



Mainstreaming Biodiversity into Fiji's Coastal Fisheries Sector

BIODEV2030 Phase II – From Diagnosis to Decision



KEY MESSAGES



- Fiji's coastal fisheries sector underpins food security, livelihoods, and cultural systems, contributing significantly to domestic consumption and local economies, while supporting national income through commercial and tourism-linked supply chains.



- Fisheries productivity is highly dependent on ecosystem health, particularly coral reefs, mangroves, and seagrass systems, which are increasingly under pressure from overfishing, habitat degradation, and land-based pollution.



- BIODEV2030 analysis confirms that fishing pressure, weak enforcement, and land-sea connectivity are key drivers shaping biodiversity outcomes, with sedimentation and habitat loss reducing ecosystem resilience.



- Fiji has a strong governance framework, including fisheries legislation, community-based management systems, and national ocean policy, but implementation remains uneven due to capacity and coordination constraints.



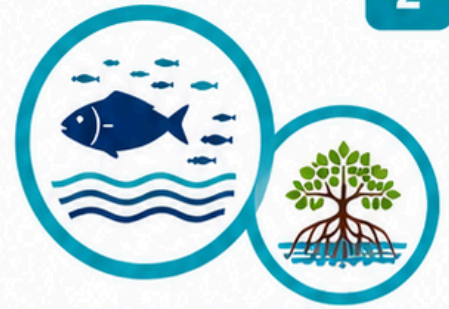
- Targeted stakeholder inputs indicate that the priority is operationalising existing frameworks through clear procedures, enforcement readiness, shared data systems, and stronger support for community-based implementation.



- Priority reforms focus on operationalising enforcement mechanisms, strengthening co-enforcement with communities, improving monitoring systems, and integrating ridge-to-reef approaches to address both marine and land-based drivers.



- Implementation will require capacity building for fisheries officers, fish wardens and community monitors, together with practical mechanisms for data sharing, risk protection, and coordinated enforcement.



1. Introduction: From Biodiversity Diagnosis to Sector Reform

Fiji's marine ecosystems form the foundation of its coastal fisheries sector, supporting food security, livelihoods, and economic development. Coral reefs, mangroves, and seagrass ecosystems provide critical ecological functions, including habitat provision, nutrient cycling, shoreline protection, and fisheries productivity. National biodiversity assessments indicate that these ecosystems are under increasing pressure from overexploitation, habitat-degradation, and land based impacts such as sedimentation (O'Brien et al., 2021; IUCN, 2022).

Through the BIODEV2030 initiative, coastal fisheries were identified alongside agriculture as priority sectors where economic activity intersects strongly with biodiversity outcomes. Phase II builds on this evidence by applying a structured analytical framework to understand how sector practices translate into environmental pressures and to identify practical, implementable policy responses within existing governance arrangements.

Coastal fisheries were prioritised because of their central role in rural livelihoods, food systems, and customary marine tenure. Unlike offshore fisheries, coastal fisheries are closely linked to local communities and qoliqooli based governance systems, making them both socially critical and environmentally sensitive. At the same time, their sustainability is influenced not only by fishing practices but also by upstream land use decisions, reinforcing the importance of integrated ridge to reef policy coherence.

The core policy challenge is therefore one of alignment and operationalisation. Fiji has strong fisheries and environmental policies, but these are not consistently coordinated or implemented across scales. This policy brief responds by translating BIODEV2030 findings into decision ready reform directions to strengthen biodiversity outcomes while sustaining fisheries dependent livelihoods and economic contribution. Targeted consultation inputs reinforce this direction by confirming that the immediate reform task is not the creation of new policy instruments, but the operationalisation of existing frameworks. This includes strengthening enforcement procedures, co-management arrangements, monitoring systems and cross-sector coordination mechanisms that can be implemented within current institutional mandates.

2. Sector Overview: Growth, Value Chain and Economic Importance

Coastal fisheries are a cornerstone of Fiji's food systems and rural economy, providing a primary source of protein and income for coastal communities. Total annual production is estimated at approximately 30,000 tonnes, spanning subsistence, small scale commercial, and freshwater fisheries, underscoring the sector's critical contribution to national food security.

The sector supports thousands of small scale and subsistence fishers and plays a central role in rural livelihoods. Inshore fisheries generate an estimated FJD 80 million in subsistence value and FJD 58 million in commercial value annually, highlighting their combined economic and social significance (Pacific Community [SPC], 2026).

Fiji's marine ecosystems are extensive and highly productive. The country has approximately 1,129 km of coastline and an Exclusive Economic Zone exceeding 1.28 million km², with coral reefs, mangroves, and seagrass ecosystems underpinning fisheries productivity. Coral reef extent is estimated between 7,600 and 10,000 km², while mangroves cover between 42,500 and 65,000 hectares, providing critical nursery habitat for fish species (Government of Fiji, 2020; UNESCO, 2022; ICRI, 2024).

The fisheries value chain is dominated by small scale, community based production systems supplying local markets, informal trading networks, and tourism linked demand. Coastal fisheries remain primarily domestically oriented, forming the backbone of local food systems, while offshore fisheries contribute more directly to export earnings. Increasing urban demand and market integration are gradually intensifying pressure on some nearshore systems. This market orientation reinforces the importance of compliance systems and incentives that operate within domestic value chains. Where access to finance, market participation or sector support can be linked to compliance with fisheries requirements, such mechanisms may strengthen incentives for sustainable practice.



Trends in offshore and industrial activity also shape the broader fisheries context. Figure 1 shows national longline fleet catch volumes between 2018 and 2026, illustrating significant inter annual variability driven by market conditions, fuel costs, and regional stock dynamics. While offshore fisheries are managed under a different regulatory regime from coastal fisheries, these trends influence overall fisheries governance capacity, including monitoring effort, enforcement prioritisation, and resource allocation decisions.

