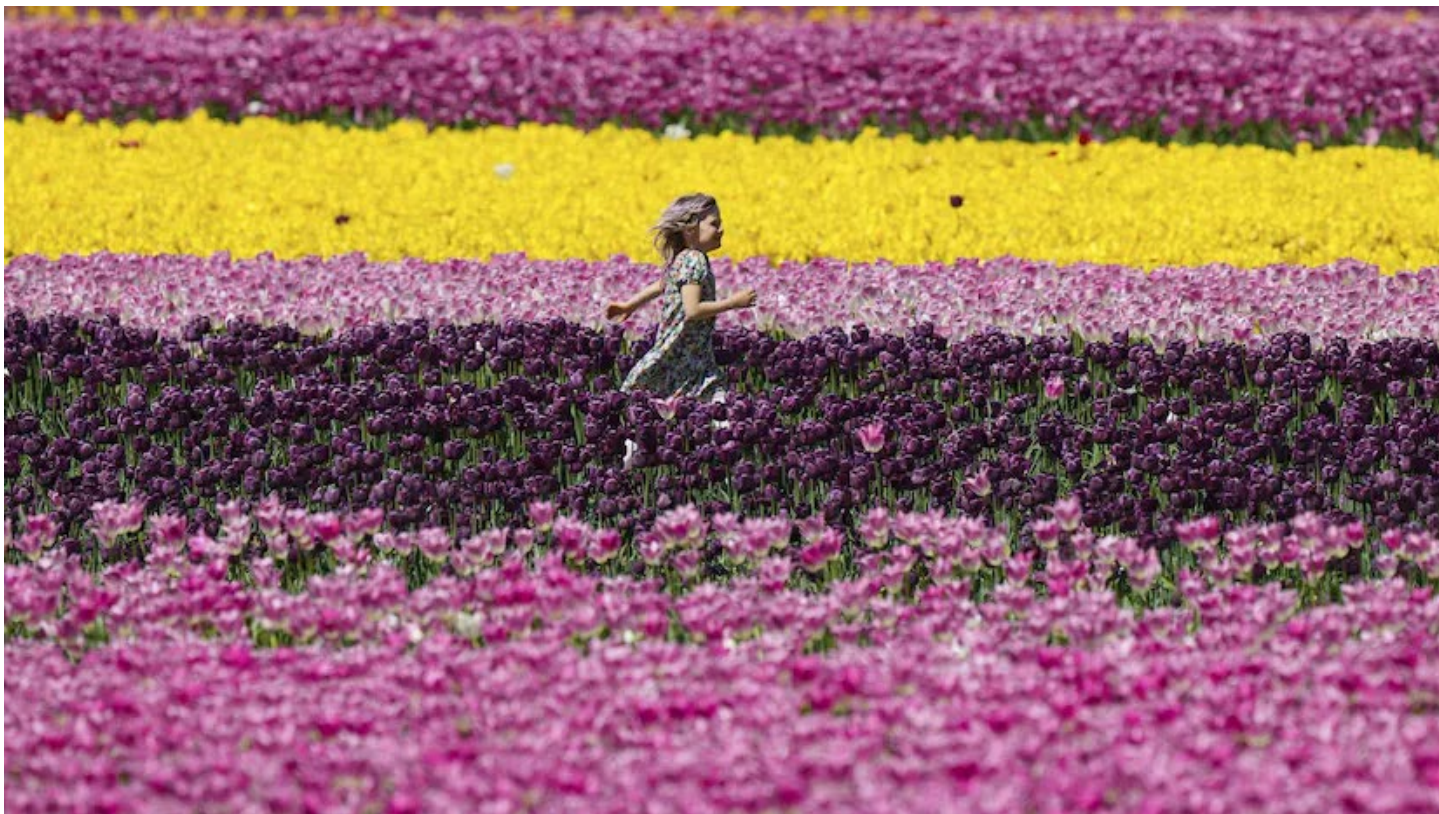




Inclusive Growth and Planetary Health from the Margins Inward

Inclusive Growth and Planetary Health from the Margins Inward

by Dr. h.c. Anja Carron

Executive summary

The proposition is substantially supported, but only under specific institutional conditions. Over the last two decades, the strongest literature on inclusive growth has moved away from aggregate GDP and toward participation, territorial equity, resilience, and the quality of structural transformation. In parallel, place-based development and cluster research has shown that underused local assets, related activities, and dense institutional coordination can raise employment, wages, innovation, and regional renewal. Bioeconomy and planetary health scholarship adds a further condition: growth is not durable unless it regenerates the ecosystems on which it depends. [1]

