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Morocco:

Country Private Sector Diagnostic

MARCH 2026

About the Country Private Sector Diagnostic

The private sector is an engine of long-term economic growth and a catalyst for global social and economic development. When functioning well, it promotes innovation and entrepreneurship, improves access to and the quality of economic opportunities, and supports the sustainable use of natural resources. In developing economies, the private sector creates the vast majority of jobs, generates tax revenue, and accounts for significant investment.

The Country Private Sector Diagnostic (CPSD) reports seek to unlock private investment and job creation through policy action to remove impediments to private investment. Prepared jointly by the institutions of the World Bank Group, each report analyzes specific sectors of the economy in which increased private investment could accelerate growth if appropriate policy and regulatory issues are addressed.

Designed from the perspective of an investor or entrepreneur, CPSDs seek to identify untapped private investment opportunities and the barriers that stand in their way (earlier reports can be found here). Subsectors of the economy are chosen based on their potential to attract private investment, create more and better jobs, generate domestic revenue, and foster sustainable, inclusive growth in response to targeted policy action. The report aims to help policy makers prioritize impactful actions that can be taken in the near term to remove disincentives to private investment, while delivering on broader development goals.

The CPSD is a core country diagnostic of the World Bank Group produced to guide the design and implementation of country strategies, public and private investment projects, budget support operations, advisory services, and other analytical work. It is intended to be of interest to domestic and foreign investors, government officials, Bank Group staff and management, civil society, and other development partners.

CPSDs are a central instrument of the World Bank Group's jobs agenda as articulated in the 2025 Development Committee (DC) Paper on Jobs: The Path to Prosperity, which emphasizes translating private sector development into large-scale employment opportunities. CPSDs support this agenda by providing country-level, sector-specific diagnostics that help identify systemic barriers to private investment critical to job creation. They also align with the DC's three-part approach to private sector development and job creation: investing in human capital and infrastructure to establish the basic preconditions for job, supporting business-enabling policies, and mobilizing private capital at scale to help firms create more and better jobs.

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Executive Summary

Morocco has achieved remarkable progress in the past two decades, driven by a combination of sound macroeconomic management, political stability, and forward-looking structural reforms.

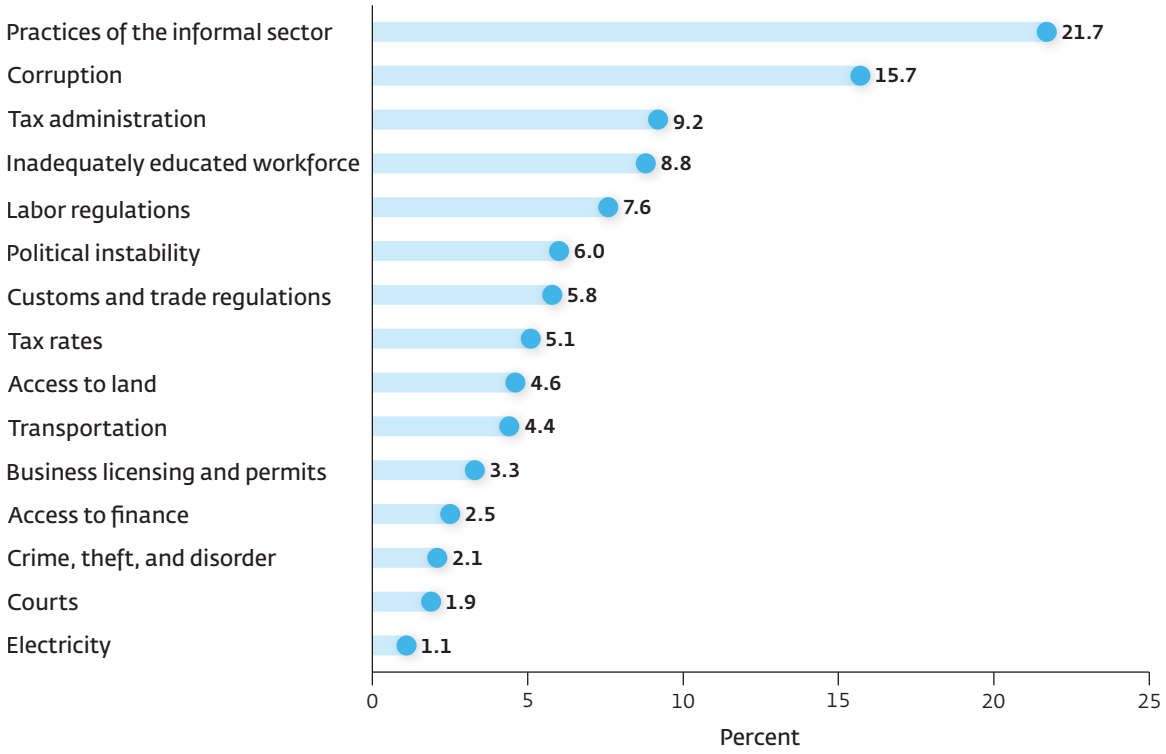
Building on these foundations, the country has embarked on a new phase of its development, as articulated in the New Development Model and a set of ambitious sectoral strategies. These frameworks place private investment at the center of Morocco's growth vision, with a renewed emphasis on job creation, human capital, territorial equity, and the green transition, including the objective of increasing private investment to two-thirds of total national investment by 2035. The Morocco Country Private Sector Diagnostic (CPSD) aligns with these national priorities, contributing analysis and reform recommendations to support Morocco's Jobs Agenda. It builds on and complements recent World Bank Group work, including the Jobs and Growth Report and other sectoral analytics that inform Morocco's private sector development agenda. It identifies a limited number of concrete policy actions to remove impediments to private investment, strengthen competitiveness, and accelerate the creation of more and better jobs, particularly for youth and women, across the country.

Morocco's economic transformation has been underpinned by substantial public investment in infrastructure, logistics, and renewable energy. However, private investment has not yet reached the scale required to sustain high growth and absorb the expanding labor force (figure ES.1). While investment rates remain high by regional standards, their composition has been skewed toward public spending, with private investment representing only around one-third of total investment. Job creation has lagged, with limited productivity growth and informality persisting in several sectors. The central premise of this CPSD is that addressing factors that discourage private investors is critical to sustaining inclusive growth and enabling Morocco to achieve its ambitious job creation and other development goals.

This CPSD takes an investor perspective to identify the factors that discourage investment in selected sectors but where private investment can be boosted by taking concrete policy actions to remove impediments. The selection of sectors followed a rigorous, systematic process that included analysis of quantitative and qualitative indicators (see chapter 2) and stakeholder consultations, including interviews with private investors, companies, technical experts, policy makers, and development partners. The criterion for selecting

Figure ES.2

Key Business Environment Constraints include Informal Competition, Corruption, and Tax Concerns



Source: Based on 2023 World Bank Enterprise Surveys data.

Decentralized Solar Power Generation

Decentralized solar power generation in Morocco has significant potential to accelerate industrial decarbonization, reduce costs, and strengthen competitiveness. The country's solar irradiation levels are among the highest in the world, and there is a preexisting legal foundation for self-generation and private participation. High electricity unit costs for commercial and industrial consumers further increase the attractiveness of decentralized solar solutions. However, progress in deploying decentralized solar solutions has been relatively modest compared to the country's potential, suggesting an opportunity for policy action. Expanding decentralized generation through corporate power purchase agreements and self-consumption systems can deliver affordable, clean power to commercial industrial users and stimulate investment in new technologies. The potential is particularly strong in industrial zones and manufacturing areas where energy costs remain a constraint to competitiveness.

turing, and marine aquaculture.[1] These sectors are at the intersection of Morocco's energy transition, industrial upgrading, and regional development agendas. They share important cross-linkages that reinforce the government's strategic objectives and they have shared cross-cutting enablers—affordable low-carbon energy, circularity and traceability infrastructure, efficient export logistics, and specialized skills—whose improvement would unlock investment across all four sectors.

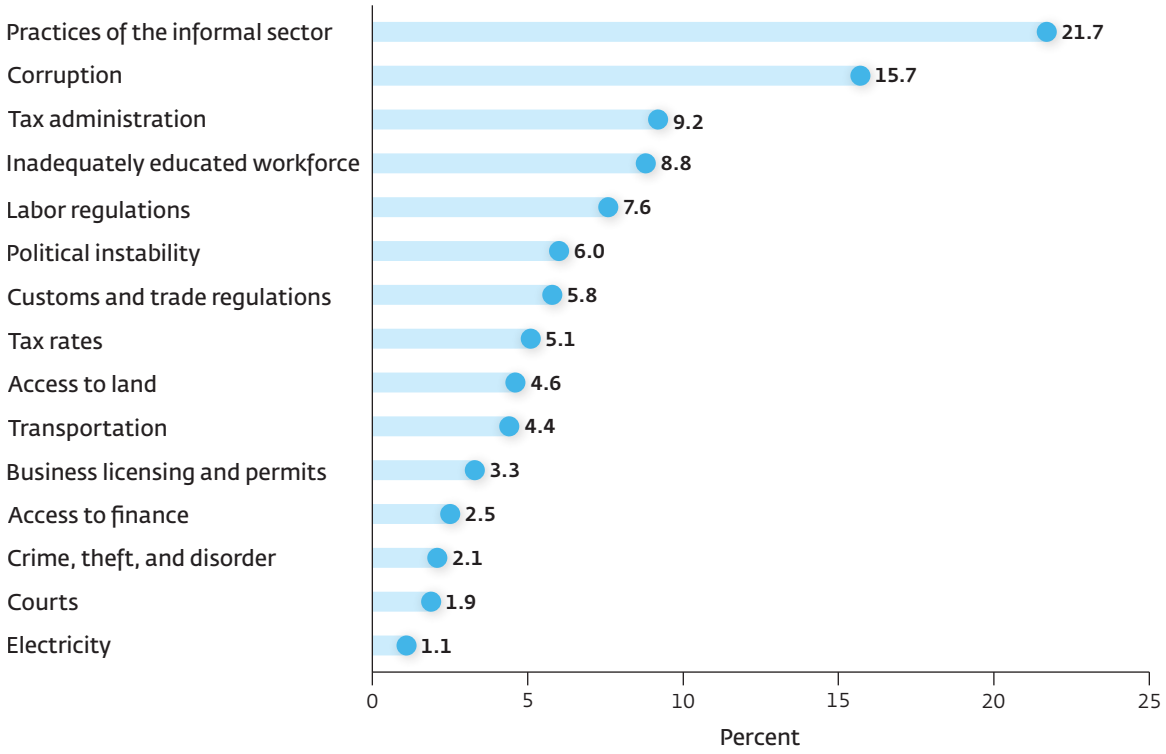
Reinforcing these common foundations can amplify the impact of sector-specific reforms and further support Morocco's green and competitive growth model. They are also supported by Morocco's preferential access to European Union (EU) markets, which offers a cross-sector, economy-wide opportunity extending beyond textiles and shaping demand across multiple value chains. Decentralized solar generation can supply competitive clean energy to industries such as textiles and agribusiness, lowering production costs and supporting decarbonization. Low-carbon textiles can integrate renewable energy use and circular production models, boosting exports and green employment. The argan oil and natural-cosmetics value chain leverages Morocco's biodiversity assets and rural workforce, creating income opportunities for women in lagging regions. Marine aquaculture, meanwhile, can diversify coastal economies, improve food security, and contribute to the emerging blue economy. Taken together, these sectors illustrate how private investment can fuel Morocco's transition to a green and regionally balanced growth model.

While Morocco has established itself as one of the region's leading reformers, several challenges constrain private investment (figure ES.2). The four sectors analyzed in this CPSD face complex and lengthy administrative procedures, delayed implementation of secondary regulations and fragmented institutional coordination. These constraints are compounded by cross-cutting skills gaps that affect firms' ability to move into higher-value activities and adopt new technologies across multiple sectors. Gaps in technology adoption, and digital infrastructure further hinder firms' ability to innovate and compete. Addressing these challenges through targeted reforms can remove barriers to private investment across multiple value chains, improve resource efficiency, and support the creation of more and better jobs in both urban and rural areas.

Concrete policy actions in these four subsectors have the potential to catalyze significant private investment—estimated at up to US$7.4 billion—and generate over 166,000 new jobs in the medium term (approximately five to 10 years).[2] The sections that follow summarize the key opportunities and the constraints in each subsector that discourage private investors. A limited number of concrete policy actions to address these sector-specific constraints follow.

Figure ES.2

Key Business Environment Constraints include Informal Competition, Corruption, and Tax Concerns



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However, regulatory and institutional bottlenecks discourage private investment. The legal and regulatory framework is incomplete and fragmented, creating uncertainty about procedures, tariffs, and the treatment of surplus energy. This is compounded by the absence of clear technical and commercial rules for grid injections, preventing producers from monetizing excess generation. Administrative complexity also poses challenges—developers must navigate overlapping and uncoordinated permitting processes across multiple institutions, while ownership ambiguities and excessive procedural requirements further discourage investment. At the same time, distributors' financial concerns, especially regarding the erosion of revenue from self-consumption and potential grid stability risks, contribute to resistance to decentralized solar integration. The transition to regional multiservice companies has added yet another layer of institutional uncertainty, as their roles in regulation, approvals, and distribution remain ill-defined.

To address these constraints, Morocco should (1) accelerate completion of its regulatory framework by publishing the six remaining decrees under Law No. 82-21 and Law No. 40-19, clarifying procedures for self-generation, voltage thresholds, energy storage, and surplus injection; (2) establish transparent tariff methodologies and commercial conditions for purchasing surplus electricity to ensure fair compensation and predictability for investors; (3) streamline administrative processes through clear definitions of ownership; (4) create regional one-stop platforms to centralize all decentralized solar authorizations; (5) realign distributor incentives by adopting measurable decentralized solar targets, (6) expand the National Electricity Regulatory Authority's oversight; and (7) allow renewable energy procurement beyond the 40 percent cap, which limits distributors to procuring only up to 40 percent of renewable energy produced within their concession area. If effectively implemented, these reforms could attract US$2.9 billion in private investment and generate over 43,500 new jobs in the medium term, while avoiding an estimated 56 million metric tons of greenhouse gas emissions over a longer-term horizon (around 30 years), equivalent to roughly 1.8 million metric tons annually.

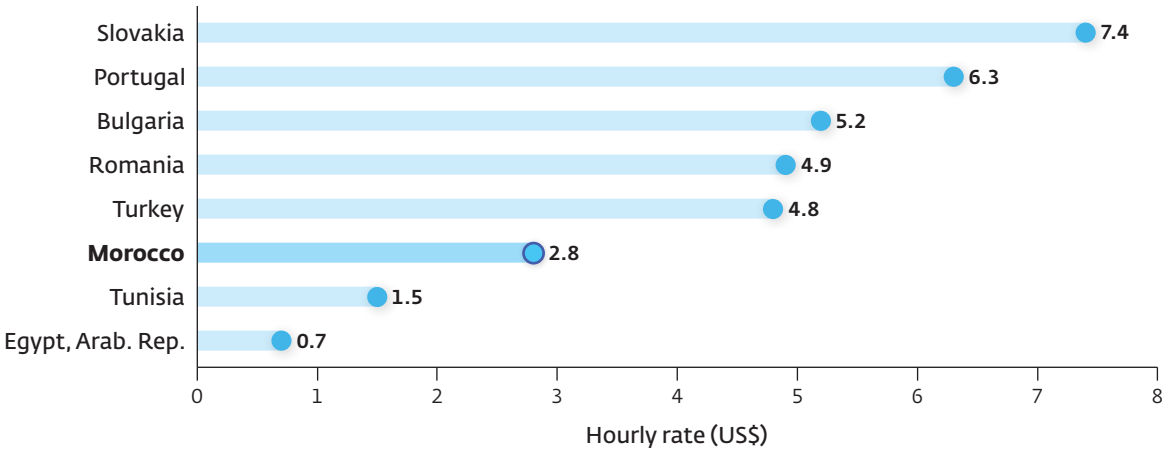
Low-Carbon Textiles

Morocco's textile and apparel sector employs roughly 234,000 workers (64 percent of whom are women) and generates about 10 percent of goods exports. The industry's positioning along the Casablanca–Tangier corridor, coupled with Morocco's competitive labor costs (figure ES.3) and preferential trade access to the EU, has made Morocco an attractive nearshoring destination for global brands. Significant investment opportunities exist across the value chain including in circular economy initiatives such as textile waste recovery and fiber-to-fiber recycling, upstream segments like spinning, weaving, and wet processing, and integrated full-package production models to enhance value capture.

Figure ES.3

Low Labor Costs Strengthen Morocco's Advantage in Global Textile Production

Manufacturing labor costs, Morocco and comparators, 2025



Source: Based on estimates by Gherzi.

Global sustainability trends and EU regulatory shifts create incentives for Morocco to invest in traceability systems, green certification, and sustainable production infrastructure.

Despite these opportunities, private investment is constrained by several structural and regulatory challenges. Investors face difficulties accessing reliable information on industrial land, hampering site selection, while the informal and fragmented system of textile waste collection limits recyclers' access to feedstock. The legal classification of textile cutting waste as "residue" rather than a recyclable input discourages investment in circular value chains. Working capital shortages hinder the growth of aggregators essential for Morocco's move toward full-package manufacturing, and the high costs of environmental, social, and governance (ESG) certification put small and medium enterprises at a disadvantage compared to regional peers. These constraints limit firms' ability to capitalize on the growing market for sustainable and circular textile production.

To address these issues, Morocco should (1) strengthen and better leverage the existing digital database of industrial land, including by expanding its coverage to public and, where available private holdings; (2) establish a national registry of textile cutting waste linked to a traceability platform; (3) reclassify cutting waste as a recyclable material and update customs codes accordingly; (4) operationalize order-backed export liquidity instruments for aggregators; and (5) expand the Green Invest mechanism to permit cofinancing of

ESG certification and audit costs. These reforms target the key bottlenecks currently preventing investors from entering or scaling activities in circularity, upstream processing, and full-package production. Collectively, they would help unlock Morocco's potential as a fully integrated, sustainable textile hub. From a climate perspective, these measures would reduce emissions and strengthen circularity within the textile value chain. If effectively implemented, these reforms could contribute to an estimated US$1.9 billion in private investment and create approximately 30,800 new jobs in the medium term.

Argan and Natural Cosmetics

Morocco's argan oil sector is uniquely rooted in indigenous knowledge and community-based production, with over 830,000 hectares of argan forests recognized by the United Nations Educational, Scientific and Cultural Organization as a biosphere reserve and the traditional expertise of women's cooperatives forming the backbone of the industry. Exports of argan oil, which is renowned for its culinary, cosmetic, and therapeutic properties, have grown significantly over the past two decades, positioning Morocco as the world's near-exclusive producer. With bulk oil currently accounting for 93 percent of argan oil exports, there is untapped potential to expand into high-value natural-cosmetics and wellness products that use argan oil (figure ES.4). Rising global demand for sustainable, traceable, and ethically sourced natural cosmetics presents a significant opportunity for Morocco, provided that traceability and sustainability practices are strengthened to meet international buyer and ESG requirements. Combined with Morocco's diverse portfolio of native botanical ingredients (such as prickly pear, nigella, and rose), this creates scope for investment in value-added manufacturing, brand development, and traceability infrastructure. Furthermore, synergies with Morocco's growing wellness, tourism, and luxury sectors offer significant market potential for premium natural cosmetic brands.

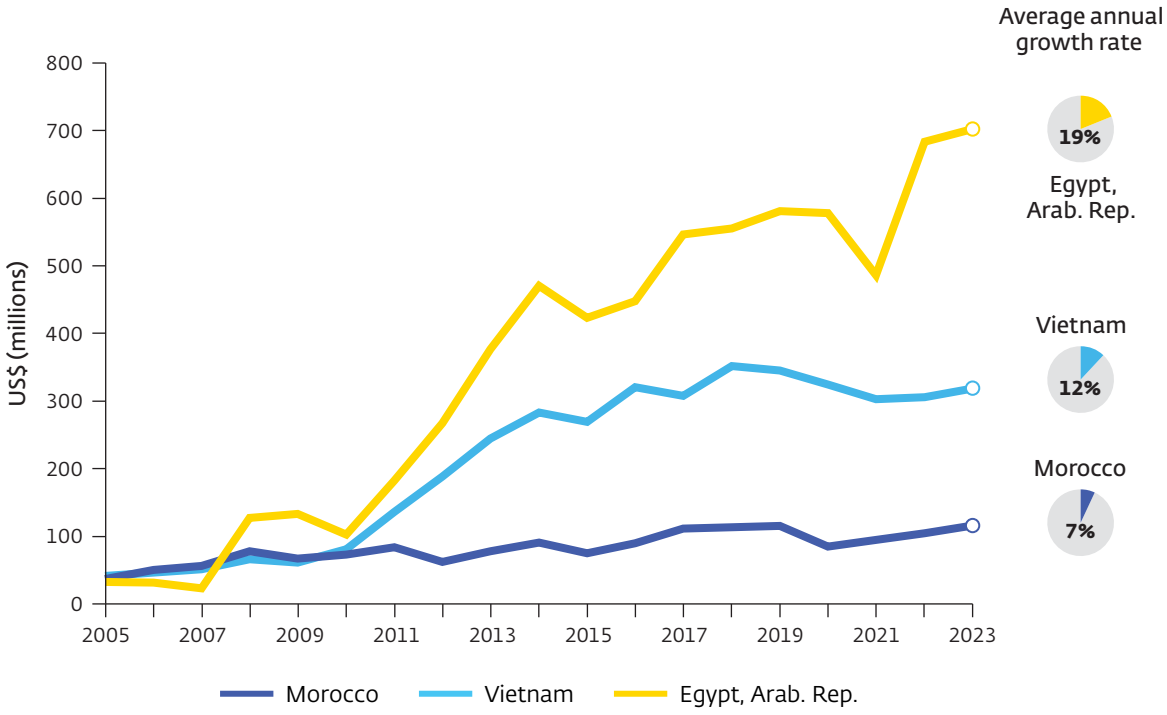
Despite this potential, structural and regulatory constraints are hindering private investment in the argan-based natural cosmetics sector. Weak traceability systems and limited enforcement of sustainable sourcing practices undermine compliance with international ESG standards, eroding investor and buyer confidence. At the same time, rigid and fragmented regulatory oversight—particularly in sanitary, phytosanitary, and technical conformity procedures—delays product approvals and inflates costs, reducing competitiveness.

To address these barriers, Morocco should (1) establish a mandatory end-to-end digital traceability system for the argan value chain, enabling transparent monitoring from fruit collection to export; and (2) update cosmetics regulations by adopting risk-based oversight that requires premarket approval and import restrictions for only high-risk products and ingredients, while fully digitalizing sanitary and phytosanitary procedures and linking them to the PortNet trade platform for greater efficiency and transparency. These reforms

Figure ES.4

Despite Abundant Natural Inputs, Morocco's Cosmetics Exports Remain Modest—Signaling Untapped Potential for Local Value Addition

Cosmetics exports, average annual growth rate, Morocco and comparators, 2025



Source: Based on ITC Trademap data.

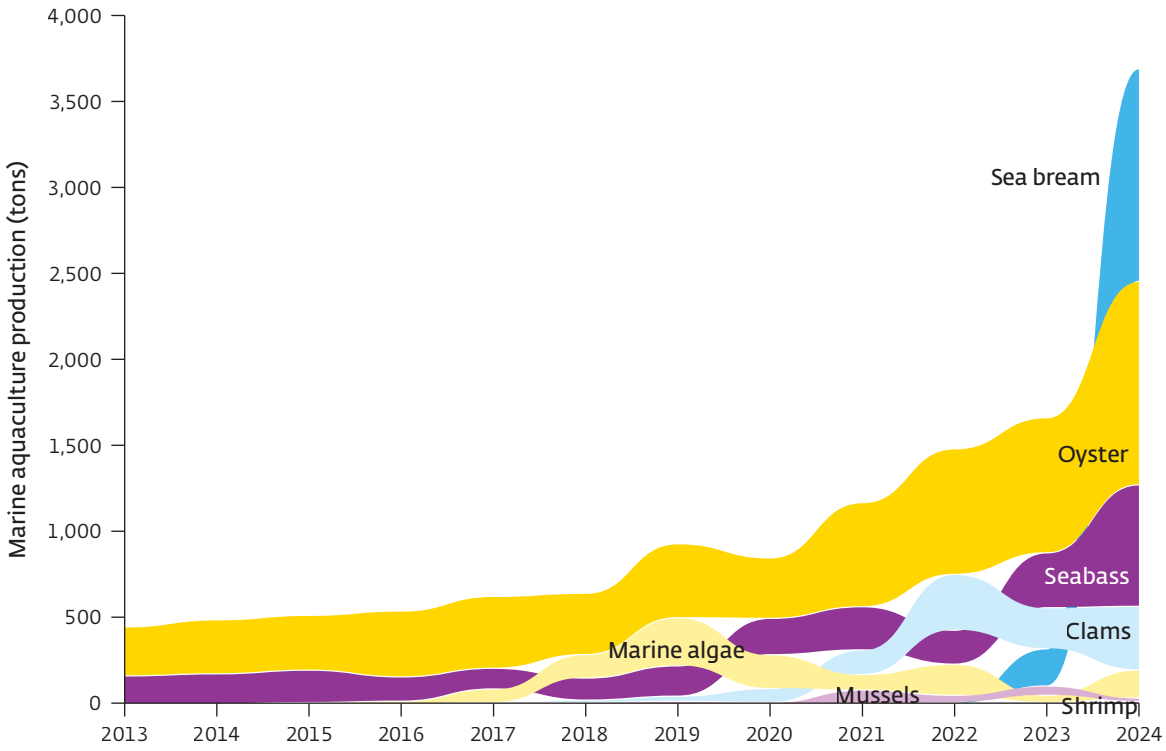
would improve regulatory predictability, reduce compliance costs, enhance ESG credibility, and foster the development of Morocco's high-value natural-cosmetics ecosystem. If effectively implemented, these reforms could generate approximately US$0.6 billion in private investment and create around 17,700 new jobs in the medium term.

Marine Aquaculture

With its extensive coastlines, diverse ecosystems, and proximity to major markets, Morocco has significant untapped potential for marine aquaculture. Large areas have been already prezoned for aquaculture yet remain largely underutilized (figure ES.5). With preferential trade access to the EU and the United States, a favorable regulatory reputation, and competitive labor costs, Morocco is well-positioned to become a regional leader in sustainable aquaculture. Global demand trends reinforce this potential: aquaculture is projected

Figure ES.5

Moroccan Marine Aquaculture Production Is Accelerating, but Still Far below Potential



Source: ANDA (2024).

to drive most of the increase in global seafood production through 2033, while domestic demand is also expected to rise as Morocco's population and incomes grow. Investment opportunities lie in high-value species and systems—particularly shellfish, seaweed, and finfish—as well as in upstream segments such as feed manufacturing, hatcheries, and equipment production. With effective regulatory and infrastructural reforms, Morocco could attract major international players and scale sustainable aquaculture production.