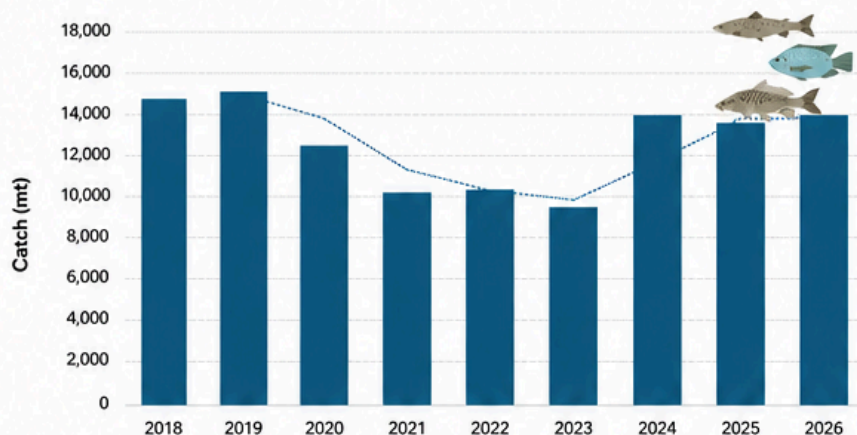


Figure 1. Offshore fisheries production: volatility, recovery, and stabilisation (2018–2026).

Annual catch of Fiji's national longline fleet illustrates contraction during the COVID 19 period, a strong rebound in 2024, and stabilisation projected for 2025–2026, highlighting both economic importance and continued exposure to variability.

Fisheries also contribute directly to national economic performance. As shown in Figure 2, fishing and aquaculture GDP increased steadily between 2020 and 2026, alongside rising values of fresh and processed fish products. This recovery underscores the material contribution of fisheries to national income, while also illustrating the sector's sensitivity to international markets and operating conditions.

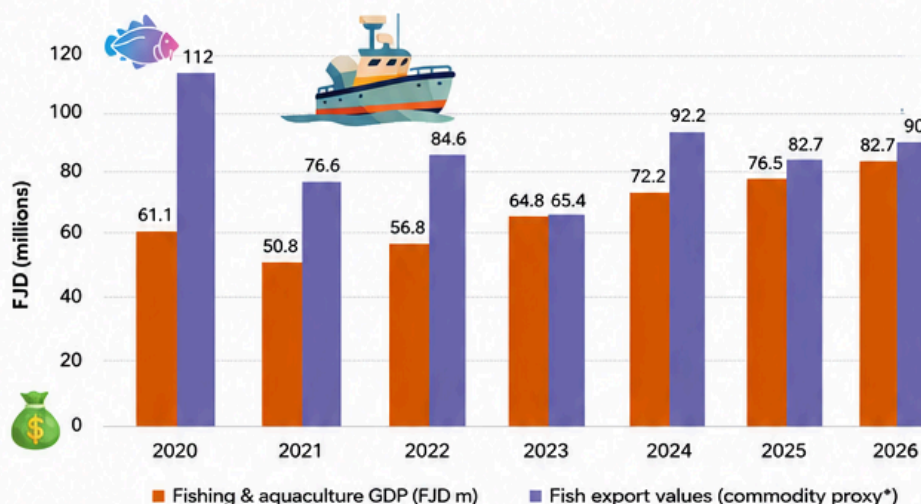


Figure 2. Economic contribution of Fiji's fisheries sector: GDP and fish export values (2020–2026).

Trends in fisheries and aquaculture contribution to GDP alongside fish export values (commodity proxy) show post COVID recovery, with continued sensitivity to market conditions. Export values from 2023 onward reflect commodity trade only and exclude re exports.

Together, production and economic trends mask an important structural distinction within the sector. Table 1 sets out the structural composition of Fiji's fisheries sector, highlighting the dominance of coastal and freshwater fisheries in domestic food systems, alongside a smaller but high value offshore export segment. This dual structure is central to understanding why coastal fisheries governance is critical not only for biodiversity outcomes but also for food security and social resilience.

Table 1. Structural composition of Fiji's fisheries sector and market orientation.

Coastal commercial, subsistence, and freshwater fisheries together form the primary domestic food base, while offshore longline fisheries predominantly support export earnings.

Fisheries segment	Approximate annual production (tonnes)	Primary market orientation	Policy relevance
Coastal commercial fisheries	~11,000	Domestic markets	Local food supply and livelihoods
Coastal subsistence fisheries	~16,000	Household consumption and sharing	Food security, cultural importance
Freshwater fisheries	~3,700	Local/domestic use	Inland food systems
Total domestic oriented fisheries	~30,700	Predominantly domestic	National food security base
Offshore longline fisheries	~13,900–14,500 (2026 indicative)	Predominantly export oriented	Export earnings and foreign exchange

Notes: Domestic oriented fisheries figures reflect the most recent verified structural estimates and are assumed broadly stable in the absence of updated official revisions. Offshore longline production reflects post recovery stabilisation estimates consistent with recent WCPFC reported trends.



Despite its economic and social importance, the coastal fisheries sector is increasingly constrained by declining ecosystem condition. Coral reef degradation, mangrove loss, and sedimentation reduce habitat quality and fish productivity, increasing vulnerability for communities dependent on nearshore resources. This reinforces the sector's dependence on ecosystem health and highlights the need for integrated, ecosystem based and ridge to reef management approaches to sustain fisheries productivity over the long term. Maintaining this productive base will require not only habitat protection, but also practical investment in community-based monitoring, fish warden support, landing-site data collection and shared information systems capable of informing adaptive management.

3. Drivers, Pressures and Impact Chain of the Fisheries Sector

BIODEV2030 analysis demonstrates that coastal fisheries operate through a clear impact chain linking socio economic drivers to biodiversity outcomes. Population growth, rising seafood demand, and reliance on fisheries for livelihoods create strong incentives for resource extraction (Figure 3).

