that fertilizer is free of veterinary chemicals that contaminate soil and compromise organic certification, the farm has phased out synthetic treatments with ivermectin, transitioning to natural agroforestry practices. The integration of

animal husbandry, soil-nutrition management, organic certification, and market access within a single-family operation illustrates the value of COOPSSUR and the organizational scaffolding it provides.

Another farm the author visited revealed another beneficial function provided by COOPSSUR: providing access to markets and services. The village where the farm is situated (about 50 km inland from the Interoceanic Highway), Lucerna, is accessible only via river or via an unpaved road that the municipal government has never maintained and which communities must clear and repair themselves. These structural conditions make the cooperative's role indispensable for providing market access and other extension services.

COOPSSUR has recently extended its reach to an indigenous Amahuaca community located about an hour and a half upriver from Lucerna. Apart from excellent cacao cultivation, the community has developed an ecotourism plan and sells artisanal crafts. On a visit in March 2025, the Vicariate's social worker helped the women's committee formalize itself as a *junta comunal*—a bureaucratic status that would provide more direct channels for public funds. This illustrates the Vicariate's potential for integrating indigenous communities into its network, expanding cacao production (among the most lucrative activities) under COOPSSUR, and extending the ecological and cultural reach beyond the peasant communities that constitute its core membership.

On the technical side, COOPSSUR can facilitate evidence-based agricultural governance through soil sampling. Working alongside a University of Notre Dame graduate biology student, COOPSSUR leaders undertook comparative soil sampling across member plots (fertilized versus unfertilized, forested versus degraded, monocrop versus intercrop) to produce data that can improve farming practices and soil productivity.

Through COOPSSUR, the Vicariate exerts a form of environmental governance, not through legal mandate but through stewardship, commitment, and competence in the field. The COOPSSUR president noted that the soil-sampling exercise could motivate the State to subsidize a more systematic sampling of farm fields. In this way, local initiatives and knowledge production can generate the evidence base to motivate state action. The government's inauguration in March 2025 of a new laboratory for processing soil samples from mining-degraded lands suggests that the institutional conditions for this kind of state uptake are at least partially in place (Instituto de Investigaciones de la Amazonía Peruana, 2025). Soil sampling thus exemplifies the logic behind the Vicariate's approach more broadly: Church-affiliated institutions such as COOPSSUR can invest (privately) in knowledge and organizational capacity, generating evidence and trust that can gradually attract public resources, and thus shape the future involvement of the State.

COOPSSUR distinguishes itself from other agriculture-based rural development models by anchoring itself as a multi-institutional governance platform, pulling together the institutional resources of the Vicariate, private farmers, and public extension offices. The cooperative's networks extend across state and market actors in the region, allowing the Church to influence a broader community.

AgroBanco, the Peruvian agricultural bank, has identified COOPSSUR as among its most reliable cooperatives in MDD. The bank's regional manager described the cooperative as “accomplished, serious, no-complaints, with vision and coverage” (personal communication to the author). Such a characterization reflects the organizational discipline that the Vicariate's institutional support further instills. Reliability matters when it comes to access to credit: AgroBanco's preferential interest rates (8–9% for cooperatives, compared to 20% or more for individual borrowers) are contingent on cooperative governance quality, and COOPSSUR's track record unlocks terms that individuals or poorly governed cooperatives cannot access. The bank manager's comments suggested that COOPSSUR's performance is not typical of the cooperative sector in the region, and that the organizational foundations provided by Caritas MDD represent a genuine competitive asset.



COOPSSUR has undoubtedly much room for improvement. Its director highlighted that internal management issues remain, especially when it comes to organic product certification and strategic planning. He reflects that the cooperative suffers from “many perspectives but little focus” (personal communication). The individual land-tenure structure may also limit the cooperative’s ability to pursue the kind of large-scale ecological interventions—connecting wildlife corridors or restoring watersheds—that the most ambitious vision implies.

An additional structural obstacle for COOPSSUR, and for agroforestry generally, is climate vulnerability. Multiple farmers noted that droughts have intensified since 2020. Fungal diseases like the *escoba de bruja* (literally, “witch’s broom”) that infects cacao and *copoazú* plants have been exacerbated by rising temperatures. The organic-certification process, which could provide price premiums to make the agroforestry model economically competitive with mining, requires sustained compliance with standards that climate stresses make more difficult to meet. Together, climate pressures are forcing ongoing evaluation of alternative crops and management strategies. All this underscores how COOPSSUR’s economic viability rests upon ecological conditions that are increasingly uncertain.

At its core, the alternative-livelihoods strategy promoted by COOPSSUR cannot alone resolve structural economic challenges in MDD. Given the high price of gold, mining returns—even in informal operations—remain substantially higher in the short term than cacao or *copoazú* farming for most of the population. The Vicariate’s approach does not attempt to persuade miners that farming is more profitable than mining. Rather, it builds organizational, technical, and market infrastructure that can make agroforestry a viable long-term pathway for those who decide, for ethical, communitarian, or practical reasons, to reduce their dependence on mineral or timber extraction. The Church’s alternative-livelihoods initiatives in MDD serve to sustain a values-based choice to pursue a more ecologically-minded economic future, ensuring that institutional conditions exist for that choice to remain sustainable. Whether this consensus can be meaningfully expanded, and whether the mining corridor in MDD can be reoriented away from the extractive economy, depends on political and policy decisions extending well beyond the reach of COOPSSUR or the Vicariate, however well-organized.