Private investment in Morocco's aquaculture sector is hindered by complex and lengthy permitting processes, unclear land-use rules, fragmented coordination between marine and terrestrial sites, and high feed costs. Despite the National Agency for the Development of Aquaculture's single window, investors still face multiagency approvals, limited digital integration, and long delays. Land-use ambiguity—especially near protected areas—creates uncertainty for infrastructure such as hatcheries and depuration centers, while separate permitting for onshore facilities increases costs. Additionally, restrictions on using rendered animal proteins (RAPs) in feed raise production costs and expose farmers to global fishmeal

price volatility. These constraints prevent firms from fully capitalizing on the substantial market and export opportunities associated with sustainable, high-value aquaculture.

To alleviate impediments to private investment, Morocco should (1) streamline and digitalize aquaculture permitting, enforce statutory approval timelines, and strengthen coordination across agencies; (2) clarify land-use regulations for aquaculture support facilities and integrate adjacent land parcels into Aquaculture Development Plans through a unified, single application process; (3) clarify and harmonize land-use and environmental regulation procedures across jurisdictions; and (4) prompt authorization of RAP use in aquafeeds to reduce costs and improve competitiveness. These reforms would simplify procedures, boost investor confidence, and enhance sustainability, potentially generating about US$1.96 billion in private investment and creating around 75,000 new jobs in the medium term.

The Path Ahead

Morocco is at a pivotal juncture in its economic transformation. The country's strong institutional base, reform momentum, and strategic clarity create favorable conditions to attract private investment across high-value-added sectors. The sectors analyzed in this CPSD exemplify how targeted reforms can translate Morocco's national strategies into tangible results for competitiveness and job creation. To unlock investment at scale, these actions should be implemented in a coordinated manner—across energy, industry, environment, and regional development and reinforced by broader institutional and financial measures. A detailed account of sector-specific constraints, reform measures, and responsible authorities is presented in the deep-dive chapters of the full report.

Table ES.1

Summary of Constraints and Recommendations

Constraints	Recommended actions
Decentralized solar power generation	
Rationale • High solar irradiation potential. • Opportunity for private players to expand distributed generation.	
1. Complex and fragmented permitting and grid connection processes.	**1a.** Adopt the decree under Law No. 82-21 to establish the procedures for self-generation regimes. **1b.** Adopt the regulatory decree clarifying medium voltage versus high voltage connection thresholds. **1c.** Adopt the regulatory decree specifying the modalities for energy storage. **1d.** Adopt the regulatory decree defining the conditions and procedures for revising the 20 percent cap on excess electricity injection into the grid.
2. Lack of clear tariffs and rules for wheeling and surplus injection.	**2.** Set clear commercial conditions through ANRE's tariff methodology for surplus electricity.
3. Complex, fragmented permitting and administrative processes.	**3.** Simplify and digitalize permitting leveraging regional one-stop platforms for decentralized solar authorizations.
4. Complex, fragmented permitting and administrative processes for decentralized solar involve multiple authorities with overlapping responsibilities.	**4.** Establish a regional one-stop ("Guichet Unique") platform—potentially managed by CRIs—to centralize all approvals for decentralized solar projects.
5. Distributors' financial fears and technical concerns continue to hinder decentralized solar power integration.	**5a.** Align distributor incentives and regulations to support decentralized solar. **5b.** Set clear targets and strengthen ANRE's enforcement authority over distributors and SRMs. **5c.** Better-align distributor incentives by allowing renewable procurement beyond the current cap, which limits distributors to sourcing up to 40 percent of the renewable energy produced within their concession area.

(Table continues next page)

Table ES.1

Summary of Constraints and Recommendations (*continued*)

Constraints	Recommended actions
Low-carbon textiles	
Rationale • Major employer and export earner. • EU proximity and trade access support nearshoring and sustainable sourcing.	
1. Fragmented information on industrial land.	**1.** Strengthen and fully operationalize the national digital platform for industrial land by expanding its scope to cover private plots and infrastructure access and increasing its visibility through targeted outreach.
2. Unstructured collection of cutting waste.	**2.** Develop a registry and traceability system for textile waste.
3. Legal ambiguity of textile waste.	**3.** Revise Decree No. 2-06-36 to reclassify textile cutting waste as a recyclable input and update customs rules with a dedicated HS code to enable its legal trade.
4. Working capital shortages limit Moroccan aggregators' ability to finance inputs and subcontractors.	**4.** Introduce an order-backed guarantee allowing banks to lend working capital against confirmed export orders at affordable rates.
5. High cost of ESG certification.	**5.** Expand Green Invest to cofinance ESG certification and audit costs using a preapproved list of EU-required standards, helping Moroccan firms meet buyer compliance demands.
Argan and natural-cosmetics value chain	
Rationale • Near-monopoly in argan oil production with rising demand for natural cosmetics. • Strong potential for value addition through downstream processing and branding.	
1. Weak traceability and sustainability verification in the value chain.	**1.** Establish a centralized digital traceability system for argan supply chains.
2. Rigid and overlapping sanitary and phytosanitary approvals and regulatory digitalization slowing product registration and trade.	**2a.** Limit premarket approval and registration to high-risk cosmetic categories.

(Table continues next page)

Table ES.1

Summary of Constraints and Recommendations (*continued*)

Constraints	Recommended actions
	2c. Restrict preimport sanitary approvals for cosmetic raw materials to a defined list of high-risk ingredients. **2d.** Make the Certificate of Free Sale optional and easily accessible for cosmetic exports. **2e.** Limit preimport phytosanitary approvals for plant-based products to high-risk categories based on use and origin. **2f.** Restrict preexport phytosanitary approvals to raw plant-based cosmetic inputs, excluding formulated cosmetics. **2g.** Fully digitalize sanitary and phytosanitary procedures, integrate and ensure timely publication and notification of regulatory updates.
Marine aquaculture	
Rationale • Significant volume of hectares prezoned for aquaculture and strong export potential. • Increasing global seafood demand and sustainable production outlook.	
1. Lengthy, multiagency permitting processes and unclear land-use rules.	**1a.** Introduce enforceable time limits and apply "silence is consent" across the full aquaculture permitting chain. **1b.** Require all agencies to conduct aquaculture technical reviews in parallel to reduce cumulative delays. **1c.** Adopt harmonized application templates and document checklists across all permitting agencies. **1d.** Clarify and codify institutional mandates to eliminate overlaps and conflicting interpretations.
2. Unclear and unharmonized land-use rules near protected and sensitive areas.	**2a.** Publish clear land-use rules specifying which aquaculture support facilities are permitted across different land categories. **2b.** Issue implementing regulations under Law No. 84-21 to formalize permissible aquaculture infrastructure by land type.

(Table continues next page)

Table ES.1

Summary of Constraints and Recommendations (*continued*)

Constraints	Recommended actions
	2c. Develop a joint permitting manual and SOPs to harmonize environmental requirements and streamline approvals.
3. Weak coordination between marine site allocation and access to adjacent land for onshore facilities.	**3a.** Update Aquaculture Development Plans (ADP) to include adjacent terrestrial plots for essential aquaculture support infrastructure. **3b.** Allow investors to apply for marine sites and corresponding land parcels through a single integrated ADP application process. **3c.** Establish an ANDA-led single-window system bundling marine zones and nearby land into ready-to-invest aquaculture packages.
4. Restrictions and delayed implementation of RAP use.	**4a.** Issue the ministerial order implementing Decree No. 2-23-557 to authorize controlled RAP use in aquafeeds under ONSSA oversight.

Note: ANDA = Agence Nationale pour le Développement de l'Aquaculture (National Agency for the Development of Aquaculture); ESG = environmental, social, and governance; EU = European Union; HS = Harmonized System; ONSSA = Office National de Sécurité Sanitaire des produits Alimentaires (National Office for Food Safety); RAP = rendered animal protein.

1
Country and Business Context

1.1 Economic and Fiscal Context

Over the past decade (2014–24), Morocco has made significant strides in reducing poverty and advancing economic development. Real gross domestic product (GDP) expanded by a quarter and per capita income rose by over 10 percent. This progress was underpinned by effective macroeconomic management, including fiscal and monetary policies that preserved macroeconomic stability despite external and climate-related shocks and natural disasters. Inflation was contained, supported by a stable currency regime and healthy external buffers, which have contributed to investor confidence.[3]

Morocco has positioned itself as a commercial bridge between Europe and Africa, leveraging investor-friendly policies, trade liberalization, and major infrastructure investments. These efforts have attracted substantial foreign direct investment (FDI) and supported export-led growth in sectors such as automotive, aeronautics, pharmaceuticals, information technology and business process services, and agro-industry. The country has also capitalized on its abundant phosphate reserves, fostering leading firms in fertilizers, and developing regional champions in financial services and telecommunications.

While Morocco's achievements are significant, opportunities exist to unlock the country's growth potential by enhancing the attractiveness of the economy to private investors. Annual real GDP growth has averaged around 3 percent since 2010, with volatility tied to fluctuations in agricultural output (table 1.1). Outside of specialized economic zones, private investment and productivity growth have been modest, curbing job creation and broader economic inclusion. Reliance on imported energy[4] and rain-fed agriculture[5] expose the economy to supply-side shocks and global price volatility, while climate change impacts—such as recurrent droughts and declining fishery productivity[6]—present additional challenges.

Morocco's external position is supported by strong remittance inflows, growing tourism receipts, and resilient export performance. The gradual transition toward exchange rate flexibility illustrates broader commitment to enhancing macroeconomic buffers and reinforcing policy credibility. Continued efforts to manage public investment and social spending, while maintaining fiscal discipline, will be important to preserve the fiscal space necessary to respond to shocks, maintain economic stability, and implement future reforms.[7]

Morocco's growth model has relied substantially on public investment, which has played an important role in underpinning modernization and infrastructure development but private sector activity has remained relatively limited. Between 2014 and 2022, private investment accounted for roughly one-third of total fixed capital formation,[8] with private sector dynamism, innovation and investment concentrated in a few export-oriented industries. Broader firm-level investment and innovation across the wider

Table 1.1

Morocco's Macroeconomic Stability Holds, but Private Investment Lags

	Averages						Estimates
	2010–19	2020	2021	2022	2023	2024	2025
GDP (US$, billions)	115.1	121.4	142.0	131.2	146.1	160.6	172.0
Real GDP growth (%)	3.4	−7.2	8.2	1.8	3.7	3.8	4.4
PPP GDP per capita (constant 2021 international US$)	8,030	8,055	8,623	8,666	8,869	9,066	...
Investment (% of GDP)	27.8	26.8	26.7	25.2	24.8	27.0	...
Inflation, period average (%)	1.1	0.7	1.4	6.6	6.1	0.9	1.1
Fiscal balance (% of GDP)	−4.5	−7.1	−5.9	−5.4	−4.4	−3.9	−3.7
Public debt (% of GDP)	56.1	72.2	69.4	71.4	68.7	68.0	67.1
Current account balance (% of GDP)	−5.1	−1.1	−2.3	−3.5	−1.0	−1.2	−2.1
Gross reserves (US$, billions)	22.3	36.0	35.6	32.3	36.3	37.1	41.5
Total reserves (in months of imports)	5.7	9.3	7.1	5.3	5.9	5.5	5.7
FDI net inflows (% GDP)	2.0	0.8	1.1	1.2	−0.1	0.6	1.4

Sources: 2025 World Bank Macro Poverty Outlook database and World Development Indicators.
Note: GDP = gross domestic product; FDI = foreign direct investment; PPP = purchasing power parity. In 2023, the total population in Morocco was 37.7 million.

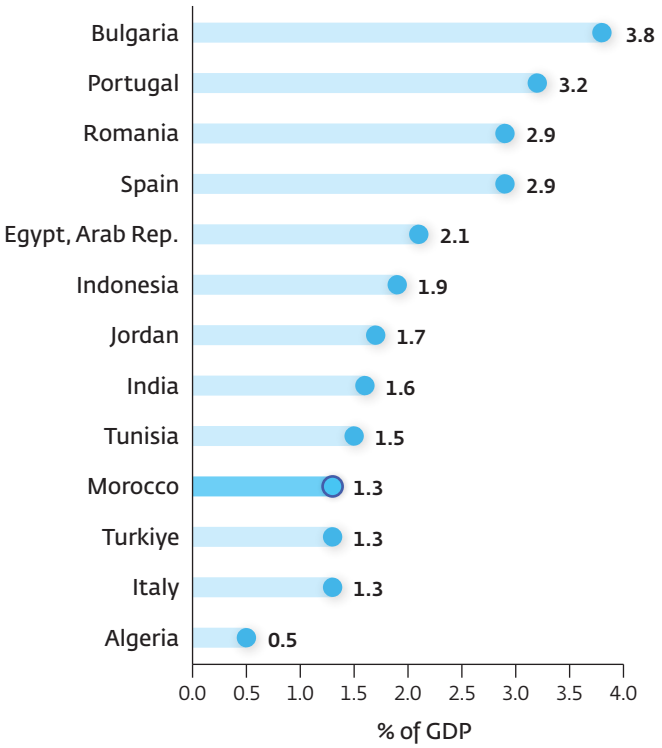
economy have remained relatively moderate, highlighting the potential for greater private sector participation across the economy.

Foreign investment has been concentrated in strategic export-oriented sectors. Net FDI inflows averaged 1.3 percent of GDP between 2019 and 2023—below aspirational peers such as Albania (7.2 percent) and Colombia (3.9 percent), and regional comparators like the Arab Republic of Egypt (2.1 percent) and Tunisia (1.5 percent) (see figure 1.1).[9] While Morocco has successfully attracted foreign capital into sectors like automotives, aeronautics, and textiles, largely within specialized economic zones, spillover effects on domestic small and medium enterprises (SMEs) have been limited. Encouragingly, greenfield FDI announcements have surged since 2021, especially in renewable energy and electronics, supported by growing interest from investors in China and the European Union (EU) (figure 1.2). Realizing this emerging potential will require reforms that foster competition, reduce barriers to SME participation, and enable deeper linkages between foreign and domestic firms.

Figure 1.1

Morocco Trails Regional and Aspirational Peers in FDI Inflows

FDI net inflow, five-year average, 2019–23

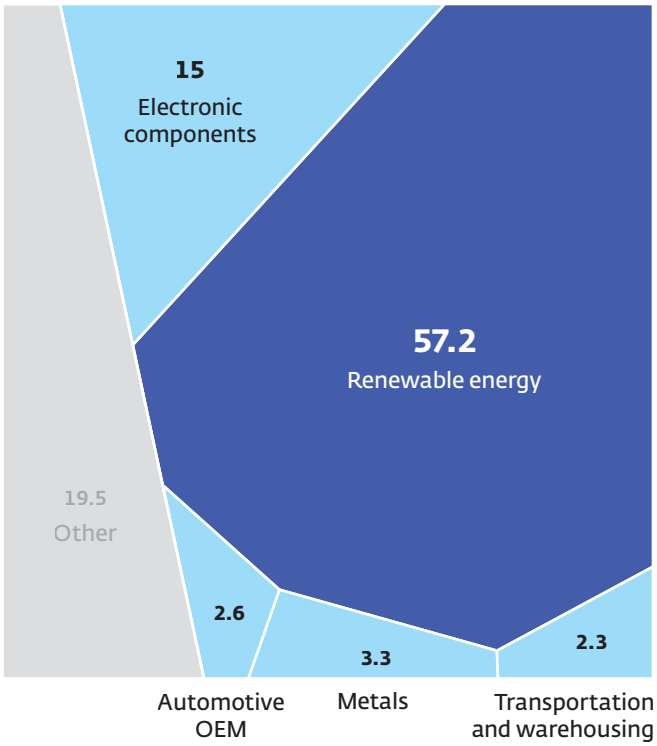


Source: Calculations based on IMF Balance of Payments data.
Note: FDI = foreign direct investment; GDP = gross domestic product.

Figure 1.2

Renewables are Leading the Surge in FDI Announcements

Share of cumulative FDI announcements, 2020–24



Source: Calculations based on Financial Times FDI Markets data.
Note: FDI = foreign direct investment; OEM = original equipment manufacturer.

At the core of Morocco's competitiveness agenda lies the private sector itself. The private sector is characterized by a dual structure, dominated by a small number of large, formal firms alongside a vast informal economy. The latter accounts for over 77 percent of total employment and roughly one-third of GDP, particularly in retail, services, construction, and agriculture.

Firm demographics and turnover patterns indicate structural rigidities. Approximately 45 percent of formal firms are more than 10 years old, and formal firms' exit rate remains low (1.2 percent formally, a de facto rate of 7.3 percent). Administrative complexity, fragmented regulatory, and limited insolvency options discourage restructuring or orderly exit, leading to low market dynamism and efficiency. As a result, unproductive firms are more likely to linger in the market. Enhancing business entry and exit frameworks could help facilitate resource reallocation toward more productive and dynamic firms.[10]

Trends in labor productivity highlight challenges in Morocco's corporate sector. Between 2016 and 2019, labor productivity in Morocco's corporate sector grew 2.2 percent annually on average, slower than the 3.5 to 5 percent rates achieved by aspirational peers like Vietnam, Poland, and Malaysia during periods of structural transformation. At this pace, it will take over 30 years for Morocco to double labor productivity—compared to fewer than 20 years in economies sustaining growth rates above 4 percent—significantly delaying income convergence and the transition to higher living standards.

1.2 Financial Sector and Capital Markets

Morocco's financial system is dominated by commercial banks, which account for over 85 percent of total financial sector assets.[11] The banking sector is relatively deep, with total assets equivalent to nearly 80 percent of GDP, and moderately concentrated, with the largest three banks accounting for around 60 percent of total sector assets. Around 15 percent of banking assets are invested in government debt (table 1.2). Banks

Table 1.2

Banking Sector: Key Indicators Highlight Strong Penetration but Structural Vulnerabilities

	Morocco		MENA	LMICs	EMDEs
	Latest	5Y avg.			
Domestic credit to the private sector (% of GDP)	79.6	85.1	43.9	35.6	40.5
Bank penetration (% of GDP)	56.7	61.4	44.8	33.5	37.9
Capital adequacy ratio (% of RWA)	15.8	n/a	19.7	21	19.2
NPLs (% of loans)	8.6	n/a	1.6	5.4	4.6
NPLs provisioning rate (%)	68.0	n/a	31.1	99.7	84.6
Foreign currency loans (% of loans)	n/a	n/a	6.4	37.6	27.3
Government debt (% of assets)	15.1	n/a	4.8	22.3	12.5
Share of government-controlled banks (% of assets)	8	n/a	n/a	n/a	n/a
Share of foreign controlled banks (% of assets)	6	n/a	n/a	n/a	n/a

Note: EMDEs = emerging markets and developing economies; LMICs = low- and middle-income countries; MENA = Middle East and North Africa; NPLs = nonperforming loans; n/a = not applicable; RWA = risk-weighted assets. Most data are sourced from the 2023 Financial Stability Report published by Bank Al-Maghrib in the second half of 2024. Morocco does not report standardized data to the IMF's International Financial Statistics, limiting the availability of more frequent updates. Additionally, two systemically important foreign-owned banks do not publish disaggregated data for their Moroccan subsidiaries. Where applicable, estimates from Fitch Ratings have been used.

remain adequately capitalized, though asset quality has deteriorated postpandemic, even if profitability has rebounded.

Despite growth in digital banking and a supportive regulatory framework, access to credit, particularly for SMEs, is constrained. Lending is concentrated among large corporates and low-risk sectors, with SME credit representing less than 15 percent of total lending.[12]

Morocco's equity market is relatively advanced but lacks depth and diversification. The Casablanca Stock Exchange lists 77 firms, with market capitalization increasing from 41 percent of GDP in 2022 to 48 percent in 2024. However, corporate bond issuance remains limited, and institutional investors such as pension funds and insurers are risk averse (table 1.3).

Table 1.3

Capital Markets: Limited Corporate Bond Activity but Relatively Deep Equity Market

	Morocco		MENA	LMICs
	Latest	5Y avg.		
Public bond market				
Public bonds (% of GDP)	45	40	n/a	n/a
Corporate bond market				
Private corporate bonds (% of GDP)	2.68	2.64	9.19	12.6
No. of listed corporate bonds	8	8	15	85
Public equity market				
Market capitalization (% of GDP)	47.3	45	24.5	17.7
No. of listed firms	77	75	98	80
Share turnover velocity (%)	12.6	n/a	13.7	5.9

Note: GDP = gross domestic product; LMICs = low- and middle-income countries; MENA = Middle East and North Africa; n/a = not applicable. Most data are sourced from the 2023 Financial Stability Report published by Bank Al-Maghrib in the second half of 2024. Morocco does not report standardized data to the IMF's International Financial Statistics, limiting the availability of more frequent updates. Additionally, two systemically important foreign-owned banks do not publish disaggregated data for their Moroccan subsidiaries. Where applicable, estimates from Fitch Ratings have been used.

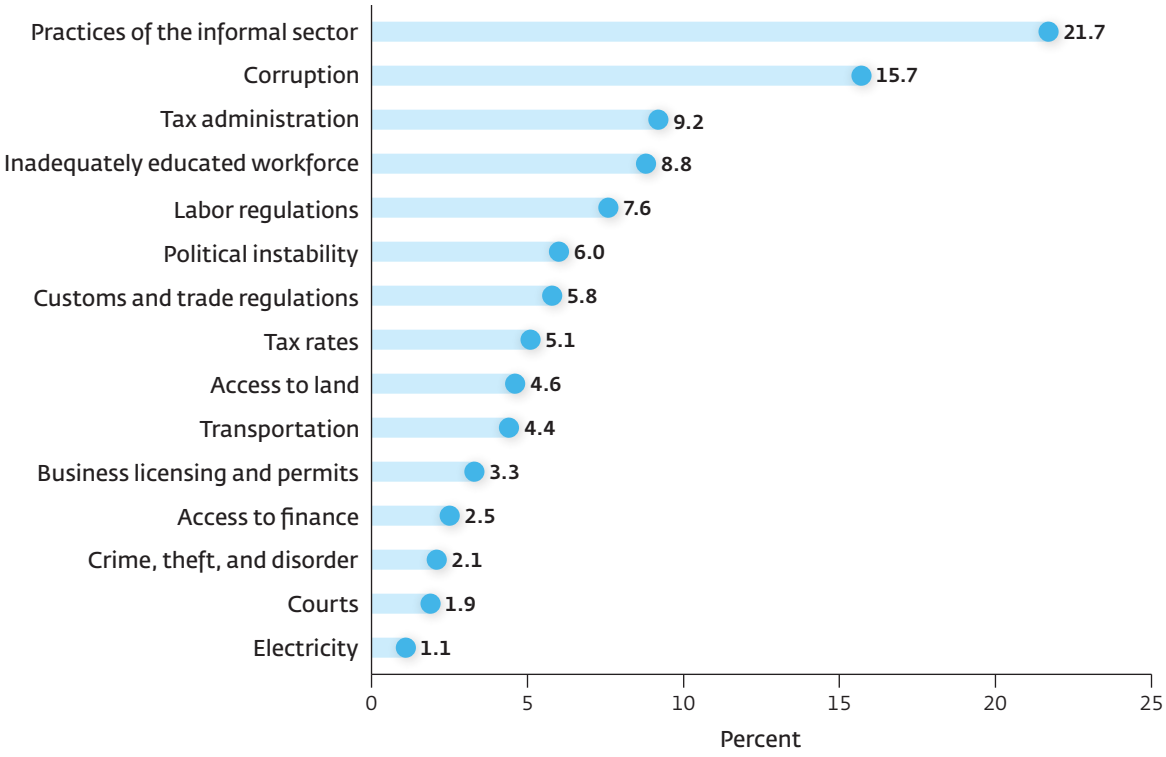
1.3 Business Environment

According to the 2023 World Bank Enterprise Survey, the top three obstacles to doing business in Morocco cited by businesses are informal sector competition, corruption, and tax administration. In addition, 9.2 percent of firms cited tax administration as a major constraint. Two tax-related categories combined suggest that overall tax concerns may rival corruption in importance among perceived business environment obstacles (figure 1.3). These challenges particularly affect SMEs, which often face higher compliance costs and more limited administrative capacity.

Delays in construction permitting, slow commercial dispute resolution, and the inconsistent application of rules create friction for firms. While the government has initiated efforts to improve local service delivery, such as delegating more authority to regional administrations, implementation capacity is uneven. Businesses frequently complain of gaps between regulatory reforms on paper and their enforcement in practice.

Figure 1.3

Key Business Environment Constraints: Informal Competition, Corruption, and Tax Concerns



Source: Based on 2023 World Bank Enterprise Surveys data.

1.4 Labor Markets and Skills

Morocco's labor market faces low participation, high unemployment and persistent skill mismatches. In 2024,[13] the labor force participation rate stood at 43.5 percent, below the 70.2 percent average in aspirational peers. Participation is particularly low among youth (22.7 percent) and women (19.1 percent). These trends contrast with Morocco's favorable demographic profile, which includes a large and growing working-age population.

Tertiary enrollment among the typical 18–24 age group has more than doubled over the past decade reaching 48 percent, yet education and training systems lag behind labor market needs. According to the 2023 Enterprise Survey, 30.8 percent of firms cite an inadequately educated workforce as a major or very severe constraint to their operations. This reflects a broad skills gap, with learning-adjusted years of schooling at 6.3 years in 2020, below peer countries.

Employment is concentrated in lower productivity jobs, particularly in agriculture and informal sectors. Approximately 35 percent of workers are employed in agriculture, with 97 percent of those jobs informal, according to Morocco's High Commission for Planning.[14] Informal employment represents more than 70 percent of total employment outside the public and agricultural sectors. Meanwhile, the industrial sector's contribution to employment remains limited and geographically uneven, with few linkages to surrounding labor markets (table 1.4).

1.5 State-Owned Enterprises and Governance

State-owned enterprises (SOEs) play a significant role in Morocco's economy, contributing roughly 22 percent of GDP.[15] They are present in strategic sectors such as energy, transport, and phosphates, often operating with preferential access to finance, infrastructure, and regulatory approvals. According to the OECD (Organisation for Economic Co-operation and Development), this preferential treatment risks crowding out private investment, limits market contestability, and distorts market signals, particularly harming SMEs.[16]

Morocco has undertaken important reforms to modernize the SOE sector. The 2021 Framework Law provides a reform roadmap to streamline the state's role, consolidate SOE portfolios, and convert commercial SOEs into public limited companies. The establishment of the National Agency for Strategic Management of State Holdings aims to strengthen governance, transparency, and financial oversight across the SOE portfolio. Continued implementation of these reforms is needed to help level the playing field and strengthen Morocco's investment climate.

