Power, Development Pressure, and the Governance Window

Why Conservation Outcomes Are Determined Long Before Projects Begin

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Executive Reflection

In conservation and development practice, power tends to be discussed in carefully managed registers. It appears in project documents as references to political will, enabling environments, and stakeholder influence mapping. These framings are useful up to a point. They allow the subject to be raised without the vocabulary of power, which sits uncomfortably in donor-facing documents and policy forums oriented toward consensus and partnership. But in complex coastal systems, the careful management of the power conversation has a cost. It produces governance designs that treat power as background noise rather than as the primary force shaping what is possible, what is delayed, and what becomes irreversible.

Samaná Bay illustrates a reality that practitioners across diverse conservation contexts recognise but rarely name explicitly: most conservation outcomes are effectively decided before formal projects begin. They are shaped by early infrastructure choices, investment sequencing, informal political relationships, narrative control, and the strategic timing of decisions made at scales and speeds that conservation processes are structurally poorly positioned to match. By the time a project is scoped, funded, and operational, the system has often already moved in directions that constrain what the project can achieve.

This paper argues that power in Samaná Bay must be understood as a temporal phenomenon as much as a structural one. The question is not simply who holds power, but when it is exercised, how fast it moves, and what it forecloses by moving first. Understanding these dynamics is the precondition for designing governance that can actually shape outcomes rather than merely document the conditions under which outcomes were determined elsewhere.

Power Operates Before Governance Arrives

One of the most consequential misconceptions in environmental governance is that power resides primarily within formal institutions and formal processes. Laws, ministries, permits, environmental impact assessments, and regulatory frameworks are treated as the primary arenas where decisions about coastal systems are made. The practical implication of this assumption is that strengthening formal governance — improving laws, building institutional capacity, expanding regulatory reach — is the primary lever for changing outcomes.

Political economy research offers a more complicated picture. Large-scale economic actors shape development trajectories substantially before formal approvals are ever sought, by influencing expectations, controlling narratives about what development is inevitable and beneficial, and managing risk perceptions within state institutions (Acemoglu & Robinson, 2012; Leftwich, 2009). By the time a permit application is submitted, the institutional environment has often already been shaped to receive it favourably. Officials have been briefed.

Political relationships have been cultivated. The economic narrative has been established. Concerns have been pre-emptively categorised as obstructionist.

This is not primarily a story about corruption, though corruption certainly exists in coastal development contexts globally. It is a story about structural advantage. Capital is patient, organised, and legally sophisticated in ways that formal governance processes tend not to be, particularly in systems where institutional capacity is stretched, coordination is fragmented, and the regulatory framework has gaps that experienced legal teams know how to use. The result is that governance institutions, even when they have the formal authority to shape development decisions, often find themselves managing consequences rather than determining direction.

In Samaná, this dynamic is observable across the full ridge-to-reef system. Port infrastructure at Puerto Duarte and the Samaná Bayport has advanced through development processes that have moved faster than integrated governance frameworks. Coastal real estate development has established facts on the ground — cleared vegetation, altered drainage patterns, access roads that change land-use logic for surrounding areas — before comprehensive land-use governance could respond. Tourism infrastructure investment has created economic dependencies that make subsequent regulatory tightening politically sensitive in ways it would not have been had governance preceded investment. The conservation actors, civil society organisations, research institutions, and community groups that understand the ecological stakes are operating in a space that has already been substantially defined by decisions they were not party to.

Development Pressure Is Temporal, Not Only Economic

Development pressure is almost always framed in economic terms: investment volumes, employment projections, GDP contributions, foreign exchange earnings, tax revenues. These framings are not wrong, but they obscure the dimension of development pressure that is most decisive in practice. The primary structural advantage that large-scale development holds over conservation and governance processes is temporal. It moves early, it moves fast, and it creates conditions of apparent inevitability that are difficult to reverse.

Large investors seek certainty and create it where it is absent. They identify land, lock it in through purchase or long-term concession before competing land uses can be mobilised. They establish political relationships — not necessarily corruptly, but systematically — before the governance processes that would constrain those relationships are operational. They create employment expectations, infrastructure plans, and community-level economic dependencies that generate constituencies for the development trajectory before any of its negative

consequences become visible. By the time conservation and governance actors have diagnosed the problem, assembled the evidence, built the stakeholder coalitions, and secured the funding to respond, the development trajectory has already generated momentum that is difficult to redirect (Arthur, 1989; Seto et al., 2016).

Conservation processes are structurally oriented toward the opposite of this. They are expected to be cautious, consultative, and evidence-based. They require participatory design, environmental assessment, stakeholder validation, and donor approval processes that take months or years. The implicit assumption is that this careful pace is a virtue — that it produces better outcomes because it is more rigorous and more inclusive. In systems under active development pressure, this assumption is partially wrong. The careful pace is a genuine virtue in terms of governance quality. It is a structural vulnerability in terms of governance timing. By the time a conservation governance process has produced a legitimate, well-designed institutional framework, it may be asked to operate in a landscape that the framework was not designed for.