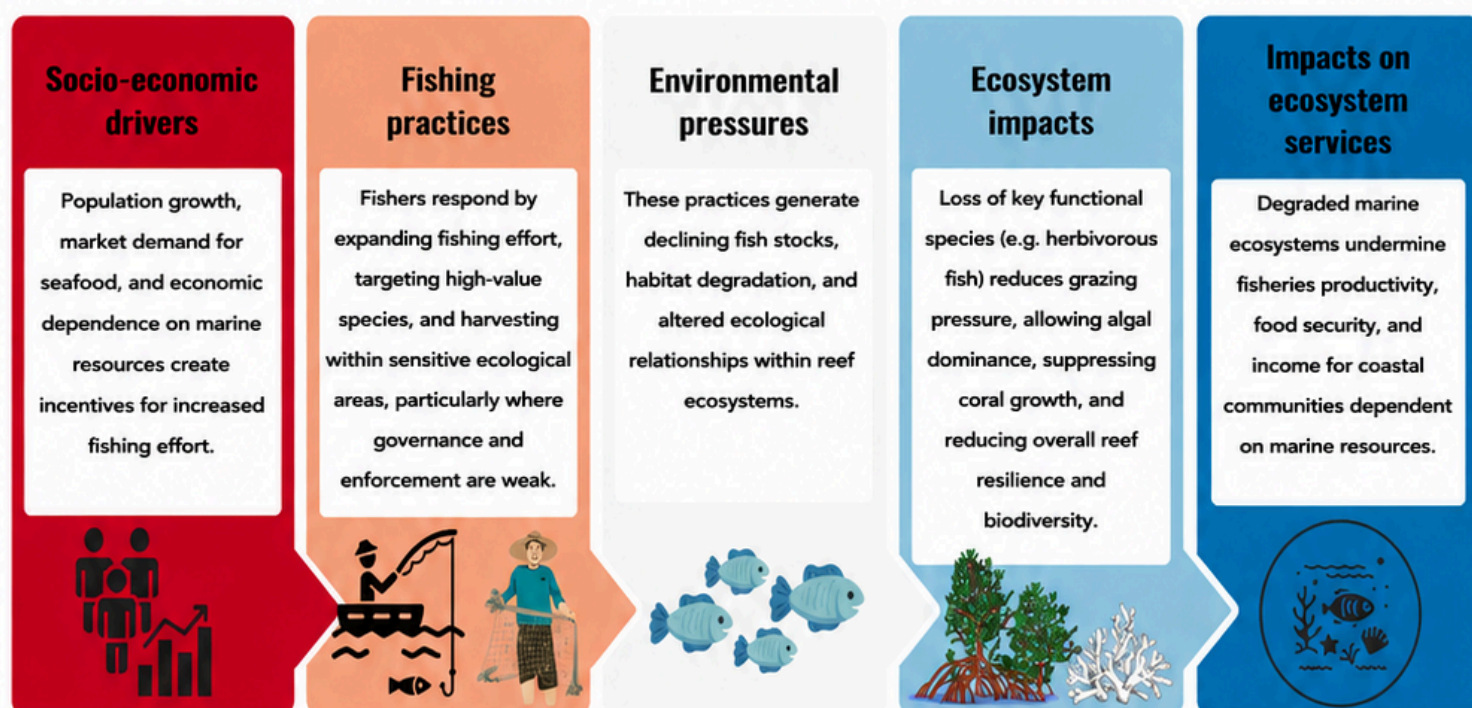


Figure 3. Impact chain for coastal fisheries illustrating how socio economic drivers increase fishing effort and influence practices that place pressure on marine ecosystems. These pressures degrade reefs and fish stocks, ultimately reducing fisheries productivity, food security, and livelihoods for coastal communities.

These drivers shape fishing practices, including increased fishing effort, targeting of high value species, and harvesting in ecologically sensitive areas. Combined with land based pressures, they generate direct impacts through overfishing, habitat degradation, sedimentation, and pollution. Stakeholder-informed inputs identify illegal or non-selective fishing practices, weak compliance coverage and limited operational enforcement as factors that intensify pressure on nearshore resources. These pressures require field-ready compliance tools and closer coordination between fisheries authorities and community-based governance systems.

These pressures lead to declining biodiversity, reduced fish stocks, and weakened ecosystem resilience. Coral reef degradation alters habitat structure and trophic dynamics, while mangrove loss reduces nursery functions essential for fisheries productivity.

Ultimately, ecosystem degradation affects food provision, income generation, and coastal protection, creating feedback loops that undermine livelihoods and food security. This confirms that fisheries sustainability cannot be addressed through fisheries regulation alone and requires integrated land-sea responses consistent with ridge to reef management principles (IUCN, 2022; Government of Fiji, 2020). The impact chain also demonstrates why fisheries reform must include data and monitoring improvements. Without reliable information on catch, effort, compliance and habitat condition, it is difficult to calibrate management measures, assess effectiveness or respond adaptively to changing pressures.



4. Policy and Institutional Framework

Fiji has a comprehensive fisheries governance framework that combines statutory regulation, community based management, and national strategic policy. The Fisheries Act and Fisheries (Amendment) Act 2025 provide the legal basis for licensing, enforcement, and compliance, with recent amendments strengthening enforcement through fixed penalty systems and enhanced compliance tools. The effectiveness of these provisions will depend on practical operationalisation, including gazetted penalty schedules, inspection and compliance standard operating procedures, appointment of authorised officers and targeted training for enforcement personnel.

The Aquaculture Act 2024 complements this framework by regulating aquaculture development and embedding environmental safeguards. At the strategic level, the National Ocean Policy 2020–2030 promotes integrated ocean governance, marine spatial planning, and recognition of customary management systems, while the National Biodiversity Strategy and Action Plan reinforce ecosystem based management aligned with biodiversity objectives. Aquaculture safeguards should be applied in a way that avoids shifting pressure from capture fisheries to poorly managed aquaculture systems. Priority areas include biosecurity standards for disease prevention, environmental standards for waste management and zoning guidance for aquaculture development.