The cross-cutting challenges highlighted above—catalyzing private investment beyond the public-led model, upgrading SMEs, closing skills gaps, and easing reg-

Table 1.4

Labor Market: Participation and Skills Gaps Hold Back Morocco's Labor Market Performance

	Morocco	MENA	LMICs	Regional and structural comparators	Aspirational comparators
Labor force supply					
Population ages 15–64 (as % of total population)	66.1	65.0	64.3	64.7	65.0
Labor force participation rate (% of population ages 15–64)[a]	47.7	56.6[c]	61.8	54.6	70.2
Learning-adjusted years of schooling[b]	6.3	7.6	6.4	7.7	9.7
School enrollment tertiary (% gross)	48	43	27	62	66
Labor market conditions					
Unemployment, total (% of total labor force)	9.0	9.1	4.4	10.2	6.9
Share of firms identifying an inadequately educated workforce as a major or very severe constraint (%)	30.8	23.4	15.7	26.8	31.9
Employment by sector (% of total employment)					
Industry	24.1	26.9	22.6	28.8	23.0
Agriculture	29.6	12.9	39.2	11.8	14.2
Services	46.3	60.2	38.3	59.5	62.9

Sources: World Bank Growth and Jobs Reports, using data from World Development Indicators, United Nations Educational, Scientific and Cultural Organization, and World Bank Enterprise Surveys.

a. International Labour Organization, modeled figures for 2024.

b. Learning-adjusted years of school estimates the years of schooling for how much students learn for each year they are in school using results from standardized tests.

c. Regional average calculations based on World Bank's regional classification.

ulatory frictions—manifest differently across key sectors. The following sector deep dive chapters illustrate how targeted reforms in decentralized solar, low-carbon textiles, argan oil and natural-cosmetics manufacturing, and marine aquaculture can address these systemic constraints and unlock Morocco's green and regional development ambitions.

2 Sector Selection

This CPSD focuses on four subsectors of the economy where concrete policy actions can generate commercially viable opportunities for private investors: decentralized solar power, low-carbon textiles, argan oil and natural-cosmetics manufacturing, and marine aquaculture.

These subsectors, in turn, have the potential to contribute to private sector growth, job creation, and address regional disparities. Sector selection criteria are:

1. Potential to attract significant private capital if reforms to alleviate constraints are undertaken.
2. Potential development impact, with a particular focus on creating more and better jobs.
3. Feasibility of removing key constraints through government action in the near term.

Sector selection is not intended to be exhaustive or to imply that other sectors may not offer investment opportunities or growth potential. Private investors may well identify profitable opportunities in other sectors. Inclusion of a sector does not imply that it is a priority for current or future support from the World Bank Group. The focus here is on sectors where an identified constraint to private investment can feasibly be alleviated by public policy actions and thereby generate commercially viable opportunities for private investors, both foreign and domestic. Recommended actions are not necessarily sufficient on their own. Their impact on investment and job creation will likely require complementary measures and capacity building, in some cases extending beyond the medium term. This CPSD is intended to complement other core diagnostics, particularly the Jobs and Growth Report as well as related World Bank Group analytic work, which cover, among other things, cross-cutting constraints to private sector development.

The Morocco CPSD sector selection involved a comprehensive process combining quantitative and qualitative analysis and consultations. Initially, sectors were evaluated through a structured quantitative approach. The first phase of the selection process assessed private investment potential using a range of indicators including revealed comparative advantage, export gaps, global demand growth, and profitability indicators. The second phase evaluated the potential developmental impact using variables like job multipliers, value-added multipliers, and product complexity. Heatmaps were used to rank sectors for further analysis.

The long list of sectors was informed by further consultations with World Bank Group experts and a large range of country stakeholders to determine the potential for the

CPSD to add value. Value added was determined by the ability of the CPSD to identify constraints that were discouraging private investment in the respective sectors and which could be alleviated through concrete and targeted policy action in the near term (table 2.1). Other sectors considered during this process included leather, animal products, minerals, transport, telecommunications, tourism and travel, and health and pharmaceutical manufacturing. Their noninclusion in this CPSD does not reflect an assessment of their relative importance or investment potential. Across the four selected subsectors, several common attributes stand out: they leverage national natural capital and intangible assets (i.e., traditional know-how, especially in textiles and argan value chain); they have the potential to generate jobs (particularly for women); they promote inclusive regional and territorial development; they contribute to sustainable development; and—with the exception of the solar subsector, which is primarily oriented toward domestic deployment—they have export potential.

1. **Decentralized solar power generation.** Morocco's high solar irradiation, rising electricity prices relative to peers, and falling costs of photovoltaic and storage suggest potential for private investment in decentralized solar for commercial, industrial, and residential users. Additional pull comes from decarbonization requirements from export markets associated with the EU's Carbon Border Adjustment Mechanism. The major impediments discouraging private investment include an incomplete and fragmented regulatory framework.

Table 2.1

Evaluation of Selected Sectors Using Selection Criteria

Sector	Private investment potential if constraints are removed	Feasibility of removing constraints*	Contribution to job creation	Contribution to other development impacts
Decentralized solar	HIGH	HIGH	MEDIUM	HIGH
Low-carbon textile	HIGH	HIGH	HIGH	MEDIUM
Argan value chain	HIGH	HIGH	HIGH	HIGH
Marine aquaculture	HIGH	HIGH	MEDIUM	HIGH

*The likelihood that key policy changes can be implemented in the CPSD timeframe.

2. **Low-carbon textile.** Morocco's proximity to Europe, skilled workforce, and established apparel base align with nearshoring trends and growing demand for sustainable production; untapped opportunities include upgrading into primary processing (spinning, weaving, finishing), design and R&D, and circular models (recycling and upcycling, waterless dyeing, solar-powered plants). Binding constraints include dependence on subcontracting, low margins, and informality that complicates compliance with E&S standards. The sector offers the potential for significant job creation—especially for women—while potentially enhancing growth, export diversification and complexity, social inclusion through formalization, and sustainability via decarbonization and circularity improvements.
3. **Argan oil and natural-cosmetics manufacturing.** Endemic to Morocco, argan is drought-resilient, climate-aligned tree species with strong global demand. Morocco is the only global supplier of argan oil, used in culinary and cosmetic applications. While the processing or argan into oil is well developed, 93 percent of argan oil is exported in bulk and major untapped value lies in developing secondary processing, i.e., the production of finished food and cosmetics products using argan oil. Key impediments include quality and standards gaps, traceability and certification weaknesses, and rigid sanitary and phytosanitary regulations affecting food and cosmetics processing. Targeted policy reforms could unlock sizable rural and industrial employment, higher-value-added exports, and jobs and income generation in lagging regions.
4. **Marine aquaculture.** Aquaculture output grew from 600 tons in 2017 to 1,614 tons in 2023, with high-value species (sea bass, sea bream, shellfish) and seaweed presenting diversification potential. The National Agency for the Development of Aquaculture has facilitated more than 500 projects and reserved coastal zones could enable up to 600,000 tons of aquaculture output, creating sizable opportunities in farming, hatcheries, feed, cold chain, processing, and exports. The main impediments are complex permitting, land acquisition hurdles, inadequate port, and service infrastructure (e.g., labs, supplies), limited skilled labor and lack of financing.

3 Decentralized Solar Power Generation

AT A GLANCE

- Morocco's exceptional solar resources, competitive photovoltaic costs, and relatively high electricity tariffs make decentralized solar potentially attractive for private investment. Strong demand growth is driven by rapid urbanization and socioeconomic expansion, along with emerging pressures for firms to align with future decarbonization requirements. Together, these factors are creating a large, expanding market for decentralized solar.
- Investors are deterred by an incomplete and fragmented regulatory framework, complex administrative procedures, unclear asset ownership definitions, and financial and technical concerns from electricity distributors, all of which increase uncertainty and risk.
- Morocco should complete regulatory reforms, simplify and centralize permitting processes, clarify ownership rules, and realign distributor incentives to foster a more predictable and investor-friendly environment for decentralized solar power generation.
- Reforms in the decentralized solar power generation sector could contribute to the achievement of about US$2.9 billion in private investment and the creation of 43,500 jobs over the medium term, avoiding approximately 56 million metric tons of greenhouse gas emissions.

3.1 Sector Context and Private Investment Potential

Morocco's exceptional solar resources and competitive market position make it a potentially profitable destination for private solar energy investment. The country benefits from some of the highest solar irradiation levels globally—between 1,700 and 2,600 kilowatt-hours (kWh) per square meter per year—and enjoys over 3,000 hours of sunshine annually. This abundance, coupled with low seasonal variability, provides stable and predictable electricity generation, supporting both large-scale and small-scale decentralized solar projects.[17]

Electricity consumption in Morocco has surged due to rural electrification and socioeconomic development and is projected to continue rising. Since 2010, Morocco's electricity consumption has grown by approximately 66 percent to 45 terawatt-hours (TWh) in 2024. This represents an average annual growth rate of about 4 percent, with projections indicating continued growth in demand that could reach 70 TWh by 2030.[18] Meeting rising demand will require expanding generation capacity and taking advantage of the country's solar potential, including through decentralized solar energy solutions.

Morocco's energy mix remains dominated by fossil fuels, which account for 87 percent of total primary energy consumption and create import dependency and exposure to price volatility. Morocco is actively pursuing renewable energy targets as part of its national energy strategy, aiming to achieve 52 percent of its electricity capacity from renewable sources by 2030. This includes 20 percent from solar energy, 20 percent from wind energy, and 12 percent from hydroelectric power, supported by storage solutions such as pumped hydropower and batteries, along with backup generation from natural gas. Morocco's renewable energy target focuses on capacity-based goals rather than the share of renewables in electricity generation, leading to modest objectives achievable through large-scale projects alone.[19] This framework has prioritized large-scale utility projects, leaving less room for the expansion of decentralized solar initiatives. Currently, of the 857 megawatts (MW) of installed solar capacity, only 3.5 percent is decentralized.[20] This is notably lower than other countries such as Spain (21 percent at end 2023), Germany (78 percent), China (37 percent), and the United States (34 percent).[21] While comparisons with advanced markets illustrate Morocco's low share, they also highlight the large untapped domestic potential (table 3.1).

Decentralized solar power generation is emerging as a promising segment, particularly among medium and large-size firms committed to decarbonization. Existing decentralized solar projects, which have been developed particularly in the industrial and commercial sectors, have been driven by company decarbonization agendas. Early adopters have implemented self-consumption solar installations, typically developed case-by-case as decrees under the self-generation Law No. 82-21 have been slow to be published, a process underway since February 2023. This case-by-case approach under-

Table 3.1

Morocco's Centralized System Opens a Wide Path for Decentralized Expansion

Cumulative photovoltaic capacities, Morocco and comparators, 2023

Country	Centralized PV systems (GW)	Decentralized PV systems (GW)	Total power capacity (GW)	% of decentralized PV systems in total power capacity
China	435.300	255.60	690.900	37.0
United States	117.300	60.10	177.400	34.0
India	76.900	15.30	92.200	17.0
Japan	36.900	54.30	91.200	60.0
Spain	30.600	8.30	38.900	21.0
Germany	18.400	63.90	82.300	78.0
Brazil	11.500	26.30	37.800	70.0
Australia	11.400	22.70	34.100	67.0
Morocco	0.827	0.03	0.857	3.5

Source: IEA-PVPS (2023); RVPS (2024, table 2.5). For Morocco, the reported values are based on publicly available information and do not include small rooftop installations, as data for these capacities is not available.
Note: GW = gigawatts; PV = photovoltaic.

scores the need for a complete and clearer regulatory framework to reduce uncertainty and transaction costs and accelerate adoption.

Regulatory reforms[22] have progressively opened the solar renewable energy market to private participation, yet market concentration and limited competition persist. Law No. 13-09 (2010) authorized private developers to produce and sell renewable energy directly to both public and private consumers via corporate power purchase agreements.[23] Reforms expanded access to low-voltage consumers (Law No. 58-15) and enabled self-production and surplus sales by private investors (Law No. 54-14). The most recent reforms (Law No. 82-21 and Law No. 40-19 [2023]) regulate self-generation and renewable energy open market in the distribution segment, making progress toward a fully open market with an independent transmission system operator and a strong regulator to guarantee nondiscriminatory grid access. Under this framework, the operator would manage the transmission network transparently and independently, and the regulator

would enforce market rules and fair competition, allowing private producers to connect and supply renewable energy on equal terms, fostering investment and innovation. Nonetheless, decentralized solar power generation projects continue to face administrative and operational challenges stemming from a complex and incomplete regulatory framework (see next section for details), although grid access is gradually improving and does not currently represent the main binding constraint for decentralized solar expansion.

Decentralized solar energy serves as a strategic complement to large, centralized FDI-backed renewable projects. While utility-scale projects expand national generation capacity and attract international capital, decentralized solar solutions accelerate renewable integration, strengthen energy security and enhance grid flexibility if coupled with storage. They also reduce technical and financial barriers for local participation and enable faster deployment across diverse geographies, including remote and underserved areas. The rapid decline in battery storage costs has further improved the competitiveness of decentralized systems, allowing them to provide reliable, round-the-clock power even in off-grid settings. These benefits support Morocco's ambitions to expand productive activity in underserved regions, where decentralized power can reduce operating costs for firms.

Morocco's electricity sector has the potential to attract substantial private investment in solar energy, driven by ongoing and prospective market reforms, infrastructure upgrades, and growing integration of renewable energy. The current structure of Morocco's electricity market is a mix of public and private actors, with most private sector involvement concentrated in large-scale independent power producer generation projects. This has contributed to the diversification of Morocco's energy mix but has not led to a fully liberalized or competitive market, as third-party access and renewable energy competition remain limited. At the same time, the country is making significant investments in grid infrastructure, expanding the transmission network to support increased renewable energy integration. Morocco's skilled human capital and expanding technical expertise further supports the potential for decentralized energy deployment, making it potentially attractive to investors and developers.

Foreign and domestic investors show interest in investing in decentralized solar projects, particularly medium voltage solar systems, due to the benefits from cost savings, price stability, and a commitment to decarbonization. With average medium voltage tariffs for professional and industrial customers ranging from US$0.10 to US$0.12 per kWh—among the highest in the MENA region—solar solutions are attractive as photovoltaic energy costs, including battery energy storage,[24] have declined to between US$0.05 and US$0.08 per kWh.[25] Additionally, Moroccan companies are increasingly under pressure from the EU's Carbon Border Adjustment Mechanism to decarbonize their operations, as failure to do so risks losing access to the European market, the dominant destination for Morocco's exports.

Morocco's energy transition is constrained by the absence of wholesale and flexibility markets, which prevents the proper valuation of storage solutions and limits private investment in storage capacity. Establishing comprehensive market mechanisms and regulatory frameworks for flexibility and storage—including transparent compensation for system services beyond those provided by the National Office of Electricity and Drinking Water (Office National de l'Électricité et de l'Eau potable; ONEE) and remunerated through the tariff for system services (*tarif des services systèmes*)—are critical to realizing the potential of storage technologies. Without clear market signals and incentives, deployment of storage is limited, impeding Morocco's ability to integrate higher shares of renewable energy, enhance grid reliability, and attract both local and international investment in advanced energy solutions.

3.2 Constraints to Private Investment and Recommendations

Despite broad strategic alignment among stakeholders on the importance of developing decentralized solar power generation and mobilizing private investments—and notable progress by the Moroccan government in opening the sector—several obstacles discourage private investment.

CONSTRAINT 1. Incomplete and fragmented legal framework for decentralized solar power systems creates uncertainty for private investors. Despite the legal foundation established by Law No. 82-21 and Law No. 40-19 for decentralized solar power generation, Morocco's regulatory environment remains incomplete and fragmented. Private investors face legal, operational, and financial uncertainty due to the delayed publication and implementation of key implementing regulations. To date, the Ministry of Energy Transition and Sustainable Development (Ministère de la Transition Énergétique et du Développement Durable; MTEDD)[26] has published only two out of eight decrees required under these laws—specifically, those concerning smart meters and certificates of origin—with six implementing decrees still pending, although efforts are underway to finalize them. The legislation stipulates a four-year period for issuing the implementing decrees, and more than two years have passed without their publication.[27] While the government remains within the legal timeframe, the delay has generated significant investor uncertainty.

Morocco should complete its regulatory framework by quickly publishing the outstanding decrees related to Law No. 82-21 and Law No. 40-19. These decrees should prioritize clarity, proportionality, and simplicity.

RECOMMENDATION 1A. Adopt the decree under Law No. 82-21 to establish the procedures for self-generation regimes. The application text should clearly define the administrative steps, documentation, timelines, and points of contact required for

investors, differentiated by the facility capacity and the corresponding applicable regime (declaration, interconnection request, or authorization).

RECOMMENDATION 1B. Adopt the regulatory decree clarifying medium voltage versus high voltage connection thresholds. Under Law No. 82-21, an implementing decree needs to be published to set the power threshold between installations to be connected to the medium voltage grid versus those to be connected to the high voltage and very-high voltage networks. This decree is critical to ensure the full operationalization of self-generation projects above 5 MW,[28] particularly for the industrial sector. Without a clearly defined threshold, investors and industrial players lack clarity on the applicable administrative and technical regimes, which delays the rollout of self-generation capacities envisaged under the law. Publication of such a decree would remove regulatory uncertainty, enable industries to access the medium voltage regime up to the authorized capacity limit, and accelerate investments in renewable energy for self-consumption.

RECOMMENDATION 1C. Adopt the regulatory decree specifying the modalities for energy storage: the government should publish a decree specifying the modalities of storage and reduction of electricity (curtailment).[29] The decree should clarify the conditions under which self-generators can install their own storage systems (such as batteries), or access storage services provided by grid operators. Energy storage is essential for managing the intermittent nature of solar energy, enabling surplus production during peak periods to be stored for later use. This should increase revenues from self-generation plants. In the long term, it would be also important to accompany this reform with the development of a clear regulatory and commercial framework for flexibility and storage, including a compensation mechanism for system services beyond those offered by ONEE that are remunerated with the tariff for system services.

RECOMMENDATION 1D. Adopt the regulatory decree defining the conditions and procedures for revising the 20 percent cap on excess electricity injection into the grid. The existing 20 percent cap on electricity injection limits the economic viability and scalability of decentralized solar projects. A dedicated decree should establish clear evaluation criteria, administrative procedures, timeline, and review mechanisms to ensure transparency and predictability for decentralized solar stakeholders.

CONSTRAINT 2. Tariffs and commercial conditions for surplus injection have not been established. The National Electricity Regulatory Authority (ANRE) has set wheeling tariffs[30] for both transmission and distribution networks. However, critical elements such as tariffs and commercial rules for the sale of excess generation are missing. A major barrier is the lack of technical and commercial provisions for grid injections of surplus energy produced. Currently, renewable energy generation plants cannot sell electricity to the grid operators, preventing producers from selling excess energy when production exceeds

consumption. This limitation undermines the economic viability of solar solutions, as producers cannot monetize surplus generation. Additionally, clear authorization procedures for self-production are absent, further complicating project development. The ongoing transition to regional multiservice companies (sociétés régionales multiservices; SRMs)[31] adds another layer of complexity and uncertainty, as the roles and operational procedures of these new actors remain undefined, further eroding investor confidence. This regulatory gap creates uncertainty for investors and constrains the development of self-generation and surplus injection.

RECOMMENDATION 2. Establish the tariff methodology and commercial rules for surplus electricity purchases. ANRE should issue a decision establishing the tariff methodology and commercial modalities for purchasing surplus electricity injected into the grid. The decision should ensure transparency, predictability, and fair compensation, including clear eligibility criteria, metering and settlement rules, contract templates, and dispute resolution mechanisms.

CONSTRAINT 3. Administrative complexity and ambiguous ownership requirements of Law No. 82-21 undermine decentralized solar deployment. Under Law No. 82-21, the declaration regime for installations below a certain capacity threshold is intended to be a straightforward administrative process, without the need for extensive technical documentation. However, in practice, the connection request process is often hindered by unnecessary requirements, such as mandatory orientation studies. These studies are costly, time-consuming, and difficult for local experts to produce at the required standard, and their validation by the newly established SRMs could become a significant bottleneck. Morocco's previous experience with regulatory complexity illustrates the risks of such an approach. For example, Decree No. 2-15-772, issued in November 2015 under Law No. 13-09, was designed to facilitate corporate power purchase agreements at medium voltage. However, it imposed a series of onerous technical and administrative requirements, including multiple studies and approvals—that rendered the mechanism largely unworkable. Nearly a decade later, it remains mostly unimplemented.

Additionally, Law No. 82-21 adopts a restrictive definition of self-producers, requiring them to "own the facility" or "have the right to manage it." This could be interpreted narrowly by the administration, potentially excluding contractual arrangements that delegate construction, financing, operation, or maintenance to third parties. The law's ambiguity on this point creates uncertainty for investors and developers seeking flexible business models.

RECOMMENDATION 3. Simplify and clarify the administrative and operational rules, including ownership, for self-generation facilities under Law No. 82-21. To enhance flexibility and efficiency for consumers and developers, the law should provide a clear definition of ownership and the conditions under which self-generation facilities can

be operated. This will give stakeholders certainty and enable them to pursue authorized contractual arrangements, including those involving third-party construction, financing, operation, or maintenance.

CONSTRAINT 4. **Permitting processes for decentralized solar involves multiple authorities with overlapping responsibilities, leading to higher costs and delays discouraging investors.** The permitting process for decentralized solar installations is highly fragmented, requiring engagement with multiple municipal, regional, and technical authorities—such as MTEDD, ONEE, SRM, and Regional Investment Centers (Centres Régionaux d'Investissement; CRI)—each with overlapping responsibilities and inconsistent procedures. This lack of coordination results in significant delays, increased administrative costs, and creates substantial entry barriers, especially for small and medium project developers. The absence of a unified process means developers must navigate a complex web of approvals, often facing redundant requirements and unclear timelines. These inefficiencies hinder the timely deployment of solar projects and discourage investment in decentralized energy solutions.

RECOMMENDATION 4. **Create a regional one-stop platform for decentralized solar approvals.** Single-window permitting systems for renewable energy—commonly used in countries such as Germany, France, and India—have proven effective in reducing project delays, improving transparency, and lowering transaction costs. Morocco should adopt a similar approach by establishing a "Guichet Unique" which could be managed for example by CRIs to centralize approvals for decentralized solar projects, including both new installations and extensions to existing businesses. This would streamline procedures, enhance investor confidence, and facilitate faster deployment of renewable energy. The platform should consolidate all relevant steps—technical evaluations, grid connection approvals, and municipal clearances—into a single, coordinated process, ideally supported by digital tools for real-time tracking. Implementing this recommendation would require amending Law No. 47-18 (as modified by Law No. 22-24) to expand the types of projects CRIs can process and to integrate digital platforms for efficient management of all decentralized solar authorizations and declarations.

CONSTRAINT 5. **Distributors' technical concerns hinder the integration of decentralized solar power systems.** Electricity distributors in Morocco—both public and private—often perceive decentralized solar power systems as a threat to their financial stability. These financial concerns are the primary barrier, as they relate to revenue erosions as their captive customer base, particularly among the base of large commercial and industrial consumers who may be able to reduce grid dependence; cross-subside structures, and limitations on renewable procurement. These financial interdependencies are expected to persist under the new SRMs, which are in charge of distributing both electricity and water.

From the distributor's perspective, not being able to purchase surplus energy, especially when it is available at a price more attractive than the purchase price from ONEE, constitutes a barrier that should be lifted through the publication of ANRE's decision on the tariff for selling surplus energy.

Another constraint faced by distributors is that, under Law No. 40-19, they can only procure up to 40 percent of the renewable energy produced within their concession area, and under Law No. 82-21 they are not allowed to develop renewable plants under self-generation. This limits their ability to optimize their costs and improve their financial situation

Beyond financial concerns, distributors frequently cite technical concerns—such as overvoltage, overcurrent, reverse power flows, and grid stability issues—as secondary and can generally be managed through existing solutions (e.g., smart inverters, grid codes, monitoring). While some technical concerns are valid, they are often used to justify delays or restrictions on decentralized solar connections, even when cost-effective solutions (e.g., smart inverters, grid codes, improved monitoring) exist. This defensive approach deters investment and hinders the growth of a decentralized solar market. With the decentralization of electricity distribution to SRMs, these entities face new technical, regulatory, and operational responsibilities. Most SRMs and local authorities currently lack the expertise and institutional systems needed to effectively manage decentralized energy integration.

RECOMMENDATION 5A. Align distributor incentives and regulatory frameworks to support decentralized solar deployment. There is a need to improve the current electricity distribution framework to incentivize decentralized solar integration. This can be achieved by introducing specific decentralized solar objectives for distributors or enacting a dedicated law mandating such target while expanding ANRE's regulatory authority to effectively oversee and enforce these objectives within the distribution sector and SRMs.

RECOMMENDATION 5B. Facilitate distributor procurement of renewable energy by allowing distributors to source more than 40 percent of their energy needs from renewable producers. In addition to establishing tariffs and commercial conditions for purchasing excess renewable generation from customers (Recommendation 2), the government should allow distributors to source more than 40 percent of their energy needs from renewable producers. This would create new revenue streams for distributors while accelerating renewable integration and protecting consumers through transparent, competitive processes.

RECOMMENDATION 5C. Finalize and publish the distribution grid code[32] to clarify technical limits for decentralized solar plants and address issues like voltage

fluctuations and reverse power flows. It is also important to invest in digital grid infrastructure to ensure regular updates to the grid code and grid hosting capacity. In parallel, the timely adoption of implementing decrees stated above would help clarify institutional responsibilities between ONEE, SRMs, and ANRE, thereby reducing regulatory uncertainty for investors.

3.3 Impact

Reforms in decentralized solar power generation have the potential to transform Morocco's energy landscape by attracting about US$2.9 billion in private investment and creating roughly 43,500 jobs by 2035. Direct job creation is expected to reach approximately 29,000, while indirect employment would add around 14,500 jobs. This assessment uses international benchmarks on investment costs, employment multipliers, and technology mix to estimate the impact of scaling up distributed solar generation. It assumes that decentralized systems—mainly commercial and industrial rooftops alongside residential installations—will expand from today's 30 MW to around 2,100 MW under a moderate growth scenario (see appendix B). Such growth would reflect both the declining cost of solar technologies and rising private participation in small-scale renewable projects, supported by a logically sequenced set of regulatory and administrative reforms described above.

