COUNTRY PRIVATE SECTOR DIAGNOSTIC

# CREATING MARKETS IN MADAGASCAR

For Inclusive Growth

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# ABBREVIATIONS

| | |
|---|---|
| 3G | third generation internet |
| 4G | fourth generation internet |
| ADEMA | Aéroports De Madagascar |
| AGOA | African Growth and Opportunities Act |
| AGZEI | l'Agence de Gestion des Zones d'Emergence Industrielle |
| AZES | Autorité de Régulation des Zones Economiques Spéciales |
| BPO | business process outsourcing |
| BPS | Business Pulse Survey |
| CAPEX | capital expenses |
| CASEF | Agriculture Rural Growth and Land Management Project |
| CEM | Country Economic Memorandum |
| CPSD | Country Private Sector Diagnostic |
| CRDA | Commission de Réforme du Droit des Affaires |
| CSBF | Commission de Supervision Bancaire et Financière |
| CTM | Tourism Confederation of Madagascar |
| DEA | [Madagascar] Digital Economy Assessment |
| DFI | development finance institutions |
| DFS | digital financial services |
| ECI | Economic Complexity Index |
| EDBM | Economic Development Board of Madagascar |
| EDGE | Excellence in Design for Greater Efficiencies |
| e-KYC | e-know-your-customer |
| EU | European Union |
| FCE | Fianarantsoa-Cote-East |
| FDI | foreign direct investment |
| FNE | Fonds National de l'Electricité |

| | |
|---|---|
| G2B | government-to-business |
| GDP | gross domestic product |
| GNI | gross national income |
| HAP | household air pollution |
| ICT | information and communication technologies |
| IMF | International Monetary Fund |
| IP | internet protocol |
| IPP | independent power producers |
| IT | information technology |
| KPO | knowledge process outsourcing |
| KWh | kilowatts per hour |
| LIC | low-income country |
| LPG | liquefied petroleum gas |
| Mbps | megabits per second |
| MFI | microfinance institution |
| MICA | Ministry of Industry, Trade, and Craft |
| MSMEs | micro, small and medium enterprises |
| MTTM | Ministry of Transport, Tourism, and Meteorology |
| NPL | nonperforming loan |
| OGS | stand-alone off-grid solar |
| OPEX | operating expenses |
| p.c. | per capita |
| PEM | Plan Emergence Madagascar |
| PMDU | Plan Multisectoriel d'Urgence |
| PPA | power purchase agreement |
| PPCGS | Partial Portfolio Credit Guarantee Schemes |
| PPD | public private dialogue |
| PPE | personal protective equipment |
| PPP | public-private partnership |
| PV | photovoltaic |

| | |
|---|---|
| REC | Regional Economic Communities |
| RN | Route Nationale |
| SEZ | special economic zones |
| SMEs | small and medium enterprises |
| SONAPAR | Société Nationale de Participation |
| SOP | series of projects |
| TFP | total factor productivity |
| TVET | technical and vocational education and training |
| UN | United Nations |
| USSD | unstructured supplementary service data |
| VAT | value added tax |
| WBG | World Bank Group |
| WEF | World Economic Forum |
| WHO | World Health Organization |

# EXECUTIVE SUMMARY

**Before the COVID-19 pandemic, Madagascar was on an upward growth trajectory and embarking on a reform plan to strengthen competitiveness and secure faster poverty reduction.** Over the past five years, political stability translated into much-needed macroeconomic stability and accelerated growth in a country with a high level of extreme poverty. The country's development vision as announced in the Plan Emergence Madagascar (PEM) for 2019–23 is economically, environmentally, and socially sustainable development with good governance. The PEM pays particular attention to promoting the private sector and entrepreneurship at all levels and to improving competitiveness in global value chains.

**This economic revival is threatened by the COVID-19 pandemic, with adverse economic, social, and fiscal impacts expected to result in the first recession in a decade.** Gross domestic product (GDP) is projected to contract by 4.2 percent in 2020 (baseline), compared with a 5.2 percent growth pre-COVID-19 estimate. Impacts on the informal sector are expected to be even more severe because of limited access to finance. This outcome would undo three years of consecutive improvement in extreme poverty, with an increase in 2020 to 79.7 percent (from 76.5 percent in 2019; estimates as of February 26, 2021).

**The government of Madagascar has prepared an emergency response to the crisis—le Plan Multisectoriel d'Urgence (PMDU)—and it is also adjusting the PEM to focus on areas that can spur the economic recovery.** The World Bank Group (WBG)[1], International Monetary Fund,[2] United Nations agencies, and other international finance institutions[3] are supporting the government of Madagascar in the crisis response to save lives and protect vulnerable populations, safeguard jobs, reduce immediate financing pressures on companies, and ensure sustainable business growth for the recovery. The support takes into consideration weaknesses in capacity and governance.

**The government has put in place measures to support the private sector and safeguard jobs, mainly framed in the PMDU (Pillar 3).** Measures include tax relief (in the form of tax deferrals) and financial measures that have already provided important relief to many businesses around the country. Other measures in the PMDU include support to improve small and medium enterprises' (SMEs) access to finance, including the provision of credit lines to banks and microfinance institutions (MFIs) at concessional rates, expansion of credit guarantee programs, and grants to support SMEs in sectors most affected by the pandemic.

**Thus, this Country Private Sector Diagnostic (CPSD) is timely, as it can inform the identification of short- to medium-term policy priorities during the rescue, restructuring, and recovery phases of the crisis.** The CPSD follows a standardized methodology developed by the WBG that is being rolled out globally to identify policy actions and interventions in key sectors of the economy, with a focus on short- to medium-term reforms (up to three years) that could unlock much-needed investment and jobs. The CPSD will complement the recent Country Economic Memorandum (CEM) with a sharper focus on the private sector that takes account of the new challenges from the pandemic.

**The COVID-19 pandemic raises the stakes when it comes to scaling up private investment.** Madagascar had experienced recurrent political crises that put a brake on the economy, but the private sector continued to rebound, generating much-needed jobs in both traditional and new sectors. However, infrastructure bottlenecks remain formidable, and basic services like education and health care have not kept up with demand. This puts a ceiling on productivity and pushes the vast majority of Madagascar's workers and firms into informality. With the pandemic, public investment is under pressure, and it is even more important to crowd-in private investment to flagship transport and energy projects and into sectors of the economy in which Madagascar can build a competitive advantage.

**The report is organized as follows:**

- *The first part gives an overview of recent economic and private sector trends, followed by an in-depth review of the cross-cutting constraints that affect private sector participation*. The CPSD recommends putting a special focus on resolving three types of constraints: (a) deep-rooted governance issues (especially as they relate to policy unpredictability, red tape, and the uneven playing field in key sectors of the economy); (b) infrastructure bottlenecks, focusing on transport connectivity and energy; and (c) limited and poorly functioning factor markets for human capital, access to finance, and land.
- *The second part lays out opportunities and policy options to strengthen competitiveness in agribusiness, apparel, and tourism*. The three sectors reviewed are deemed to hold a high potential for job creation and growth and have been prioritized by the PEM and by the private sector stakeholders and development partners consulted for the report. The review puts a lens on addressing gender gaps, policies to promote sustainability, and opportunities to increase the impact of information and communication technology (ICT) as an enabler for development, where relevant.

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## ES.1 COUNTRY CONTEXT AND STATE OF THE PRIVATE SECTOR

**In recent years, private sector–led growth demonstrated the potential of several value chains.** The potential is reflected by robust private sector growth in tourism, agribusiness, light manufacturing, and mining; by the proportion of exporting firms to total firms; by the consistently higher level of private investment over public investment during the last decade; and by more diversified foreign direct investment (FDI) over the recent past (such as in extractives, ICT, manufacturing, and tourism).

**But those same export-led industries that were strong contributors to Madagascar's economic growth over the past five years have been hard hit by the COVID-19 pandemic.** The results of the first wave of the Business Pulse Survey conducted in June–July 2020 point to manufacturing (mainly textile and light industries), transport and storage, and other services (particularly tourism) as the sectors that are the most affected by domestic restrictions, external shocks, and higher volatility. Because major trade and investment partners are from Europe, the United States, and China, which have been substantially disrupted by the COVID-19 pandemic, the impact is likely to persist.

**The financial sector has also been affected, putting downward pressure on the already low levels of credit available to the private sector by planned rescheduling of credit payments for vulnerable households and companies and growing nonperforming loans (NPLs).** Before the pandemic, the banking sector was well capitalized, and NPLs had fallen from 7.3 percent in 2018 to 6.8 percent in 2019. The impact of the pandemic is likely to lead to further deterioration in the level of NPLs. Yet the banking sector represents only 18 percent of domestic credit provided to the private sector in Madagascar. Several MFIs face liquidity constraints, limiting their ability to take risks and expand their branch network into rural areas as had been expected.

**The economic downturn will make it harder for Madagascar to address its development challenges.** At the end of 2019, 74.3 percent of the population lived in extreme poverty (that is, below $1.90 per day, in 2011 purchasing power parity); food insecurity is high; life expectancies are shorter; and the country's position on the Human Capital Index is among the lowest globally. The economic fallout from COVID-19 (including falling employment and per capita income) is expected to increase extreme poverty by around 1.42 million people in 2020 (estimate as of February 2021), around 5.1 percent of the total population. Rural communities are increasingly vulnerable to unpredictable weather conditions associated with climate change, such as severe droughts. As of 2021, Southern Madagascar is in its fourth consecutive year of drought, which is causing increased food insecurity. Drought and food insecurity are longstanding problems, compounded by cyclones and floods due to the dependence on rain-fed agriculture, poor transport infrastructure, and the absence of affordable insurance mechanisms.

## ES.2 CROSS-CUTTING CONSTRAINTS

**Regaining the prepandemic momentum will require policy shifts and targeted investments to remove cross-cutting constraints to competitiveness.** While a growing number of companies are integrated into global and regional value chains, the vast majority of firms and workers are informal and engaged in low-productivity activities—a reflection of myriad constraints. An estimated 94 percent of the population works in the informal sector (compared with 72 percent in 2001). Additionally, the pockets of competitiveness that were developed were largely driven by low labor costs and natural resources, and should be complemented by capital accumulation and higher total factor productivity. This was emphasized in the recent CEM, which noted that cross-cutting constraints are far reaching and that addressing them in a systematic way will be critical for the economy to deliver broad-based growth. A brief summary of how addressing these constraints could catalyze private sector development follows.