4. Concluding reflections

This case study has examined the response of the Vicariate of Puerto Maldonado to the dramatic expansion of informal gold mining in the southeastern Peruvian region of Madre de Dios, across three dimensions: (1) governance support in formalization; (2) technical collaboration to introduce cleaner mining practices; and (3) promotion of alternative livelihoods through cooperative agroforestry. Across all three dimensions, the Vicariate's approach in the Amazon differentiates itself from other forms of Church activism in Peru, such as public statements denouncing extractive practices, legal advocacy through scientific evidence-gathering, or mediating between communities and private mining companies. The Vicariate has instead invested in building institutions of governance that have been structurally under-resourced by the State. It has done so through decades of building trust with local populations—miners, farmers, scientists, universities, local state agencies, and development organizations—creating a multi-stakeholder ecosystem in which the Vicariate functions as the anchor in many respects.

The MDD case challenges a conflict-oriented framework that has so far characterized accounts of the Catholic Church's involvement in mining in Latin America (as mediator, prophetic voice, or broker between communities and companies). Where there is no identifiable corporate counterpart to confront, and no functioning state apparatus to petition, the Church's distinctive contribution is not adversarial but constructive. It can pursue the creation of organizational conditions under which responsible mining and alternative livelihoods become viable for those who pursue them. This stewardship role has been made possible by generating institutional legitimacy and trust among local populations that secular development organizations or state agencies in the region have been unable to command. This comes in the form of social capital accumulated over decades of pastoral presence and crystallized in institutions like Caritas, CINCIA, and COOPSSUR, whose credibility with communities is built on consistent ethical commitment.

Three critical reflections qualify this positive account and identify the limits of what an approach like that of the Vicariate of Puerto Maldonado can achieve. First, the Vicariate's approach reaches the willing but not the majority. The subset of MDD residents who have formalized, adopted shake tables, joined COOPSSUR, or transitioned to cacao farming have made a prior values-based commitment to implementing responsible practices. The ecosystem stewarded by the Vicariate provides organizational support that improves the likelihood that those commitments are sustainable, but it does not *generate* the commitment itself, though the moral formation work of the Church can generate this to some extent, seeing ecological commitment as the expression of one's faith and belief in God. Most informal operators in the mining corridor remain largely beyond the reach of any intervention the Vicariate or its partners can deliver. The Government's military intervention, *Operación Mercurio*, demonstrated in 2019 that State enforcement can temporarily displace illegal mining but cannot alone sustain the political will or institutional capacity to maintain enforcement over time.⁶ Neither a Church cooperative nor a scientific NGO can substitute for that kind of sustained public authority. The paradox that emerges from formalization policy—in which the State mandates compliance, it cannot support and fails to deter non-compliance at scale—will continue to incentivize informal mining unless addressed through policy reform at the national level.

Second, the Vicariate's success as characterized in this analysis carries a paradox of its own. The more effectively Church-affiliated institutions fill State governance functions—absorbing formalization costs, providing agricultural extension services, enabling credit access, convening inter-institutional partnerships—the less visible the State's absence becomes, and the less political pressure accumulates for the State to build the capacities it lacks. AgroBanco's reliance on COOPSSUR's organizational discipline, the Regional Agricultural Directorate's acknowledgment that the cooperative is a model for the future, CITE-MDD's operational dependence on a Church-founded partner—each of these relationships is, in isolation, a productive collaboration. Taken together, they constitute a “compensatory” risk that the organizational infrastructure the Church has built becomes a structural alibi for ongoing state underinvestment in the region. Whether the Vicariate approach produces durable social change or absorbs the costs of a policy failure without resolving it is a question that no

⁶ *Operación Mercurio* was a multi-agency intervention that deployed around 1,200 police and 300 military officers to dismantle illegal mining camps, fuel depots, and gold-buying outposts in the La Pampa corridor. According to researchers, it produced short-term reductions in deforestation but proved unsustainable over time (SPDA 2019; Dethier et al. 2023).

amount of organizational excellence can answer independently of political decisions taken at the national and regional level.