The decentralized solar segment offers strong socioeconomic and climate cobenefits. Beyond expanding clean power supply, it fosters local entrepreneurship, skilled technical employment, and energy access in underserved areas, reinforcing spatial equity by enabling productive investment in regions where grid reliability is limited. Strengthening regulatory clarity on self-generation, streamlining connection, and licensing procedures, and expanding green finance instruments would help unlock this potential. If supported by targeted training programs and local content policies, decentralized solar could evolve into a labor-intensive, inclusive growth driver, positioning Morocco as a regional leader in distributed renewable energy deployment while advancing its Nationally Determined Contribution targets. This expansion of decentralized solar solutions would deliver significant emissions reductions: over the 31-year operating period considered, decentralized solar expansion is estimated to avoid approximately 56 million metric tons of greenhouse gas emissions, equivalent to about 1.8 million metric tons per year (see appendix B).

3.4 Summary of Constraints and Recommendations

Table 3.2

Policy Recommendations to Remove Impediments to Private Investment in Decentralized Solar Power Generation

Constraint	Recommended actions
1. Incomplete and fragmented legal framework for decentralized solar (Law No. 82-21 and Law No. 40-19).	**1a.** Adopt the decree defining procedures for self-generation regimes under Law No. 82-21. **1b.** Define medium voltage vs. high voltage and very-high voltage connection thresholds under Law No. 82-21. **1c.** Issue the decree on energy storage and curtailment modalities. **1d.** Establish procedures to revise the 20 percent surplus injection cap.
	Responsible public sector entities: MTEDD (lead) in coordination with ANRE, ONEE, and relevant ministries; SRMs for implementation.
2. Lack of defined tariffs and commercial conditions for surplus injection.	**2.** Set ANRE tariff methodology and commercial rules for surplus electricity.
	Responsible public sector entities: ANRE (lead) in coordination with MTEDD, ONEE, SRMs.
3. Administrative complexity and ambiguous ownership requirements under Law No. 82-21.	**3.** Simplify and clarify administrative and ownership rules for self-generation.
	Responsible public sector entities: MTEDD (lead for legal clarifications), with SRMs and relevant line ministries for process simplification.

(Table continues next page)

Table 3.2

Policy Recommendations to Remove Impediments to Private Investment in Decentralized Solar Power Generation (*continued*)

Constraint	Recommended actions
4. Fragmented and overlapping permitting processes.	**4.** Create a regional one-stop ("Guichet Unique") platform for approvals.
	Responsible public sector entities: CRIs (lead) in coordination with MTEDD, ANRE, ONEE, SRMs, municipalities.
5. Financial concerns of distributors; restrictive procurement limits.	**5a.** Align distributor incentives to support decentralized solar. **5b.** Allow distributors to procure more than 40 percent renewable energy. **5c.** Finalize and publish the distribution grid code.
	Responsible public sector entities: MTEDD and ANRE.

Note: CRIs = Centres Régionaux d'Investissement (Regional Investment Center); ANRE = Autorité Nationale de Régulation de l'Électricité (National Electricity Regulatory Authority); MTEDD = Ministère de la Transition Énergétique et du Développement Durable (Ministry of Energy Transition and Sustainable Development); ONEE = Office National de l'Électricité et de l'Eau potable (National Office of Electricity and Drinking Water); SRMs = sociétés régionales multiservices (regional electricity management station).

4 Low-Carbon Textiles

AT A GLANCE

- Morocco's textile sector combines scale, cost-competitiveness, and trade access with growing buyer interest in nearshoring and sustainable sourcing, offering potential for export-oriented private investment.
- Key obstacles to private investment include fragmented land data for upstream facilities, unstructured cutting-waste flows that hinder circular investments, working capital constraints for aggregators, stalled industry-led skills programs, and high environment, social, governance (ESG) certification costs for SMEs.
- Unlocking private investment will require targeted reforms to improve land and waste data availability, enhance financing mechanisms for value-chain actors, accelerate industry-aligned training delivery, and reduce compliance costs for sustainability standards.
- Reforms in the textile sector could contribute to potentially US$1.9 billion of private investment and creation of 30,800 direct and indirect jobs over the medium term.

4.1 Sector Context and Private Investment Potential

Morocco's textile and apparel sector is a major contributor to employment, exports, and women's economic participation. In 2024, the sector employed approximately 234,000 workers (64 percent of whom were women) and generated around US$4.6 billion in exports, roughly 10 percent of goods exports.

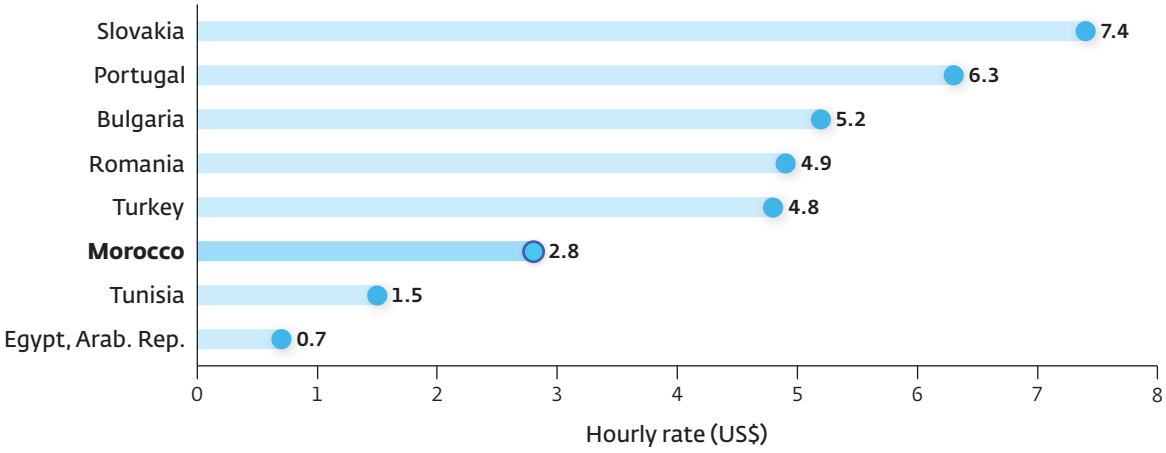
Strategic location and trade agreements bolster Morocco's attractiveness as a base for producing textiles. Preferential market access under free trade agreements with the EU[33] and competitive labor costs (figure 4.1) make Morocco an attractive nearshoring destination for global buyers seeking reliability, speed, and compliance. Although Morocco's labor costs are higher than those of nearby competitors such as Tunisia and Egypt, the country retains a strong competitive position due to proximity to the EU, speed-to-market and production flexibility positioning the country as a compelling base for investors looking to diversify supply chains away from higher-risk sourcing regions. A solid industrial foundation[34] and recognized labor and social standards strengthen the country's competitive edge. However, unlocking larger-scale private investment will require addressing long-standing constraints that limit value creation and investor transparency.

Morocco currently holds a 3.2 percent share of EU apparel imports, reflecting a strong position in the Euro Med area in fast fashion segments. Morocco ranks as the EU's eighth-largest apparel supplier, as of 2024.[35] The sector is heavily concentrated in

Figure 4.1

Low Labor Costs Strengthen Morocco's Advantage in Global Textile Production

Manufacturing labor costs, Morocco and comparators, 2025



Source: Based on estimates by Gherzi.

low value-added cut-make-and-trim (CMT) operations,[36] which account for 77 percent of total exports.[37] Full package and free-on-board models represent only 22 percent, reflecting limited domestic value capture.[38] The industry is dominated by small and medium firms, many of them family owned, and more than 80 percent of yarns and fabrics are imported. This dependency constrains compliance with rules of origin under existing trade agreements and weakens traceability—now a critical requirement for global brands.

In the aftermath of the COVID-19 pandemic, international buyers moved toward shorter lead times, smaller batch production, and more resilient and integrated supply chains. At the same time, the EU adopted several measures under the Green Deal,[39] including mandatory reporting[40] under the Corporate Sustainability Reporting Directive, and Eco-design for Sustainable Products Regulation to improve the sustainability of products placed on the EU market. Starting in 2026, additional regulatory reforms, including mandatory recycled content thresholds, digital product passports, and extended producer responsibility—are set to take effect. Brands increasingly demand traceability and verified environmental and social compliance across the entire value chain, including Tier-1 cut-make-trim suppliers. For Morocco's predominantly CMT-based SMEs, this implies new obligations for data collection, audit readiness, and digital traceability systems. While these requirements pose challenges, they also create an investment opportunity: upgrading traceability systems, green certifications, and sustainable production capacity would help retain existing buyers and attract ESG-driven sourcing.

Textile waste recovery represents a strategic opportunity. Pilot investments in circularity—such as fiber-to-fiber recycling, closed-loop dyeing systems, and low-impact denim finishing—indicate that Morocco has the potential to become a regional leader in sustainable textile manufacturing. This opportunity is reinforced by the volume and quality of waste generated locally: a 2021 UNIDO (United Nations Industrial Development Organization) mapping study[41] found that over 83,000 tons of waste are generated annually, 56 percent of which is high-quality cotton suitable for fiber-to-fiber recycling. Today, much of this waste is downcycled or landfilled. Investment in waste collection, sorting, fiber regeneration, and recycled yarn production could reduce reliance on imported certified fibers, lower carbon emissions, and position Morocco as a regional circularity hub.[42]

Significant potential for investment exists upstream—in yarn spinning, fabric production, and wet processing (dyeing, printing, and finishing). Demand for integrated supply chains is strong, yet upstream investment has lagged due to high capital requirements, fragmented access to industrial land, and high-energy costs that undermine competitiveness in capital- and energy-intensive operations. These energy constraints also highlight the sector's dependence on decentralized solar generation, which can reduce production costs and enable deeper integration. Strengthening these segments would accelerate speed to market, improve rules-of-origin compliance, enhance traceability, and reduce environmental impacts.

Table 4.1

Morocco's Textile Sector: Many Small Exporters, but Large Firms Drive Most of the Value

Indicator	Small companies	Medium companies	Large companies	Very large companies
Annual turnover	< US$4 million	US$4–10 million	US$10–20 million	> US$20 million
Share of exporting firms	67%	19%	9%	5%
Share of total export value	15%	26%	25%	34%
Main geographic concentration	75–80% in Casablanca region	~85% in Tangier region	~75% in Tangier region	90% in Tangier region
Dominant manufacturing model	FOB	CMT	CMT	CMT
Primary export destination	France	Spain	Spain	Spain

Source: Office des changes. Base: 947 exporting companies.
Note: CMT= cut, make, and trim; FOB = free on board.

Value capture is limited by the small number and scale of industrial aggregators[43] capable of offering full-package services across sourcing, design, compliance, and logistics. While a few local players have moved in this direction, most struggle to scale due to limited access to working capital, difficulty in consolidating upstream supply, and difficulty in meeting ESG expectations. As a result, the ecosystem remains fragmented around lower value CMT operations.

Despite the array of investment opportunities, multiple constraints discourage private investment. These include limited information on land and waste flows, the scarcity and high cost of industrial land in key production corridors, and the limited availability of specialized, up-to-standard industrial zones tailored to the needs of textile manufacturing. Additional constraints include high ESG certification and compliance costs for SMEs, insufficient working capital solutions for aggregators, and training systems that focus on low-value CMT skills. Skill shortages in fabric production, wet processing, recycling, and digital traceability undermine efforts to attract value-added investments. A flagship public-private program—Cap Excellence—was launched in 2021 to address these gaps, featuring industry-led governance and dedicated centers planned for Casablanca and

Tangier. However, although the agreement framework and infrastructure planning are in place, implementation has stalled.

In addition, the sector lacks a shared strategy focused on longer-term value addition and sustainability. The lack of a shared vision among government, industry associations, and private players—centered on value addition and ESG compliance—undermines the effectiveness of public interventions and erodes investor confidence. Establishing this unified vision can help position Morocco as a competitive, integrated and ESG-aligned textile hub.

Finally, stakeholder consultations highlighted the prevalence of informality in parts of the sector, which raises competitiveness as well as labor and social standards concerns. Addressing informality remains an important issue for the sector's long-term sustainability and international positioning.

4.2 Constraints to Private Investment and Recommendations

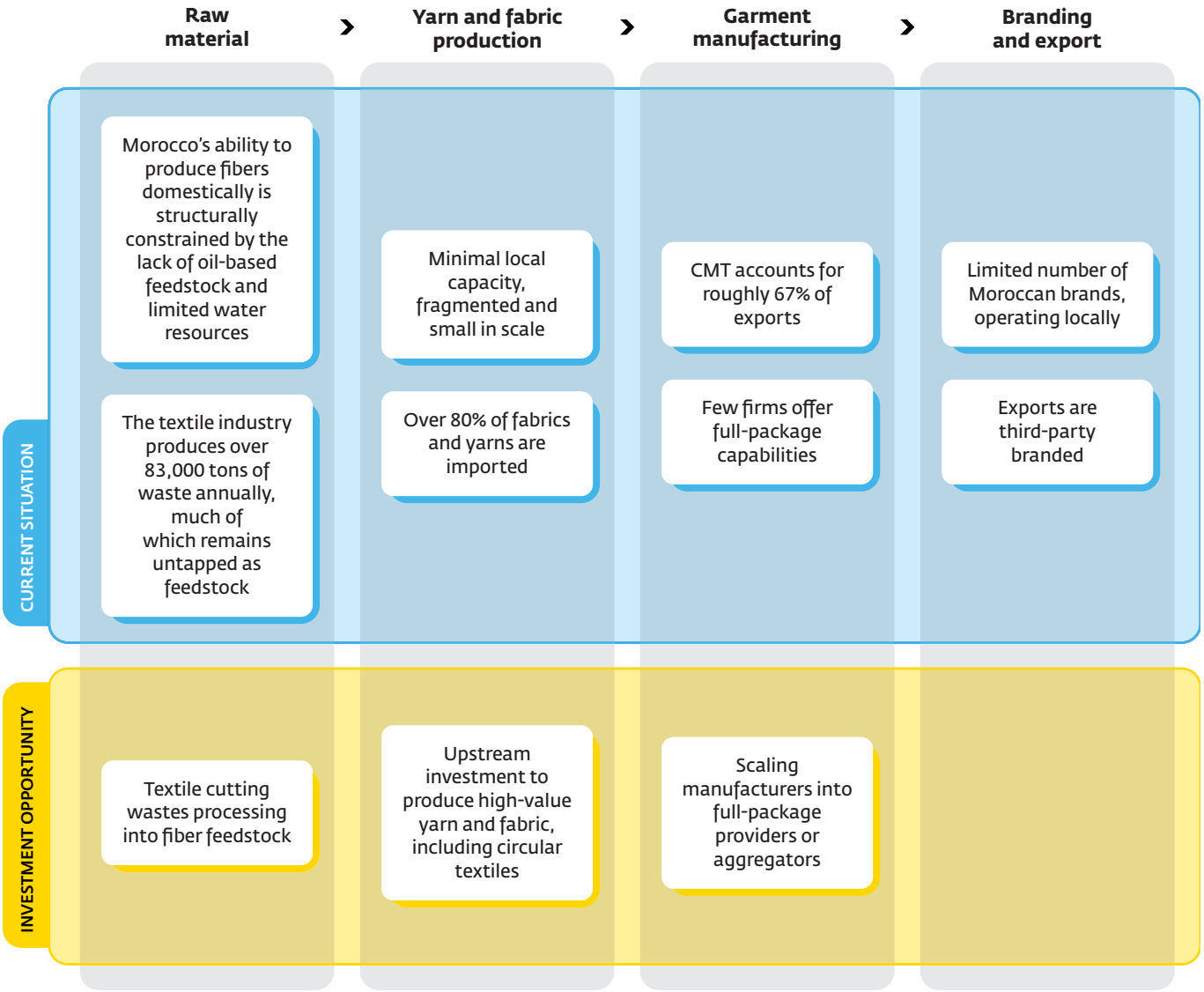
CONSTRAINT 1. Fragmented information on industrial land slows investor site selection. Investors face difficulties in identifying suitable industrial land, particularly along the Casablanca-Tangier corridor. Although the Ministry of Industry[44] and CRIs provide data on public industrial zones, information remains fragmented and not always easily accessible to investors. While a national digital platform exists to support industrial land identification, it is not sufficiently well known or widely used. As a result, investors lack information on site readiness, utility capacity, and permitting constraints. This slows site selection and deters investment, especially for upstream facilities requiring scale, reliable utilities, and logistical connectivity.

RECOMMENDATION 1. Strengthen the visibility, use, and scope of the existing national digital platform for industrial land. The Ministry of Industry, in collaboration with the CRIs and the National Agency for Land Conservation, Cadastre, and Cartography (Agence Nationale de la Conservation Foncière, du Cadastre et de la Cartographie) has developed an online platform that provides information on industrial land. However, the platform remains largely unknown and underused by investors. To address this, the Ministry should reinforce the promotion, marketing, and institutional adoption of the existing platform while progressively enriching its content with verified data on land location, zoning, ownership or tenure status, infrastructure and utility access, and indicative site readiness. The platform should offer a centralized entry point, including a standardized map-based search function, and be updated quarterly to accelerate investor decision-making. To ensure adoption and effective use, the platform's rollout should be supported by a targeted communication and outreach campaign directed at investors, industrial park developers, and business service providers.

Figure 4.2

Expanding Upstream and Downstream: Morocco's Biggest Opportunities in the Textile Value Chain Beyond CMT

Moroccan textile value chain



Note: CMT = cut, make, and trim.

CONSTRAINT 2. Unstructured collection of cutting waste limits recyclers' access to feedstock. Morocco's textile sector generates over 83,000 tons of cutting waste annually, yet collection remains informal, uncoordinated, and poorly sorted. Small collectors typically gather mixed waste—textile, paper, and plastics—with no fiber-based sorting, resulting in material unsuitable for fiber-to-fiber recycling. Regulatory constraints further

complicate the issue. This creates a failure of market coordination: the cost of establishing structured, traceable collection exceeds the capacity or incentive of any single private actor. As a result, recyclers face erratic supply, limiting capacity utilization and undermining the viability of circular textile investment even as demand for certified recycled fibers continues to grow.[45]

RECOMMENDATION 2. Establish a national registry of textile cutting waste. The Ministry of Industry and the Ministry of Energy Transition and Sustainable Development, in collaboration with the textile industry association (Association Marocaine des Industries du Textile et de l'Habillement), should create a digital system for factories to report cutting waste volumes by fiber type, color and contamination level. This system could be integrated as part of a national textile traceability platform—a broader digital infrastructure to enhance environmental transparency, monitor textile waste flows, and strengthen oversight of imports and exports. Integrating cutting waste reporting into a platform will close critical data gaps on recyclable inputs, allow traceability, and provide regular market visibility to recyclers, thereby enabling investment in circular value chains. International experience—such as the United Nations Development Programme and GIZ (German Federal Ministry for Economic Cooperation and Development) "secondary materials marketplace" pilot in Vietnam—demonstrates how digital platforms can improve traceability, standardization, and market coordination.[46] Reporting waste volumes provides firms with clearer access to recycling markets, strengthens compliance with emerging EU traceability requirements, and enables recyclers to secure the predictable feedstock needed for investment in fiber-to-fiber recycling.

A nationally led traceability system ensures standardized definitions, verified data, and neutrality—conditions essential for national planning, environmental monitoring, and meeting international reporting obligations. International experience shows that successful waste-traceability systems, such as France's extended producer responsibility textile framework and Turkey's Zero Waste registry, rely on strong government leadership to guarantee data consistency and regulatory integration.

CONSTRAINT 3. Ambiguous legal status of cutting waste restricts circular-value-chain development. The current regulatory classification of cutting waste as a residue rather than a secondary raw material creates operational and market barriers across the textile value chain. Because the material is treated as "waste," its circulation is restricted to operators holding waste management authorizations, preventing direct and efficient exchanges between garment manufacturers and recyclers. The lack of a clear legal category also complicates the establishment of standardized traceability and quality protocols, limiting the emergence of structured supply chains for textile-to-textile recycling. Recyclers face additional administrative and compliance requirements when handling

a material legally classified as waste, reducing incentives to invest in local fiber-to-fiber capabilities.

Moreover, cutting waste is currently considered "nonrecoverable and without market value," which blocks its valorization even though the existing customs regulation (Decree 2-77-862, Articles 113 and 114) does not explicitly exclude textile waste from recovery and export. This legal ambiguity prevents the application of clear fiscal rules and undermines the development of a customs valuation reference system ("référentiel douanier") that could support recycling markets.

RECOMMENDATION 3. **Amend the legal and customs treatment of cutting waste to enable investment in textile-to-textile recycling.** The Ministry of Energy Transition and Sustainable Development should revise Decree No. 2-06-36 to reclassify cutting waste as a recyclable input rather than a nonusable residue. Customs regulations should be updated accordingly by introducing a dedicated tariff subheading (new HS code)[47] for recyclable cutting waste, whether domestically produced or imported, to authorize its circulation and trade among qualified operators. This change could unlock investment in recycling infrastructure, improve traceability, and support Morocco's positioning in circular and low-impact textile production, while ensuring fiscal clarity.

CONSTRAINT 4. **Working capital shortages constrain aggregator growth and supplier integration.** Aggregator firms—coordinating design, sourcing, subcontracting, and compliance—are central to Morocco's transition from CMT toward full-package manufacturing. However, many aggregators lack sufficient working capital to prefinance fabric purchases, advance payments to subcontractors, and manage buyer payment delays. Banks remain reluctant to extend short-term credit at competitive costs, even against export orders. This liquidity gap prevents aggregators from scaling operations, securing longer-term contracts, or anchoring upstream and circular investments.

RECOMMENDATION 4. **Operationalize order-backed export liquidity financing instruments for aggregators.** The government should introduce an order-backed guarantee product that enables banks to accept confirmed export orders as collateral for working capital. The interest rate applied to this instrument should mirror interest rates currently applied under other credit guarantee-backed loan schemes to encourage affordability. This would unlock aggregator-led expansion and improve integration across the supply chain.[48] A comparable approach is in place in India, where the Export Credit Guarantee Corporation implements a packing credit guarantee scheme that provides risk coverage to banks extending preshipment loans for the purpose of manufacturing, processing, purchasing, and packing of goods against confirmed export orders or letters of credit.[49]

CONSTRAINT 5. **High cost of ESG certification deters SME upgrading.** As global buyers increasingly require compliance with environmental, social, and traceability standards, SMEs face prohibitive costs for certification, audits, and renewals, limiting their ability to meet evolving buyer requirements, notably from the EU. This challenge is especially pronounced in the textile sector, which must comply with multiple certification standards to satisfy a wide range of client and regulatory expectations. These recurring costs[50] are particularly burdensome for firms audited across different stages of production. Unlike competitors in Turkey and Tunisia, where public cofinancing schemes help offset certification costs, Morocco lacks a structured mechanism to support SMEs in this area. The existing cofinancing mechanism, Green Invest, does not cover ESG certification, leaving Moroccan SMEs at disadvantage.

RECOMMENDATION 5. **Broaden the scope the Green Invest[51] mechanism to permit cofinancing of ESG certification and audit costs, based on a preapproved list of standards required by EU buyers.** Global buyers increasingly require compliance with environmental, social, and traceability standards—such as Global Recycled Standard (GRS), Oeko-Tex, and Business Supply Chain Initiative—as a condition for sourcing. As Morocco's flagship mechanism for supporting environmentally sustainable industrial projects, Green Invest is well-positioned to help ease the cost burden of ESG compliance for local firms.

4.3 Impact

If concrete reforms are undertaken, the sector could attract US$1.9 billion in private investment and generate approximately 30,800 direct and indirect jobs over the medium term. These figures are estimated using global textile benchmarks: every US$1 million in new output typically generates about 28 jobs, and exports grow by about 1.76 times the amount that investment increases. The methodology assumes that the unrealized export potential identified by the International Trade Center Trademap can be converted into additional production. By applying standard reinvestment and employment multipliers, this provides a robust estimate of Morocco's growth opportunity.

These estimates underscore the strategic role of Morocco's textile sector in driving export-led industrialization and employment creation. With global sourcing trends favoring nearshoring and sustainability, Morocco's competitive labor costs, preferential EU market access, and established manufacturing base position it as an attractive destination for investors seeking resilient supply chains. Realizing this opportunity will require targeted reforms to address structural bottlenecks—such as fragmented land data, unstructured waste flows, and high ESG compliance costs—while accelerating investments in upstream integration, circularity, and digital traceability. Unlocking these reforms could transform Morocco into a regional hub for sustainable textile production, delivering significant economic and social dividends.

4.4 Summary of Constraints and Recommendations

Table 4.2

Policy Recommendations to Remove Impediments to Private Investment in Low-Carbon Textiles

Constraint	Recommended actions
1. Fragmented land information limits investor site selection; the existing database remains incomplete and does not yet cover public and private holdings.	**1.** Strengthen and expand the national digital platform for industrial land and increase its visibility and use.
	Responsible public sector entity: Ministry of Industry
2. Unstructured cutting waste collection limits recyclers' access to feedstock; there is a lack of fiber-specific sorting and traceability.	**2.** Establish a national registry for textile cutting waste reporting and traceability.
	Responsible public sector entities: Ministry of Industry, Ministry of Energy Transition and Sustainable Development.
3. Ambiguous legal status of cutting waste restricts circular-value-chain development.	**3.** Amend legal and customs rules to reclassify cutting waste as a recyclable input and enable authorized trade and movement.
	Responsible public sector entities: Ministry of Industry, Customs, Ministry of Energy Transition and Sustainable Development.
4. Working capital shortages constrain aggregator growth and supplier integration despite confirmed export orders.	**4.** Operationalize order-backed financing instruments allowing use of confirmed export orders as collateral; align interest rates with other schemes.
	Responsible public sector entity: the national credit guarantee agency.

(Table continues next page)

Table 4.2

Policy Recommendations to Remove Impediments to Private Investment in Low-Carbon Textiles *(continued)*

Constraint	Recommended actions
5. High cost of ESG certification deters SME upgrading and compliance with EU standards.	**5.** Expand Green Invest facility to cofinance ESG certification and audit costs using a preapproved list of EU-relevant standards.
	Responsible public sector entity: Ministry of Industry (Green Invest).

Note: ESG = environmental, social, and governance; EU = European Union; SME = small and medium enterprise.

5 Argan Oil and Natural-Cosmetics Manufacturing

AT A GLANCE

- The success of argan oil in international cosmetics, combined with Morocco's unique advantages in its production, creates potential for private investment in secondary processing, particularly to serve the growing global demand for natural, ethically sourced cosmetics, as well as the expanding local market for premium products.
- However, investments in the sector are held back by poor supply-chain traceability, which affects compliance with market requirements, and by rigid regulatory oversight mechanisms that limit the flexibility and scalability needed for the local manufacturing of natural cosmetics.
- The introduction of a mandatory but practical traceability system, alongside the modernization of sanitary and phytosanitary (SPS) regulations for cosmetic products, would significantly enhance the investment case for companies looking to engage in secondary processing of argan.
- Reforms in argan and natural-cosmetics manufacturing sector could contribute to attracting about US$0.6 billion in private investment and creating about 17,160 direct and indirect jobs over the medium term.