### Governance

**Different dimensions of governance challenges need to be addressed to attract new investors and give confidence to the private sector as a whole.** First is policy unpredictability—for example, agribusiness investment is affected by abrupt changes in trade policy; energy policy has diverged from the least-cost electricity access development plan and sidestepped the public-private partnership (PPP) framework; manufacturing and other productive sectors suffer from a lack of transparency and delays in licensing and permit approvals that affect investment decisions. Second is an uneven playing field for the private sector and historical dominance of sectors by a few politically connected economic operators. The two are intertwined, as policy unpredictability is often associated with vested interests. Both create barriers to entry and uncompetitive markets—thus undermining productivity and job generation along value chains. Developing a more inclusive political and economic system is critical to addressing this problem—for example, through mechanisms for public-private dialogue (PPD) and effective competition and regulatory frameworks.

### Business Environment

**The CPSD emphasizes policies that can raise business confidence and lower the costs of entry and operation in Madagascar.** As a "frontier market," and particularly in the current economic environment of slowing global growth, Madagascar must make visible improvements in the investment climate if it is to retain existing investors and attract a wider pool of investors. Further, making government services, such as obtaining business licenses available digitally would make Madagascar more business friendly.

**Establishing policy predictability (particularly of trade policy, investment rules, and access to land) is critical to promote investment.** Trade restrictions that have been introduced make it difficult for investors to make long-term plans. The government would need to review objectively the trade policy framework to incentivize competition and reduce the unfair advantages for certain incumbent firms. The multiplicity of laws and regulations that govern investment and the uneven application of them (because of the lack of secondary legislation, the bureaucracy, or poor governance) have also been a source of concern. Adopting an investment law that defines the different forms of investments, lists the activities reserved for local investment, and harmonizes the various laws and regulations would be a step in the right direction.

**An overarching requirement to build investor confidence is to expand the country's institutional capacity for reform.** A first step is to improve the ability of the Economic Development Board of Madagascar (EDBM) to carry out its mandate to promote investment. Currently its work overlaps with other agencies, it does not always collaborate with line ministries, and its one-stop shop is not always effective. The CPSD recommends presidential-level clarification of the mandate of the EDBM to improve coordination with line ministries and agencies. Further, the functioning of PPD mechanisms should be improved by strengthening the EDBM and the Commission de Reforme du Droit des Affaires (CRDA).

**Other important areas are** (a) fast-tracking investment climate reforms to address red tape and barriers to entry, starting with an assessment of fees for business registration, licensing, construction permits, and property transfers; (b) introducing government-to-business electronic services, including better case management and expanded availability of e-payment systems; and (c) improving the competition policy framework, following the recommendations in the CEM.

## Infrastructure

### Transport

**Poor transportation connectivity cuts across all modes of transport and severely hampers business in Madagascar.** Connectivity is lacking both within individual modes of transport and between them, a situation that increases the costs of transporting both people and goods. Transport costs are further escalated by a lack of competition. Furthermore, the transport sector is highly vulnerable to climate and natural disasters.

**Public investment in expanding road infrastructure is critical, and the government should also seek public-private partnership (PPP) solutions for management and maintenance of infrastructure.** Having 70 percent of the secondary road network in bad condition and, in most cases, dangerous, leads to long travel times and high transport costs. Tourists, for example, have difficulties reaching even some of the most well-known attractions such as the national parks, and agricultural products cannot be traded if they cannot reach markets. Simplifying and clarifying the roles of different stakeholders in road programs would help by holding the appropriate actors accountable. Performance-based road maintenance contracts would further ensure that investments yield results.

**A functioning rail network could relieve the pressure on the nation's roads and lower transport costs, particularly along the country's main corridor between Antananarivo and the port city of Toamasina.** If the rail infrastructure were revamped and maintained well, the rail lines could become financially viable.

**The CPSD recommends that the government strengthen competition between the road and rail sectors and develop a multimodal transport platform to decongest Toamasina port.** Modernizing and building free ports in Mahajanga, Antsiranana, Tolagnaro, Sambava, Vohemar, Toliara, and Manakara and creating intermodal transport links (through roads and railways) to the hinterlands would optimize port capacity. Doing so should also decrease the cost of seaborne trade, which remains high in Madagascar.

## Energy

**Costly and unreliable energy is a major constraint for the private sector and the nation as a whole.** In 2018, only 26 percent of the entire population had access to electricity, among the lowest rates in the world. For firms that are connected to the electrical grid, frequent power outages and variations in the current damage production and result in lost sales. The problems have dampened companies' appetite to invest in more modern machines, which could quickly be damaged by the variations in current or force the firms to invest in a back-up electricity supply.

**Increasing access and bringing down electricity costs are complicated by Madagascar's topography and climate, natural disasters, and the poor financial and operational condition of the state-owned utility, Jirama.** The challenges largely reflect poor sector governance issues that include uncompetitive procurement practices and unsustainably high government energy subsidies, which limit private investment in the power sector and increase fiscal risks. As a result, arrears to suppliers (mainly independent power producers) and staff amounted to US$447 million as of June 2019, representing about 3.7 percent of the country's GDP. Jirama should accelerate and strengthen the implementation of a new electricity consumer tariff structure, reduce the technical and nontechnical system losses, and review operational practices to improve efficiency. Firm commitment to the implementation of Jirama's financial recovery plan, including the new connection and tariff policy (adopted in July 2020), is necessary to redress the financial situation of the company. The new policy aims to improve both social equity and cost recovery. The World Bank had supported these reforms under COVID-19 response development policy financing.[4]

**More comprehensive renewable energy integration is required to reduce the cost of electricity.** While Jirama has introduced solar power generation to its grid, there are no storage facilities. A modern dispatch center is critical, as the utility is struggling to manage the ramp up and ramp down sequences and intermittency of solar energy fed into a fragile and saturated grid.

**It is important to correct the misaligned incentives for sector players through legal and regulatory reforms.** New Electricity Law decrees should be put into place to allow the government of Madagascar to legally award production-related concession agreements to any private sector operator that would be competitively selected. Madagascar initiated the drafting of a new grid code in 2019. Any electricity concession agreement signed before the code becomes effective could lead to significant costs to the government if the concession agreements do not adhere to the new code. The grid code needs to be completed before Scaling Solar and the Volobe and Sahofika hydropower projects reach commercial close. Further, impediments to PPPs in the sector need to be removed through amendments in the PPP law.

**Although such governance issues cannot be addressed overnight, bottom-up solutions, such as energy efficiency and conservation, fuel substitution, and off-grid renewable energy, could improve the situation**. During CPSD consultations, the team identified private sector solutions that could help with access to clean energy. The government should work to promote demand-side and supply-side efficiency and conservation as well as substitutions of less-polluting fuels (for example, liquefied natural gas, liquefied petroleum gas, ethanol) and renewable energy (for example, solar power with battery storage system, hydropower) for higher-polluting fuels (for example, diesel fuel, heavy fuel oil, biomass, charcoal). Phasing out the kerosene subsidy would allow solar-powered lighting to compete on a level playing field. There are also opportunities to expand conservation through circular economy approaches and to install national recycling plants with potential energy generation.

**For household energy, almost all households (99.2 percent) burn solid fuels (charcoal and fuel wood) for cooking—and at an increasing rate, which contributes to health problems and deforestation.** Creating a larger market for cleaner cooking with liquefied petroleum gas (LPG) could be achieved with support from carbon (and health impacts) financing. The government of Madagascar and the private sector could partner to conduct a feasibility study for piloting investments in a project to promote cooking with LPG to increase penetration in the market at affordable costs and identify if specific policies are required. The government of Madagascar should streamline ethanol policy and regulations for cooking with ethanol.

### Digital infrastructure

**Digitalization and digital transformation are critical to Madagascar's development agenda.** While the country enjoys among the fastest fixed broadband download internet connections in Sub-Saharan Africa and has dynamic business processing and information technology (IT) outsourcing sectors, the digital transformation in other sectors has been slow due to major challenges in electricity and internet access. Narrowing the digital divide will require actions to improve affordability, service coverage and quality, and regulation and competitiveness. It is also critical to have a sufficient and adequately skilled workforce to successfully manage digital transformation.

**Improvements in digital infrastructure and digital skills are critical to close the digital divide and enable market access and growth segments in several sectors.** While this report does not cover this area in depth, a 2019 World Bank Madagascar Digital Economy Assessment and IFC deep dive studies on digital infrastructure and digital skills as part of a second phase of the CPSD reveal that significant economic, social, and financial benefits would ensue with (a) a clear national strategy for digital infrastructure that embraces further steps toward liberalization and provides a transparent legal and regulatory framework for private sector players and (b) the development of programs to teach digital skills at scale through PPPs to create thousands of new jobs, as well as to train existing employees to acquire higher or new skills in high-potential industries.

**Key policies to advance this agenda would include** clearer regulation for infrastructure access and pricing combined with the revision of the Telecom Law, the introduction of a national ICT strategy, and other enabling legislation such as the Investment Code and PPP laws to provide more stability to the market.

## Poorly Functioning Factor Markets

### Human resources

**Labor markets in Madagascar are characterized by large skills gaps stemming from** the poor quality of both teaching and health care services, a high level of stunting among children, and high exposure by households to air pollution from cooking with solid fuel—the second-leading cause of death and disease in Madagascar. Large private companies have been training Malagasy workers in the skills needed for specific technical tasks, thus their own training programs are somewhat compensating for the deficiencies in the education system. The COVID-19 outbreak will exacerbate the need for increased support to the education system and for the repurposing of skills to serve a labor market expected to transform.

**The key to improving education in Madagascar is enhancing the skills of teachers, especially at public primary schools and in key subjects such as mathematics and languages.** The government of Madagascar should consider establishing an independent regulatory body to ensure the quality, efficacy, and efficiency of educational institutions. A possible route to improvements could be to further private investment in education and increase the use of educational technology to enhance the quality of public schooling and vocational training, particularly through teacher training. In addition, the government could move to provide digital payment of teacher salaries.

**During the recovery phase, integration of digital teaching in education systems at all levels should be actively explored.** A digital education system could reach remote and sparsely populated areas, including greater use of massive open online courses. The private sector could run the digital education programs or support the public sector in adopting digital education. Improved broadband connectivity will be needed for these initiatives to reach the majority of the population.