Third, the case study has identified a gap in the Vicariate's own self-understanding that points toward a research and organizational agenda. The admission by the COOPSSUR director that the relationship between religious identity and economic participation is almost never discussed with producers suggests that the theological resources the Vicariate nominally brings to its work—integral ecology, the preferential option for the poor, care for our common home—have not been systematically mobilized at the operational level where most of that work unfolds. Whether this matters analytically depends on whether we think the Church's distinctive contribution is primarily moral-spiritual formation or primarily institutional. The evidence from this case suggests the latter: what the Vicariate provides is relational infrastructure—trust, legitimacy, convening capacity, long-term presence—rather than spiritual-moral formation. But this does not mean that the theological dimension is irrelevant. Secular institutions are not often in a position to make ethical appeals in the way the Church can. The Church offers a territorial vision of human and ecological flourishing much in line with indigenous ways of knowing and relating to the natural world, in which the Amazon is not merely managed but cared for and loved—like a person to whom one writes a letter, as Pope Francis did with his post-synodal exhortation *Querida Amazonia*. Translating that vision into operational practice by connecting it to the daily work of shade-table training and cacao certification, and building strong connections with ecologically minded stakeholders, remains an unfinished task of the Vicariate at a time of accelerating climate change.

A connected thread that runs through all three of these reflections deserves to be drawn out explicitly. The Vicariate's work in Madre de Dios cannot be separated from its long inter-cultural and interreligious relationship with the indigenous peoples of the watershed. The Dominican mission established in 1900 was, from its inception, organized around accompanying the Harakmbut, Ese-Eja, Yine, Matsigenka, Amahuaca, Shipibo, and other peoples of the Madre de Dios basin, not around extractive frontiers or settler-farmer parishes. That orientation matters in a region where, as Orihuela (2017) shows, a pro-indigenous logic of government has long operated alongside the developmentalist and conservationist logics shaping state action in the Amazon. The Native Federation of Madre de Dios and Tributaries (Federación Nativa del Río Madre de Dios y Afluentes, FENAMAD), founded in 1982 to defend Harakmbut land rights, and the allied Federation of Agricultural Producers of Madre de Dios (FADEMAD) were central to the coalitions that produced the Tambopata National Reserve and the Bahuaja-Sonene National Park—the legal and ecological backbone of the corridor in which much of the analysis above sits. The Vicariate does not generate this indigenous political voice; FENAMAD has done so for over four decades. But it sits at the intersection of religious, scientific, and indigenous knowledge claims in a way that few other institutions in MDD can. Pope Francis's 2019 Pan-Amazonian Synod and the post-synodal exhortation *Querida Amazonia* (2020) have theologically reframed that intersection, treating indigenous Amazonian cosmovisions as sources of ecological insight and pastoral renewal rather than as objects of evangelization. The PUAM, REPAM, and CEAMA institutions described in section 2 are the operational expression of that reorientation. COOPSSUR's engagement with the Amahuaca community of Boca Pariamanu is one small but concrete instance: rather than fold the community into the cooperative's existing template, the Vicariate's social worker helped its women's committee constitute itself on its own terms as a *junta comunal*.

The conditions for replicating the Vicariate's approach in other contexts are worth reflecting upon, however demanding they are. What makes the Vicariate effective in MDD is not any single intervention but a combination of institutional assets: scientific partners with deep community relationships, a state bank willing to extend preferential credit to a well-governed cooperative, a regional government open to territorial branding partnerships, and roughly seven decades of pastoral presence by the Dominican order, dating to the elevation of the Vicariate in 1956, that none of these relationships could have been built without. Crucially, the institutional trust the Vicariate enjoys today with FENAMAD, FADEMAD, the Amahuaca, and other organized constituencies of the region is the long shadow of that indigenous-oriented pastoral history; it is not an add-on to the assets listed above but their precondition. The geographical and cultural features of MDD are also unique to the region. The Madre de Dios case demonstrates that this kind of constructive governance role is achievable, but it is not a template that can be mechanically reproduced. Other Church institutions facing comparable challenges in informal mining regions—from *galamsey* in Ghana to ASGM in the Philippines—may have some or all of

these assets, but where any are missing, the model must be adapted. Where local scientific partners are absent, the technical-assistance function would need to be carried by the diocese itself or by international academic partners. Where state agencies are captured by mining interests, partnerships with public banks or extension services may not be available, and the cooperative must rely on private or international financing. Where the Church's pastoral presence has not had sufficient time or depth to generate community trust, a cooperative analogous to COOPSSUR may struggle to attain the reliability that unlocks preferential credit and convening power. What the work of the Vicariate in MDD offers other Church institutions is less a replicable model than a set of principles: patience over speed, relational investment over programmatic intervention, accompaniment of indigenous and other historically marginalized communities on their own terms, and the willingness to build institutional trust across sectors that are normally kept apart.

The Vicariate of Puerto Maldonado has developed an original position in the history of Church engagement around mining in Peru: a governance ecosystem built on accompaniment and ethical commitments. In a context of mining expansion in Peru and accelerating climate change, the most significant contributions of the Catholic Church may turn out to be not episcopal declarations or mediations, but patient institutional investments of this kind: the cooperative whose reliable governance unlocks credit, the scientific NGO whose credibility bridges communities and researchers, the farmer whose cacao plantation on a former mining site demonstrates, concretely, that a different economic future is possible. Whether these contributions prove sufficient to the scale of the challenge in Madre de Dios is an open question that this case study cannot resolve. What it can affirm is that the question itself—how faith communities can contribute to sustainable governance of extractive industries in contexts of institutional weakness—is one that the Vicariate experience makes newly tractable.

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