5.1 Sector Context and Private Investment Potential

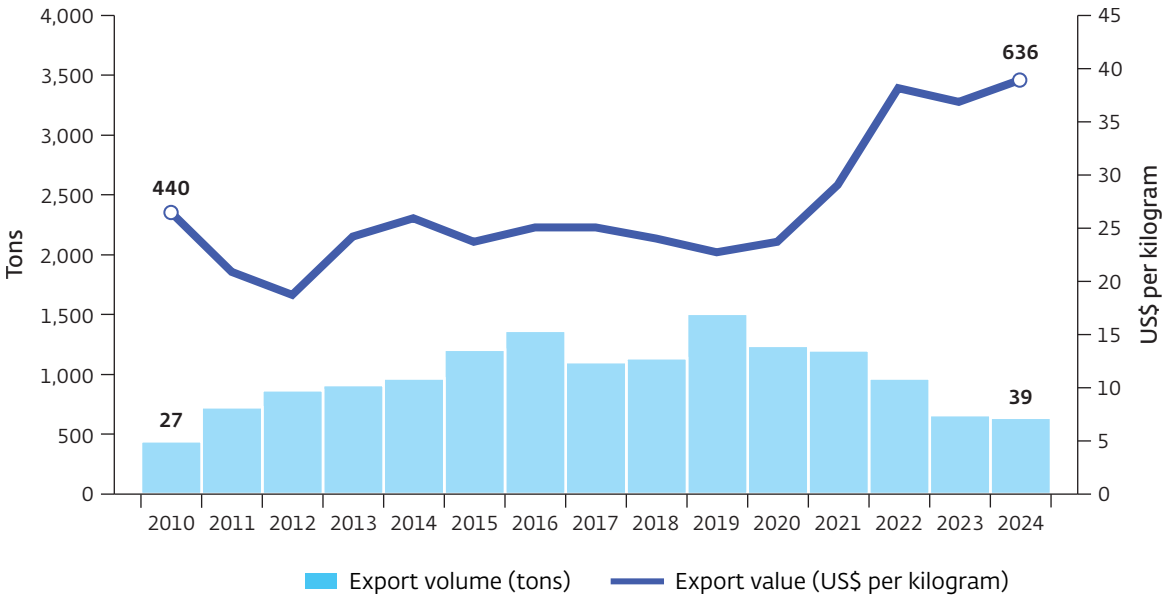
Derived from Morocco's protected forests, the cosmetic, nutritional, and therapeutic value of argan oil builds on traditional knowledge of indigenous communities. The oil is produced from the fruit of the argan tree, growing in wild forests covering 830,000 hectares and designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as a biosphere reserve.[52] The right to collect argan fruits was given to members of local communities (right-holders) in the early 20th century[53] and transmitted since then by inheritance. Traditionally carried out by women in local communities, primary processing steps such as drying and crushing are labor-intensive[54] and require specialized expertise passed down through generations. The source of income for nearly three million people living in and around argan forests,[55] argan oil is central to the diet and culinary traditions of local communities. In addition, its cosmetic and therapeutic properties—such as skin hydration, antiaging effects, anti-inflammatory effects, and cardiovascular protection—have long been recognized in traditional medicine.[56] Argan oil's deep roots in the local culture earned it a second UNESCO registration, as an intangible cultural heritage.[57]

Argan oil's value for cosmetics has gained international recognition and exports have grown strongly over the last 20 years, with Morocco enjoying a near-monopoly in production. Israel is the only other country producing argan with a tree stock of just 20,000 trees[58] and competitive threats are low given limited agronomic knowledge and track record in commercial argan tree cultivation, slow tree growth, and low yields. Prized for its antioxidant properties, enhancing hair shine and improving skin elasticity, argan oil is used in its pure form and in a wide variety of skin and hair care products. Demand by international cosmetics industry has Morocco's argan oil exports to grow at an average of over 15 percent per year between 2010 and 2019 (figure 5.1) before prolonged drought caused by a decline in argan output and exports. Europe accounts for nearly 80 percent of total exports, with France alone making up 60 percent.[59]

Despite Morocco's monopoly in argan oil production, its domestic cosmetics processing industry remains underdeveloped, limiting its ability to capture higher-value-added exports compared with peers such as Egypt and Vietnam (figure 5.2). Most argan oil is exported in bulk, but argan oil can be used as raw material in a broad range of formulated natural cosmetics such as soaps, shampoos, and creams. (figure 5.3). Local processors, including SMEs and larger cooperatives have already scaled into premium domestic and export markets,[60] but the success of peer countries[61] suggests potential to expand. Access to diverse raw materials is a key investment driver, and Morocco offers cosmetic formulators a wide range of high-value botanical ingredients beyond argan oil, including prickly pear, nigella, and Rosa damascena. Morocco's cultural foundation in beauty and personal care also provides fertile ground for building natural-cosmetics

Figure 5.1

Export Volume of Argan Oil Trended Upward until Recent Supply Shortages

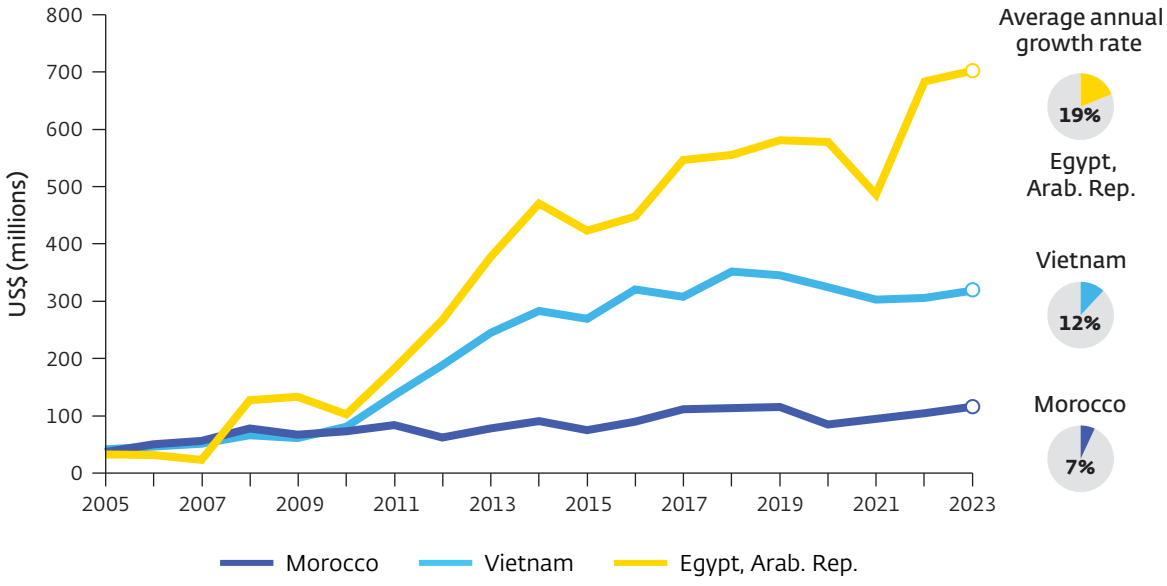


Source: Morocco Foodex.

Figure 5.2

Morocco's Cosmetics Sector Has Not Taken Off

Exports of Cosmetics exports, Morocco and comparators, 2025



Source: Based on ITC Trademap data.

brands. In addition to the global export markets, formulators and brands in Morocco can also supply the domestic market for cosmetics, valued at over US$1.9 billion in 2024 and projected to grow 7.6 percent per year to reach US$4 billion in 2034.[62]

Consumer appetite for natural cosmetics with high-quality and sustainability standards has fueled demand for argan oil. The natural and organic segment represents nearly 30 percent of the US$605 billion global beauty and personal care market and is projected to grow 6.9 percent per year on average over the next decade.[63] Increasing concerns about the safety of synthetic chemicals and expectations of eco-conscious and socially responsible practices continue to favor natural and sustainably sourced products rooted in traditional heritage. Alongside tightening regulations in key markets, such as those introduced under the EU Green Deal, shifting consumer preferences are pushing cosmetic companies to enhance the ESG performance of their products. Traceability and sustainability along the argan oil supply chain are thus increasingly essential to maintain access to markets and compete against similar products such as jojoba, baobab, or marula oils.[64]

5.2 Constraints to Private Investment and Recommendations

Despite Morocco's potential to develop a competitive natural-cosmetics industry based on argan oil and other indigenous ingredients, structural barriers deter large-scale investment in downstream processing. While global demand favors sustainable, fully traceable products—an advantage for argan and Morocco's medicinal and aromatic plants—traceability gaps in sourcing continue to block market access. At the same time, rigid and fragmented regulatory oversight limits agility and innovation, making Morocco comparatively less competitive as a base for manufacturing natural cosmetics.

CONSTRAINT 1. Lack of traceability and weak upstream ESG performance undermine compliance with market requirements. Argan oil's premium status stems from both its cosmetic properties and its positioning as a natural, sustainably sourced ingredient rooted in traditional heritage. To uphold this image and to comply with tightening regulations in key export markets, robust traceability and credible certification schemes are essential. Yet a large share of the trade in raw argan fruits and kernels is unregulated and informal, with many transactions occurring outside of cooperatives or registered channels, with no regulated traceability system in place. This weakens traceability, jeopardizes organic and sustainable production claims, and exposes the entire value chain to reputational risk. By weakening argan's sustainability profile, this lack of oversight diminishes its appeal in the cosmetics market and threatens its value as a raw material. For downstream processors, the lack of supply-chain oversight translates into higher costs for due diligence, sourcing audits, and ESG risk mitigation, often diverting resources away from core manufacturing and branding activities.

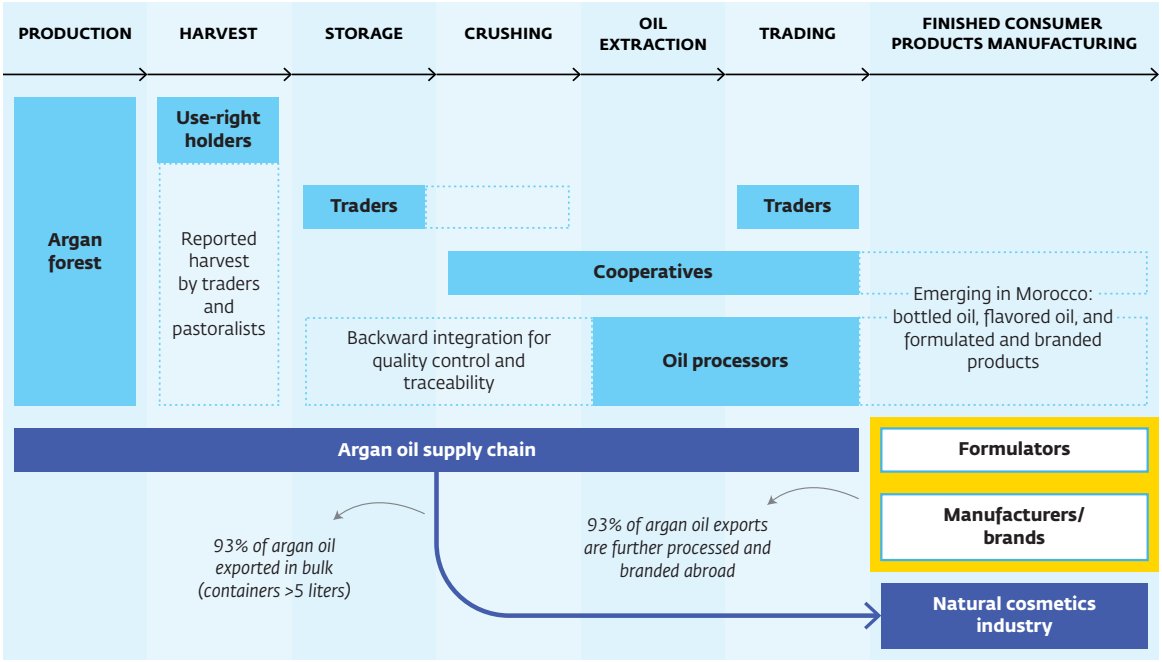
ANDZOA (Agence Nationale pour le Développement des Zones Oasiennes et de l'Arganier), the government agency created in 2011 to promote the development of argan-producing areas, has recognized these weaknesses and has set a reform agenda- yet to be implemented- to strengthen traceability, introduce reference prices, and enforce sustainable harvesting practices. Reforms are gradually progressing, but still weak traceability constrains investor confidence in Morocco's natural-cosmetics industry.

RECOMMENDATION 1. Develop mandatory traceability in the argan value chain by establishing a centralized digital traceability platform. Similar to the approach used in other value chains, such as in Morocco's captive fisheries sector[65] and in Cote d'Ivoire's cocoa sector,[66] the government should establish a national framework of end-to-end traceability in the argan value chain, comprising a register of douars (rural villages within the argan-producing areas) and actors, a centralized digital platform, and batch tracing using quick response (QR) codes.

The centralized platform would generate a unique QR code for each new batch of argan fruits purchased, linking it to its originating douar in the forest.[67] Based on a registry of

Figure 5.3

Unlocking Value in Argan Oil: Morocco's Biggest Opportunity Lies in Downstream Processing for Finished Cosmetic Products



Sources: ANDZOA (2024); Anteja (2023); Morocco Foodex.

individuals, cooperatives, and firms involved in fruit purchase (first buyer), nut cracking, and oil extraction, transactions down the supply chain would be tracked on the platform, allowing buyers to access traceability information.[68] The platform would also generate a digital traceability certificate for each batch, recording the full traceability chain of the fruits constituting the final product. Manufacturers and exporters would be required to declare this certificate for all products placed on the market, and compliance would be reinforced through risk-based inspections carried out by the regulator. Additionally, the platform would allow application programming interface access to facilitate integration of private traceability tools and solutions.[69]

While mandatory traceability may introduce new compliance costs, it is a key enabler for accessing certifications that open higher-value market segments (e.g., fair-trade certifications). Such certifications, in turn, have been shown to improve operational and social outcomes and channel premiums and fair-trade benefits along the supply chain.[70] In the argan sector, where international competition is largely nonexistent, mandatory traceability would reduce supply-chain costs for operators already implementing similar systems, while additional costs for others would mainly be absorbed downstream by buyers and processors rather than by upstream actors. Beyond cost considerations, mandatory traceability would also strengthen ESG outcomes by enhancing accountability mechanisms across the value chain.

CONSTRAINT 2. Rigid technical conformity assessments on formulated cosmetics and their ingredients increase manufacturing and marketing costs and delays. In cosmetics, regulatory practices in the enforcement of sanitary and phytosanitary standards have evolved over the past 20 years, with responsibility for compliance assessment largely shifting to the industry. For most cosmetics, which are considered low-risk, modern regulators have replaced slow and costly premarket sanitary assessments and administrative approvals with industry self-declaration[71] coupled with postmarket surveillance by the regulator.[72] In parallel, some countries maintain tight premarket regulatory oversight on higher-risk products such as medicated cosmetics and products for infants.[73] A similar shift has occurred in phytosanitary regulations applied to plant-based ingredients, increasingly exonerated of administrative approvals unless they are listed as functional active compounds, used as ingredients in food or medicinal products, or subject to a specific phytosanitary alert in their country of origin.[74]

For manufacturers, the shift toward industry self-declaration for low-risk products reduces delays on imports of most ingredients[75] and enables faster market access for most finished products. In contrast to competitors in markets that have adopted this risk-tiered and streamlined approach, processors established in Morocco must obtain administrative approvals prior to imports of all raw materials—one approval by the Ministry of Health for all ingredients, and an additional approval by the Ministry of Agriculture for all plant-based

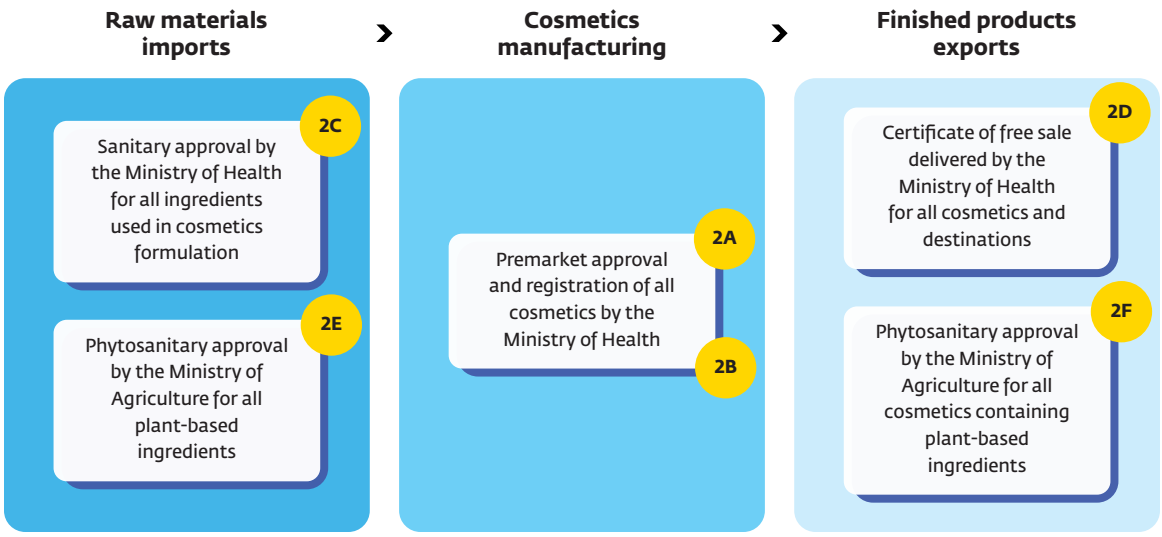
ingredients, regardless of their intended use or origin and await the complete review and registration by the Moroccan Ministry of Health of all cosmetic products before market release, regardless of their risk to consumers.

Further, administrative approvals by the Ministry of Health—and by the Ministry of Agriculture if plant-based ingredients like argan oil are part of the formula—are systematically required to export cosmetic products, regardless of regulatory requirements of the destination market. The multiplicity of approvals increases the time and cost of manufacturing and market entry, especially for natural cosmetics where plant-based ingredients trigger additional approvals. Anecdotal evidence suggests that incomplete digitalization of administrative procedures further compounds the burden on operators, making compliance more cumbersome, increasing approval delays, and preventing transparent tracking of progress. Stakeholders have complained about lack of publicly accessible information on Moroccan sanitary and phytosanitary regulations. This puts local manufacturers at a competitive disadvantage compared to international peers, reducing their agility responding to market opportunities, discouraging industrial innovation, and ultimately, investment in the sector.

To unlock investment in Morocco's fast-growing natural-cosmetics industry, the regulatory framework for sanitary and phytosanitary controls needs modernization (figure 5.4). Adopting risk-tiered, internationally aligned pathways will reduce unnecessary procedures for low-risk products while maintaining robust protection for consumers. The recommendations that follow propose practical steps to achieve this transition.

Figure 5.4

Regulations Impose Full Sanitary and Phytosanitary Approvals on All Cosmetics and Inputs



RECOMMENDATION 2A. Narrow the scope of premarket approval and registration requirements to high-risk cosmetics. Revise the regulation on cosmetic products (Articles 2 and 3, Circular No. 771)[76] to limit premarket assessment and registration to cosmetic products in categories defined as high-risk (such as medicated cosmetics and hair dyes,[77] products for infants, products containing nanomaterials, etc.).

RECOMMENDATION 2B. Establish a new notification regime for low-risk cosmetics, in line with international practice. Revise the regulation on cosmetic products (Articles 2 and 3, Circular No. 771) to introduce a new declaratory notification regime for cosmetic products not belonging to categories defined as high-risk, detailing the information and documents to be filed and the procedure to follow prior to product market release. Aligned with the more modern regulatory practices, this regime will allow immediate release of low-risk cosmetics once the manufacturer (or importer) has completed an online declaration and uploaded required documents.

RECOMMENDATION 2C. Narrow the scope of raw materials subject to preimport sanitary approvals to high-risk ingredients. Revise the regulation (Article 11, Circular No. 771) mandating preimport approvals for cosmetic raw materials[78] to narrow its scope down to a published list of high-risk ingredients.

RECOMMENDATION 2D. Make the Certificate of Free Sale optional for cosmetics exports. Remove the requirement for a free sale certificate (in accordance with Article 24 of Law No. 17-04) delivered by the Ministry of Health to clear exports of cosmetic products. Instead, make this certificate optional and easily accessible to exporters for registered products.

RECOMMENDATION 2E. Narrow the scope of plant-based products subject to preimport phytosanitary approvals to high-risk categories. Revise the regulation (in accordance with Law No. 25-08 establishing the National Office for Food Safety (Office National de Sécurité Sanitaire des produits Alimentaires; ONSSA) and Law No. 28-07 on food safety, Ministerial Decree No. 141-18, and other regulatory texts specific to plant-based products) on imports of plant-based products[79] to limit mandatory preimport approvals to products listed as high-risk based on intended use (e.g., food or pharmaceutical) and origin (e.g., known plant disease, pest alert, or poor compliance history).

RECOMMENDATION 2F. Limit preexport phytosanitary approvals to raw plant-based cosmetic ingredients such as raw botanicals, bulk oils, fresh and dried plant material, and essential oils. Exclude formulated cosmetics containing plant-based ingredients from the scope of the regulation mandating preexport phytosanitary approvals (in accordance with the laws establishing ONSSA and on food safety, as well as the sanitary and conformity regulations of destination countries for exported plant-based products).[80]

RECOMMENDATION 2G. Fully digitalize sanitary and phytosanitary procedures and ensure full access to and timely updates of all regulations. Complete the digitalization of all procedures and make them available to operators through an online platform where requests can be filed and tracked automatically. In the case of trade-related procedures, this should link with Morocco's national single window for foreign trade (PortNet 2024) to accelerate customs clearances. Increase regulatory transparency by publishing all laws, regulations, directives, and circulars immediately and systematically, and automatically notify platform users of any changes.[81]

5.3 Impact

Based on the projected expansion of Morocco's cosmetics industry, the argan oil and natural ingredients processing segment could attract an additional US$0.6 billion in private investment by 2035, generating around 17,000 total jobs (direct and indirect). These estimates are derived using a value-added-to-investment elasticity of 0.7 and World Bank Group job multipliers, reflecting Morocco's relatively high labor intensity in natural cosmetics. The opportunity extends beyond job quantity: stronger governance, improved labor standards, and ongoing cooperative reforms are expected to enhance job quality along the supply chain, particularly for women in rural areas engaged in the collection and initial processing of argan. As processing activities expand, these workers stand to benefit from better hourly pay, more stable full-time employment, and safer working conditions.

5.4 Risks to be Managed

Growing structural, reputational, and ecological risks must be managed to maintain argan's appeal as a premium natural oil. The development of women cooperatives in argan processing and the adoption of mechanized oil extraction methods was both a social and commercial success during the early 2000s.[82] But the subsequent development of private oil factories intensified competition for argan fruits, and many cooperatives were unable to secure enough raw materials due to working capital and storage capacity limitations. Advantaged in terms of scale and consistency, access to foreign markets, and access to capital, five firms and larger cooperative unions[83] control the large majority of formal argan oil exports,[84] leaving 1,200 registered argan cooperatives employing over 8,500 women on the margins of this success.[85] As the trade of argan fruits and kernels boomed, a dense vertical array of intermediaries developed,[86] undermining traceability. Finally, increasing argan oil prices is reportedly driving overexploitation of the resource, including fruit collection outside authorized periods and abusive harvesting practices which affect ecosystem regeneration capacity.

The opportunities and recommendations presented above must be considered alongside environmental risks, including recurrent drought, overharvesting pressures, climate-related shifts in argan production, and localized land-use vulnerability. Reforms should be implemented within a clear environmental-protection framework to safeguard the long-term sustainability of the ecosystem.

5.3 Summary of Constraints and Recommendations

Table 5.1

Policy Actions to Remove Impediments to Private Investment in Argan Oil and Natural-Cosmetics Manufacturing

Constraint	Recommended actions
1. Weak traceability in the argan value chain undermines compliance with market requirements and reduces environmental, social, and governance accountability.	**1.** Enforce traceability along the supply chain through a centralized digital platform linking douars, actors, and batches with QR codes, tracking all transactions from fruit purchase to nut cracking and oil extraction.
	Responsible public sector entities: Ministry of Agriculture, Agency for Agricultural Development (Agence de Développement Agricole), National Agency for the Development of Oasis Zones and Argan (Agence Nationale pour le Développement des Zones Oasiennes et de l'Arganier).
2. Complex and rigid sanitary and phytosanitary conformity assessments for cosmetics and their ingredients increase compliance costs and delays.	**2a.** Limit premarket approval and registration to high-risk cosmetics. **2b.** Introduce a notification regime for low-risk cosmetics. **2c.** Restrict preimport sanitary approvals for raw materials to high-risk ingredients. **2d.** Make the Certificate of Free Sale optional for cosmetic exports. **2e.** Limit preimport phytosanitary approvals for plant-based inputs to high-risk categories.

(Table continues next page)

Table 5.1

Policy Actions to Remove Impediments to Private Investment in Argan Oil and Natural-Cosmetics Manufacturing *(continued)*

Constraint	Recommended actions
	2f. Limit preexport phytosanitary approvals to raw plant-based cosmetic ingredients. **2g.** Fully digitalize sanitary and phytosanitary procedures and improve regulatory transparency.
	Responsible public sector entities: Ministry of Health, Ministry of Agriculture, National Agency for Medicinal and Aromatic Plants (Agence Nationale des Plantes Médicinales et Aromatique).

6 Marine Aquaculture

AT A GLANCE

- Morocco's marine aquaculture has potential for growth due to its strategic geographic location, providing access to export markets and favorable coastal environments. Private investment opportunities could emerge across the value chain, including seaweed, shellfish, fish farming, aquafeed production, processing, and upstream services such as hatcheries, laboratories, feed mills, and technology solutions.
- Complex and lengthy permitting procedures, limited access to suitable coastal land for farms and supporting infrastructure, and restrictions on rendered feed ingredients raise production costs and hinder sector investment.
- Removing obstacles to private investment will require targeted regulatory reforms, particularly to streamline farm licensing, improve land-use authorization, and issue feed ingredient approvals.
- Implementing the recommended reforms could generate up to US$1.96 billion in private investment and create up to 75,000 new jobs.

6.1 Sector Context and Private Investment Potential

Morocco possesses untapped potential for marine aquaculture, thanks to its extensive coastlines, rich marine ecosystems, and strategic advantages. The country's Atlantic and Mediterranean coasts offer diverse zones for finfish, shellfish, and seaweed farming, with over 24,000 hectares prezoned[87] for aquaculture that remain largely underutilized. Morocco's proximity to Europe, rapid transport links, and preferential trade agreements with major markets like the EU and United States provide competitive access to high-value seafood consumers.[88] Compliance with EU sanitary and sustainability standards further enhances Morocco's market positioning, while relatively low labor costs offer a cost advantage over regional competitors. Productivity and technical training continue to be areas needing improvement to fully realize Morocco's aquaculture potential. At the same time, Morocco benefits from an abundant and trainable workforce, supported by vocational programs. These strengths are aligned with national priorities articulated under the Plan Halieutis and Morocco's broader blue economy strategy.