## Access to finance

**Only 18 percent of households have access to a financial account, substantially lower than the Sub-Saharan African average of 43 percent.** Madagascar is characterized by (a) a high degree of exclusion of the informal sector to which many entrepreneurs, women, and the rural population belong; (b) a high concentration of lending activities among medium-sized and manufacturing firms; (c) a low level of financial literacy among the population; (d) the lack of an effective financial registry; and (e) difficulties in getting collateral, among other problems. Opportunities exist in several segments.

**The microfinance sector, an important source of financing for micro, small, and medium enterprises (MSMEs), has also been particularly impacted by the crisis.** Microfinance has become a viable source of financing for MSMEs and low-income populations in Madagascar (1 million customers, $US164 million of outstanding loans, $US110 million in deposits, and 710 services point as of May 2020). Due to the pandemic, however, MFIs have seen a 30 percent decrease in deposits and an increase in the share of NPLs from 15 to 30 percent of the total portfolio.

**The Central Bank and the Commission de Supervision Bancaire et Financaire (CSBF) have adopted policy measures to mitigate COVID-19 impacts on the financial sector, including on MFIs.** The CSBF has eased the credit institutions' guarantee requirements under the current prudential regulations, and the Central Bank has provided exceptional liquidity measures for banks but also MFIs (approved by CSBF). The size of the reduced-interest liquidity represents the equivalent of new credit granted to SMEs. Such efforts complement the scaling up of the existing Partial Portfolio Credit Guarantee Schemes under the World Bank-funded Madagascar Financial Inclusion Project.[5] Ensuring MFIs' stability will be important to support the financing needs of MSMEs in the recovery phase, which will likely increase, whether to restore or develop new economic activities.

**Rapid expansion of digital financial services (DFS), including mobile money services, has become an emerging opening for financial inclusion in Madagascar, especially for poorer and underserved residents in remote areas.** The authorities have invested in improving information in the credit industry, through the development of a public credit registry and the new private credit bureau, with support from the WBG. Some banks and MFIs have started leveraging a partnership with mobile money operators to improve coverage in previously non-banked areas. Approval of the pending license requests from e-money providers would increase price and quality competition in the sector, as there is only one e-money provider licensed by the regulator as of April 2020. To harness the potential of DFS, (a) the legal and regulatory frameworks for DFS need to be updated (for example, to allow for easy, remote account opening and enable unstructured supplementary service data [USSD] access[6] at fair prices), (b) cost and other entry barriers need to be addressed to attract new entrants, (c) capacity building on existing and potential DFS is needed, and (d) a financial literacy program and consumer protection framework are required.

**Developing leasing instruments could also help leverage access to finance given that the current collateral system is complex in Madagascar.** Changes in the legal framework are needed to promote leasing. For example, the current Leasing Law subjects the lessor to a double value-added-tax burden. The Central Bank needs supervision rules to monitor leasing operations. Further, the government should fast-track implementation of a new draft law on the use of movable assets to secure transactions and of a new collateral registry to allow more security in leasing. Both IFC and the World Bank continue to provide support in the area, and progress has been mixed.

**Access to affordable housing finance is outside the possibility for most households, with more than 85 percent of households living in self-built residences.** One objective of the PEM is to develop affordable housing in partnership with the private sector, in line with recommendations from IFC's advisory services on a potential PPP model for affordable housing development. To improve access to housing for a large number of households, there is a need to (a) increase long-term financing, (b) bring more people into the banking system, and (c) reduce the cost of housing finance instruments to provide loans at an affordable rate. Integrating a green building scheme could add climate co-benefits. This could be a game changer to reduce the large number of Malagasy currently living in vulnerable housing and slums.

### Land

**Land markets in Madagascar do not function because of an insecure land tenure system that constrains access to land for agriculture production and private sector business development.** Land markets are largely informal, and the prices are normally set by negotiations. Moreover, the already limited capacity of the government to administer land and property is further challenged by the Malagasy culture, which values family property as a vector of identity for a lineage or a family and which views land as not marketable or useful as collateral. Critically for investment, foreigners cannot definitively acquire land, and the leasing framework does not provide sufficient security for long-term investment.

**Updating the legal framework and zoning would be critical to facilitate investment, both in rural and urban settings.** One area pertains to the Framework Law, which should be updated with specific statuses that clarify the procedure, the type of securing model, and the relationship between the ministry in charge of the land and sector ministries regarding areas for investment, including agricultural investment zones. Another legal reform involves the adoption of the Private Titled Property Law, which aims to ease land transfer procedures and establish the opportunity for land acquisition. To promote private investment on urban land, updating of the Detailed Urban Management Plan ("Plan d'urbanisme détaillé") would define the zoning of dedicated land use, particularly economic activities such as industrial and commercial districts.

**More clarity on land ownership and transfer to the AGZEI (l'Agence de Gestion des Zones d'Emergence Industrielle) is a critical factor for the Moramanga Special Economic Zone (SEZ)/Textile City Project to proceed as planned.** Streamlined regulations pertaining to land acquisition, ownership, and leasing opportunities are critical to structuring zone projects. The establishment of the AGZEI is now delayed but would be a major initiative to bring greenfield investors into the apparel value chain.

## Review of High-Potential Sectors

Although private sector opportunities and job creation potential are different in the productive sectors reviewed in the report, some common findings emerge that are highly relevant for policymakers:

- **First, economic growth has been held back by the cross-cutting constraints discussed and, during certain periods, by policy reversals and external shocks.** Boom-bust cycles have hit MSMEs particularly hard, as they face the challenges of weak competitiveness, reliance on the domestic market, and limited access to finance. In the context of the COVID-19 outbreak, they have been highly affected, with a large part having to suspend operations or to exit the market compared to larger firms. Well-tailored measures to make international trade and investment easier, encourage banks to lend to small businesses, help companies survive (for example through grant mechanisms, reduction of government-to-business services costs such as licensing fees), support firms' recovery and resilience (including through the digitalization of business operations), and remove unfair advantages for connected firms, would soften the impacts of the demand and supply shocks caused by the COVID-19 pandemic and help avoid a protracted decline in jobs, investment, and GDP.
- **Second, the severity of cross-cutting constraints in some regions has led new investors to locate exclusively in the capital and close to larger urban areas, the only locations with the requisite connectivity, electricity access, skills pool, and other requirements.** Although many issues need to be solved at the national level, focalized spatial measures (such as SEZs located in high-potential regions), and cluster approaches to promote links are critical. It is also necessary to improve the management of infrastructure projects—in particular, PPPs—to catalyze investments in cities and regions where energy and transport bottlenecks are a binding constraint.
- **Third, the sectors provide examples of policy measures under implementation that have managed to crowd-in substantial volumes of private investment.** This is the case in tourism, which has benefited from a combination of (a) spatial interventions that enabled investment in new locations by new classes of investors, such as the upgrading of the country's two main international airports supported by World Bank PPP transaction support and IFC investment syndication and (b) reforms that increased airline competition and promoted new domestic and international routes. It is important to build on these foundations (especially avoiding policy reversals that could erode the gains made to date) and to replicate this approach to strengthen other sectors of the economy.
- **Last, but significant, innovative private solutions, and digital solutions in particular, have huge potential to address the needs of the poor while tackling environmental goals.** This report, for example, reviews options to introduce innovation through cleaner and more affordable sources of energy for households to reduce pressure on health and forest resources and through digital finance tools that bring financing to the informal sector.

**At the sector level, this report highlights the following findings and policy recommendations:**

## Agribusiness

**The agriculture and agro-processing sector is the largest contributor to employment and exports, but most farmers rely on subsistence farming of staple food.** The agriculture and agro-processing sector supported 74.7 percent of the population in 2018 and accounted for 24.1 percent of GDP in 2020 (24.2 percent in 2018). Most farmers rely on subsistence farming of staples such as rice, which is cultivated on approximately 85 percent of farms.

**Madagascar has a comparative advantage in several agricultural products that can be deepened and broadened to other value chains and to high quality and sustainable products**. Vanilla, one of Madagascar's most competitive and resilient agriculture value chains, accounted for 20 percent of export revenue in 2018 and supports as many as 200,000 jobs. However, recent volatility in the price poses a risk to future growth. Several other value chains focused on export markets have grown, including lychees and cacao, and could expand much further with efforts to improve trade logistics, decrease nontariff barriers, and remove export quotas. The government should promote programs that develop the denomination of origin and organic certifications and sustainable practices in high-value crops.

**In addition to produce-oriented agriculture, Madagascar has opportunities in aquaculture and livestock.** The country's fisheries have been a source of employment and exports and could grow further in niche segments of aquaculture, such as shrimp and sea cucumber. Although the livestock subsector has contracted over time, recent IFC support to beef and poultry could spur that segment.

**The government could help promote agricultural products sold both domestically and as exports by upgrading transport and logistics infrastructure.** It could focalize resources to develop road and railway connections in regions with high potential (for example, crowding-in private sector investment in secondary ports). Improvements to the business environment would include increasing the availability of privately managed agro-logistics, such as storage facilities and the cold chain. To encourage market entry and contestability and encourage firms to become more competitive, the government should strengthen the competition law to explicitly prohibit cartels and rule against price fixing. The government should develop a legal and regulatory framework for reforms to the warehouse receipt system that would allow commodity financing and establish a supervisory agency for licensing warehouses that would further provide standardization and more flexibility in withdrawal periods and in trade between crops.

**The agribusiness sector would be enhanced by further integrating subsistence farmers into domestic and global value chains.** The CPSD team recommends using ICT to expand the ability of extension services and technical staff to instruct farmers on quality standards and sanitary and phytosanitary measures, which would expand the ability to export goods. ICT also could be used to expand market information and make finance more available to farmers.

**Madagascar should further promote the use of inputs among farmers and advisory services in several ways:** (a) reviewing seed registration procedures to incentivize investment in the seed industry and develop the seed trade; (b) avoiding non-market-smart input subsidy programs to raise investor confidence; and (c) developing an information system on the seed and fertilizer trade. In addition, IFC index-based insurance solutions are needed to protect poor farmers against climate-related disasters.

### Apparel

**The apparel sector is an important export sector for Madagascar, accounting for 15 percent of total exports in 2018. This sector faces the effects of the country's struggles with transportation, energy, workforce, and governance.** Apparel and textile exports grew from nominal US$129 million in 1995 to nominal US$681 million in 2018. The country was the third-largest apparel exporter in Sub-Saharan Africa in 2017. Seventy-seven percent of firms are recipients of FDI, and most are foreign owned. The apparel industry is integrated into regional value chains—particularly with Mauritius—and into global value chains.