Community based systems, particularly Locally Managed Marine Areas (LMMAs) and Community Based Fisheries Management (CBFM), are central to fisheries governance. These systems integrate qoliqoli tenure with modern management approaches, enabling local stewardship and adaptive management. Co-enforcement arrangements can strengthen the connection between statutory regulation and customary governance. Clear protocols for patrols, reporting, escalation and information sharing would support more consistent implementation while recognising the role of fish wardens and community monitors.

Together, these instruments provide a strong policy foundation. Their effectiveness now depends on implementation capacity, coordination, and sustained enforcement.



5. Key Policy Gaps

Despite a strong policy framework, several gaps constrain effective biodiversity management in coastal fisheries. A primary gap is the weak integration between land use and marine governance, despite many pressures on coastal ecosystems originating upstream. This limits the effectiveness of ridge-to-reef management, particularly in addressing sedimentation and water quality impacts on coastal habitats.

The interface between statutory regulation and customary tenure further complicates enforcement. In practice, it is often difficult to distinguish between subsistence and commercial fishing activities within qoliqoli areas, reducing the effectiveness of regulatory controls.

Monitoring and enforcement capacity also remains uneven. Limited resources, combined with the dispersed nature of coastal fishing activity, constrain compliance and reduce the ability to respond to emerging pressures. At the same time, data limitations restrict stock assessment and weaken adaptive management. A related gap is the absence of a centralised or shared inshore fisheries data system. Improved data architecture would support information sharing on catch, effort, inspections, compliance, habitat condition and community-based management outcomes.

Finally, institutional fragmentation across fisheries, environment, and land-use authorities reduces coordination. This weakens the ability to implement integrated responses and limits progress toward catchment-scale and ridge-to-reef approaches. Implementation gaps are also evident in the support systems available to community enforcement actors. Fish wardens and community monitors are central to surveillance and compliance in dispersed coastal areas, but require clearer mandates, training, recognition, risk protection and operational support to perform this role effectively.





6. Priority Reform Directions



The BIODDEV2030 analysis identifies a set of feasible, high-impact reforms within Fiji's existing institutional framework. These reforms focus on strengthening implementation, coordination, and ecosystem protection, rather than introducing new policy instruments. Targeted consultation inputs support this direction and indicate that implementation should prioritise operational tools that can be activated within existing mandates, including SOPs, co-enforcement protocols, landing-site monitoring, training programmes and shared data systems.



A key priority is the operationalisation of the Fisheries (Amendment) Act 2025, including the introduction of fixed-penalty schedules, clear compliance procedures, and strengthened authorised officer systems. This provides a practical foundation for improving enforcement and regulatory effectiveness. Operationalisation should include coordinated enforcement arrangements involving fisheries officers, fish wardens and relevant enforcement partners where appropriate. This would improve compliance coverage and strengthen safety and consistency in field implementation.



Strengthening co-enforcement mechanisms with Locally Managed Marine Areas (LMMAs) and Community-Based Fisheries Management (CBFM) systems is critical. These arrangements can extend monitoring coverage, improve compliance, and strengthen community ownership, particularly in remote and dispersed coastal areas. Co-enforcement should be supported by clear role definition, reporting procedures, escalation pathways, training and appropriate support for fish wardens and community monitors. Benefit-sharing approaches and youth engagement can further strengthen community ownership and stewardship.



Improving fisheries monitoring and data systems is also essential. Strengthening catch reporting, landing site monitoring, and data integration will support more robust evidence-based decision making and enable adaptive management. A centralised inshore fisheries data system should be considered as a practical implementation measure to improve the integration of catch, effort, inspection, compliance and habitat information across agencies and authorised partners.



Protecting critical habitats, including coral reefs, mangroves, and seagrass ecosystems, is central to maintaining ecosystem resilience and fisheries productivity. In parallel, integrating ridge-to-reef approaches can reduce sedimentation and other land-based pressures, strengthening fisheries outcomes over the long term. Aquaculture safeguards should also be strengthened through biosecurity measures, waste management standards and zoning guidance to ensure that aquaculture development supports rather than undermines coastal ecosystem resilience.



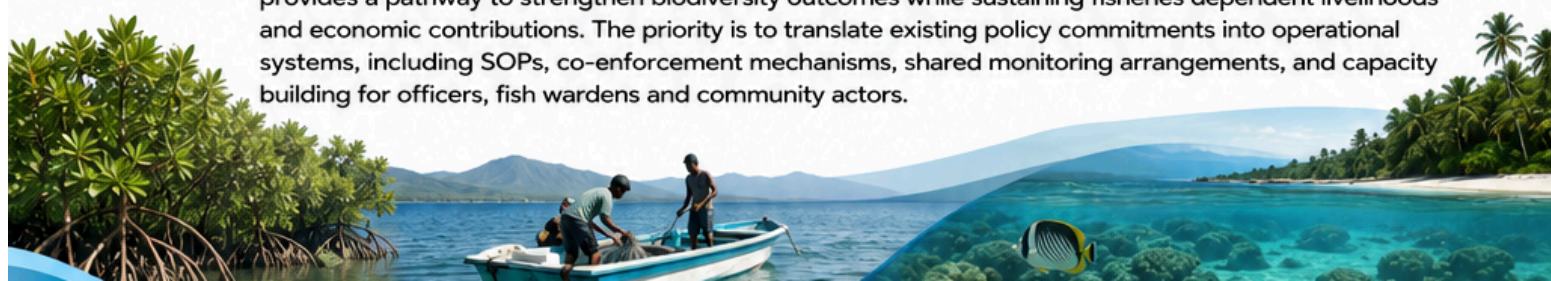
Together, these reforms provide a coherent pathway to align governance, community management, and ecosystem protection, supporting a more resilient and sustainable fisheries sector.