The temporal imbalance creates a particular kind of governance trap. Each individual decision made under development pressure appears manageable in isolation. A single concession granted, a single EIA approved, a single access road permitted — each of these is a specific, bounded decision. The cumulative effect of many such decisions, each reasonable in isolation, is a system that has reorganised around a development trajectory that would have been much harder to establish had governance coherence existed from the beginning (Holling, 2001; Meadows, 2008). By the time the cumulative picture is visible, the path dependencies are already substantial.

Why Later Mitigation Rarely Delivers

The standard response to development pressure in conservation practice is the promise and pursuit of mitigation. Environmental impact assessments establish conditions. Offset commitments are attached to permits. Restoration requirements are written into concession agreements. Future regulatory frameworks are promised as the capacity to enforce them develops. The implicit logic is that development can proceed and its negative consequences can be corrected in parallel or subsequently. The empirical record on this approach, across coastal systems globally, is unambiguous. It does not deliver at the system level.

Research on environmental governance interventions shows that mitigation introduced after major development decisions have been taken tends to address symptoms rather than drivers (Ferraro & Hanauer, 2014). Ecological offsets rarely replicate the functional complexity of what was lost. Restoration commitments are chronically underfunded relative to restoration need and are among the first obligations to be renegotiated when economic conditions tighten. Enforcement of permit conditions becomes politically sensitive once economic dependence on

the development has been established — investors employ people, pay taxes, maintain political relationships, and can credibly threaten to relocate or reduce investment if regulatory conditions become too onerous.

The deeper problem is structural. In complex systems, delayed governance responses generate feedback dynamics that progressively reduce the effectiveness of later intervention (Holling, 2001; Scheffer et al., 2009). As development accelerates and ecological services degrade, political pressure to relax rather than tighten enforcement grows, because the economic costs of degradation are diffuse and long-term while the economic costs of enforcement are immediate and politically concentrated. Conservation spending may increase even as outcomes decline, because the system is now oriented toward managing degradation rather than preventing it. Enforcement operations become more intensive even as legitimacy erodes, because the communities most affected by enforcement have not been meaningfully engaged in the governance design that enforcement is implementing.

Samaná Bay has not yet entered this dynamic in full, but the trajectory is visible. The governance window — the period during which preventive action is cheaper, more effective, and more politically feasible than reactive management — is open. Recognising that this window is not permanent, and that it is closing at a pace determined by development momentum rather than by governance readiness, is the first requirement for acting strategically within it.

Institutional Silence as Power's Most Effective Tool

A feature of power in systems like Samaná that is rarely named in project documents is the role of institutional silence. The most consequential influence that development pressure exercises over governance institutions is often exercised without any explicit act of coercion or instruction. Institutions self-censor. Officials delay action not because they lack formal authority, but because they have accurately assessed the political and economic consequences of exercising it. This phenomenon — sometimes described in the governance literature as anticipatory compliance — is among the most effective and least visible mechanisms through which power shapes outcomes (Scott, 1998; Andrews et al., 2017).

Anticipatory compliance does not require explicit threats. It operates through accumulated experience of how institutions that have acted assertively in similar contexts have fared. Officials observe that ministries which have applied environmental regulations stringently to politically connected development projects have faced budget reductions, leadership changes, or mandates quietly narrowed in subsequent administrative cycles. Local governments that have sought to exercise land-use authority against national-level investment priorities have been overridden through legal mechanisms or simply ignored when requesting resources. Civil

society organisations that have raised concerns publicly about specific projects have found subsequent funding applications scrutinised more closely or collaborative relationships with state institutions cooled. None of these outcomes requires explicit coordination. They emerge from the accumulated understanding of how the system actually distributes consequences.

In Samaná, what I have observed is not obstruction but caution. Ministries hold legal authority across relevant domains and exercise it selectively. MIMARENA has regulatory powers that, if applied consistently and comprehensively, would substantially constrain development trajectories in the bay — and applies them in ways that reflect an accurate reading of what the political environment will support. Local governments understand the land-use pressures building around coastal zones and respond by not acting first in arenas where acting first creates risk. Civil society organisations carry genuine ecological knowledge and community legitimacy and deploy them carefully, working around the edges of the most politically sensitive issues rather than confronting them directly. None of these actors is failing at their mandate. Each is operating rationally within a system where asserting authority creates exposure that acting cautiously does not.