**The Malagasy garment industry is a specialized niche export market whose main competitive advantage is a relatively low-cost labor force with high dexterity.** The sector approach should mainly focus on supporting demand in the specialized garment industry by improving competitiveness and increasing sustainability, in direct links with energy sector reforms. Improving the investment climate, particularly trade logistics and infrastructure, and supporting domestic suppliers would strengthen the sector. In addition, it is important to pay attention to the needs of smaller apparel companies because cross-cutting constraints are more binding for these firms than for large firms.

**The private sector can play a vital role** in (a) improving resource efficiency, recycling inputs through the circular economy and performing energy, waste, and water audits, which could identify significant potential energy and water savings and increase reliability and cost competitiveness, and (b) providing supplier development and skills development programs focused on local MSMEs.

**Before the government delves into reforms, officials need to prioritize and sequence the subsectors, areas, and activities that should be financed, doing so in consultation with development finance institutions (DFIs) and through PPD.** The government should develop a PPD forum with textile producers to identify the demands of global value chains and the needs of exporters. The government and its partners need to guide the sector in meeting changing global demands, including resource efficiency; climate change; gender, social, and labor standards; sustainable sourcing and production; and speed to market. To expand the sectors' export potential, the government of Madagascar should leverage the access the country gains through free trade agreements and generalized systems of preferences (including with the United States under the African Growth and Opportunities Act [AGOA], the European Union under the Economic Partnership Agreement, and regionally under the Tripartite Free Trade Agreement) by ensuring compliance with the requirements of each trade agreement. The government should help MSMEs as well as larger firms meet these requirements.

**The government can enhance the sector by promoting vocational training and reviewing the curriculum to ensure that training meets the needs of the private sector.** The apparel industry is labor intensive and accounts for 20 percent of formal employment. The sector's workers are predominantly women; thus initiatives that advance the provision of childcare, equal pay, and gender equity will contribute to the success of the sector.

**In the short term, as the COVID-19 crisis continues, the production lines of apparel companies can be repurposed to produce masks** and other personal protective equipment (PPE) to keep workers employed and meet the needs of the public.

### Tourism

**The COVID-19 crisis is affecting the tourism sector worldwide and strongly affecting Madagascar.** Global travel restrictions, the near-complete closure of Madagascar's borders since March 2020, and domestic confinement measures implemented at the beginning of the pandemic have devastated Madagascar's tourism sector. The latest estimates by the Tourism Confederation of Madagascar suggest that tourism businesses saw a 90 percent drop in sales in 2020. The grounding of flights has been exceptionally challenging for the struggling national airline, while its domestic subsidiary faces significant losses while operating only limited domestic services. A lack of visibility on eventual border reopening left tourism operators and airlines with unclear prospects for recovery. While the government has put in place some mitigation and recovery efforts, resources are limited and many enterprises, particularly SMEs, will struggle to survive.

**Survival and recovery of the industry is vital to Madagascar, given the sector's economic and social contributions.** Tourism and travel accounted for 5.1 percent of GDP and for 4 percent of employment in 2018. The government's ambition for the sector has been to make its contribution much larger: the draft PEM has a target of reaching 500,000 international arrivals by 2023 from the 256,872 international arrivals registered in 2018. This target will inevitably be impacted by the crisis, as well as long-term constraints such as investment climate issues, weak competitiveness, health risks and poor infrastructure.

**The World Bank and IFC have been supporting a tourism growth strategy in recent years by focusing on improvements to connectivity and establishing infrastructure for tourism investments.** The World Bank's support, implemented through PPPs, targeted the two main international airports and Air Madagascar's recovery plan and boosted domestic traffic flows—prior to the pandemic—to levels approaching those seen in the past. World Bank and IFC support led to a large international hotel group, the first in Madagascar, signing in 2019 to operate three hotels (254 rooms). The World Bank has also invested in strengthening the tourism value chain in three regions of the country, in an integrated, spatial approach.

**However, a number of constraints hindering sector growth need to be addressed, in particular a challenging investment climate.** Often, complex or uncomprehensive sector-specific legislation and regulations hinder investment in high-potential or niche tourism markets. For instance, despite long-term donor support, the country continues to lack a regulatory framework for private concessions in national parks—some of the country's strongest tourist draws. Similarly, regulation of the arrival and registration of leisure boats is not aligned with international standards, stunting investment and arrivals in a potentially high-value marine tourism market. Alignment with international best practices for both types of regulation would open up visitation and investment opportunities.

**The high cost of air travel to Madagascar, which further limits destination attractiveness and arrivals, must be reduced.** The monopoly of jet fuel supply in Madagascar causes fuel prices to be among the highest in Africa, limiting competitiveness. Flights to Madagascar are not only expensive but also limited in number and origin. Domestic connections from the capital, operated by the subsidiary of the national airline, are infrequent, unreliable, and expensive, and the future of the domestic airline is in question as a result of a lack of transparency over the fate of Air Madagascar. Additionally, airport equipment and standards at secondary airports are inadequate to allow any significant route development. The government of Madagascar should consider reviewing the current jet fuel policy and air transport competitiveness policies, including implementing an Open Skies policy, particularly in the new global aviation context. The CPSD also recommends increasing the government's capacity to implement PPPs for secondary airports.

**Improved public-private collaboration will be critical to defining sector planning and marketing priorities, particularly in the post-COVID context.** Historically, limited collaboration has eroded trust and left the private sector largely reliant on its own marketing resources and efforts. State resources for sector promotion are limited and often not aligned with private sector priorities. Through strengthening the National Tourism Board's setup and resources, reconvening the Route Development Committee, and engaging more systematically with the Tourism Confederation of Madagascar, the sector can ensure an integrated approach to its repositioning and marketing in the post-COVID landscape.

**The government should collaborate with the private sector and education authorities to develop a skills development policy framework for the hospitality sector.** The tourism and hospitality industry in Madagascar lacks qualified labor, and training opportunities in the country are limited, conditions which lead to high operating costs and poor experiences for tourists. The private sector is burdened with (a) hiring unqualified labor, which hampers the visitor experience and (b) providing in-house training, with related risks of a high turnover of trained staff. The government should further implement compensation or incentive mechanisms for the private sector to train workers.

**A heatmap summarizing the main constraints in each sector and a table with short- and medium-term recommendations is presented below (figure ES.1).** Following the publication of this report, the next phase of the CPSD will undertake deep dives to support private sector reforms in three sectors: the digital economy, apparel, and tourism. The objective of the next phase will be to produce just-in-time analytics and technical advice that can help craft and implement new policies, in close coordination with the government of Madagascar, other DFIs, and private stakeholders. These deep dives will look at the new challenges faced by companies in the "new normal" brought on by COVID-19, as travel restrictions and lockdowns are expected to continue for the foreseeable future and will require new approaches and business models, with increasing reliance on ICT.

**FIGURE ES.1. HEATMAP OF CONSTRAINTS IN THE AGRIBUSINESS, APPAREL, AND TOURISM SECTORS**

| | AGRIBUSINESS | APPAREL | TOURISM |
|---|---|---|---|
| **Business Climate** | High fees, prolonged time and unclear decisions for key business registration, licensing and permits | | |
| | Inconsistent trade policy and trade barriers, domestic market distortions | Overlapping investment laws and regimes | Absence of regulations on private concessions and marine tourism, health security |
| **Transport** | Roads, ports, agro-logistics limit growth and exports of emerging value chains | Road congestion and limited rail, sea and air freight increase export costs | Limited coverage of the road and airport infrastructure |
| **Energy** | Lack of energy for cold-chains, storage, food processing | Unreliable power, energy inefficiency | Jet fuel policy raises cost of flights; high electricity tariff zones affect location decisions |
| **Human Capital** | Limited extension services, quality certification | Managerial and soft skills hard to find and hamper MSME productivity | Shortage of tourism, digital and business skills |
| **Access to Finance** | Nascent warehouse receipt system, limited leasing, digital financing, climate insurance | Expensive access to credit for domestic MSMEs and limited network coverage | |
| **Land** | Land tenure limits investment by commercial producers | Current investment locations have deficient infrastructure | Legal framework discourages ownership and long-term leasing by foreigners |

Note: The color orange indicates the most urgent reforms. MSMEs = micro, small, and medium enterprises.

**TABLE ES.1. RECOMMENDATIONS**

| SHORT-TERM (UP TO 1 YEAR) | MEDIUM-TERM (1–3 YEARS) |
|---|---|
| **Business climate: Government as an enabler of the private sector** | |
| • **Assess procedures for business registration, licensing, and construction permits to examine the possibility of simplifying and reducing the time and cost of launching and operating a business, particularly in light of the devasting impacts COVID-19 has had on private businesses (EDBM, Ministry of Economy and Finance, communes, other relevant line ministries and agencies).**<br>• **Improve communication and targeting of measures to support companies.** | • Support the introduction of G2B electronic services for a selected number of services such as business registration, licensing, construction permits, and property transfers (EDBM, Municipality, Ministry of Spatial Planning, IT agency, Private Social Security Institution, Private Health Insurance Agencies, MICA). |
| • **Adopt and enforce the updated Investment Law with its implementing decrees. The updated law should define the different forms of investments, address the scope for investment to clarify the framework for FDI, and list the activities reserved for local investment (MICA, EDBM).** | • **Harmonize the investment legal framework, such as definitions of the type of investment covered by the Investment Law and by the Foreign Exchange Code, to build investors' confidence. Also, clarify the applicability of investment law to various sectors' legal and regulatory texts (such as in mining, petroleum, telecommunications), specific regimes (such as export processing zones), and public areas (state-owned enterprises, military-related affairs, and so on). The list of activities reserved for local investment also should be clarified (MICA, EDBM, and relevant line ministries).** |
| • **Clarify the responsibilities of MICA over the investment regime, which currently is shared with other ministries.**<br>• **Improve the functioning of PPD mechanisms by strengthening the EDBM and the CRDA.** Strengthen the mandate of the EDBM to de facto be the entity under the presidency coordinating the reforms agenda with line ministries. | |
| | • **Strengthen the Competition Law to prohibit cartels and outlaw price fixing and to establish an effective Competition Council and regulatory agencies that are independent.** |

Note: Priority reforms are highlighted in bold. Organizations in parentheses are those that should be involved in the reforms.