7. Conclusion



Coastal fisheries are central to Fiji's food security, livelihoods, and economic resilience. Their sustainability depends on healthy coral reefs, mangroves, and seagrass ecosystems that are increasingly affected by both marine and land based pressures.

Fiji has a strong policy foundation for fisheries governance, but effectiveness is constrained by gaps in implementation, coordination, and monitoring. Addressing these gaps through targeted, practical reforms provides a pathway to strengthen biodiversity outcomes while sustaining fisheries dependent livelihoods and economic contributions. The priority is to translate existing policy commitments into operational systems, including SOPs, co-enforcement mechanisms, shared monitoring arrangements, and capacity building for officers, fish wardens and community actors.



8. Recommendations

To support informed government decision making and better align coastal fisheries management with biodiversity outcomes, the following priority actions are identified:



- **Operationalise fisheries enforcement mechanisms**, including implementation of the Fisheries (Amendment) Act 2025 through fixed penalty systems, inspection and compliance procedures, authorised officer arrangements, and targeted training to reduce overfishing and illegal practices.



- **Strengthen co enforcement and community based fisheries management**, including Locally Managed Marine Areas (LMMAs) and Community Based Fisheries Management (CBFM), through clear protocols, fish warden support, community monitoring, youth engagement and benefit-sharing approaches.



- **Establish or strengthen a centralised inshore fisheries data system** to improve catch, effort, compliance, inspection and habitat information for adaptive management and reporting.



- **Strengthen aquaculture safeguards** through biosecurity standards, waste management requirements and zoning guidance to minimise risks to coastal ecosystems.



- **Implement integrated ridge to reef approaches**, linking watershed and land use management with coastal fisheries governance, including sediment reduction, habitat protection and monitoring of reef, mangrove and seagrass condition to enhance long-term fisheries resilience.

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Mainstreaming Biodiversity into Fiji's Kava Sector

BIODEV2030 Phase II – From Diagnosis to Decision



KEY MESSAGES



- Fiji's kava sector is a high-value agricultural system valued at approximately FJD 191 million, with exports exceeding FJD 50 million, but its expansion is increasingly linked to land-use pressures affecting freshwater and coastal ecosystems.



- Production is highly concentrated in upland and forest-margin systems, particularly in the Northern Division, creating strong ridge-to-reef linkages between land-use practices and downstream ecosystem health.



- Production trends show rapid expansion since 2014, with output exceeding 13,000 tonnes, driven by market demand, rural livelihood dependence, and increasing commercialisation.



- The sector's growth is associated with soil erosion, sedimentation, and land degradation, which impact freshwater systems and coastal ecosystems, including coral reefs and fisheries.



- Fiji has a strong policy framework, but environmental safeguards are not consistently integrated into kava production systems, particularly within dispersed smallholder agriculture.



- Targeted stakeholder inputs confirm that the main constraint is implementation, including weak integration of safeguards into lease, licensing, extension and finance systems.



- Priority reforms focus on embedding environmental safeguards, strengthening extension systems, and implementing ridge-to-reef approaches, including crop diversification to support soil recovery and resilience.



- Strengthening delivery will require practical farmer support, landowner engagement, finance-linked sustainability requirements, and coordinated action across agriculture, environment, land administration and downstream resource management systems.



1. Introduction: From Biodiversity Diagnosis to Sector Reform

The BIODEV2030 initiative supports Fiji in integrating biodiversity considerations into key economic sectors that influence both development outcomes and environmental change. Agriculture and coastal fisheries have been identified as priority sectors due to their contribution to biodiversity pressures and their importance to livelihoods and economic growth (IUCN, 2022).

Within agriculture, the kava sector has emerged as a priority due to its rapid expansion, economic importance, and strong interaction with environmentally sensitive landscapes. National biodiversity assessments identify land-use change, soil erosion, and sedimentation as key drivers of ecosystem degradation, affecting freshwater systems and coastal environments (O'Brien et al., 2021; IUCN, 2022).

BIODEV2030 Phase II builds on this analysis by linking sector activities to environmental outcomes and identifying practical policy responses. The kava sector illustrates how upland agricultural practices can influence downstream ecosystems, reinforcing the need for integrated ridge-to-reef management approaches.

Targeted consultation inputs reinforce this framing by highlighting that kava-related biodiversity pressures are primarily linked to how and where production expands. The policy challenge is therefore not only to strengthen environmental regulation, but to ensure that safeguards are embedded within the operational systems that influence farmer decisions, land use, finance and extension delivery.



2. Sector Overview: Growth, Value Chain and Economic Importance

The kava sector has evolved from a largely subsistence-based system into a commercially significant agricultural sector, driven by strong domestic demand and expanding export markets (PHAMA Plus, 2020; SPC, 2024). It plays a central role in rural livelihoods and contributes to Fiji's economic diversification.

Production is highly concentrated in the Northern Division, particularly in Cakaudrove, Bua, and Macuata on Vanua Levu, including the Tunuloa–Natewa Bay corridor. Additional production occurs in upland areas such as Naitasiri and in island systems including Kadavu and Lomaiviti (Figure 1). These locations are characterized by high rainfall, fertile volcanic soils, and customary land tenure systems that support smallholder agroforestry production. This concentration also increases pressure on erosion-prone upland landscapes (IUCN, 2022; PHAMA Plus, 2025). This geographic concentration also creates an opportunity for targeted implementation. Priority kava-growing areas can serve as entry points for piloting land-suitability guidance, extension packages, lease conditions and ridge-to-reef monitoring approaches before wider national scale-up.

KEY KAVA GROWING REGIONS



NORTHERN DIVISION

Primary production hub with high volumes and long tradition.