Comparative evidence from Assam, Brazil, Morocco, Ghana, the Philippines, Indonesia, and Galicia suggest that “margins inward” development works best when four elements coincide: secure or recognized access to ecosystems; women’s real control over organization and value capture; territorial clustering of production, processing, branding, and market intermediation; and ecological rules that keep the resource base alive. Where these conditions hold, peripheral regions can become engines of economic differentiation, social inclusion, and ecological stewardship. Where they do not, value leaks outward, women remain low-paid labor rather than asset-holders, and the bioeconomy slides back into extraction. Assam matters in this frame not as a summit story, but as a living example of how women, biodiversity, craft, and territorial identity can already anchor a different development model. [2]

What the literature suggests

Recent territorial-development research is clear on one point: place-blind macro policy is not enough where regions face persistent spatial disadvantage, ecological shocks, weak institutions, or asset underuse. The OECD’s 2025 synthesis argues that place-based policy is needed to mobilize underused local assets, upgrade local public goods, respond to asymmetric shocks, and integrate productivity, sustainability, and inclusion. The same review emphasizes that these policies matter especially in places facing long-term underperformance and that their effectiveness depends on multi-level governance, institutional capacity, and policy coherence. [3]

Cluster theory, read through a contemporary territorial lens, also supports a margins-inward logic. Delgado, Porter and Stern show that strong regional clusters are associated

with higher employment growth, wage growth, establishment growth, and patenting, and that new industries emerge more easily where related clusters already exist. The underlying mechanism is not simple specialization, but spillovers across related and complementary activities. In evolutionary economic geography, this is close to the “related variety” argument: regions diversify most successfully when they branch from what they already know, rather than copying unrelated metropolitan sectors. [4]

This matters for bioeconomy. FAO’s sustainable bioeconomy work defines bioeconomy not only as the use of biological resources, but also their conservation and regeneration, linked to knowledge, technology, and innovation. New Latin American formulations go further: the Amazonian bioeconomy literature explicitly adds ancestral and traditional knowledge as a foundational principle, arguing that a standing forest must become economically more valuable than a cleared one. In other words, the most credible contemporary bioeconomy is territorial, knowledge-rich, and ecological by design, not simply biomass-intensive. [5]

Planetary health sharpens the argument. The Rockefeller Foundation–Lancet Commission defined planetary health as the health of human civilization and the state of the natural systems on which it depends. UNEP’s Global Environment Outlook 7 reaches a similar conclusion from a macroeconomic angle: investing in climate stability, healthy nature, healthy land, and lower pollution can deliver large economic gains, lower mortality, and less poverty, while business-as-usual deepens systemic risk. The implication is direct: inclusive growth that degrades the local ecological base is internally contradictory. [6]

The gender literature adds a final layer. FAO’s work on women in agrifood systems shows that women remain systematically disadvantaged in access to productive resources and decent work, and that closing those gaps would raise global output and reduce food insecurity. At the same time, biodiversity and conservation research increasingly shows that women’s meaningful participation in resource governance improves equity and often strengthens environmental outcomes, especially where women have genuine voice, access, and control rather than symbolic inclusion. Grassroots-innovation reviews point in the same direction: bottom-up initiatives are especially relevant where formal systems have failed to solve local sustainability problems, but they scale only when institutions connect them to learning, finance, and markets. [7]

Geographical indications sit at the intersection of cluster theory and territorial development. Recent regional-studies research finds that GIs can strengthen local development by tying value to place-specific know-how and territorial reputation, while FAO treats GI policy as a tool for sustainable rural development. GIs are not a complete

strategy, but they are one of the clearest institutional devices for turning “margin” identities into market differentiation rather than stigma. [8]

Comparative case studies

The cases below do not all fit a narrow industrial-cluster definition. Some are better understood as territorial production systems, socio-bioeconomy networks, or ecosystem-based cooperative clusters. That is precisely the point: in marginal regions, the economically decisive unit is often not a single firm or sector, but a living nexus of ecosystem, labor, organization, identity, and market intermediation. [9]