CRDA = Commission de Réforme du Droit des Affaires, EDBM = Economic Development Board of Madagascar, FDI = foreign direct investment, G2B = government-to-business, MICA = Ministry of Industry, Trade and Craft

| SHORT-TERM (UP TO 1 YEAR) | MEDIUM-TERM (1–3 YEARS) |
|---|---|
| **Infrastructure as a cross-cutting constraint** | |
| **Transport** | |
| | • **Implement a long-term strategic, multimodal plan for the transport sector that helps decongest the Toamasina port and strengthen competition between the road and rail sectors to improve the service offered (Ministry of Transport).**<br>• Improve public investment in road infrastructure. Implement performance-based road maintenance contracts where feasible (Ministry of Transport). |
| **Energy** | |
| • **Improve the financial and operational performance of the state-owned utility company (Jirama), including competitively procured IPP contracts, tariff rebalancing, and reduction of fuel subsidies.**<br>• Introduce an electricity decree to allow the government to legally award any production-related concession agreement to private sector operators (government of Madagascar; Ministry of Energy, Water, and Hydrocarbons).<br>• **Complete the grid code under development before new private sector power generation projects (including Scaling Solar and Volobe projects) reach commercial close. Any electricity concession agreement signed before the code is enforced could cause significant fiscal costs due to legal changes**<br>• **Accelerate the implementation of the new connection policy and new residential tariff structure.** | • **Adopt the new PPP Law to address current inconsistencies and remove legal impediments to PPP implementation. Build capacity within the government to manage PPPs (government of Madagascar; Ministry of Energy, Water, and Hydrocarbons).**<br>• Develop dispatching centers and build capacity to operate the centers to enable additional generation of solar and wind energy. |

Note: Priority reforms are highlighted in bold. Organizations in parentheses are those that should be involved in the reforms.

| SHORT-TERM (UP TO 1 YEAR) | MEDIUM-TERM (1–3 YEARS) |
|---|---|
| • Insist on large electricity and water users such as industrial customers conducting energy and water audits (because water systems consume significant energy) and promote demand-side energy and water measures. | • Eliminate the kerosene subsidy to allow solar-powered lighting and other solutions to compete on a level playing field (government of Madagascar).<br>• Clarify and streamline the ethanol policy and regulations, in particular, remove or reduce ethanol's excise duty rate (government of Madagascar.)<br>• Conduct a feasibility study for piloting investments in projects to increase the use of LPG for cooking to increase penetration in the market at affordable costs and identify if specific policies are required (Ministry of Energy, Water, and Hydrocarbons; the private sector). |
| **Digital** | |
| • Introduce a national ICT strategy.<br>• Revise the Telecom Law to increase the independence of the regulator, allow it to perform market reviews and equip it with more effective enforcement powers.<br>• Issue a spectrum roadmap to allow for a more coherent spectrum pricing. | • Introduce enabling legislation, including the Investment Code and new PPP Law.<br>• Roll out a digital skilling program to address the demand for skilled professionals in the IT/BPO sector. |
| **Factors of production: Improving access to skills, finance, land** | |
| **Human capital constraints and skill needs of the private sector** | |
| • Integrate digital education at all levels, including through partnerships with the private sector.<br>• Support workers to reengage with more productive activities through refreshing and retooling skills (including through vocational training) and upgrading to adapt to a post-crisis context (for example, increased digitization of operations).<br>• Revise the underinvestment and low budget execution in the social sectors (particularly health, education, and social protection) | • **Establish an independent regulatory body to ensure the quality, efficacy, and efficiency of educational institutions.**<br>• Provide digital payment of teacher salaries (Ministry of Education and Technical and Vocational Training).<br>• Revise labor regulations to enable women's equal access to employment opportunities and pay; promote policies help reduce the cost and increase the availability of childcare (government of Madagascar). |

Note: Priority reforms are highlighted in bold. Organizations in parentheses are those that should be involved in the reforms.

| SHORT-TERM (UP TO 1 YEAR) | MEDIUM-TERM (1–3 YEARS) |
|---|---|
| **Expanding access to finance through digital financial services, leasing, and affordable housing** | |
| • **Fast-track the issuing of e-money operator licensing requests (Central Bank).**<br>• **Fast-track the implementation of the new draft law on movable secured transactions and collateral registry to allow more security for a leasing registry (government of Madagascar, Central Bank.)**<br>• **Develop and approve new regulations that govern e-KYC platforms and enable access to the USSD protocol at fair prices.** | • Leverage the data from the new credit bureau and invest in new tools, such as market-sharing data or an e-KYC platform and database, that could help monitor the market; increase the credit bureau's capacity to supervise new DFS providers.<br>• Develop MFIs potential to use DFS to foster financial inclusion.<br>• **Amend the leasing law to remove the double VAT burden for the lessor. Develop supervision rules to monitor leasing operations (government of Madagascar, Central Bank).**<br>• **Implement the law on an electronic centralized collateral registry for movable assets and implement judicial reforms for stronger collateral enforcement (government of Madagascar).**<br>• Develop and implement policies to provide incentives for developers to develop affordable housing, such as properties for low-income households based on a leasing-sale type model, under PPPs. |
| **Land: Enabling a more dynamic market that can serve the needs of different sectors** | |
| • **Approve and implement the proposed Private Titled Property Law to establish a clear framework for renewable land leases and transfer of land into a special purpose vehicle (Ministry of Justice, cabinet, Parliament, and other relevant line ministries).**<br>• **Update the Framework Law on specific statuses, clarifying the procedure, the type of securing model, and the relationship between the ministry in charge of land and sector ministries regarding areas dedicated to investments.**<br>• Reduce the gender gap in women's land rights by allowing women to register under their own names. | • Update the Detailed Urban Management Plan ("plan d'urbanisme détaillé") to define the zoning of dedicated land use, particularly economic activities such as industrial and commercial districts.<br>• Update obsolete titles for land whose owners cannot be traced, and allow the municipal land offices to issue land certificates to secure the property rights of families who have lived in these areas for decades.<br>• Set up a land catalogue with information on state public land available for greenfield investment.<br>• Streamline regulations pertaining to land acquisition, ownership, and leasing opportunities critical to structuring zone projects, including the Moramanga SEZ/Textile City Project. |

Note: Priority reforms are highlighted in bold. Organizations in parentheses are those that should be involved in the reforms.

| SHORT-TERM (UP TO 1 YEAR) | MEDIUM-TERM (1–3 YEARS) |
|---|---|
| **Sectoral assessments** | |
| **Agribusiness** | |
| • **Review the trade policy framework specifically to enable imports of fertilizers and improved seeds, remove export quotas for high-value commodities, and lift the export ban on zebu meat to allow export of identifiable and traceable zebu meat.**<br>• Revise the floor price on vanilla for Madagascar to retain its competitiveness on the vanilla global value chain.<br>• Increase the use of digital tools for market information and access to finance, including mobile money transfers. | • Upgrade transport and logistics infrastructure along agricultural corridors, and work with DFIs to support the private sector to develop and manage agro-logistics.<br>• **Develop a legal and regulatory framework for warehouse receipt system reforms to allow commodity financing and establish a supervisory agency for licensing warehouses and standardization and to provide more flexibility in withdrawal periods and trade between crops.**<br>• Scale up public and private extension and business development services, with greater use of ICT and redesign the services training curricula to meet to market needs. Make more intensive use of traditional media (such as radio) for agricultural extension and market information systems to reach remote and poor areas.<br>• Promote programs that develop the denomination of origin and organic certifications. Support sustainable practices in high-value crops that can lead to certifications and a price premium.<br>• **Promote the use of inputs among farmers and advisory services by (a) reviewing seed registration procedures to incentivize investment in the seed industry and enabling introduction of improved seed varieties; (b) avoiding non-market-smart input subsidy programs to raise investor confidence; and (c) developing digital seed and fertilizer information systems to enable access to information on demand and supply in real time.**<br>• Enlarge farmers' access to risk mitigation measures such as index-based insurance against climate-related disasters. |
| **Apparel** | |
| • **Develop a medium- to long-term industry strategy based on a PPD on textiles to (a) understand the grievances of the exporters in the sector, (b) raise awareness of policymakers on the demands of global value chains, (c) assess the blocking factors that limit the development of the textile sector, and (d) provide recommendations on the support to the sector.**<br>• Define the technical and managerial needs gap of companies and promote vocational training curricula to meet those needs. | • Provide technical input to advocating for the extension of market preferential access, particularly with regard to renewing the AGOA trade agreement after 2025. Set up a public-private task force to ensure that Madagascar textile export companies continue to comply with AGOA requirements beyond 2025.<br>• Focus on capacity building of MSMEs, especially to improve their business functions, strengthen their management, and design their trade strategy, while taking into account the social and environmental sustainability requirements they will need to uphold to service some of the major international buyers.<br>• Develop a framework for apparel manufacturers that directs them to complete energy, water, and waste audits, which could identify significant potential energy savings and increase energy reliability. |

Note: Priority reforms are highlighted in bold. Organizations in parentheses are those that should be involved in the reforms.

| SHORT-TERM (UP TO 1 YEAR) | MEDIUM-TERM (1–3 YEARS) |
|---|---|
| **Tourism** | |
| • **The public and private sectors should strengthen collaboration on planning for the safe post-COVID reopening of key destinations, including through improved implementation of health protocols and standards.**<br>• **Particularly given the COVID-19 context, the National Tourism Board, MTTM, EDBM, and the private sector should base planning and marketing efforts on evidence of changing tourist preferences and behavior and shift their marketing and promotional activities further to digital channels.**<br>• The public sector should leverage the growing CTM to collaboratively set and implement strategic tourism priorities, particularly for the relaunch and repositioning of tourism, accompanied by complementary investments in infrastructure, marketing, or both, based on data and market intelligence.<br>• The institutional setup of the National Tourism Board should be reviewed to optimize effectiveness and efficiency, including an assessment of how the tourism "vignette" is collected.<br>• **Particularly given the COVID-19 context and uncertainty over the national airline, the public-private Route Development Committee should reconvene and collaborate on implementation of an Open Skies policy.**<br>• The government of Madagascar should put in place planning and measures to guarantee the continued operation of the domestic airline. | • **The government of Madagascar should clarify the legal framework governing land titling and investments in protected areas and in Réserves Foncières Touristiques and also update the legal framework for marine tourism.**<br>• **To improve competitiveness of the air transport sector, the government of Madagascar should review the current jet fuel policy and regulation to generate competition among suppliers.**<br>• ADEMA should continue to seek private sector partners for improving secondary airports, ensuring transparent processes. The government of Madagascar should continue to allocate funds and seek donor funding for large-scale road investments, with a focus on connecting existing regional tourism hubs.<br>• The government of Madagascar should better match tourism and hospitality training supply to private sector needs through improved PPD, integration of tourism into technical and TVET programs, and more partnerships between training institutes and private sector. |

Note: Priority reforms are highlighted in bold. Organizations in parentheses are those that should be involved in the reforms.
ADEMA = Aéroports De Madagascar ; AGOA = African Growth and Opportunities Act; BPO = business process outsourcing; CRDA = Commission de Réforme du Droit des Affaires; CTM = Tourism Confederation of Madagascar; DFI = development finance institution; DFS = digital financial services; EDBM = Economic Development Board of Madagascar; e-KYC = electronic know-your-customer; FDI = foreign direct investment; G2B = government-to-business; ICT = information and communication technology; IPP = independent power producers; IT = information technology; LPG = liquefied petroleum gas; MFI = microfinance institution; MICA = Ministry of Industry, Trade and Craft; MSMEs = micro, small and medium enterprises; MTTM = Ministry of Transport, Tourism, and Meteorology; PPD = public private dialogue; PPP = public-private partnership; SEZ = special economic zone; TVET = technical and vocational education and training; USSD = unstructured supplementary service data; VAT = value added tax.