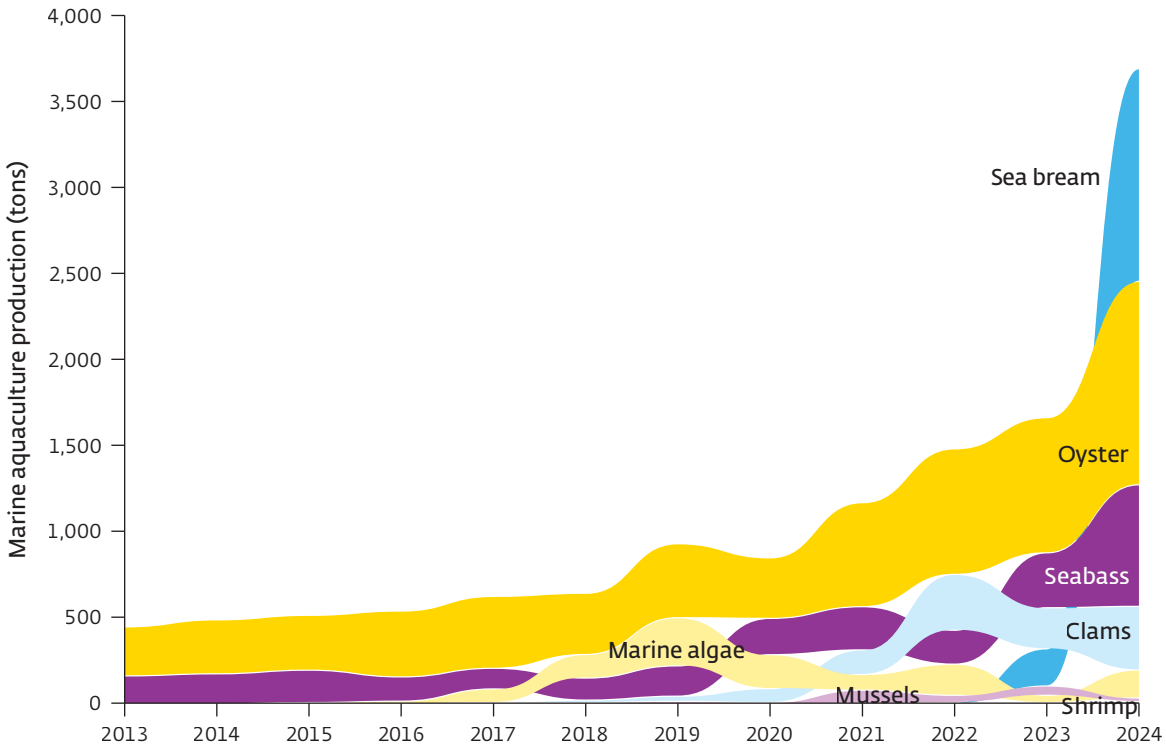
Global and domestic trends point to strong growth opportunities for aquaculture in Morocco. According to the OECD-FAO Agricultural Outlook, global seafood production is expected to increase from 185 million tons in 2024 to 206 million tons by 2033, with aquaculture expected to account for most of the increase. Morocco's domestic seafood production is also expected to increase substantially from about 1.4 million tons in 2024 to 2.7 million tons by 2033, fueled by population growth, higher incomes, tourism, and shifting diets. Current per capita seafood consumption in Morocco is estimated at 18 kilograms per year, equivalent to about 700,000 tons in aggregate, supplied almost entirely from domestic production. With the population projected to reach about 40 million by 2030, even constant per capita consumption would imply an additional 56,000 tons of demand.[89] As capture fisheries have plateaued, aquaculture represents the only scalable pathway for Morocco to meet rising domestic demand, strengthen food security, and maintain its role as a major global seafood exporter. This growth opportunity, however, needs to be pursued in a way that carefully manages environmental externalities—especially in the context of rising sea temperature, changing ocean chemistry, and accumulating pressures on coastal ecosystems.

Morocco's marine aquaculture sector is growing rapidly but is still in early stages. According to ANDA (2024), total production increased by 620 percent between 2013 and 2024 (figure 6.1). If all currently licensed aquaculture farms become fully operational, they can collectively produce up to 124,000 tons of seafood per year. Government estimates place the mid-term production potential at 300,000 tons, a significant gap from the current production levels.

The industry is largely composed of micro, small, and medium enterprises (operators).[90] To enable orderly growth, the National Agency for the Development of

Figure 6.1

Moroccan Marine Aquaculture Production Is Accelerating, but Still below Potential



Source: ANDA (2024).

Aquaculture (Agence Nationale pour le Développement de l'Aquaculture; ANDA) has prezoned areas for marine aquaculture development.[91] To date, ANDA has issued 322 agreements for the creation and operation of aquaculture farms aimed at producing an annual production of over 124,000 tons.[92]

Species diversification in Morocco's aquaculture sector is advancing, with shellfish, seaweed, and finfish each playing distinct roles in current production and future growth. Shellfish farming remains the backbone of national aquaculture and the leading source of export revenues, particularly oysters and mussels. Finfish farming, though still at an early stage, is emerging as a strategic growth segment supported by new investments in marine hatchery capacity. Seaweed cultivation is also expanding, fueled by rising global demand for agar and other high-value derivatives. ANDA anticipates that most of the increase in production will come from scaled expansion of seaweed and shellfish, alongside the development of finfish species such as seabream, seabass, and meagre. Compared to Tunisia, where shellfish farms are small-scale and heavily reliant on EU buyers,[93] and Egypt, where production is dominated by low-value freshwater tilapia for domestic consump-

tion,[94] Morocco offers a more diversified and export-oriented growth path. Investment opportunities are strongest in scalable and market-ready segments—particularly seaweed, shellfish, and high-demand marine finfish—where proven technologies, growing regional markets, and new hatchery capacity support rapid expansion.

Additional investment opportunities could emerge in both upstream and downstream segments of the marine aquaculture value chain. Upstream, these could include aquafeeds, hatcheries, health services, and equipment manufacturing, while downstream opportunities could include value-added processing, seaweed products, and premium seafood exports. Morocco is well-positioned to attract medium to large international aquaculture groups and feed companies with regional expertise, as well as domestic agribusinesses seeking diversification.

Feed costs—driven largely by fishmeal price volatility—are a critical factor shaping the economics of marine aquaculture expansion in Morocco. Morocco is one of the world's leading fishmeal producers, converting more than 0.5 million tons of small pelagic fish—mackerel, horse mackerel, and anchovy—into fishmeal and fish oil, representing about 60 percent of total pelagic landings.[95] The sector benefits from abundant pelagic resources and internationally certified operations under MarinTrust, supporting Morocco's position as a major fishmeal exporter.[96] However, this export orientation exposes domestic aquafeed mills to export-parity pricing, increasing input costs for local producers.[97] Global shocks amplify these pressures: for example, the cancellation of Peru's main anchoveta season in 2023 caused a 23 percent drop in world production and a price surge to roughly US$2,200 per ton[98] before moderating to US$1,450 per ton in 2024/25, still above prepandemic average levels. This structural exposure to global fishmeal markets underscores the importance of diversifying protein sources in aquafeeds—an issue addressed later in this chapter through the proposed authorization of rendered animal proteins (RAPs).

While Morocco offers potential for aquaculture investment, growth is constrained by several challenges. The most immediate and pressing bottlenecks for investors relate to the high cost of feed and complex, multistep investment authorization and permitting processes. Looking ahead, rising farm numbers and higher stocking densities will increase the importance of robust biosecurity, disease surveillance, and environmental monitoring, even if these factors are not yet binding constraints at current production levels. The permitting process is examined in detail in the following section, identifying remaining obstacles, and proposing actionable recommendations.[99]

Morocco's marine aquaculture growth depends on tackling constraints to private investment while strengthening long-term competitiveness. In the short term, priority legal and regulatory reforms—reflected in the CPSD—include streamlining permitting, improving access to suitable land, reducing feed costs linked to tariff barriers, and closing infrastructure gaps. Longer-term challenges extend beyond the CPSD's near term reform

action scope but still demand sustained policy attention. These include improving access to tailored financing, strengthening market integration through certification and branding, reinforcing environmental and social management systems, and improving coordination and digital integration between ANDA and other relevant platforms to further reduce administrative duplication and ease permitting. Continued investment in research, skills development, and digital technologies will also be essential to boost productivity and climate resilience.

6.2 Constraints to Private Investment and Recommendations

CONSTRAINT 1. Complex and lengthy regulatory processes. Recent reforms—such as the strengthening of CRIs, the designation of ANDA as a single window for aquaculture and the adoption of Law No. 84-21 on marine aquaculture and its implementing decree -which clarify institutional roles, standardize application procedures, and establish statutory review timelines—have all contributed to improve Morocco's investment permitting environment. Nevertheless, aquaculture investors continue to navigate a complex and fragmented permitting landscape. Aquaculture permitting is inherently rigorous due to environmental and food-safety requirements, and Morocco's framework is broadly comparable to that of other producing countries.[100] However, two considerations are important. First, many comparator countries have mature industries and stronger incentives to limit new permits to manage risks of overcapacity; Morocco, by contrast, is in an early growth phase with ambitious production and export goals, suggesting that its permitting process need not be as lengthy or restrictive. Second, Morocco faces a substantial gap between official and actual timelines. Although the formal process ranges from 4 to 18 months, investors report approval periods of three to four years.

The investor journey (appendix A) shows a complex sequence of agency reviews, duplicative steps, and inconsistent interpretations. While Morocco's regulatory framework is broadly comparable to that of other aquaculture-producing countries, an illustrative investor roadmap (see appendix A) highlights that the "parcours de l'investisseur" [101] remains intricate and difficult to navigate, with multiple agencies operating under separate legal mandates and conducting sequential reviews, resulting in duplicative steps and inconsistent interpretations. Investors must therefore obtain further permits through separate procedures, adding time, cost, and uncertainty to an already lengthy process. Key sources of delay include:

- Sequential rather than parallel reviews, where one agency must complete its assessment before another begins, greatly lengthening the total approval process.
- Undefined or uneven processing timelines for several key permits (e.g., sanitary approvals, environmental opinions, and certain local authorizations), which create

unpredictability and allow steps to extend far beyond formal timeframes.
- Non-standardized documentation requirements, forcing investors to prepare multiple versions of similar documents and respond to duplicative information requests.
- Overlapping and unclear institutional mandates across ANDA, ONSSA, MTEDD, DPM, and local authorities, leading to repeated evaluations of the same issues and, at times, contradictory instructions for investors.

There is a need to streamline aquaculture permits through enforceable timelines, parallel reviews, standardized documentation, and clearer institutional mandates. To address the current challenges, Morocco should consolidate recent reforms by implementing a set of concrete and administrative measures that simplify permitting process and enhance inter-agency coordination.

In spite of clarifications and improvements brought about by Law No. 84-21, it is recommended to:

RECOMMENDATION 1A. Extend and operationalize statutory time limits across the aquaculture permitting chain. Morocco should extend enforceable time limits to all aquaculture-related approvals—and all their associated substeps—and systematically apply the existing "silence is consent" principle across the full permitting chain, except where explicit public-health or environmental safeguards are required. This should include timelines for each stage within a permit (e.g., complete checks, technical reviews, site inspections, and final sign-off).

RECOMMENDATION 1B. Require all agencies to conduct parallel technical reviews. All institutions involved in aquaculture permitting should be required to conduct their technical assessments in parallel rather than sequentially. ANDA, ONSSA, MTEDD, DPM, CRIs, and local authorities should operate on a common submission schedule, substantially reducing cumulative delays created when agencies wait for one another to complete their respective reviews.

RECOMMENDATION 1C. Standardize application templates across permitting agencies. The authorities should adopt standardized application templates and document checklists for each agency involved in aquaculture permitting. ANDA, ONSSA, MTEDD, DPM, CRIs, and local authorities would each publish clear, standardized templates specifying the exact documents, formats, and technical information required for their part of the review. These different templates should be aligned to avoid duplication and must be accepted uniformly across regions.

RECOMMENDATION 1D. Clarify and codify institutional mandates to eliminate overlaps and conflicting interpretations. Morocco should further clarify and codify the mandates of all agencies involved in aquaculture permitting through a regulatory circular

or decree. Explicitly defining which institution has final authority over maritime domain access, sanitary approvals, environmental assessments, land-use authorizations, and local permits would reduce overlaps, prevent contradictory instructions, and ensure consistent application of rules across regions.[102]

CONSTRAINT 2. Unclear land-use rules for aquaculture support infrastructure. In several designated aquaculture zones, regulatory and conservation constraints—especially in areas adjacent to Ramsar-listed wetlands and other protected sites—limit where and what types of aquaculture support infrastructure can be built. Although Morocco's National Wetlands Strategy recognizes "integrated aquaculture" as compatible with conservation objectives, the lack of clear and harmonized rules governing activities across state lands, private properties, and protected areas creates significant uncertainty for investors. This regulatory ambiguity often leads to project delays, higher compliance costs, and hesitation among potential investors seeking to engage in the sector.

The absence of unified land-use and environmental guidance has made it difficult to balance the dual objectives of promoting sustainable aquaculture and preserving biodiversity. As a result, projects that could otherwise advance Morocco's aquaculture ambitions while adhering to environmental safeguards face procedural and legal obstacles.

RECOMMENDATION 2A. Define and publish land-use Rules for aquaculture support facilities. To enhance transparency, the government should issue clear, publicly accessible regulations specifying which aquaculture support facilities—such as hatcheries, depuration and conditioning units, feed storage, cold chain facilities, offices, and water management systems—are permissible in different land locations. These rules should align with both national laws and Morocco's international conservation obligations. Providing transparent and accessible guidance will enhance investor confidence and ensure that project developers can design infrastructure in compliance with environmental and land-use frameworks from the outset.

RECOMMENDATION 2B. Issue implementing regulations under Law No. 84-21 for aquaculture infrastructure across different land categories. To operationalize the land-use rules in Recommendation 2A, Morocco should translate these into formal implementing regulations under Law No. 84-21 that clearly specify permissible types of aquaculture infrastructure across different land categories.[103] These regulations should ensure consistency with existing legislation, including:

- Domaine public maritime (DPM): consistent with *Law No. 81-12* and the 1926 *Dahir*
- Domaine privé de l'État (DPE): consistent with *Law No. 12-90*
- Private land (terrains privés): consistent with *Law No. 25-90*
- Ramsar and other protected areas: in accordance with *Law No. 22-07*, *Law No. 11-03*, *and Law No. 12-03*, allowing for light and reversible infrastructure under strict environmental safeguards

Issuing these implementing regulations would help delineate where and how aquaculture infrastructure can be established, minimizing conflict between development and conservation objectives.

RECOMMENDATION 2C. Harmonize environmental requirements through a joint permitting manual and standard operating procedures (SOPs). A joint permitting manual and SOPs should be developed collaboratively by ANDA, MEETD, and CRIs. This manual should harmonize environmental requirements and establish clear, predictable procedures for investors. By aligning institutional responsibilities and environmental review standards, Morocco can streamline aquaculture project approvals, improve transparency, and strengthen confidence in the regulatory system—all while ensuring the continued protection of sensitive ecosystems.

CONSTRAINT 3. Limited coordination of access to land adjacent to marine farms. Although Morocco's Aquaculture Development Plans (ADPs) successfully designate and allocate marine zones for aquaculture activities, they do not systematically account for the adjacent terrestrial areas required for onshore support infrastructure. As a result, while marine sites are granted through temporary occupation authorizations (d'autorisation d'occupation temporaire) under the DPM, investors must secure separate permits for essential land-based facilities, such as piers, depuration and conditioning units, feed storage, hatcheries, and administrative offices. These additional parcels often fall under different land regimes—including DPM, DPE, communal, or private titles—requiring separate administrative procedures.

This disconnect between marine and terrestrial permitting processes lengthens project timelines and discourages investment in integrated aquaculture systems. The lack of coordinated spatial planning for land-sea interfaces undermines the operational efficiency of farms and hinders the development of value chains that rely on both marine and onshore components.

RECOMMENDATION 3A. Integrate land-based support areas for marine farms into Aquaculture Development Plans. To address the current fragmentation, Morocco should update the "Zoning and Spatial Planning" sections of its ADPs to include terrestrial plots adjacent to marine farming zones. These designated areas should be reserved for essential support facilities such as hatcheries, depuration and conditioning units, feed storage, and service piers. Incorporating both marine and terrestrial components within ADPs would ensure that land needs are formally recognized within the planning framework.

RECOMMENDATION 3B. Amend ADPs' zoning process to include adjacent terrestrial parcels for essential infrastructure. Building on Recommendation 3A, amend ADPs to explicitly permit investors to apply for both marine sites and the corresponding

adjacent land parcels for aquaculture support infrastructure. Investors should be allowed to apply for both marine and terrestrial parcels through a single, integrated application process. ANDA would coordinate and liaise with relevant domanial authorities (primarily the DPM, DPE, and communal administrations). This would reduce administrative fragmentation and align marine land permitting pathways.

RECOMMENDATION 3C. Establish a single-window permitting process and integrated marine aquaculture investment packages. As a more advanced reform, Morocco should create a single-window permitting system, managed by ANDA, allowing investors to obtain approvals for both marine and land areas and required land-based facilities through one coordinated process. As part of this system, the government should preidentify suitable marine zones and adjacent land plots (Recommendation 3A) and bundle them into ready-to-invest integrated investment packages, ensuring that each package includes essential infrastructure—such as hatcheries, depuration centers, feed storage facilities, laboratories, and small-scale processing hubs. Standardized technical specifications, clear timelines, and transparent criteria should accompany these packages to reduce uncertainty.

CONSTRAINT 4. High feed costs and exposure to ingredient price volatility due to RAP restrictions. Feed represents 50 to 75 percent of operating costs in marine aquaculture. In Morocco, current restrictions on the use of RAPs—a sustainable and widely accepted ingredient in many leading aquaculture markets—limit flexibility in feed formulation. This constraint increases reliance on fishmeal and imported soybean meal, exposing producers to international price volatility. Consequently, feed costs in Morocco are estimated to be 15 to 20 percent higher than in competing Mediterranean countries, reducing profitability and competitiveness.

RAPs are a proven, circular economy ingredient that can safely replace 30–50 percent of fishmeal in seabass and seabream diets when properly formulated, without compromising growth performance or product quality. Their inclusion can significantly lower feed costs, stabilize profit margins, and reduce exposure to global supply shocks. Moreover, authorizing RAP use could stimulate private investment in domestic feed production and enhance Morocco's food system resilience. International experience shows that RAPs can be used safely when they are subject to strict sanitary controls, traceability requirements, and quality standards, and are supervised by competent food-safety authorities.

Although Decree No. 2-23-557 (May 2024) authorizes the controlled use of certain RAPs, its implementation remains pending until the issuance of the required ministerial order. This regulatory delay prevents feed manufacturers and farmers from realizing the potential benefits of the reform.

RECOMMENDATION 4. Publish the ministerial order authorizing RAP use in aquafeeds. To unlock cost savings and enhance sector competitiveness, the government should promptly issue the ministerial order implementing Decree No. 2-23-557 of 2024. This order should authorize the controlled use of approved RAPs in aquafeeds under strict sanitary, traceability, and quality safeguards. RAP use would remain fully aligned with Morocco's existing food-safety and animal-health framework, with ONSSA maintaining oversight of approvals, monitoring, and compliance. Within such a regime, no additional sanitary or environmental risks are expected beyond those already managed for other feed ingredients; rather, the measure would enable more efficient use of by-products within a regulated system. Allowing RAP inclusion would reduce feed costs, mitigate exposure to fishmeal price fluctuations, and encourage the development of a more sustainable, resilient, and competitive aquaculture industry in Morocco.

6.3 Impact

Morocco's marine aquaculture sector has an estimated medium-term potential of US$1.96 billion in private investment, supporting around 21,000 direct and 54,000 indirect jobs across farming, feed, processing, logistics, and support services. These projections are based on the prezoned coastal and offshore areas identified by ANDA, assuming that 75 percent are permitted and operational and that farms reach 50 percent of authorized capacity. The estimates are aligned with government production targets of 200,000–300,000 tons per year and international benchmarks for early-stage aquaculture sectors scaling to commercial maturity. They reflect realistic expansion as reforms improve licensing efficiency, infrastructure access, and input affordability.

The recommended reforms—simplifying and digitalizing permits, integrating land-sea concessions, and authorizing RAPs in aquafeeds—are the critical levers to realize this potential. Streamlined approvals would enable more prezoned areas to become productive, while allowing RAPs would reduce feed costs by up to 20 percent, strengthening profitability and investment returns. The resulting employment would not only be substantial but of better quality: aquaculture jobs are year-round, formal, and skill-intensive compared to traditional capture fisheries, which are seasonal and more precarious. Workers would benefit from training in hatchery management, biosecurity, processing, and environmental monitoring—skills that command higher wages and are transferable to other blue economy sectors. With global aquaculture demand projected to continue to rise, these are also future-proof jobs in a fast-growing industry that combines export potential, technological learning, and sustainable coastal livelihoods.

6.4 Risks To Be Managed and Other Considerations

Morocco's marine aquaculture holds strong investment potential and aligns closely with national objectives such as food security, rural employment, climate resilience, and blue economy growth. However, it is not a low-risk industry. Its performance will depend on effective management of biological, financial, and regulatory risks, as well as on maintaining strict control over environmental impacts.

As production scales up, it will increasingly intersect with broader climate and environmental trends. Warmer waters, shifting currents, and growing pressures on coastal ecosystems may influence farm productivity and community acceptance. The recommendations in this chapter therefore aim to enhance the quality, predictability, and coordination of regulation—not to deregulate the sector or weaken environmental safeguards. Strong environmental protections, routine water-quality monitoring, and oversight of ecosystem health will remain essential as new farms come online.

To date, disease outbreaks have not posed a major constraint, largely due to the sector's small size and relatively low stocking densities. As production expands and farms become more concentrated, the importance of basic disease-prevention measures, early detection, and access to veterinary support will grow and should be built into future regulatory and investment planning.

6.5 Summary of Constraints and Recommendations

Table 6.1

Policy Recommendations to Remove Impediments to Private Investment in Marine Aquaculture

Constraint	Recommended actions
1. Complex approval and permitting processes.	**1a.** Extend and operationalize enforceable time limits across the aquaculture permitting chain. While generalizing the application of "silence is consent" principle. **1b.** Require all agencies to conduct parallel technical reviews. **1c.** Adopt standardized application templates and checklists of documentation required from investors.

(Table continues next page)

Table 6.1

Policy Recommendations to Remove Impediments to Private Investment in Marine Aquaculture (*continued*)

Constraint	Recommended actions
	1d. Clarify mandates of all agencies involved in aquaculture investing permitting, across national and subnational levels.
	Responsible government entities: ANDA (lead), coordinating with Ministry of Investment (CRI), MTEDD (Environment and Sustainable Development), INRH (scientific opinions), ONSSA (sanitary standards), DPM (fisheries), ABH (water basins), and local communes.
2. Restrictions on aquaculture support infrastructure.	**2a.** Publish and clarify land-use regulations for essential aquaculture support facilities, aligned with conservation commitments. **2b.** Issue implementing regulations under Law No. 84-21 for infrastructure across land categories (DPM, DPE, private lands, and protected or Ramsar sites). **2c.** Develop joint permitting SOPs for ANDA, MTEDD, and CRUI to harmonize environmental requirements and provide clear investor guidance.
	Responsible public sector entities: Ministry of Equipment and Water (for DPM), Ministry of Economy and Finance (for DPE), High Commission for Water, Forests and Desertification Control (for Ramsar or protected sites), with ANDA as facilitator.
3. Limited coordination for land adjacent to marine farms.	**3a.** Integrate Land-Based Concessions into ADPs. **3b.** Amend ADP zoning to include adjacent land parcels needed for support facilities. **3c.** Establish a single-window permitting system and integrated aquaculture investment packages.

(Table continues next page)

Table 6.1

Policy Recommendations to Remove Impediments to Private Investment in Marine Aquaculture (*continued*)

Constraint	Recommended actions
	Responsible public sector entity: ANDA.
4. High feed costs and exposure to fishmeal price volatility from RAP restriction.	**4.** Issue the ministerial order implementing Decree No. 2-23-557 to permit the controlled use of RAPs in aquafeeds, subject to strict sanitary, traceability, and quality controls under ONSSA's food-safety and animal-health framework.
	Responsible public sector entities: ONSSA (sanitary regulation of feed), Ministry of Agriculture (policy and ordinance issuance), with ANDA supporting industry interface.

Note: ANDA = Agence Nationale pour le Développement de l'Aquaculture (National Agency for the Development of Aquaculture); CRI = Centres Régionaux d'Investissement (Regional Investment Center); MTEDD = Ministère de la Transition Énergétique et du Développement Durable (Ministry of Energy Transition and Sustainable Development); DPM = domaine public maritime; ABH = Agences du Bassin Hydraulique; DPE = domaine privé de l'État; CRUI = Commission Régionale Unifiée d'Investissement (Regional Unified Commission on Investment); ONSSA = Office National de Sécurité Sanitaire des produits Alimentaires (National Office for Food Safety); ADP = Aquaculture Development Plan; INRH = National Institute of Fisheries Research (Institut National de Recherche Halieutique).

Appendixes

Appendix A

Illustrative Roadmap of the Aquaculture Investment Approval and Licensing Process

The scenario discussed in this appendix is the creation and exploitation of a new aquaculture farm or facility ("Ferme Aquacole"). A project expansion requires the renewal of the Concession or agreement.

***Preapplication*:** before submitting an application for the creation or exploitation of an aquaculture farm or facility, the investor must prepare a comprehensive dossier including (in summary):

- a detailed project description
- a five-year business plan
- a technical feasibility study
- a financial capacity statement and plan, and
- an environmental impact assessment (EIA), depending on the nature and location of the project (see Step 3).

Compiling this dossier can obviously take a significant amount of time, especially if an EIA is required. Then the administrative part of the process starts and includes eight main steps (and substeps) as follows:

Step 1

Application to ANDA. The process typically begins with an investor submitting a project application to ANDA.

Step 2

Initial ANDA review. Two substeps:

2.1. ANDA conducts a preliminary review of the dossier, including a technical, financial, and environmental evaluation to ensure that the project aligns with national strategy and regional plans.