- Cakaudrove
- Bua
- Macuata

Including the Tunuloa – Natewa Bay corridor



KADAVU

Traditional kava growing areas with strong cultural significance.

VANUA LEVU

VITI LEVU

KADAVU



NAITASIRI

Important upland production area.

LOMAIVITI



LOMAIVITI GROUP

Production in several islands with strong customary practices.



Figure 1. Spatial distribution of key kava growing areas.



Production trends show a cyclical but strongly increasing pattern. Output declined in the early 2000s, reached a low around 2005–2006, and then recovered steadily. Growth accelerated after 2014 and expanded rapidly after 2018, with production exceeding 13,000 tonnes in recent years (**Figure 2**). This trend reflects increased participation of rural households, expansion of cultivation areas, and growing commercialisation of the sector (DT Global, 2023; PHAMA Plus, 2025).

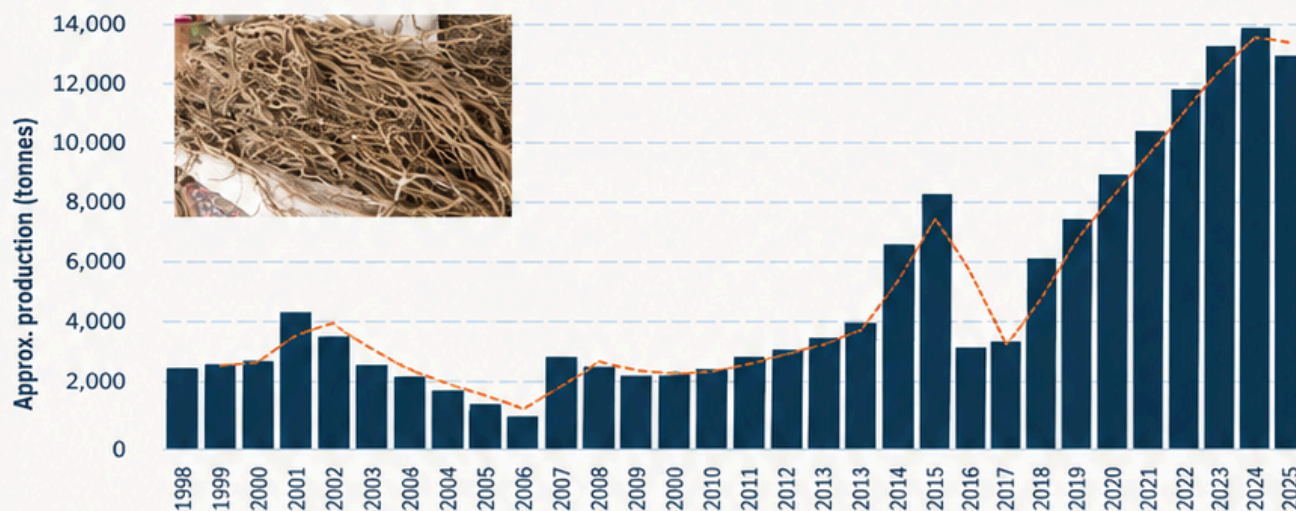


Figure 2. Trends in kava production (1998–2025).



Trade data further highlights the sector's economic importance. Export values increased from approximately FJD 13.85 million in 2016 to over FJD 50 million in 2024, while imports remain minimal, confirming Fiji's position as a net exporter (**Figure 3**). A temporary decline between 2021 and 2023 reflects global supply chain disruptions, followed by a strong recovery in 2024. This demonstrates both market sensitivity and resilience (Fiji Bureau of Statistics, 2025; PHAMA Plus, 2025).

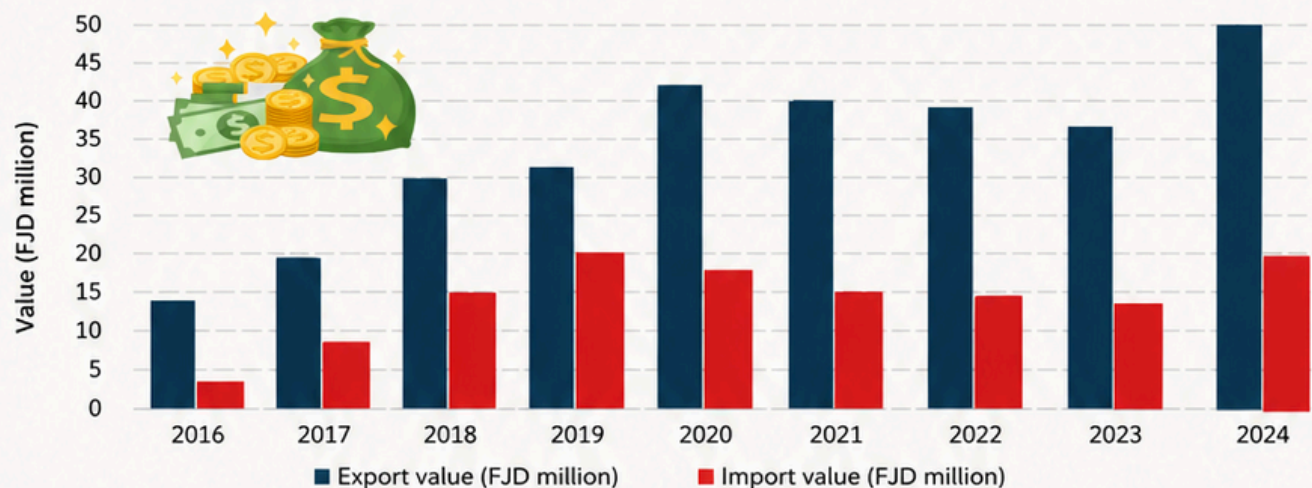


Figure 3. Export and import values of kava (FJD million, 2016–2024).