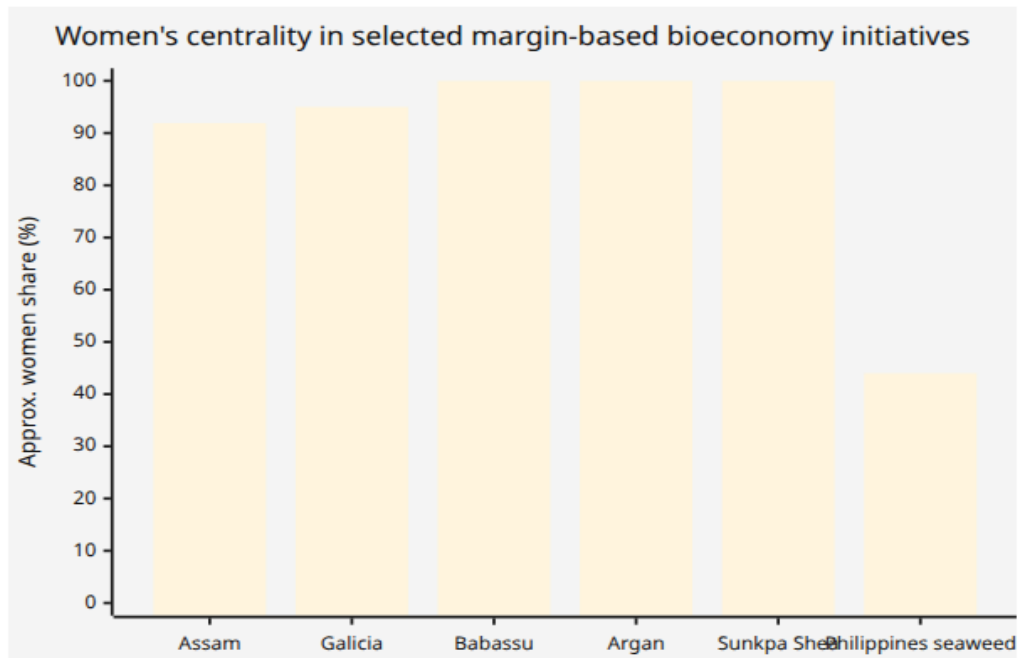
Case	Context and marginality	Women's role	Ecosystem / cluster intervention	Outcomes	Success factors	Constraints	Sources
Assam, India: handloom-sericulture-GI economy	Peripheral northeastern state with strong biodiversity, craft economies, and flood/climate risk	Women are the core workforce: 1,179,507 of 1,283,881 handloom workers in Assam are female, about 91.9%	Dense territorial link between fibers, weaving, sericulture, local knowledge, and GI-linked cultural products; forest- and biodiversity programmes also support alternative livelihoods	Large female-led employment base; strong territorial identity; potential for higher value capture through design, branding, and GI products	Deep local knowledge; cultural legitimacy; high female participation; biodiversity-linked value chains	Weak value capture, finance gaps, flood and erosion risk, uneven managerial capacity	Assam handloom and gender data: [10]; biodiversity / livelihoods: [11]
Brazil: babassu breaker women	Traditional communities in Amazon-Cerrado transition zones facing	Babassu breaking is a women-led extractive economy	Community organizing, “Free Babassu” access rules, value-chain	Biodiversity protection linked to livelihoods; stronger collective identity and bargaining power; local	Strong social movement; territorial rights framing; knowledge embedded in use practices	Land conflict, deforestation, weak enforcement, unequal downstream value capture	[12]

Case	Context and marginality	Women's role	Ecosystem / cluster intervention	Outcomes	Success factors	Constraints	Sources
	fencing, agribusiness expansion, land conflict	y and political movement; recent reporting describes roughly 400,000 women and families tied to it	building for socio-biodiversity products	business links without abandoning forest use			
Morocco : argan biosphere and women's cooperatives	Dry, peripheral southwest Morocco; argan woodland under climate and market pressure	Women are central custodians of argan harvesting and processing; major cooperative networks are women-only	Biosphere-reserve model plus women's cooperatives, literacy/training, branding, territorial products	Income opportunities for rural women; preservation of argan know-how; argan landscapes support anti-desertification functions	Strong territorial branding; women's cooperatives; heritage recognition; ecological uniqueness	Value capture increasingly shifts upward to firms; drought and commercialization strain forests	Biosphere reserve and women's role: [13]; constraints: [14]
Ghana: Sunkpa Shea Women's Cooperative	Dry savannah edge of Mole National Park; poverty, land pressure, charcoal threat,	Entire cooperative is women-led; over 800 women members and 200	Shea value chain organized within Community Resource Management Areas; organic value	More than 650 ha restored; over 150,000 seedlings planted; conservation rules across 120,000 ha; 800 women supported;	Women-led governance; landscape institutions (CREMAs); link between livelihoods and restoration; buyer linkages	Land tenure limits; charcoal pressure; climate variability; dependence on external market access	[15]