2.2. If the initial review is positive, ANDA issues a preliminary approval, allowing the investor to proceed with securing other permits. If negative, ANDA explains why. It is assumed that an investor that received a negative review could resubmit a modified application addressing ANDA's explanations.

The standard time for Step 2 (initial review) is **60 days** from the time a ***complete*** dossier is received. Incomplete dossiers have to be resubmitted with the missing information or document, and that "restarts the clock."

After ANDA's initial review, the process varies significantly depending on where the project is located. There are ***two possible scenarios***:

SCENARIO 1: Project located in a zone that is designated under an ***Aquaculture Development and Management Plan*** (Plan d'Aménagement Aquacole; PAA). PAAs identify suitable maritime areas for aquaculture, minimizing the risk of conflicts with other activities like tourism, conservation, and traditional fishing. In this first scenario, the project can be located either on a maritime parcel ("espace en mer") or on the public domain ("domaine public"), and that distinction leads to different administrative steps and requirements.

SCENARIO 2: Project located outside a PAA or on land (onshore).

Projects in Scenario 1 can go faster than those in Scenario 2 precisely because they are implemented in a zone that was already designated, planned, and developed for marine aquaculture in a PAA.

Step 3

Environmental impact assessment. EIA's are regulated under Law No. 12-03. Projects located outside of a PAA or on land need to carry out an EIA. Projects located inside a PAA do not need an EIA. For projects that need an EIA, the four substeps are as follows:

3.1. An EIA must be prepared by an accredited consulting firm (Bureau d'Etude agréé).

3.2. The EIA is submitted to the Regional Unified Commission on Investment (Commission Régionale Unifiée d'Investissement; CRUI) through the "CRI Invest" platform for review. The review process brings together several governmental bodies: the Ministry of Energy Transition and Sustainable Development (Department of Sustainable Development), the Ministry of Equipment and Water (Directorate of Ports and Maritime Public Domain), the Ministry of Agriculture, Maritime Fisheries, Rural Development, Water and Forests (Department of Maritime Fisheries), as well as

other relevant sectoral bodies such as ANDA, ONSSA, National Institute of Fisheries Research (Institut National de Recherche Halieutique), Water Basin Agencies, and local authorities.

3.3. A public inquiry is required for projects subject to an EIA. The inquiry is organized by the local authorities in the project's area and allows affected communities, civil society, and stakeholders to express their views on the project and its potential impact. The results of the public inquiry are taken into account in the final decision of the CRUI.

3.4. After review, a positive opinion from the CRUI will lead to the issuance of a "Certificate of Environmental Acceptability" (***Décision d'Acceptabilité Environnementale***).

TIMELINE: the public inquiry is limited to 60 days from the date a ***complete dossier*** is received by the competent authority, but this can be extended in complex cases. If incomplete, the file is returned, and the 60-day clock restarts once completed. And it does not seem that the overall Environmental Acceptability process has its own statutory time limit

Step 4

Request of an authorization to occupy the site. This is the most crucial permit because it grants the investor the right to occupy a specific maritime area for a fixed period (typically 10–25 years) for the purpose of an aquaculture operation. This step only applies to three types of projects:

— Sites located within a PAA (easier scenario).
— Sites located on the public domain. The situation is more complicated because there is a need to obtain an "authorization to temporarily occupy public domain."
— Sites located on land (corresponding to Scenario 2).

This fourth step does not concern projects located on sea (Scenario 1), which can move directly to Step 5. For the three types of projects concerned, the substeps are:

4.1. When the investor needs an authorization to "occupy the public domain temporarily" (demande d'Autorisation d'Occupation Temporaire, or AOT), an application is made through the online CRI Invest Platform and will be handled by the CRUI (under Law No. 47-18 amended by Law No. 22-24 reforming the CRI and creating the CRUI).

4.2. The CRI reviews the request and delivers the authorization if the review is positive.

The timeline for the AOT is 30 days according to Decree No. 2-22-385 of May 8, 2023.

Steps 3 and 4 (if both are required) can be carried out in parallel.

Step 5

Completing the dossier with ANDA.[104] The investor then submits to ANDA all the above authorizations as well as the documents establishing the investor's financial capacity and their technical capacity (list of personnel, hiring plan, etc.). The investor has four weeks to do this, from the reception of ANDA's opinion, the DAE (if required), and the authorization to occupy the site of the investment (if required).

Step 6

Preparation of the convention by ANDA. Two substeps:

6.1: NDA prepares the convention (agreement) pertaining to the creation and operation of the aquaculture farm. This is the convention that will serve as the master "authorization" for the project.

6.2: ANDA transmits the convention to the investor for signature.

TIMELINE: 10 days from ANDA's reception of the documents establishing the investor's financial and technical capabilities.

Step 7

Signature of the convention by the investor. The investor signs the convention and returns several copies to ANDA.

Step 8

Signature of the convention by the competent authority. ANDA facilitates the signature by the relevant authority. The signed convention is returned to the investor and is published in the Official Gazette ("Bulletin Officiel").

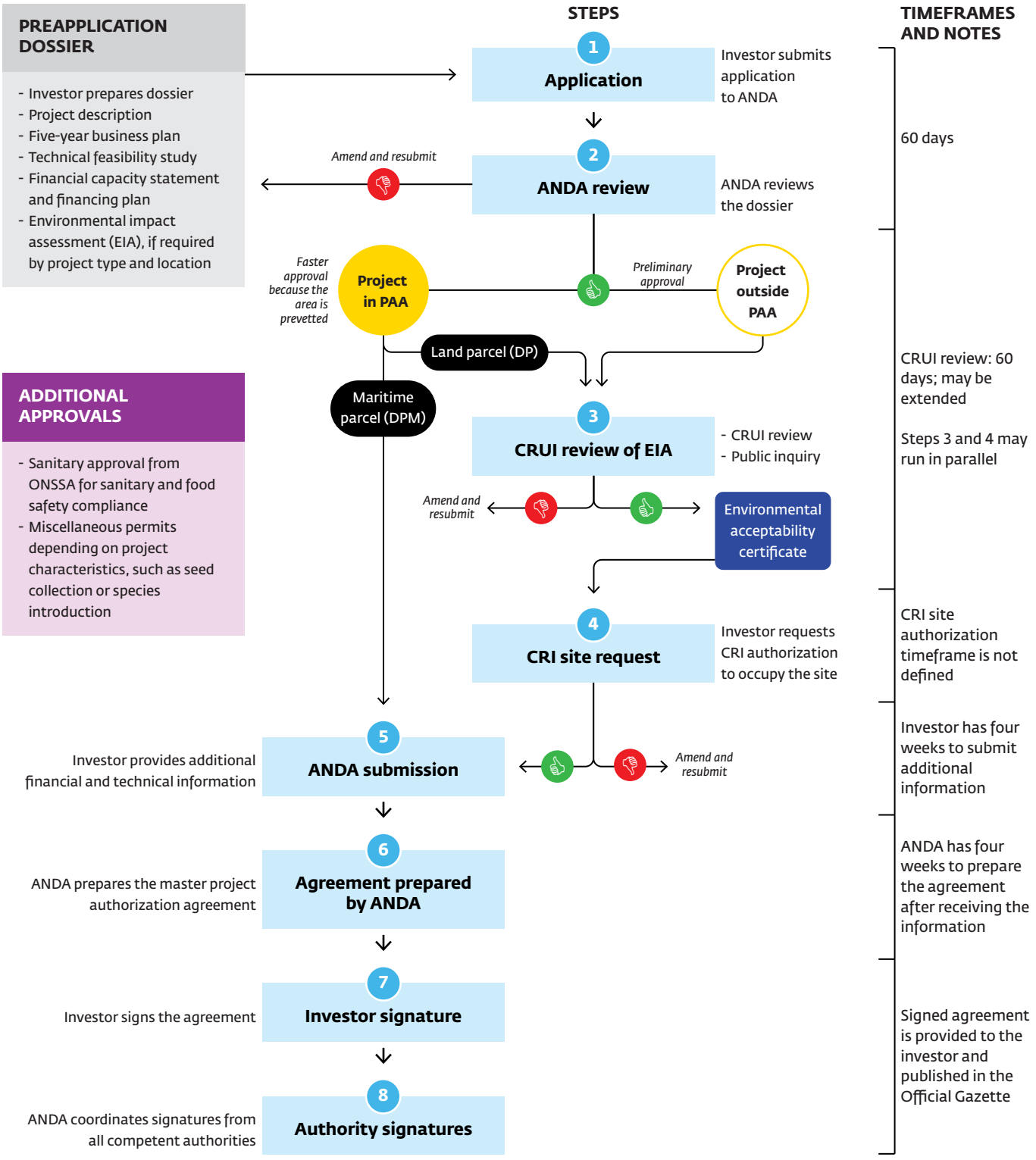
As noted in the aquaculture chapter, the investor road map is quite complicated. Moreover, this "parcours" is based on the ANDA guide which does not mention all the other permits, approvals, and authorizations that an aquaculture investor may need. In practice many investors will need several other permits. For instance, a typical and important one is the "**sanitary approval**." This approval concerns all food-related businesses and is under the authority of the National Office for Food Safety (ONSSA). The office will review the project for compliance with national and international sanitary and food safety standards. This includes the sourcing of juveniles (fry, spat), feeds, and the overall operational hygiene of the farm.

TIMELINE: The statutory time for ONSSA approval is typically 30 days once all required documentation is submitted. Finally, several other **secondary or additional permits** may be necessary depending on project characteristics (e.g., for seed collection, species introduction, etc.).

Figure A.1 depicts key steps in the investment permitting process.

Figure A.1

Flowchart For Permitting Marine Aquaculture Projects in Morocco



Note: The flowchart is limited to primary competent agencies and theoretical timeframes. ANDA = Agence Nationale pour le Développement de l'Aquaculture (National Agency for the Development of Aquaculture); CRUI = Commission Régionale Unifiée d'Investissement (Regional Unified Commission on Investment); DP = déclaration préalable; DPM = domaine public maritime; EIS; ONSSA = Office National de Sécurité Sanitaire des produits Alimentaires (National Office for Food Safety); PAA = Plan d'Aménagement Aquacole (Aquaculture Development and Management Plan).

Appendix B

Estimates of Potential Increases in Private Investment and Employment

CPSD estimations typically begin by assessing the sector's growth prospects, quantifying the resulting impacts on private investment and employment, and then estimating broader economy-wide job effects using multipliers. These assessments do not attribute future investment or job creation to specific CPSD reforms or compare a reform scenario to a no-reform counterfactual. Instead, the proposed recommendations are intended to help unlock the sector's underlying investment and employment potential, which is estimated based on the sector's projected expansion and associated economic linkages

B.1 Decentralized Solar Power Energy Generation

This section outlines the methodology used to estimate the investment requirements and job creation potential associated with the projected expansion of decentralized (distributed) solar photovoltaic (PV) systems in Morocco through 2035. The analysis is anchored in Morocco's broader renewable energy capacity expansion objectives and applies scenario-based assumptions to reflect different levels of regulatory progress and market uptake.

B.1.1 *Baseline and Scenario Framework*

As of 2024, decentralized solar capacity stands at approximately 30 MW, representing about 3.5 percent of the national solar fleet (30 MW out of 857 MW). This figure excludes

the numerous rooftop systems installed by households and small businesses, for which no consolidated official data currently exist. Actual decentralized capacity is therefore likely higher than recorded.

Looking ahead, the establishment of a national register of decentralized installations, as provided under Law No. 82-21 and Law No. 40-19, is expected to significantly improve the tracking of installed capacity and support a more accurate understanding of market dynamics.

Future deployment of decentralized solar is projected by applying decentralized shares (10 percent, 25 percent, 40 percent) to expected national solar capacity levels in 2035. The analysis builds upon the National Office of Electricity and Drinking Water (Office National de l'Électricité et de l'Eau Potable) Plan d'équipement à l'horizon 2030, which foresees 10,500 MW of new renewable energy capacity, including 5,616 MW of solar power. Under the moderate national expansion trajectory, total solar capacity is estimated at 8,424 MW in 2035.

In the median scenario, gradual regulatory improvements and strong commercial and industrial uptake result in 2,106 MW of decentralized solar capacity by 2035.

B.1.2 *Estimating Investment Requirements*

B.1.2.1 ENERGY MIX ASSUMPTION

The projection assumes decentralized systems consist of:

— Seventy percent commercial and industrial installations, and
— Thirty percent residential installations.

Table B.1

2030 Estimates Based on 5,616 MW Total Solar

Scenario	Decentralized share (%)	Decentralized capacity (MW)
Pessimistic	3	197
Median	15	842
Optimistic	30	1,685

Table B.2

2035 Decentralized Solar Capacity and Share Estimates

Total solar capacity (MW)	Scenario	Decentralized share (%)	Decentralized capacity (MW)
5,616 (low growth)	Pessimistic	10	562
5,616 (low growth)	Median	25	1,404
5,616 (low growth)	Optimistic	40	2,246
8,424 (moderate growth)	Pessimistic	10	842
8,424 (moderate growth)	Median	25	2,106
8,424 (moderate growth)	Optimistic	40	3,370
11,232 (high growth)	Pessimistic	10	1,123
11,232 (high growth)	Median	25	2,808
11,232 (high growth)	Optimistic	40	4,493

B.1.2.2 CAPITAL COST BENCHMARKS

Investment costs are derived from the United States National Renewable Energy Laboratory (NREL) 2035 projections:

— Commercial and industrial systems: approximately US$1.24 per watt
— Residential systems: approximately US$1.70 per watt

B.1.2.3 INVESTMENT CALCULATION

Segment-specific capacities are multiplied by the relevant unit costs. Under the median scenario, decentralized solar requires approximately US$2.9 billion in cumulative investment to install 2.1 GW of capacity by 2035.

B.1.3 *Estimating Employment Impact*

B.1.3.1 JOB CREATION LOGIC

Decentralized solar is relatively labor-intensive due to dispersed installation work, site-level interventions, and reliance on local technical services. International benchmarks generally indicate:

— Fifteen job-years per US$1 million invested in total employment,[105]
— Typically decomposed into 10 direct and five indirect job-years per US$1 million.

To translate these benchmarks into jobs (headcount), it is important to distinguish between construction and operation and maintenance (O&M) activities. Construction jobs are short-term, usually lasting about one year, so 1 job-year ≈ 1 job. O&M jobs last over the lifetime of the asset (15–20 years). Thus, 15–20 thousand job-years correspond to one sustained job, not 15–20 thousand separate workers.

Given Morocco's high import content and limited local manufacturing, most jobs will arise during construction and O&M phases rather than component production. To reflect these constraints, we apply a conservative downward adjustment, using 10 jobs per US$1 million invested (approximately seven direct and three indirect jobs) as a credible lower-bound estimate for the Moroccan context. This places expected job intensity in the 5 to 10 jobs per US$1 million range, below global benchmarks.

B.1.3.2 APPLYING JOB MULTIPLIERS

Applying the benchmark multiplier (10 direct and 5 indirect jobs per US$1 million invested) to the estimated US$2.9 billion investment envelope yields around 43,500 total jobs, including 29,000 direct and 14,500 indirect positions. Using the conservative lower-bound multiplier (7 direct and three indirect per US$1 million invested), total job creation would be approximately 29,000 jobs, comprising about 20,300 direct and 8,700 indirect jobs.

B.1.4 *Methodology for Estimating Avoided Greenhouse Gas Emissions*

The avoided greenhouse gas emissions presented here are illustrative estimates. The report models decentralized solar PV generation over a 31-year horizon (203060), assuming an economic life of 25 years for PV modules, 12.5 years for inverters, a 21 percent capacity factor, an 82 percent direct current to alternating current derate factor, and an annual performance degradation of 0.5 percent. Using available carbon dioxide and greenhouse gas emissions data for Morocco's electricity sector, the analysis applies an emissions factor of 745 grams of carbon dioxide—equivalent per kilowatt-hour to quantify avoided emissions.[106]

On this basis, decentralized solar expansion is estimated to avoid approximately 56 million metric tons (MT) of greenhouse gas emissions over the 31-year period, corresponding to an average annual reduction of about 1.8 million MT.

B.2 Low-Carbon Textiles

To project investment in tradable sectors, a country's export channel was leveraged to capture economies of scale—an essential driver of growth in expanding industries. Export projections were translated into investment projections by establishing a relationship between expected export growth and the corresponding investment response across

subsectors. To this end, a simple conceptual framework was defined in which investment projections $\widehat{Investment}_{is \in S_i}$ for country i and subsector s are based on export projections $\widehat{Export}_{is \in S_i}$ and a cross-country export-to-investment elasticity ε:

$$\widehat{Investment}_{is \in S_i} = \widehat{Export}_{is \in S_i} \times \varepsilon. \quad (1)$$

Estimating equation (1) requires two inputs: (i) export projections and (ii) a cross-country elasticity of export to investment, which captures the responsiveness of exports to changes in investment.

B.2.1 *Export Potential*

Export potential at the country-product level was assessed using the International Trade Center's (ITC) Export Potential methodology (Decreux and Spies 2023). This structural model evaluates the growth potential of existing products based on:

- Supply capacity in the exporting country
- Demand conditions in the target market
- Bilateral trade linkages

The model projects supply and demand five years ahead using GDP forecasts, population growth, and import demand elasticities. It also accounts for tariffs, reexports, and geographic distance.

Export potential is defined as the gap between potential and actual exports for a given exporter, product, and destination. This gap reflects the value that could be achieved by 2029 and stands at US$1.1 billion for Morocco.

B.2.1.1 EXPORT-TO-INVESTMENT ELASTICITY (ε)

For the export-to-investment elasticity, the team leveraged the results from a system generalized method of moments estimation based on global data for exports and investments conducted for other CPSDs.[107] The estimate of the coefficient of interest (i.e., the export-to-investment elasticity) stands at 1.76 over 5 years based on a global sample. This is a strong relationship, showing that exports can be a powerful driver of private sector investment. The influence grows over time, although the pace of growth slows down as time goes on.

B.2.1.2 EMPLOYMENT ESTIMATIONS

Potential jobs were computed using the total employment multipliers, which are computed using the value-added multipliers and employment elasticities from Burgi et al. (2023). The total employment multipliers measure the effect on employment, of an increase in US$1 million of sectoral output and it includes direct, backward supply chain and consumption spillover (induced) effects. We use the value of increased investment (potential) in the subsector where we do not have the value of increased sectoral output as a result of interventions in the sector. The total employment multipliers used textiles was 28.

As potential increase in total output resulting from the sectoral intervention is known, such as for the textiles sector where it is estimated that Morocco could achieve US$1.1 billion in additional exports in five years, we equal this to the increase in sectoral output, restate this in millions of dollars (US$1,100 million) and multiply this by the total employment multiplier (28). This gives an estimate of 30,800 jobs, 6,000 direct jobs and 24,200 indirect jobs.

B.2.1.3 SENSITIVITY ANALYSIS

Both investment and job creation estimates hinge on assumptions that are inherently uncertain. External factors like global demand shifts, trade policy changes, and supply-chain disruptions can significantly alter outcomes. To better understand the impact of this uncertainty, an additional sensitivity analysis was conducted to give a range of potential outcomes in terms of both investment potential and job creation potential. By testing alternative scenarios, policymakers and investors can take into account a range of plausible outcomes rather than a single point estimate, improving risk management and strategic planning.

Under an optimistic scenario estimated using ITC-derived unrealized potential, Morocco could capture a much larger share of unrealized export potential—US$2.8 billion—reflecting strong competitiveness gains and market diversification. This figure is grounded in ITC's granular product-country analysis, which shows substantial untapped opportunities across high-value segments and destinations (versus the aggregated export potential level assumed under the standard scenario). Achieving this level would likely require aggressive investment in low-carbon technologies, compliance with sustainability standards, and leveraging trade agreements to penetrate premium markets. At this scale, job creation could exceed 78,400 jobs (US$2,800 million $\times$ 28), and investment needs would rise proportionally to US$4.9 billion (US$2.8 billon $\times$ 1.76), reinforcing the case for targeted financing and industrial policy support.

Conversely, a downside scenario assumes Morocco realizes only US$550 million in additional exports—roughly half of ITC's estimated potential. This conservative figure reflects risks such as slower global apparel demand, persistent trade frictions, or domestic constraints in scaling production capacity and meeting sustainability requirements. Under this scenario, job creation would fall to about 15,400 jobs (550 $\times$ 28), and investment requirements would be significantly lower at US$968 million (US$550 million $\times$ 1.76), limiting spillover benefits. This highlights the importance of addressing structural bottlenecks and ensuring resilience against external shocks.

A further plausibility check reinforces that the CPSD estimates are reasonable. Morocco's textiles and apparel sector has grown at an average annual output rate of 6 percent over the past five years, according to national accounts published by HCP. Projecting a similar growth trajectory for the next five years suggests that current exports (approximately US$4.9 billion) could reach US$6.9 billion by 2029 under a business-as-usual scenario.

In comparison, the total export figure used for the estimates—US$6 billion—is relatively conservative, as it falls below the level implied by historical growth trends. Moreover, the sector currently employs around 234,000 workers, and the CPSD estimate of 30,000 additional jobs represents an increase of roughly 13 percent in a best-case scenario. This magnitude of job creation appears plausible given the sector's historical performance and the scale of export expansion modeled, especially when considering productivity improvements and supply-chain spillovers.

B.3 Argan Oil and Natural-Cosmetics Manufacturing

The additional investment and employment effects in the medium term are calculated following the methodology and assumptions summarized below.

B.3.1 *Sector Baseline and Growth Assumptions*

The size of Morocco's cosmetics market is currently estimated at US$1.9 billion and projected to reach US$4.0 billion by 2034, corresponding to an average annual growth rate of 7.6 percent. In the absence of specific employment data, the sector's share in industrial value added (4 percent) is assumed to equal its share in industrial employment, yielding an estimated 61,000 jobs, broadly consistent with the 45,000 jobs reported by the Confédération Marocaine de la Cosmétique et de la Beauté.

B.3.2 *Value-Added Investment Relationship*

The analysis draws on evidence from the manufacturing literature on investment–value-added elasticities. Aghion et al. (2023) find a near-proportional relationship in advanced manufacturing, with an elasticity of about 0.98 between capital investment (I) and industry-level sales (VA). The authors also note that in emerging and developing economies, where technological diffusion, productivity, and capital absorption are weaker, the elasticity typically ranges between 0.6 and 1.0. Given Morocco's structural characteristics and the relatively high import content of cosmetic inputs, a conservative elasticity of 0.7 is applied—implying that each US$1 billion of additional investment generates about US$0.7 billion in new value added.

B.3.3 *Investment Requirements And Allocation*

To achieve the projected US$2.2 billion increase in value added by 2034:

$$\Delta I\,(\textit{cosmetics}) = 2.2 \times \left(\frac{1}{0.7}\right) = \text{US\$3.1 billion.}$$

The argan and natural ingredients segment currently accounts for about 15 percent of the cosmetics sector's value added and is expected to grow to 20 percent by 2035. This estimate aligns with trade-based evidence suggesting that natural and essential oil–based cosmetics account for roughly one-fifth of Morocco's cosmetics exports and value added[108]

and argan and rose oils together represent about 15 percent of the country's cosmetic product exports.[109]

Applying the projected 20 percent share gives:

$$\Delta I\ (argan) = 3.1 \times 0.20 = \text{US\$0.6 billion.}$$

B.3.4 *Employment Estimation*

Employment effects are derived using World Bank Group value-added-to-job multipliers for the basic pharmaceutical sector (10 direct, 18 induced and 11 indirect per US$1 million additional value added), applied as a proxy given comparable capital intensity and skill composition. The implied employment impact of the projected investment is approximately 17,000 total jobs (4,400 direct and 17,160 induced and indirect).

B.3.5 *Sensitivity Analysis*

To illustrate the sector's sensitivity to external and structural constraints, the analysis considers a downside scenario in which the argan and natural-cosmetics value chain grows at 6 percent annually over the next decade. This trajectory reflects several risks specific to Morocco, including variable climatic conditions that affect argan-nut yields, the slow maturation of private plantations, and persistent business environment challenges that can limit firm expansion and upgrade potential. A 6 percent path is also consistent with the lower end of international benchmarks for the cosmetics industry, where global and regional forecasts typically range from 4.5 to 7 percent, with more mature or supply-constrained markets converging toward the bottom of this range. Under such conditions, the sector expands from US$1.8 billion today to approximately US$3.2 billion over ten years.

Holding all other baseline assumptions and elasticities constant, applying this downside growth trajectory to the investment and employment model yields an estimated 11,100 jobs in total, comprising roughly 2,800 direct positions in harvesting, processing, and cosmetics manufacturing, and 8,300 indirect jobs across logistics, packaging, services, and upstream supply chains. These results provide a conservative estimate of the sector's economic contribution when both structural bottlenecks and global competitive pressures are taken into account, offering a realistic lower-bound reference for policy prioritization and private investment planning.

B.4 Marine Aquaculture

B.4.1 *Sector Baseline and Growth Assumptions*

The analytical framework used to estimate the medium-term potential of Morocco's marine aquaculture sector in terms of private investment, production, and employment applies a bottom-up model combining spatial data on prezoned aquaculture areas with

species-specific yields, capital intensity, and employment coefficients derived from international and Moroccan sources. The model starts from the 24,000 hectares of coastal and offshore zones preidentified by ANDA for aquaculture development. These areas were allocated by species group in line with official zoning studies—42 percent for shellfish, 40 percent for finfish, and 18 percent for seaweed—reflecting biophysical suitability and market potential.

The analysis assumes that 75 percent of these areas will be permitted and operational by 2031 and that farms will reach 50 percent of their authorized production capacity on average. These assumptions reflect typical ramp-up patterns in new aquaculture clusters—where permitting, stocking cycles, hatchery development, and logistics require multiple years—and are consistent with international experience showing 60–80 percent effective activation of prezoned areas in the Mediterranean. They also align with the scaling path anticipated in Morocco's national aquaculture strategy and the World Bank's 2025 sector review.

Expected biological yields were drawn from Mediterranean production benchmarks: 100 tons per hectare per year for shellfish (Theodorou et al. 2011; Petersen et al. 2020), 35 tons per hectare for finfish (FAO 1990), and 180 tons per hectare for seaweed (wet weight), derived from von Xylander (2025), which reports 91–340 tons per hectare per year depending on cultivation system. Applied to the activated and utilized areas, these yields generate an estimated 795,600 tons of additional annual output (378,000 tons of shellfish, 126,000 tons of finfish, and 291,600 tons of seaweed).

B.4.2 *Investment Estimations*

Capital intensity assumptions were based on cost studies from the Mediterranean and North Atlantic. Shellfish farms require approximately US$2,531 per annual ton of capacity (Crown Estate Scotland 2019), finfish farms US$6,354 per annual ton (Fernández Sánchez, Basurco, and Aguilera 2023), and seaweed farms US$683 per annual ton (Hinge et al. 2025). Applying these coefficients yields total medium-term investment needs of approximately US$1.96 billion, representing the sector's potential to attract private capital over the coming decade.