The sector is dominated by smallholder producers, with more than 14,500 growers and over 12,000 hectares under cultivation. The value chain combines informal domestic markets with increasingly formal export channels. This dual structure, where kava functions as both a cultural commodity and a commercial product, shapes production decisions and presents challenges for policy implementation (PHAMA Plus, 2020; Altai Consulting, 2025).

The smallholder and customary tenure context means that reforms are more likely to be effective where they combine safeguards with enabling measures, including farmer training, practical guidance, landowner engagement and market or finance incentives that reward sustainable production.



3. Drivers, Pressures and Impact Chain of the Kava Sector

The kava sector operates through a clear impact chain linking socio-economic drivers to environmental outcomes. domestic consumption, export demand, and reliance on kava as a source of income create strong incentives for production expansion (Figure 4).

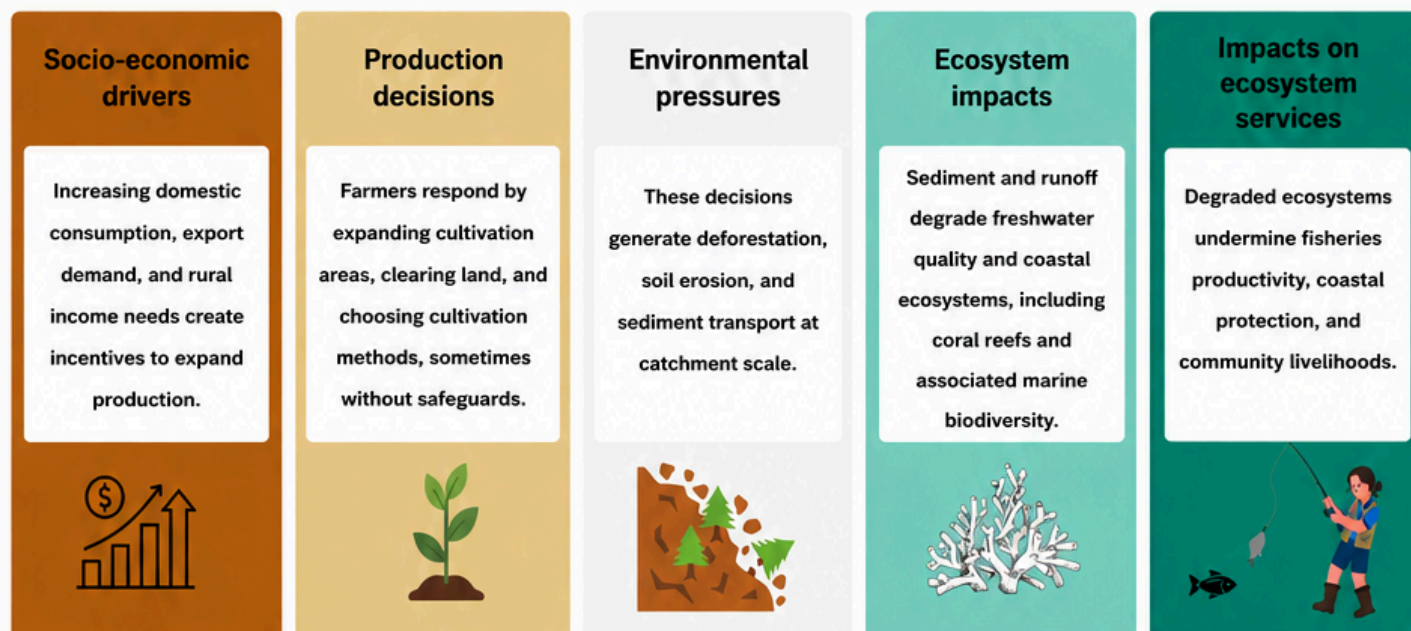


Figure 4. Impact chain for the kava sector showing how socio economic drivers lead to production decisions that generate environmental pressures, degrade freshwater and coastal ecosystems, and ultimately undermine ecosystem services, including fisheries productivity, coastal protection, and community livelihoods.

Farmers respond by increasing cultivation areas, often clearing forest or fallow land and extending production into steeper upland areas. In many cases, this expansion occurs without adequate soil conservation measures, reflecting limited extension support and the absence of enforceable safeguards within production systems. Stakeholder-informed inputs identify vegetation clearing, cultivation on steep or erosion-prone land, monocropping, limited ground cover and insufficient soil conservation as key practices requiring stronger policy and extension attention.

These production decisions generate environmental pressures, particularly soil erosion and sediment transport at the catchment scale. Sediment runoff affects freshwater systems and is transported to coastal environments, where it degrades coral reefs and seagrass ecosystems.

These impacts reduce ecosystem services, including fisheries productivity, coastal protection, and water quality, with direct consequences for community livelihoods. This demonstrates that the kava sector is not only an agricultural system but also a driver of cross-system environmental change (Government of Fiji, 2020; IUCN, 2022). These linkages also affect downstream coastal fisheries by reducing habitat condition and ecosystem productivity. This strengthens the case for treating kava reform as part of a wider ridge-to-reef response rather than as an agriculture-sector intervention alone.



4. Policy and Institutional Framework

Fiji has a comprehensive policy and institutional framework relevant to the kava sector, including environmental legislation, land management frameworks, and national biodiversity and ocean policies. Key instruments include the Environment Management Act, the Land Conservation and Improvement Act, the National Biodiversity Strategy and Action Plan, and the National Ocean Policy.

Sector-specific governance is supported through the proposed Kava Bill, Fiji Kava Standard, and Fiji Kava Quality Manual, which focus on improving product quality, market access, and export standards. These instruments provide potential entry points for integrating biodiversity safeguards into routine sector administration. Environmental requirements such as slope suitability, riparian buffers, soil conservation and ground cover could be linked to registration, licensing, standards, extension guidance and quality assurance systems.

These frameworks demonstrate a strong commitment to sustainable development. However, their application within kava production systems remains uneven. Policy instruments are more effective at regulating large-scale activities than dispersed smallholder production systems, where most kava cultivation occurs.