Case	Context and marginality	Women's role	Ecosystem / cluster intervention	Outcomes	Success factors	Constraints	Sources
	climate risk	women employed in processing	chain, non-wood briquettes, biodiversity monitoring	over 1,000 kg organic shea butter produced daily			
Philippines: Tawi-Tawi seaweed economy	Remote island province with limited alternatives, price volatility, and environmental stress	Women have significant roles across production, post-harvest and marketing; older FAO evidence puts women at about 44% of regular labor, while local initiatives show women-led organizing	Seaweed cluster around farming, drying, trader links, and local association-building; potential for value addition and blue-bioeconomy upgrading	Tawi-Tawi produces around 40% of Philippine seaweed output; in supported communities, farmers report incomes well above small-scale fishing; seaweed can reduce pressure on destructive livelihoods when profitable	Large territorial concentration; low-input blue economy; women's association-building; local government/private support	Price crashes, dependence on traders, climate/war ming stress, weak upgrading into higher-value products	[16]
Indonesia: social forestry and mangrove-linked enterprises	Forest-fringe and island communities with historic exclusion	Women are not dominant everywhere, but the program	Legal access to forests, zoning, business-chain support, agroforestr	Social forestry programme supports 300,000 ha and was expected to reach	Rights plus enterprise support; ecological and social goals combined; integration of	Gender inclusion still partial; capacity constraints; programme effectiveness varies with	[17]

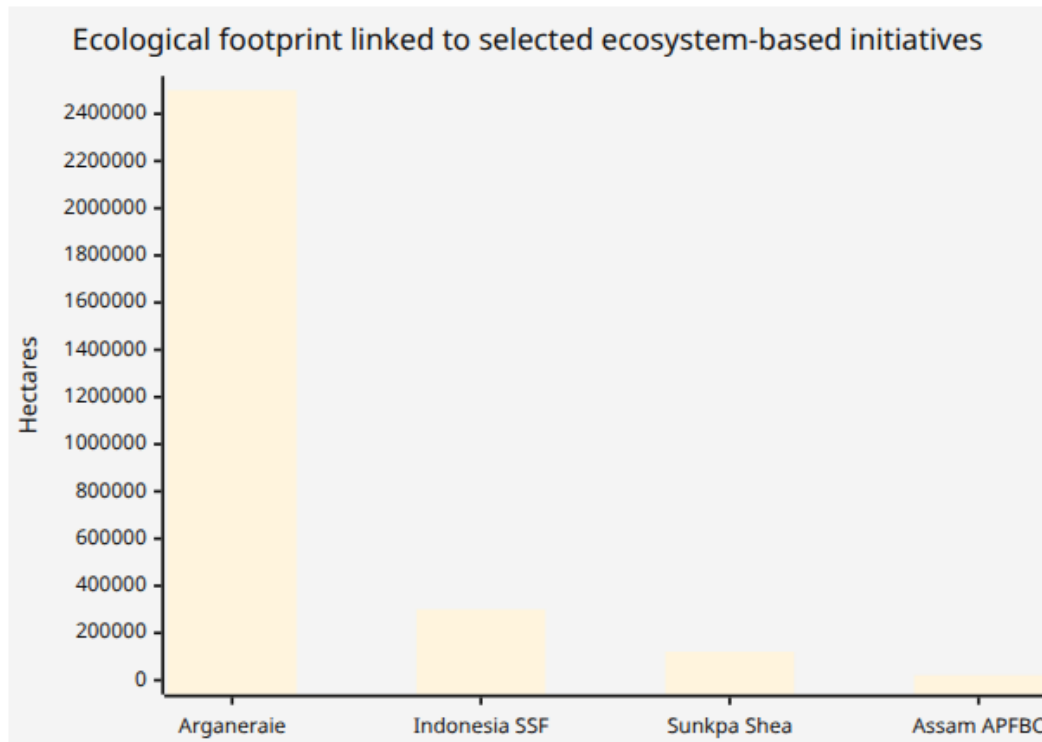
Case	Context and marginality	Women's role	Ecosystem / cluster intervention	Outcomes	Success factors	Constraints	Sources
	from state forests	me explicitly targeted women and community enterprise capacity; one major mangrove case shows strong rural income gains	y, honey, and community forest enterprises	150,000 beneficiaries, 30% women, with 9.2 million tons of CO2 reductions; Padang Tikar villagers manage 76,000 ha of mangroves and report about IDR 325 million in monthly profits from agroforestry businesses and honey	production, processing, and markets	local institutions	
Galicia, Spain: mariscadoras shellfish co-management	Peripheral coastal estuaries with historically marginalized women's labor	Women represent about 95% of shellfish gatherers on foot; the sector is a classic women-centered coastal bioeconomy	Transition from open access to regulated co-governance, seeding, habitat care, marketing reform, association-building	Better income, stronger recognition, professionalization, improved marketing, and reduced overexploitation in many areas; the value of Japanese carpet shell landings grew strongly between 2001 and 2019	Strong collective organization; co-governance; ecological repair embedded in production; local knowledge	Climate change, pollution, poaching, gender inequality in leadership, ecological deterioration in some estuaries	[18]