The governance consequence of anticipatory compliance is a system that appears institutional — laws exist, agencies are staffed, regulatory processes operate — while functioning substantially differently from how the institutional framework suggests it should. Formal authority and effective authority diverge. The divergence is rarely documented and rarely acknowledged in official communications, because acknowledging it would itself be politically consequential. It is, however, accurately understood by every actor who operates regularly within the system. Governance design that fails to account for this divergence will consistently produce stronger institutions on paper than in practice.

Timing as a Primary Design Variable

One of the most consistently under-appreciated insights from complexity science — and one of the most practically important for governance design — is that timing is itself an intervention. Small actions introduced at the right moment in a system's development can have disproportionately large effects on subsequent trajectories. The same actions introduced later, after feedback dynamics have consolidated around a different trajectory, may have negligible effect regardless of their technical quality or political support (Levin et al., 2013; Meadows, 2008). This is because systems evolve through feedback loops, threshold effects, and path dependencies that accumulate over time. The system at t+5 is genuinely different from the system at t in ways that are not fully reversible.

In conservation practice, timing tends to be treated as a logistical constraint — something shaped by funding cycles, political calendars, election periods, and donor approval timelines — rather than as a strategic variable to be actively managed. The implicit assumption is that the

underlying system will remain amenable to governance intervention whenever the project is ready to begin. In systems under development pressure, this assumption is wrong. The governance window — the period during which the system's trajectory can be meaningfully shaped rather than merely managed — is not a stable feature of the landscape. It narrows as development momentum accumulates, as economic dependencies form, as political relationships between investors and state actors deepen, and as the cumulative weight of individual decisions makes the overall trajectory progressively harder to redirect.

Samaná's current moment is defined by the combination of two conditions that rarely coincide for long: the ecological foundations of the system are still largely intact, and the institutional arrangements that will govern the system for the next generation have not yet hardened. The port infrastructure at Puerto Duarte and the Samaná Bayport is approaching completion, which means the development trajectory is accelerating and its political economy is consolidating. The governance architecture that will determine how that trajectory is managed — or whether it can be shaped at all — remains substantially undefined. This is the governance window. It exists now. It will be substantially narrower in three years and may be effectively closed within five.

The strategic implication is direct. Governance design in Samaná must be timed to the window, not to the project cycle. This means accepting that some elements of governance architecture that would be technically preferable at a later stage of institutional development must be initiated now, at lower levels of institutional readiness, because the alternative is initiating them in a landscape where the constraints on what they can achieve have already been determined.

Legitimacy Before Confrontation

The instinct that development pressure most frequently provokes in conservation practice is confrontation: public campaigns against specific projects, legal challenges to environmental approvals, international advocacy aimed at reputational pressure on investors or governments, and coalition-building around opposition to particular development trajectories. These strategies have achieved genuine outcomes in specific contexts, and they are sometimes the appropriate response to acute threats. In systems where local legitimacy is still forming, where institutional relationships between conservation actors and state authorities are fragile, and where the political economy of development has already established significant momentum, premature confrontational strategies carry substantial risks that are worth examining carefully.

Political economy research shows that confrontational strategies tend to harden opposition in ways that close rather than open governance space (Leftwich, 2009; Andrews et al., 2017). When conservation is framed as anti-development — even by actors who would not describe their position this way — it creates a narrative that development interests can mobilise against effectively. Existing political relationships between investors and state actors are activated.

Counter-narratives about economic opportunity foregone and jobs lost circulate in media and political environments where they carry significant weight. Regulatory processes that had been proceeding slowly begin to move faster, under pressure to demonstrate that governance is not obstructing investment. The space for the nuanced, sequenced governance work that would actually improve outcomes contracts.

In Samaná specifically, the risk of premature confrontation is that it frames the choice as conservation versus development rather than as a question of governance design: which institutional architecture will produce the best long-term outcomes for both ecological health and economic resilience. The second framing is accurate and defensible. It aligns with the interests of responsible investors, national government agencies that understand reputational risk, and international financial institutions increasingly attentive to environmental and social governance standards. The first framing, once established, is very difficult to dislodge, because it maps onto pre-existing political coalitions and economic interests that have little incentive to engage with more nuanced arguments.

This does not mean avoiding difficult issues or accommodating development trajectories that will produce irreversible harm. It means sequencing the engagement with those issues carefully — building the domestic legitimacy, institutional credibility, and political relationships that allow difficult conversations to be conducted without triggering the defensive consolidation that confrontation at this stage would produce.

Power Is Rebalanced, Not Removed

One of the most important insights from polycentric governance theory, and one that conservation practice frequently misses, is that power cannot be eliminated from governance systems. Attempting to design it out produces systems that suppress visible power while leaving the underlying dynamics intact, operating through less visible channels that are harder to monitor and harder to address (Ostrom, 2010). The goal of governance design is to rebalance power — to create the institutional conditions under which different actors' interests are recognised, represented, and constrained within shared rules — rather than to neutralise it.