Institutional responsibilities are distributed across multiple agencies, including agriculture, environment, forestry, and land-use planning. This fragmentation limits coordination and reduces the effectiveness of policy implementation.

Targeted implementation inputs indicate that land administration and finance systems should also be considered part of the policy framework influencing kava expansion. Lease conditions, zoning or land-use guidance, and finance-linked sustainability checks can provide practical mechanisms for aligning production growth with environmental safeguards.



5. Key Policy Gaps



Despite a strong policy framework, key gaps constrain effective biodiversity management in the kava sector. A primary gap is the limited integration of environmental safeguards into sector governance, allowing expansion into erosion-prone upland areas without clear land capability controls (IUCN, 2022; Altai Consulting, 2025). A related gap is the limited use of lease conditions and land-use planning tools to guide sustainable kava cultivation. Where lease arrangements do not include soil conservation, riparian buffer or high-risk slope provisions, opportunities to influence cultivation location and practice are reduced.



There is also a misalignment between economic incentives and sustainability outcomes, with policies and value chains prioritising production growth over sustainable land management (PHAMA Plus, 2025; Pacific Community, 2024). Targeted inputs also indicate that finance mechanisms are not yet consistently aligned with sustainability requirements. Lending and producer-support mechanisms could be used more strategically to encourage compliance with sustainable cultivation guidance, particularly where expansion is proposed in erosion-prone areas.



Extension services remain uneven, limiting uptake of agroforestry, contour planting, and soil conservation practices, particularly in newly expanded areas (PHAMA Plus, 2020; Altai Consulting, 2025).



Monitoring and enforcement are constrained by dispersed smallholder production and customary land tenure, reducing the ability to manage land-use change and cumulative catchment impacts (IUCN, 2022).



Finally, institutional fragmentation and limited integration of crop diversification and land recovery pathways weaken coordinated responses and constrain long-term soil and ecosystem resilience (Government of Fiji, 2020; Altai Consulting, 2025). These gaps point to the need for stronger implementation architecture, including clearer lead and supporting agency roles, practical screening tools, locally appropriate extension packages, and coordinated mechanisms linking agriculture, environment, land administration and downstream coastal ecosystem management.



6. Priority Reform Directions



BIODEV2030 identifies a set of feasible, high-impact reforms within Fiji's existing framework, focused on strengthening implementation, coordination, and sustainable production practices. Targeted consultation inputs support these reform directions and indicate that implementation should prioritise mechanisms that can be activated through existing administrative and programme systems, rather than relying only on new legislation.



A key priority is integrating environmental safeguards into kava governance through licensing or registration systems, including slope limits, riparian buffers, and soil conservation measures (IUCN, 2022; Altai Consulting, 2025). These safeguards should also be reflected, where appropriate, in lease conditions, land-use guidance and finance-linked requirements. This would strengthen the connection between sector governance, land administration and producer behaviour.



Strengthening extension systems is critical to support adoption of agroforestry, ground cover, and slope management practices, improving soil stability and reducing erosion risk (PHAMA Plus, 2020; PHAMA Plus, 2025). Extension packages should include practical and locally appropriate measures such as agroforestry, contour planting, ground cover, traditional farming practices, biosecurity awareness and site-specific management planning.



Aligning value chain incentives with sustainability, including through quality standards and traceability, can encourage adoption of improved practices while maintaining market competitiveness (Pacific Community, 2024; PHAMA Plus, 2025). Finance and producer-support mechanisms could further reinforce these incentives by requiring consistency with sustainable cultivation guidance before support is provided for expansion in higher-risk areas.



Implementing ridge-to-reef pilot catchments will support integrated land-sea management and reduce sediment impacts on downstream ecosystems (Government of Fiji, 2020; IUCN, 2022). Pilot catchments should be designed as implementation learning platforms, linking upland practice change with downstream monitoring of sediment, water quality and coastal habitat condition.



Supporting crop diversification, including ginger and turmeric, will improve soil recovery, reduce erosion, and strengthen livelihood resilience (Altai Consulting, 2025; PHAMA Plus, 2025).



7. Conclusion

The kava sector is a major contributor to Fiji's rural economy and export growth. However, its expansion is closely linked to environmental pressures in upland and catchment systems, with downstream impacts on freshwater and coastal ecosystems.

The challenge is not the absence of policy, but the alignment of existing frameworks with production practices and ecosystem outcomes. Addressing this requires coordinated, practical interventions that reflect the interconnected nature of Fiji's landscapes and seascapes. The reform pathway should therefore focus on operationalising existing systems by linking licensing, lease arrangements, extension support, financing and monitoring to practical biodiversity safeguards.

BIODEV2030 Phase II analysis demonstrates that targeted reforms can support a more sustainable and resilient kava sector, ensuring that economic growth is achieved alongside biodiversity conservation. The priority is to move from policy recognition to implementation, using administrative guidance, farmer support, finance-linked incentives and ridge-to-reef pilots to reduce pressures at source and improve downstream ecosystem outcomes.



8. Recommendations

To support informed government decision making and better align growth in the kava sector with biodiversity outcomes, the following priority actions are identified:



- **Integrate environmental safeguards into kava production systems**, including slope limits, soil conservation measures, and protection of riparian areas, through licensing, registration, lease conditions and land-use guidance.



- **Strengthen extension programmes** to promote agroforestry, contour planting, ground cover, biosecurity awareness, traditional farming practices and sustainable land management across kava-growing regions.



- **Align finance and producer-support mechanisms** with sustainable cultivation requirements, particularly where kava expansion is proposed in erosion-prone or environmentally sensitive areas.



Implement **ridge-to-reef pilot catchments**, linking upland production with downstream ecosystem protection, including monitoring of sediment and coastal habitat outcomes and promotion of crop diversification such as ginger and turmeric to support soil recovery and farmer resilience.



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