Chart 1



The figures are indicative rather than perfectly homogeneous: Assam and Galicia are sectoral workforce shares; the Philippines value refers to women in regular seaweed labor; Babassu, argan cooperatives, and Sunkpa Shea refer to women-led or women-only focal organizations. The point is not exact comparability, but the degree to which these “peripheral” economies are already built on women’s labor and organization. [19]

Chart 2



These area figures are also not identical in meaning: the argan number is the biosphere-reserve footprint, Indonesia’s figure is the social-forestry programme area, Sunkpa Shea’s figure is the landscape under conservation regulations, and Assam’s number is reforested area cited by AFD. Even so, they show that “margins” are often ecologically large territories, not niche micro-projects. [20]

Mechanisms

The cases suggest a consistent mechanism. Economies built from the margins inward do not start with metropolitan sectors looking outward for cheap inputs. They start with under-valued territorial assets that already exist at the margin: women’s labor, tacit production knowledge, biodiversity, local brands, cultural legitimacy, and ecosystem services. Place-based institutions then convert these scattered assets into a recognizable cluster or territorial production system. Typical instruments are producer groups, community rights, GI protection, processing facilities, design and quality upgrading,

biodiversity rules, and public–private intermediation. This is where cluster theory becomes territorial development in practice: related activities are not merely co-located, they are socially and ecologically coordinated. [21]

Women’s centrality changes the mechanism further. In the strongest cases, women are not treated as beneficiaries at the end of a distribution chain. They are the production system: Assam’s handloom economy, Moroccan argan cooperatives, Ghana’s shea landscape, and Galicia’s shellfish co-management all show that once women move from labor supply to organization, quality control, and governance, the local economy becomes harder to delocalize and more likely to retain value locally. Where women are still confined to labor without ownership or market power, as parts of the Philippines seaweed and Morocco argan chains show, bioeconomy remains vulnerable to capture from outside the territory. [22]

Ecological outcomes improve when value capture depends on living ecosystems rather than on liquidation. Galicia’s co-governance moved shellfishing from near-open access toward regeneration and marketing control. Sunkpa Shea ties women’s income to reforestation, biodiversity monitoring, and reduced timber pressure. Indonesia’s social forestry model links legal access, livelihoods, and reduced emissions. Brazil’s babassu breaker women defend forest access precisely because the standing forest is the production base. These are not “environmental add-ons”: they are production conditions. [23]

That is why the proposition is analytically stronger in an ecosystem framework than in a standard social-inclusion frame. The margin is not merely the leftover of the economy. It is often where the resource base, the undercounted labor, and the irreplaceable knowledge are actually located. Building inward from there can improve resilience and inclusion because it reduces value leakage and strengthens stewardship incentives. But this works only if the institutional architecture prevents the familiar reversal: women as labor reserve, culture as marketing veneer, and biodiversity as raw material stock for others. [24]

Policy and investment implications

For policymakers, the first priority is **recognition before subsidization**. Where the resource base is forest, wetland, coast, or GI-linked local production, secure access rights and legal recognition of community institutions matter more than one-off grants. The Brazilian, Indonesian, Galician, and Ghanaian cases all show that once access or co-governance is clarified, investment becomes more productive and stewardship more credible. [25]