Effective governance rebalancing does not require defeating development interests or removing economic actors from the system. It requires creating predictable rules that apply consistently regardless of political connection, shared expectations about what development is and is not permissible within the system's ecological limits, and transparent consequences that are administered by institutions with sufficient legitimacy to make those consequences credible. Over time, this shifts the incentive landscape. Actors who currently benefit from regulatory ambiguity and inconsistent enforcement find that predictable, consistently applied rules create their own form of certainty — one that can be planned around and that does not require maintaining political relationships to navigate.

In Samaná, this rebalancing cannot occur through isolated sectoral reforms or through the accumulation of individual project-level governance improvements. It requires a system-level architecture: an institutional platform with sufficient authority, legitimacy, and cross-sectoral reach to align land-use planning, marine governance, tourism management, watershed stewardship, and development regulation within a coherent framework. The Samaná Bay Conservation Authority, as the governance architecture being developed through this initiative, is conceived precisely as this kind of rebalancing platform. Its value is not in opposing development but in creating the institutional conditions under which development decisions are made transparently, within ecologically grounded limits, and with accountability to the full range of actors whose livelihoods and environments are affected.

Crucially, this architecture must be in place before development pressure reaches its peak — before the political economy of investment has consolidated around a trajectory that treats governance as an obstacle rather than as a framework within which investment occurs. Once capture occurs, once governance institutions have been successfully positioned as obstructionist rather than as enabling frameworks, rebalancing becomes exponentially harder. The institutions can still be built, but they are built against the grain of a system that has already organised itself around their absence.

The Cost of Acting Too Late

The literature on regime shifts and ecological tipping points is unambiguous on this asymmetry: the resources required to prevent a transition are almost always substantially less than the resources required to reverse one (Scheffer et al., 2001; Scheffer et al., 2009; IPBES, 2019; Walker & Salt, 2006). This is because systems that have crossed thresholds reorganise around new stable states that have their own reinforcing dynamics. The degraded state is not simply a reduced version of the functional state. It is a different system, with different feedbacks, different actor relationships, and different political economies — all of which resist the restoration of what preceded them.

In coastal systems, late intervention produces a characteristic paradox. Conservation spending increases, often dramatically, as the scale of the problem becomes undeniable. Enforcement operations intensify, consuming resources and political capital. International attention grows, accompanied by new funding commitments. And outcomes continue to decline, because the system's feedback dynamics are now oriented toward maintaining the degraded state rather than toward the ecological functions that preceded it. Each enforcement action generates conflict with communities whose livelihoods have adapted to the degraded conditions. Each restoration commitment encounters an ecological landscape that has reorganised in ways that make restoration slower, more expensive, and less predictable than projected.

Samaná Bay has not crossed these thresholds. Humpback whale populations continue to use the bay as a breeding ground, a function that depends on acoustic conditions, vessel density, and disturbance levels that are still, within limits, governable. Mangrove systems retain substantial coverage and functional connectivity. Watershed forest cover, while reduced, has not crossed the threshold at which sediment dynamics permanently compromise nearshore productivity. Reef systems are under pressure but retain recovery capacity if the pressure drivers are addressed. These are the conditions that make preventive governance both possible and meaningful. They will not persist indefinitely under current development trajectories.

The governance window in Samaná is real and currently open. Every month that passes without establishing the institutional architecture that can bring development decisions within an ecologically grounded governance framework is a month in which the path dependencies that constrain future options deepen. The cost is not paid immediately. It accumulates quietly, in the form of decisions made, investments locked in, political relationships consolidated, and narrative framings established, until the moment when the full cost becomes visible. By that point, the governance options that were available earlier are no longer available, and the options that remain are more expensive, more contested, and less likely to succeed.

Closing Reflection

The relationship between power and conservation outcomes in complex coastal systems resolves to a simple but demanding observation: power moves early, governance moves late, and outcomes are determined in the space between. This is not a counsel of despair. It is a design specification.

The specification calls for governance architecture that is initiated before development pressure peaks rather than in response to it, that creates institutional conditions for rebalancing power rather than attempting to neutralise it, and that treats legitimacy as the primary precondition for effective authority rather than as a desirable quality to be added once authority is established. It calls for a deep understanding of how informal power operates through anticipatory compliance and institutional silence, so that governance design accounts for these dynamics rather than being undermined by them. And it calls for an honest reckoning with timing — with the recognition that the governance window in Samaná is open now, is narrowing, and represents an opportunity that will not recur in its current form.

The opportunity in Samaná does not lie in resisting development or in confronting the actors who are driving it. It lies in building the institutional architecture that makes development governable — that creates the shared rules, transparent processes, and legitimate authority that can bring ecological limits and economic interests into a productive rather than a destructive relationship. That architecture must be built now. Later is a different problem, with fewer tools and higher costs.

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