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# 1. INTRODUCTION

**Before the COVID-19 pandemic, Madagascar was on an upward growth trajectory and embarking on a reform plan to strengthen competitiveness and secure faster poverty reduction.** Over the past five years, political stability translated into much-needed macroeconomic stability and accelerated growth in a country with high levels of extreme poverty. The country's development vision as announced in the Plan Emergence Madagascar (PEM) for 2019–23 is economically, environmentally, and socially sustainable development with good governance. The PEM pays particular attention to the promotion of the private sector and entrepreneurship at all levels and to improving competitiveness in global value chains.

**This economic revival is threatened by the COVID-19 pandemic, as adverse economic, social, and fiscal impacts are expected to result in the first recession in a decade.** Gross domestic product (GDP) is projected to contract by –4.2 percent in 2020 (baseline), compared with a 5.2 percent pre-COVID-19 growth estimate. Impacts on the informal or semiformal sector are expected to be even more severe because of limited access to finance. This outcome would undo three years of consecutive improvement in extreme poverty, with an increase in 2020 to 76.5 percent (from 74.5 percent in 2019). Madagascar's budget deficit is projected to deteriorate rapidly, increasing to 3.1 percent of GDP in 2020 (versus 1.7 percent pre-COVID-19) and to 3.6 percent of GDP in 2021, driven by lower revenue collection.

**The government of Madagascar has prepared an emergency response to the crisis—le Plan Multisectoriel d'Urgence (PMDU)—and it is adjusting the PEM to reflect the new economic conditions and priorities.** The World Bank Group (WBG), International Monetary Fund (IMF), United Nations (UN) agencies, and other international finance institutions are supporting the government of Madagascar in the crisis response in health and social sectors to save lives and protect vulnerable populations and to safeguard jobs, reduce immediate financing pressures on companies, and ensure sustainable business growth for the recovery. The support takes into consideration weakness in capacity and governance.

**The third pillar of the PMDU frames government initiatives to support private businesses and preserve jobs.** Measures include vocational training, tax relief, social security, subsidized loans, cofinancing mechanisms, and financial measures. These actions are expected to improve small and medium enterprises (SMEs) access to finance, alleviate short-term costs, improve firms' resilience, and reinforce human capital. They can relieve short-term cash flow issues and improve access to finance for SMEs but also support them in building resilience, promote competitiveness, and preserve jobs. The financial sector could benefit from the monetary policy while also expanding their outreach and support to more companies; which should see the probability of potential insolvency reduced. Support for human capital is critical to maintaining productive assets but also improving workers' productivity in the context of the new reality.

**Thus, this Country Private Sector Diagnostic (CPSD) is timely as it can inform the identification of short- to medium-term policy priorities during the rescue, restructuring, and recovery phases of the crisis.** The CPSD follows a standardized methodology developed by IFC that is being rolled out globally to identify policy actions and interventions in key sectors of the economy, with a focus on short- to medium-term reforms (up to three years) that could unlock much-needed investment and jobs.

**During the three phases of rescue, restructuring, and recovery, it is essential that Madagascar implements reforms to boost investment, economic transformation, productivity, and sustainability.** While pockets of competitiveness exist in productive sectors, they are largely driven by low labor costs and should be complemented by capital accumulation and higher total factor productivity (TFP). The recovery will be stronger and faster with reforms that deliver tangible results, improvements in the business environment, a reduction of red tape, and digitalization of the economy and society. A circular economy and high-value-added industrialization with greater resource efficiency would be a key to achieve the PEM's vision of economically, environmentally, and socially sustainable development. Energy and water efficiency and conservation, recycling and reuse, and combating the scourge of natural resource exploitation would ensure sustainable growth that benefits current and future generations.

**The COVID-19 pandemic raises the stakes when it comes to scaling up private investment; thus a concerted effort by the government and private sector is needed to address the binding constraints to competitiveness and investment.** A permanent increase in investment will be difficult without addressing deep-seated governance and structural constraints that hamper micro, small, and medium size enterprises (MSMEs) and dampen the interest of foreign investors. Mobilizing domestic investment and attracting foreign direct investment (FDI) will require putting in place reform machinery to systematically improve the business environment, reforms that bring about substantial improvement in the functioning of key enabling sectors, and a sharp reduction in the costs and time of trade logistics.

**The global health crisis and its economic effects add to the urgency of introducing reforms that can support the domestic private sector, retain and attract FDI, and boost the recovery phase.** IMF forecasts published in April 2021 estimate 1.3 percent growth at the global level in 2021. The global economic slowdown since the pandemic started has restricted air travel, put pressure on exports, hit commodity prices, and put investment projects on hold. At the same time, domestic policies to address the pandemic put in place starting in March 2020 affect both the demand side and the supply side of the economy. The problems emerging in the real economy also present challenges for the financial sector, as companies become unable to service their loans in a context of falling consumption, low liquidity, and thin margins. In this context, and with fiscal space closing, private sector reforms at the national and sector level during the recovery phase could give a much-needed boost to the recovery.

**This report starts by providing country context and taking stock of recent private sector development trends**, building on the 2019 Country Economic Memorandum (CEM). Following will be a review of the cross-cutting constraints affecting investment (section 2 gives an overview) and the identification of opportunities through sectoral assessments (section 3). The World Bank Group (WBG) program in Madagascar is already active across most areas covered in the report and is having a strong impact on private sector development. The CPSD takes stock of these interventions and highlights private sector solutions and ways to deepen "maximizing finance for development" approach.

**The report lays out options to strengthen competitiveness in agribusiness, apparel, and tourism, while showcasing the role of information and communications technology (ICT) as an enabler.** The three sectors reviewed are deemed to hold a high potential for job creation and growth and have been prioritized by the PEM and by the private sector stakeholders and development partners consulted during the preparation of the report. Positive developments in ICT led to the digital economy playing a bigger role in growth by creating direct jobs, but more important, by enabling companies to integrate into global value chains, tap new markets, and introduce innovations that promote inclusion. As ICT was already well covered by the CEM, the Madagascar Digital Economy Assessment (DEA), and other studies, this report highlights those policies that could boost the impact of ICT in specific areas like digital financial services, where new products are driving financial inclusion and strengthening value chains.

**The next phase of the CPSD, following the publication of this report, will undertake deep dives to support private sector reforms in three sectors: the digital economy, apparel, and tourism.** The objective of the next phase will be to produce just-in-time analytics and technical advice that can help craft and implement new policies, in close coordination with the government of Madagascar, other development finance institutions (DFIs), and private stakeholders. This effort will look at the new challenges faced by companies in the "new normal," as travel restrictions and lockdowns are expected to continue for the foreseeable future and will require new approaches and business models, with increasing reliance on ICT.

## 1.1 COUNTRY CONTEXT AND STATE OF THE PRIVATE SECTOR

### Recent Economic Developments

**The COVID-19 pandemic has exerted huge pressure on Madagascar's economy and basic services, exacerbating what were already formidable development challenges.** An estimated 94 percent of the population worked in the informal sector in 2016 (compared with 72 percent in 2001). At end 2019, 74 percent of the population lived in extreme poverty (below $1.90 per day, 2011 purchasing power parity), and food insecurity was among the highest of countries in the 2016 Global Hunger Index. Life expectancies are relatively short, and the country's position on the Human Capital Index lags behind the Africa region. Rural communities are increasingly vulnerable to unpredictable weather conditions associated with climate change, such as severe drought. As of late 2021, Southern Madagascar was in its fourth consecutive year of drought, which has caused localized famine. Drought and famine are longstanding problems in the south, as well as cyclones and floods. The region suffers from a lack of climate resilience, due in part to dependence on rain-fed agriculture, poor infrastructure, and the absence of affordable insurance mechanisms.

While the progression of COVID-19 cases was slowed by the suspension of international flights, community transmission is difficult to control given the limitations of the health system and the constraints on the transport infrastructure.[7]

**Export-led industries, which anchored the economic recovery during 2014–19, suffered an outsize impact in 2020 as a result of the COVID-19 pandemic.** Major export and import partners and FDI are from Europe, United States, and China, all of which have been severely disrupted by the COVID-19 pandemic. The results of the first wave of the Business Pulse Survey point to manufacturing (mainly textile and light industries), transport and storage, and other services (particularly tourism) as the sectors most affected. Preliminary government assessments also suggest that COVID-19 will especially affect the tourism, apparel, agribusiness, mining, digital services, and transport sectors.[8] These sectors are key sources of GDP and jobs:

- The apparel sector contributed 5 percent of GDP in 2019 and 20 percent of formal employment (150,000 formal jobs). Estimates are that it stands to lose US$64 million and up to 60 percent of all jobs. The operating model employed by cut-make-trim manufacturing, in which hundreds of workers are in close proximity, is being tested by the new normal and the need for social distancing.
- The tourism sector accounted for 5 percent of GDP and 4 percent of employment (237,500 jobs—both formal and informal), with important indirect spillovers in 2018. Recent estimates from the Tourism Confederation of Madagascar indicate that tourism revenues were down 90 percent in 2020, as border closures and some domestic travel restrictions resulted in a near-complete shutdown of accommodations, restaurants, and other tourism services beginning in March 2020.
- The agribusiness sector is suffering from a sharp decline in international and local demand, global logistic constraints, and global fall in international commodities prices. These declines result in job losses, wage reduction, difficulties for companies to finance operating costs, and market losses. Losses for vanilla, for example, are estimated to reach US$52.2 million.