The second priority is to invest in **cluster infrastructure, not only in producers**. The missing middle is recurrent across cases: storage, processing, testing, packaging, logistics, branding, digital market access, and working capital. Without those functions, women remain price-takers and local ecosystems subsidize external value chains. This is especially visible in argan and seaweed, where commercialization has expanded faster than local value capture. [26]

Third, finance should be **blended and patient**. Donor, public, and impact finance are most useful when they de-risk enterprise upgrading, certification, cooperative governance, restoration, and market development at the same time. The strongest cases combine business support with ecological investment: Sunkpa Shea’s nursery and briquettes, Indonesia’s social forestry enterprises, and Assam’s biodiversity-linked livelihood support are all examples of combined economic and ecological infrastructure. [27]

Fourth, women’s inclusion should be measured through **ownership, governance, and value capture**, not participation rates alone. Headcounts can conceal hierarchy. Good policy indicators therefore need to track women’s control of producer organizations, access to finance, brand ownership, land or resource rights, management roles, and retained margins along the chain. The literature on women in agrifood systems and biodiversity governance strongly supports this shift. [28]

Fifth, GI and origin-based products deserve more attention as **territorial innovation instruments**. They are not nostalgic labels. Used well, they protect quality, organize producers, reward biodiversity-compatible practices, and anchor higher-value niches in marginal regions. Assam’s craft-and-silk products make this especially relevant for northeastern India, but the logic travels far beyond Assam. [29]

For investors, the investable thesis is not “women” or “nature” in the abstract. It is **territorially embedded, women-centred value systems with defensible ecological assets and upgrading pathways**. The most attractive opportunities are where producer organization, market differentiation, ecological regeneration, and local governance are already visible but under-financed. The main risks are familiar: tenure insecurity, climate shocks, buyer concentration, weak cooperative management, and elite capture. [30]

Analytical conclusion

The evidence does not justify a romantic claim that all margins are inherently sustainable, or that all women-led enterprises automatically deliver better ecological outcomes. But it does justify a sharper proposition: inclusive growth and planetary health are most plausibly advanced when development begins with the territorial realities that standard policy has long treated as peripheral. Those realities are often women’s labor, biodiversity-rich landscapes, community knowledge, and origin-based production systems. [31]

Assam is a particularly clear illustration. It already contains a large, women-centred production base in handloom; a biodiversity-rich landscape economy; and a set of place-specific cultural products that lend themselves to GI-based differentiation. That does not make success automatic. It means the building blocks are already there. The real policy question is whether the state and its partners will keep treating these activities as welfare-adjacent sectors, or whether they will build them as serious territorial economic systems with finance, processing, market power, and ecological governance. [32]

The comparative cases sharpen the lesson. Brazil's babassu breakers show that biodiversity economies fail without access rights. Morocco's argan economy shows that market growth can coexist with women's exclusion if value capture shifts upward. Ghana's Sunkpa Shea case shows what becomes possible when women's organization, ecological restoration, and processing capacity are built together. Galicia shows that co-governance can turn a stigmatized informal activity into a professional, regenerative one. Indonesia and the Philippines show that ecosystem economies scale only when legal access and business-chain upgrading move together. [33]

The strongest analytical conclusion is therefore conditional but firm: **the future economy will be more inclusive and more compatible with planetary health when it is built from the margins inward, through ecosystem-based territorial clusters in which women are not simply workers, but organizers, owners, innovators, and governors of value.** Where that institutional shift is absent, "bioeconomy" risks becoming another language for extraction. Where it is present, the margin stops being the edge of development and becomes one of its most productive starting points. [34]

Open questions and limits

Several widely cited cases use a mix of peer-reviewed articles, official programme documents, and high-quality practitioner reports, which is appropriate for rapid policy synthesis but not a substitute for field evaluation. [35]

Three research gaps stand out. First, more longitudinal evidence is needed on whether women's increased participation translates into durable control over assets and higher retained margins. Second, bioeconomy metrics still insufficiently combine income, biodiversity, and resilience in one territorial accounting frame. Third, scaling remains the hardest question: it is still unclear how to expand these ecosystem-based clusters without diluting local governance, over-commercializing traditional knowledge, or degrading the resource base. [36]

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