B.4.3 *Employment Estimations*

Employment impacts were estimated using validated international benchmarks. Direct employment intensities of 0.035 full-time equivalent (FTE) per ton for shellfish (consistent with NOAA 2010 and reinforced by Spain's mussel sector ratio of ~0.0155 FTE per ton), 0.035 FTE per ton for finfish (supported by Spain's ~0.017 FTE per ton and EU finfish ~0.02–0.03 FTE per ton), and 0.011 FTE per ton for seaweed (aligned with the European seaweed roadmap's implied 0.0106 jobs per ton) were applied. With an indirect employment multiplier of 2.6 (Chan et al. 2021), the model projects approximately 20,848 direct and 54,204 indirect full-time equivalent jobs across production, logistics, processing, and support services.

B.4.4 *Sensitivity Analysis*

To illustrate the sensitivity of investment and employment outcomes, the analysis explored a range of activation scenarios by varying both the share of prezoned areas that become operational and the degree to which farms reach their authorized capacity. Because the model scales proportionally with activated area, results expand or contract in a predictable manner. Under the baseline assumption used in the assessment—75 percent of prezoned areas permitted and 50 percent utilization—the sector would generate around US$1.96 billion in private investment, 20,848 direct jobs, and 54,204 indirect jobs. More conservative activation paths produce markedly smaller effects, with the lower bound (25 percent permitting and 25 percent utilization) yielding roughly US$326 million in investment and 3,475 direct jobs. At the upper end of the range, full activation of all prezoned areas could support more than US$5.2 billion in investment, over 55,000 direct jobs, and about 144,000 indirect jobs. These ranges offer a coherent benchmark against which to interpret the medium-term scenario and underscore how aquaculture's contribution depends on permitting efficiency, infrastructure readiness, and the pace of private sector uptake.

To ensure the plausibility of the estimated impacts, the model's results were benchmarked against macroeconomic and sectoral indicators. The total investment requirement of US$1.96 billion represents approximately 1.3 percent of Morocco's GDP, 4.6–5.3 percent of annual gross fixed capital formation, and about 12.6 percent of one year's value added in agriculture, forestry, and fishing—magnitudes consistent with a medium-term expansion of a new productive sector. Similarly, the projected 20,848 direct and 54,204 indirect jobs amount to 2.4 percent of Morocco's primary-sector employment, aligning with international patterns where aquaculture clusters scale gradually but generate meaningful regional employment once hatcheries, logistics infrastructure, and value-chain services are established. These cross-checks confirm that the model's investment and employment outcomes fall within a realistic and evidence-based range for Morocco's economic structure and aquaculture potential.

Table B.3 presents the approach and assumptions used to calculate potential investments and job creation for each subsector.

Table B.3

Approach and Assumptions to Calculate Potential Investments and Job Creation, Subsector

Estimated investment and jobs created by 2030 or 2035	Approach	Assumptions
Decentralized solar power generation		
***Potential investment*:** **US$2.9 billion** ***Potential jobs*:** **43,500 (29,000 direct and 14,500 indirect)**	Under the median 2035 scenario, decentralized solar capacity is projected to reach approximately 2,106 MW under a moderate growth trajectory. The total investment requirement is estimated at around US$2.9 billion by 2035, based on the energy mix and cost assumptions presented on the right. Applying the investment-to-jobs multipliers in the right column, the projected employment impact of this 2.1 GW capacity expansion is estimated at approximately 43,500 new jobs (29,000 direct and 14,500 indirect employment). Using the conservative lower-bound multiplier, total job creation would be around 29,000 jobs, comprising approximately 20,300 direct and 8,700 indirect jobs.	As of 2024, decentralized solar capacity in Morocco is estimated at around 30 MW, accounting for roughly 3.5 percent of the country's total solar capacity (30 MW out of 857 MW). For this assessment, we assume a representative energy mix comprising 70 percent commercial and industrial (C&I) systems and 30 percent residential installations. Investment costs are derived from NREL's 2035 cost projections, estimated at approximately US$1.24 per watt for C&I systems and US$1.70 per watt for residential systems. Based on international experience and academic literature, small-scale solar typically generates about 15 job-years per US$1 million invested, reflecting its relatively high labor intensity linked to installation and maintenance activities. Given Morocco's high import content and limited local manufacturing, we apply a conservative downward adjustment, using 10, 000 jobs per US$1 million to provide a lower-bound estimate for the country context.
Low-carbon textiles		
***Potential investment*:** **US$1.9 billion** ***Potential jobs*:** **30,800 (6,600 direct and 24,200 indirect)**	The analysis is based on Morocco's untapped export potential, as assessed by the International Trade Center (ITC), to estimate the sector's investment and job creation potential. The estimation of investment and job creation potential is based on export potential, as the anticipated growth of Morocco's textile sector is expected to be predominantly export-driven, reflecting the country's strategic integration into global value chains. The ITC unrealized export potential (US$1.1 billion) is multiplied by an export-to-investment elasticity (1.76) and a	Unrealized export potential for textiles and apparel: US$1.1 billion. Export-to-investment elasticity of 1.76. Job multiplier: 28 direct and indirect jobs per increase of US$1 million of sectoral output for the textiles sector. ITC Unrealized Export Potential is assumed to equal the increase in output that Morocco's textile and apparel sector can achieve.

(Table continues next page)

Table B.3

Approach and Assumptions to Calculate Potential Investments and Job Creation, Subsector (*continued*)

Estimated investment and jobs created by 2030 or 2035	Approach	Assumptions
	job multiplier (28) to obtain the investment and job creation potential, respectively.	
Argan oil and natural-cosmetics manufacturing		
***Potential investment*:** **US$0.6 billion** ***Potential jobs*:** **17,000 (4,400 direct and 12,760 indirect)**	Based on the projected expansion of the cosmetics sector, an additional US$0.6 billion investment is expected by 2035 in argan oil and natural ingredients processing. Using a value-added-to-investment elasticity of 0.7 and World Bank Group job creation multipliers, this translates into approximately 17,000 total jobs (direct and indirect).	Morocco's cosmetics market is valued at about US$1.9 billion and is projected to reach US$4 billion by 2034 (average annual growth of 7.6 percent). Assuming its industrial value added share (4 percent) mirrors its industrial employment share, it is estimated to employ around 61,000 workers. Drawing on manufacturing evidence (Aghion et al. 2023), a value-added-to-investment elasticity of 0.7 is applied for Morocco, implying that each US$1 billion of investment generates about US$700 million in value added. To achieve an additional US$2.2 billion in value added by 2034, total investment of roughly US$3.1 billion would be required. Applying a 20 percent share for argan and natural ingredients processing within cosmetics yields US$0.6 billion in additional investment, with employment effects estimated using World Bank Group value-added-to-job multipliers for the basic pharmaceutical sector as a proxy.
Marine aquaculture		
***Potential investment*:** **US$1.96 billion** ***Potential jobs*:** **75,000 (21,000 direct and 54,000 indirect)**	The analysis estimates Morocco's aquaculture investment and job potential by linking the areas of prezoned coastal areas to expected production yields, capital intensity, and employment per ton of output for each main species group (shellfish, finfish, and seaweed). It applies internationally with benchmarked parameters from FAO, ANDA, and sector studies—to calculate total production capacity, required private investment, and direct and indirect full-time equivalent jobs. The resulting figures represent an illustrative medium-term scenario assuming gradual permitting and partial capacity utilization of the zoned areas by 2030.	The estimates assume that 70 percent of prezoned aquaculture areas are granted to private firms and that these farms operate at 50 percent of full production capacity by 2030. Species distribution follows ANDA's zoning mix (42 percent shellfish, 40 percent finfish, 18 percent seaweed), with yields, capital costs, and labor intensities drawn from global, Mediterranean, African, and FAO benchmarks. All figures are expressed on a wet-weight and full-time-equivalent basis, ensuring consistency across yield, investment, and employment calculations.

Notes

1. Other sectors were also reviewed during the sector-selection process, including leather, animal products, minerals, transport, telecommunications, tourism and travel, and health and pharmaceutical manufacturing. Their noninclusion in this CPSD does not reflect an assessment of their importance or potential.
2. Unless otherwise specified, CPSD estimates of private investment and job creation refer to the medium term (approximately five to 10 years), while longer-term impacts (e.g., emissions) are explicitly indicated.
3. World Bank (2025a).
4. Imported fossil fuels including refined oil, gas, and coal, currently provide over 90 percent of Morocco's energy needs.
5. About 90 percent of the cultivated area is rainfed and mainly used for cereals and forage crops, while the remaining 10 percent is irrigated land FAO (2022).
6. Fishery productivity, especially in shallow coastal zones, is being affected by warming waters and ocean acidification (World Bank 2022).
7. World Bank (2025b).
8. OECD (2024a).
9. Following the World Bank's 2026 Country Growth and Jobs Report for Morocco , the analysis uses benchmarking against three peer groups: regional peers (Algeria, Egypt, and Tunisia), aspirational peers with about twice Morocco's per capita GDP (Albania, Bosnia and Herzegovina, and Colombia), and fast-growing economies that doubled per capita GDP over a comparable period (India, Indonesia, and Vietnam).
10. World Bank (2024).
11. IMF (2024).
12. World Bank Morocco 2020 Financial Sector Assessment Program.
13. HCP (2024).
14. HCP (2023).
15. World Bank World Development Indicators; EBRD, EIB, and World Bank (2016). SOEs' 50–66 percent share of total investment (~32 percent of GDP) implies a contribution of about 16–21 percent of GDP.
16. OECD (2024b, 84–85).
17. Decentralized solar generation refers to electricity produced from solar photovoltaic systems installed close to the point of consumption, typically connected to the medium-voltage distribution network. It includes both self-generation (where the producer and consumer are the same) and third-party generation (where an independent producer supplies electricity directly to nearby consumers).
18. ONEE 2025–2030 Investment Plan.
19. Morocco is on track to meet its renewable energy objectives ahead of schedule, with 45 percent of its electricity capacity already achieved by the end of 2024. The 2030 target is anticipated to be reached before 2027.
20. This figure excludes rooftop and small self-generation systems, as public data is unavailable.

21. According to IEA-PVPS (2023) and PV Magazine International.
22. Including Law No. 13-09 (2010) for renewable energy open market, Law No. 48-15 (2016) for electricity market regulation, Law No. 58-15 (2015) for opening the renewable energy market to Low Voltage network and surplus energy sales, Law No. 40-19 (2023) amending laws No. 13-09 and No. 48-15, and Law No. 82-21 (2023) for self-generation regulations. Draft decrees (2024) establish renewable electricity certification procedures.
23. Prior to the enactment of Law No. 13-09, private developers were limited to self-production of renewable energy.
24. While Law No. 82-21 and Law No. 40-19 introduce storage services and envisage compensating renewable energy investors for providing them—pending a dedicated implementing decree—it is equally important to note that decentralized solar energy storage plays a key role in managing intermittency at the national level (for the transmission system operator). This, in turn, increases the national grid's capacity to accommodate more renewable energy, which will create more investment opportunities for investors in decentralized solar projects.
25. Businesses and public services account for two-thirds of Morocco's electricity consumption. While the country's electricity service is generally reliable—with average outage frequency below the MENA regional average—decentralized solar installations present an opportunity to also enhance the resilience of both firms and households.
26. Morocco's energy sector is managed by several entities: MTEDD oversees energy policy and project authorization; National Office of Electricity and Drinking Water (ONEE) focuses on energy transport and transmission; Moroccan Agency for Sustainable Energy (MASEN) manages renewable energy projects; ANRE regulates network access and tariffs; the Ministry of Interior oversees municipal distribution services; the Regional Multiservice Companies (SRMs) reorganize regional electricity and water services; and Moroccan Agency for Energy Efficiency (AMEE) promotes energy efficiency and sustainable development.
27. Although the pace has been slower than investors expected, the government remains within the legal timeline; the delay reflects the financial condition of electricity distributors rather than regulatory inaction.
28. Under Law No. 82-21, a 5 MW threshold is defined for the authorization regime, with the option to use the transmission and/or distribution network to generate electricity away from the point of consumption, thereby accessing more attractive renewable resources. The same law stipulates that above 5 MW the plant must be connected to the high-voltage grid, while below that it should be connected to the distribution network. This threshold requires an implementing decree; without it, it is not possible to develop medium- and large-scale decentralized solar projects, which are important for industrial investors.
29. Curtailment refers to the reduction of electricity output from renewable energy sources because the power system cannot absorb all the energy being generated, even though the plants are capable of producing more.
30. Wheeling tariffs are fees charged for transmitting electricity over a power grid from one location to another. These charges compensate the grid owner and operator for the use of their infrastructure when electricity is generated at a different location than where it is consumed.
31. The electricity distribution sector is being restructured by merging electricity and water services into new regional companies (SRMs), following Law No. 83-21 from 2023. The first SRMs were set up in late 2024 in four regions, aiming for better coordination and investment.
32. The grid code is the set of technical rules that govern the connection and operation of electrical installations to ensure the stability and safety of the network. In Morocco, the ANRE has published the transmission grid code, while the distribution grid code is being developed. This tool is essential to

reassure and encourage investors in decentralized solar, as it provides visibility, transparency, and fair conditions for access to the grid.

33. Morocco benefits from duty-free access to the EU under the Association Agreement. Similarly, the country has been benefiting from trade agreements with US under the Morocco–US Free Trade Agreement. Preferential access requires adherence to origin rules: typically, double transformation for EU/Paneuromed (e.g., fabric-to-garment, with both stages completed in Morocco or in combination with other Paneuromed countries under diagonal cumulation rules), and yarn-forward for the US (i.e., yarn and subsequent processing must originate in the US or Morocco). The recent US trade agreement imposes a 10 percent tariff, but Morocco may still hold a trade advantage over competitors due to its existing agreements and compliance with origin requirements.
34. Morocco's industrial base includes dense garmenting clusters with export experience and social compliance, though upstream integration and design capabilities remain limited.
35. China leads with 28.1 percent share, followed by Bangladesh (21.4 percent) and Turkey (10.9 percent). India, Vietnam, and Cambodia occupy midtier positions, while Pakistan, Morocco, Tunisia, and Myanmar round out the top 10.
36. In a CMT production arrangement, the buyer provides raw materials (such as fabric, trims, and labels), as well as the patterns. The factory is responsible for cutting the fabric, sewing (making) the fabric, and completing the trimming and finishing the work.
37. The share of Morocco's apparel exports under the CMT model has grown over time, rising from 64.7 percent in 2012 to 69.5 percent in 2022, and reaching 77 percent in 2024. This upward trend reflects limited upgrading toward full-package or FOB models, despite policy efforts to enhance value capture in the sector.
38. Under a full-package or free-on-board (FOB) sourcing model, the manufacturer handles and finances all inputs and production (including materials, cutting, sewing, finishing, and packaging) and delivers finished the goods at an agreed FOB price, while the buyer provides the designs and product specifications.
39. The EU Green Deal includes the Corporate Sustainability Reporting Directive (CSRD), the Eco-design for Sustainable Products Regulation, the Carbon Border Adjustment Mechanism, and the forthcoming Digital Product Passport.
40. Mandatory sustainability reporting under the CSRD, which requires large companies and their suppliers to disclose detailed information on their environmental impact, carbon emissions, social compliance, and governance practices.
41. UNIDO (2021).
42. These efforts align with broader reforms under the planned revision of Law No. 28-00 on waste management, which is expected to modernize and formalize waste-stream governance.
43. Aggregators are vertically integrated industrial players or intermediaries that coordinate and deliver end-to-end production services—from product development and sourcing to compliance and delivery—on behalf of global brands. Their role is critical in connecting fragmented supplier bases to international buyers requiring scale, traceability, and turnkey solutions.
44. https://industrial-estate.gov.ma/.
45. Under the CMT model, fabrics remain the property of foreign buyers, which legally prevents Moroccan manufacturers from transferring or recycling cutting waste without explicit authorization. This ownership constraint adds a significant barrier to structured local collection systems and limits access to recyclable feedstock, further exacerbating the market coordination failure already facing recyclers. However, ongoing business-to-business dialogue with brands is exploring solutions to enable traceability and recovery within authorized frameworks.
46. UNDP (2023).

47. An HS code (Harmonized System code) is an internationally standardized numerical classification for identifying traded goods, used by customs to categorize, regulate, and tax products.
48. In addition to order-backed export financing instruments, some competitor countries rely on a distinct model based on state-backed export credit institutions (export-import banks or export credit agencies) that provide working-capital loans, guarantees, and export credit insurance to mitigate payment risk and ease financing constraints. Examples include Türk Eximbank and the Export Credit Guarantee Company of Egypt, which support national exporters through loans, guarantees, and trade credit insurance.
49. ECGC Limited (2022).
50. Certification costs vary by standard and process scope. For example, Oeko-Tex certification may cost between €5,000 and €15,000, while GRS typically ranges from €5,000 to €12,000. Costs include audits, lab testing, and renewal or license fees.
51. One of Tamwilcom (2024) instruments, the "Green Invest" program supports companies undertaking environmentally sustainable projects.
52. See "Arganeraie," Man and the Biosphere Programme, United Nations Educational, Scientific and Cultural Organization, https://www.unesco.org/en/mab/arganeraie.
53. Dahir of March 4, 1925.
54. Each liter of oil requires about 10 hours of work and around 33 kilograms of dried fruits.
55. Estimation by ANDZOA.
56. Charrouf Guillaume (2018).
57. See "Argan, Practices and Know-How Concerning the Argan Tree," United Nations Educational, Scientific and Cultural Organization, https://ich.unesco.org/en/RL/argan-practices-and-know-how-concerning-the-argan-tree-00955?RL=00955.
58. RCGT and Cowater International (2022).
59. Morocco Foodex.
60. The emerging premium segment is typically characterized by small to medium production volumes and marketed both as branded and white-label products on local and export markets. High-end hotels in Morocco increasingly offer locally manufactured cosmetics to their customers.
61. Egypt and Vietnam are used here as benchmarks for cosmetics-manufacturing capabilities; they do not produce argan and are referenced solely for their relevance to natural-cosmetics industrial performance.
62. See "The Global Market for Natural and Organic Personal Care Products," Ecovia Intelligence, updated October 2024, https://www.ecoviaint.com/7004-60-the-global-market-for-natural-organic-personal-care-products/.
63. See "Beauty and Personal Care Products Market Size and Share Analysis: Growth Trends and Forecast (2026–2031)," Mordor Intelligence, updated February 25, 2026, https://www.mordorintelligence.com/industry-reports/global-beauty-and-personal-care-products-market-industry.
64. See "Which Trends Offer Opportunities or Pose Threats on the European Market for Natural Ingredients for Cosmetics," Market Information, Centrum tot Bevordering van de Import uit ontwikkelingslanden, updated March 4, 2026, https://www.cbi.eu/market-information/natural-ingredients-cosmetics/trends.
65. See "Procédures et outils," Morocco Ministry of Agriculture, Department of Sea Fishing, http://www.mpm.gov.ma/wps/portal/PortalI-MPM/Contr%C3%B4le%20et%20surveillance%20des%20p%C3%AAcheries/Procedures%20-outils/!ut/p/b1t/04_SjzQ0MDeyMDQxN9aP0I_KSyzLTE8syczPS8wB8aPM4g3c3H38jQzMDCzCwiwMPM1NAzw9PZ0NTcwM9HOjHBUB_zv1hQ!!/.
66. EFI (2024).
67. Batch traceability to the level of the douar (communal douar code or card, available to members of

the douar) would suffice to comply with market requirements, without the need to link it to individual members of the community.

68. Building on tested private sector systems (such as the end-to-end traceability solution implemented by Targanine), each buyer along the supply chain would identify its immediate supplier and file signed digital receipts.
69. Application programming interface access allows operators to connect proprietary platforms and track more detailed supply chain data beyond the basic traceability, which syncs automatically with the centralized platform.
70. Since 2005, BASF has partnered with GIE Targanine to source argan oil under fair-trade conditions. This collaboration included the implementation of traceability systems to ensure product quality and compliance with sustainability standards. These systems helped facilitate certifications such as the "Fair For Life" label by Ecocert, and contributed to social and operational benefits for the cooperatives, including access to fair-trade premiums and prepaid returns on production (see "BASF Celebrates 10th Anniversary of the Argan Program in Morocco," BASF, updated January 12, 2016, https://www.basf.com/fi/en/media/news-releases/2016/01/p-16-103.
71. Commonly includes (1) evidence that the manufacturer has adequate internal mechanisms in place (e.g., Good Manufacturing Practices certification), (2) detailed product information file with information necessary to verify conformity with standards (PIF), and (3) for imported products, proof of compliance with the standards of the country of origin (Certificate of Conformity, or more commonly, Certificate of Free Sale).
72. This is the prevailing model among OECD countries, including some of its emerging members such as Turkey and Mexico, and across Latin America and Asia (enshrined in the ASEAN Cosmetic Directive).
73. This includes Japan, the Democratic Republic of Korea, China, Brazil, Argentina, Colombia, Jordan, and others.
74. This is now normal practice in most major markets, including markets such as China, Brazil, Korea, Brazil, and Turkey.
75. Access to imported inputs—including natural emulsifiers, preservatives, active botanical compounds, and certified organic additives—remains a real constraint. Delays, additional approvals, and inconsistent import procedures slow product development and increase costs for manufacturers.
76. Autorisation de Mise sur le Marché, issued by AMMPS (Agence Marocaine de Médicaments et de Produits de Santé), and valid for five years.
77. For example, anti-acne, skin whitening, anti-dandruff, anti-septic, etc.
78. Autorisation d'importation des matières premières destinées à la fabrication des Produits Cosmétiques et d'Hygiène Corporelle, issued by AMMPS (Agence Marocaine de Médicaments et de Produits de Santé).
79. Autorisation d'Importation des Produits Végétaux, delivered by ONSSA (Office National de Sécurité Sanitaire des Produits Alimentaires).
80. Certificat sanitaire à l'exportation des Produits Végétaux et d'Origine Végétale, delivered by ONSSA (Office National de Sécurité Sanitaire des Produits Alimentaires).
81. AMMPS is already undertaking a reform to digitalize its procedures through the development of a master plan and strategic roadmap (2025–2028) to unify digital tools, improve data governance, and enhance traceability and user experience (Les Ecos 2025).
82. Turner (2014).
83. Registered in Morocco as "Groupement d'Intérêt Economique."
84. ANDZOA, based on export data by Morocco Foodex.
85. Montanari, Handaine, and Id Bourrous (2023).

86. Aubert et al. (2015).
87. Prezoned aquaculture areas are locations identified by the government agency, ANDA, as environmentally and technically suitable for future aquaculture under the Aquaculture Management Plan), but they do not yet host active farms. Their purpose is to guide licensing and reduce environmental risk. Aquaculture production sites, by contrast, are the specific permitted parcels within these zones where operations are already established and producing, representing the sector's actual active footprint.
88. Blue Life Hub (2023).
89. FAO (2024a).
90. Van der Meer (2018); 7News Morocco (2025).
91. The allocation to species primarily reflects technical and environmental studies of the zones but also considered economic value and market potential when prioritizing which areas to open (ANDA 2017; FAO 2018).
92. Maritime New (2024).
93. FAO (2023).
94. FAO (2024b).
95. FAO (2024c).
96. MarinTrust, "Certified Sites: Morocco," Certificates for Nouvelle Ougala, Tantasar, and Pescasud, available at https://www.marin-trust.com.
97. Morocco's seafood processing industry exports roughly 85 percent of its output (FENIP 2023).
98. IFFO (2023).
99. The private sector also faces obstacles related to the need for specialized infrastructure, limited access to finance and availability of skilled labor which must be addressed for Morocco to unlock its aquaculture potential. Closing gaps in logistics, cold chains, R&D, seed supply, and aquatic health services is essential to improve competitiveness and move up the value chain. These issues are not addressed in detail in this CPSD due to their longer-term nature and major fiscal implications.
100. The investment approval processes in place in Spain, France, Norway, Chile, and Vietnam were studied for this analysis.
101. The roadmap is based on the ANDA guide. WBG analysis has detailed some procedures that are aggregated or simplified in the guide and also added the ONSSA sanitary approval, which is often required from aquaculture investors in practice.
102. Promoting gradual digital integration between ANDA and existing platforms (such as PortNet or the CRIs) could also help reduce administrative duplication and further streamline aquaculture permitting over time.
103. A decree implementing Law No. 84-21 was issued in January 2026. The decree represents important progress and is broadly aligned with the direction of this recommendation. However, it does not comprehensively address permissible aquaculture infrastructure across all land categories—particularly in protected areas—which remains a key objective of this recommendation.
104. The French term for this step is "Dépôt de complément de dossier à l'ANDA."
105. Hanna, Heptonstall, and Gross (2023); Garrett-Peltier (2017, 439–447); Markaki et al. (2013); Pollin and Garrett-Peltier (2009).
106. Bastos, Monforti-Ferrario, and Melica (2024); MTEDD (2022).
107. Most notably the Paraguay CPSD 2.0 that estimates the elasticity to estimate the investment potential in light manufacturing. The estimation approach and model are extensively discussed in appendix B of the report (World Bank Group 2025).
108. CBI (2022).
109. UNCTAD (2021).

Abbreviations and Acronyms

ADP	Aquaculture Development Plan
AOT	autorisation d'occupation temporaire; temporary occupation authorizations
ANDA	Agence Nationale pour le Développement de l'Aquaculture; National Agency for the Development of Aquaculture
ANDZOA	Agence Nationale pour le Développement des Zones Oasiennes et de l'Arganier; National Agency for the Development of Oasis Zones and Argan
ANRE	Autorité Nationale de Régulation de l'Électricité; National Electricity Regulatory Authority
CMT	cut, make, and trim
CRI	Centres Régionaux d'Investissement; Regional Investment Center
DPE	domaine privé de l'État
DPM	domaine public maritime
EIA	environmental impact assessment
ESG	environmental, social, and governance
EU	European Union
FDI	foreign direct investment
FOB	free on board (textiles)
GDP	gross domestic product
IMF	International Monetary Fund
INRH	Institut National de Recherche Halieutique; National Institute for Fisheries Research
MTEDD	Ministère de la Transition Énergétique et du Développement Durable; Ministry of Energy Transition and Sustainable Development
ONEE	Office National de l'Électricité et de l'Eau potable; National Office of Electricity and Drinking Water
ONSSA	Office National de Sécurité Sanitaire des produits Alimentaires; National Office for Food Safety
PV	photovoltaic
QR	quick response
RAPs	rendered animal proteins
SRM	sociétés régionales multiservices; regional electricity management station
SMEs	small and medium enterprises
SOE	state-owned enterprise

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