- The mining sector could lose US$480–$720 million and 60 percent of its jobs in 2020, as global demand for commodities collapsed. Large-scale mining provided 12,000 direct jobs and over 80,000 indirect jobs along its value chain, while artisanal and small-scale mining has provided over 500,000 direct jobs.
- Digital services could incur a 29 percent postponement of orders and 54 percent cancellation of services, resulting in a possible loss of up to 36,000 jobs.

**The Business Pulse Survey (BPS) conducted in Madagascar[9] suggests that the outbreak of COVID-19 is having a severe adverse impact on private businesses, particularly on smaller firms.** The contraction in local and global economic activity, in addition to the lockdown measures put in place, have led to a significant decline in the demand for products and services (in particular tourism services): 97 percent of surveyed companies in Madagascar have reported a decline in sales revenues, with revenue loss equivalent to 6.6 percent of GDP. Business performance is also being affected by a reduction in worker availability (either because of sickness or mobility constraints) and by unavailability of inputs from suppliers (46 percent and 36 percent of companies reporting, respectively). Firms are also facing liquidity issues with more than 60 percent reporting a decrease in cash flow, and almost two-thirds of small firms reporting increased difficulty accessing financing. As a consequence, 32 percent of firms surveyed have had to close their doors, 7 percent permanently. MSMEs are the most impacted, with 23 percent of them on average suspending operations, compared to 15 percent for large firms.

**Businesses are responding to these shocks by adjusting employment levels, with few companies accessing government support.** In the period to July 2020, firms have adjusted employment levels mostly by reducing hours worked (71 percent of firms), although some firms have started to lay off workers (26 percent of respondents). Expectations for the short-term are pessimistic, both for sales and employment, with firms in the tourism sector having a bleaker outlook for both. Fewer companies in Madagascar have turned to digital technologies to address current constraints, with only 20 percent of surveyed companies, mostly large firms, reporting to have increased use of digital platforms in response to the crisis (average across countries with BPS done is 33 percent). Very few companies have accessed government support (7 percent of respondents), and most are large or medium companies. In addition to improving targeting of instruments to the most affected firms, it will also be important to ensure effective communication of government support, as 73 percent of firms reported not being aware of the measures taken by the government in support of businesses. In addition to tax relief measures, cash transfers are seen as key support instruments to help firms survive the crisis.

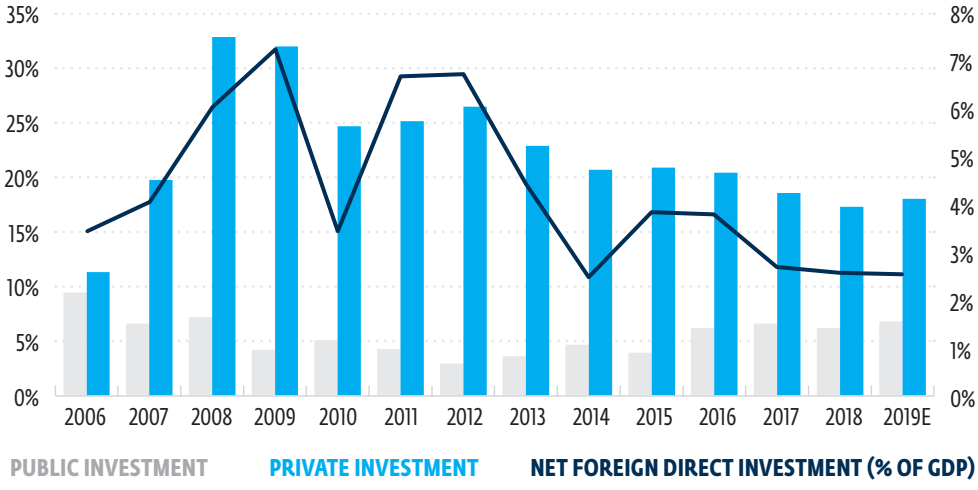
**Prior to the pandemic, Madagascar's growth had been largely driven by the private sector and exports, but it was constrained by policy unpredictability and the lack of a level playing field.** As a result, several years of economic and social advancement were dashed by the repeated political crises, which prevented sustainable and inclusive private sector growth.[10] A few companies were able to gain substantial advantages over competitors through acquisitions and participation in privatizations in the 1980s and 1990s. They often developed vertically (and also horizontally) as integrated firms or conglomerates, which led to noticeable monopolistic market structures in key sectors, such as energy, transport, agribusiness, and telecommunications. This noncompetitive environment is further affected by nonregulatory barriers to accessing markets, which have propagated because of the weak institutions that have allowed well-positioned firms to bypass formal mechanisms, limiting markets and undermining inclusive growth.

**Looking at this from a long-term perspective, Madagascar has experienced poor TFP that requires structural transformation if the country is to graduate from reliance on low-cost labor.** The CEM observes that the existing pockets of competitiveness in productive sectors have been consistently dependent on low labor costs while the contribution of capital accumulation has been low (except for the period 2004–08, which coincided with large mining investments) and TFP has generally been zero or negative. Moreover, growth has come at the expense of depleting natural resources (for example, deforestation is affecting 145,000 hectares per year).

**Creating formal employment and business opportunities have been major challenges: most households still depend on subsistence agriculture and on the informal labor market.** In 2016 nearly all workers were in the informal sector, driven by both an increasing supply of low-skilled workers and contraction in demand—for example, manufacturing job losses as access to markets decreased during the country's political crises. In a 2012 survey, 8 out of 10 working individuals were underemployed and most of them worked in the informal sector. The more educated are less likely to work in the informal sector (yet there is still a 50 percent probability that they work in the informal sector) and are more likely to have a contract and social security coverage.[11]

**Despite deteriorating substantially compared with the levels reached in 2008 and 2009, private sector investment remains the main component of total investment.** Private sector investment was estimated at 18 percent of GDP in 2019, less than half of its 2008 peak (33 percent) (figure 1.1). In addition, private investment has remained higher than public sector investment since 1999 and accounted for an estimated 73 percent of total investment in 2019.

**FIGURE 1.1. PRIVATE AND PUBLIC SECTOR INVESTMENT, 2006–19, ESTIMATED**




Note: left side: private sector and public sector investment, percent GDP. Right side: Net foreign direct investment, percent GDP. GDP = gross domestic product.

Source: World Bank. World Development Indicator.

**Recent investment, including FDI, has been observed in several export-oriented industries, improving the economic diversification of products and markets.** Recent years brought increased private investment in *extractives*—driven by two major mining operations for nickel, cobalt, and other minerals; *manufacturing*—especially in apparel connected to global value chains; *tourism*—particularly in the Nosy Be area; and *ICT*—with an expanding business process outsourcing (BPO) base that serves mainly francophone markets. The investment helped expand and diversify the export basket—exports grew at an average annual rate of 15.3 percent since the end of the last political crisis from 2014 to 2019, dominated by vanilla, apparel, mining, and tourism.

**As emerging countries stepped up their game on the trade and investment front, the complexity of Malagasy's exports relative to peers has declined.** According the Economic Complexity Index (ECI), Madagascar's rank has deteriorated to 113 out of 133 countries in 2018 from its position at 85 in 2010.[12] In 2018 Madagascar's top exports included agricultural products (34 percent of total exports), services (28 percent), textiles (17 percent), metals (11 percent), minerals (5 percent), and stones (4 percent). When exports are broken down further, Madagascar's top six exports are vanilla (20 percent), textiles (17 percent), travel and tourism (18 percent), transport (9 percent), nickel (8 percent), and cloves (4 percent).

**Madagascar's export market could be further diversified by taking advantage of regional trade agreements.** The top export global markets are the United States (22 percent of total), France (19 percent), Germany (8 percent), Japan (6 percent), and China (5 percent), whereas top regional markets are South Africa (3 percent), Mauritius (2 percent), and Morocco (1 percent). Madagascar has the potential to expand its regional export footprint by taking advantage of emerging opportunity from the African Continental Free Trade Area.

## State of the Private Sector

**Madagascar's private sector, largely informal MSMEs, is well diversified for a country of its income level.**[13] The country has diverse endowments: tourism, agribusiness, light manufacturing, and mining. The positive export trajectories mentioned previously are also reflected at the micro level: the proportion of exporting firms to total Malagasy firms was around 21.9 percent in 2013, higher than the average for Sub-Saharan Africa (11.3 percent) and low-income countries (LICs) (12.8 percent). Also, MSMEs account for the majority of businesses in Madagascar. As of September 2019, active MSMEs represented around 99 percent of formal companies registered in the tax administration during the 2011–18 period.[14]

**Compared with Sub-Saharan Africa and LICs, the Malagasy private sector has older firms and a higher proportion of foreign ownership.** At the time of the Enterprise Survey in 2013, the average age of a private sector firm was 17.8 years, older than the average for Sub-Saharan Africa (14.0 years) and LICs (13.6 years). Large firms were the oldest (on average, 37.1 years), while medium firms and small firms were on average 17.4 years and 13.6 years, respectively. About 80.1 percent of Malagasy private sector firms were domestically owned, very similar to the average for the Sub-Saharan Africa region (80.4 percent). Foreign ownership was 18.6 percent, well above the average for Sub-Saharan Africa (14.5 percent) and LICs (9.5 percent).

**Progress toward bringing women into top management has been seen.** Approximately 29.5 percent of firms had women in top management positions, almost double the average for Sub-Saharan Africa (15.9 percent) and LICs (15.8 percent). This percentage was on account of the high proportion of women in leadership positions in small (35.1 percent) and medium (28.2 percent) firms, while the proportion was much lower for large firms (9.0 percent). Some areas still need improvement. For example, Madagascar scores 75 of 100 in the business environment for women measured by Women, Business, and the Law 2020. Women dedicate three more hours a day than men to unpaid care in Madagascar. This is a half-hour a day more than the global average (figure 1.2).

**FIGURE 1.2. GENDER GAPS IN MADAGASCAR THAT AFFECT THE PRIVATE SECTOR**

MG: MADAGASCAR
SSA: SUB-SAHARAN AFRICA

### LABOR FORCE PARTICIPATION[1]

- Overall participation in the economy: women comprise 49% and men 51%
- Women make up 8% of wage and salaried workers and men 13%; MG gender wage gap: 17%
- Does the law mandate nondiscrimination in employment based on gender? N
- Does the law mandate equal renumeration for work of equal value? N
- Is there legislation on sexual harassment in employment? Y
- Distribution of unpaid care responsibilities MG: W: 4 hrs/day, M: 1 hr/day
- Women's labor force participation mostly concentrated in agribusiness, followed by services and industry.

**Agribusiness**
MG: W: 65%; M: 71%
SSA: W: 55%; M: 54%

**Services**
MG: W: 28%; M: 21% *(reverse gap)*
SSA: W: 37%; M: 32%

**Industry**
MG: W: 7%; M: 8%
SSA: W: 8%; M: 14%

### ACCESS TO ASSETS

#### Finance[5]

**Can a women legally open a bank account in the same way as men?** Y

**FI account ownership:**
MG: W: 8%; M: 11%
SSA: W: 27%; M: 38%

**Formal MSMEs' ownership:**
MG: W: 47%; M: 53%
SSA: W: 16%; M: 84%

**Credit** (Number of credit constrained MSMEs):
MG: W: 45%; M: 41%
SSA: W: 53%; M: 51%

#### Tech[6]

**Technology – Mobile and Internet:**

- Internet access rate for MG: W: 15%; M:19%. SSA: W: 29%, gender gap: 41%
- Mobile ownership MG: W: 34%; M: 34%. SSA W: 69%, gender gap: 11%

### EDUCATION[2]

**Primary completion rate:**
MG: W: 70%; M: 65% *(reverse gap)*
SSA: W: 67%; M: 71%

**Lower secondary enrollment rate:**
MG: W: 42%; M: 31% *(reverse gap)*
SSA: W: 41%; M: 46%

**Gross tertiary enrollment:**
MG: W: 5%; M: 5%
SSA: W: 8%, M: 11%

### LEADERSHIP[3]

**Firms with female participation in ownership:**
MG: W: 42% SSA: W: 30%

**Firms with a female top manager:**
MG: W: 28% SSA: W: 15%

### Other gaps[4]

**Intimate partner violence prevalence:**
MG: W: 30% East Africa: 39% *(closest proxy)*

**Needs for family planning satisfied:**
MG: W: 61% SSA: 52%

1. ILO 2018 and WBL 2018 for legal data
2. UNESCO 2017 or latest available
3. Enterprise Surveys 2011-2018
4. Intimate partner country data from IntraHealth Intl 2015, WHO 2018 regional data; family planning WHO 2017
5. Global Findex Database 2017 for FI; IFC MSME Finance Gap 2018 for MSME data; WBL 2018 for legal data
6. GSMA Mobile Gender Gap report 2019 and ITU 2013 for internet usage rates

**Malagasy formal firms face competition from a large informal sector (box 1.1).** Off-farm income is largely generated from informal enterprises, in which compensation is in-kind or through self-employment.[15] The majority of informal establishments operate at a subsistence level and are highly unproductive.[16] The fourth-quarter 2020 Central Bank Economic quarterly survey shows that about 30 percent of respondent businesses reported competition from the informal sector as a major constraint.[17]

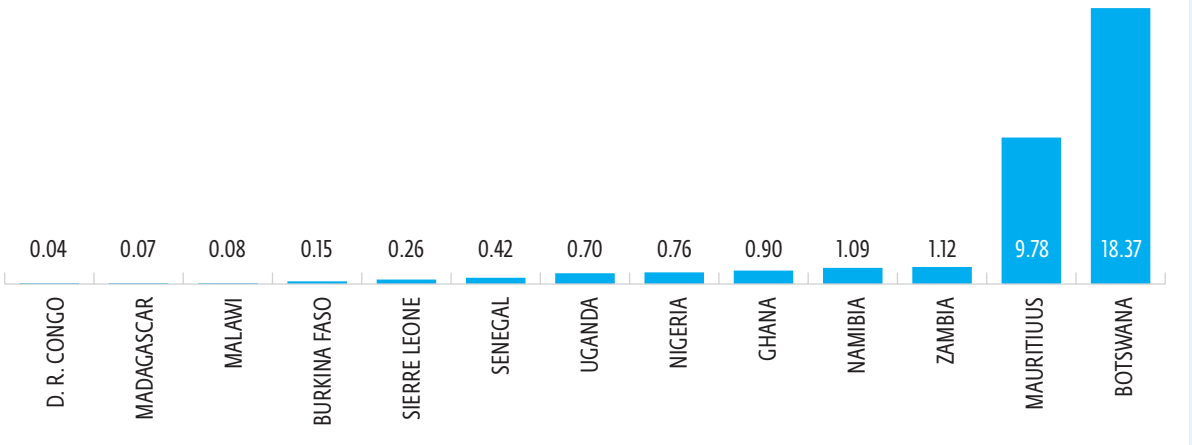
## BOX 1.1. INFORMALITY IN MADAGASCAR

**Madagascar's economy is characterized by a high level of informality, with only 6 percent of the population employed in the formal sector.**[a] This situation is largely due to the structure of the economy—80 percent of the Malagasy population live in rural areas and depend on subsistence agriculture for their livelihoods.[b] The burdensome and high cost of compliance with government regulations also contributes to informality. Madagascar GDP includes estimated informal economic activities; for example, informal economy shares were an estimated 76 percent of GDP in 2016.[c] However, an International Monetary Fund study in 2018 reveals that the actual informal economy is much larger, because additional informal economic activities are unaccounted for, averaging 43 percent of annual GDP equivalent during 1991–2015, which is among the highest in the 158 countries in the study.[d]

**A large share of informal firms does not seem to find any benefits from formalization.** New business registrations in Madagascar are among the lowest in Africa (figure 1.3), and firms tend to stay informal and micro over time. Twenty-nine percent of informal firms do not see any benefit to formalization. Although 40 percent of firms may contemplate formalizing their business, only 6 percent have actually tried to formalize in the past. Most firms do not grow and instead stay micro and informal over long periods of time. About a fifth of the informal firms surveyed have been in business for over 20 years.[e]

**High informality rates are likely to persist without faster economic growth and structural change.** Simulations by the World Bank Group show that assuming an average annual GDP growth of 3.6 percent over the next decade, the share of employment in the informal sector will decline only 1 percent by 2027.[f]

### FIGURE 1.3. NEW BUSINESS REGISTRATIONS PER 1,000 PEOPLE (AGES 15–64), MADAGASCAR COMPARED WITH OTHER AFRICAN COUNTRIES




Source: World Bank Entrepreneurship Database, accessed on September 22, 2019.

Note: Madagascar data are from 2016; for other countries, data are from 2016 or the latest year available.

Congo, DRC = Democratic Republic of Congo.

Note: GDP = gross domestic product.

a. Norman Loayza and Claudia Meza-Cuadra, "A Toolkit for Informality Scenario Analysis: A User Guide" (World Bank, Washington, DC); Norman Loayza, "Informality in the Process of Development and Growth," World Economy 39, no. 12 (2016).

b. World Bank, Madagascar Country Systematic Diagnostic (World Bank, Washington, DC, 2015).

c. Loayza and Meza-Cuadra, "A Toolkit for Informality Scenario Analysis;" Loayza, "Informality in the Process of Development and Growth."

d. Leandro Medina and Friedrich Schneider, "Shadow Economies around the World: What Did We Learn over the Last 20 Years" (IMF Working Paper 18/17, African Department, International Monetary Fund, Washington, DC, January 2018). The IMF study focused on those legal economic and productive activities that, if recorded, would contribute to national GDP. However, since some of the informal economy might have already been included in the official GDP, there could be a potential double counting. Hence, the authors say their estimates of informal economy should be considered as a maximum possible estimate of addition to the official GDP.

e. World Bank, Madagascar Country Systematic Diagnostic.

f. Loayza and Meza-Cuadra, "A Toolkit for Informality Scenario Analysis."

**Private sector firms struggle to realize their full potential because of myriad constraints, such as slow implementation of reforms, poor governance, and the high cost of cross-border trade.** Results from the quarterly perception survey of the Central Bank indicated the following constraints:[18] economic uncertainties (84.0 percent of respondent enterprises), taxation (69.2 percent of respondent enterprises), lack of demand (expressed by more than 61.6 percent of respondent enterprises), social and political uncertainties (60.3 percent of respondent enterprises), and conditions of competition (more than 50 percent of respondent enterprises). The WBG Country Policy and Institutional Assessment score for the business regulatory environment for Madagascar deteriorated from 4.0 in 2005 to 3.0 in 2019.[19]

**Despite lower crime, the operating environment for firms is undermined by weak governance,** which leads to nontransparent and, in some cases illegal, exploitation of vanilla, gold, rosewood, sapphires, and wildlife,[20] as well as to child labor. Private sector perception is that it is extremely difficult to start and grow a business without paying some bribes and that there are no incentives—and even very few opportunities—to play by the rules from the start, especially in well-developed markets. Madagascar rates poorly on most governance indicators (152 out of 180 countries on the 2018 Transparency International Corruption Perception Index).

**The process of awarding licenses is perceived as being riddled with corruption and as being a favored way to privilege certain operators while blocking others from entering markets.** It is difficult to get a license to operate without paying a commission, and licenses historically tend to be awarded on the basis of agreements that the operator will then purchase services from a particular subcontracting firm. The legal framework is also outdated or often misses key information related to the cost and duration for delivering a license.

# 2. CROSS-CUTTING CONSTRAINTS

**This section summarizes the main cross-cutting constraints, outlining where private sector solutions could complement public sector efforts.** First, this section discusses the government's influence on the private sector. Second, it addresses the enabling sectors that influence the economic agents' viability and performance of doing business. These issues help explain why Madagascar's performance on global competitiveness rankings is so low. Cross-cutting constraints tend to be interrelated and require a holistic approach, with a strong focus on governance improvements. These observations were verified through the desktop review of documents and consultations.

**Private sector firms operating in Madagascar complain about inconsistent and unpredictable decisions and implementation of policy, which tend to be influenced by vested interests.** Operators have learned from recent history that long-term investments in Madagascar are extremely risky, an impression substantiated by monopolistic economies in key sectors; inconsistent interpretation and implementation of policy, law, and regulations; and sharp reversals of the business environment (such as foreign sanctions) associated with recurring political crises. Therefore, investors tend toward less-risky short-term profit making. Those constraints could be part of the reason that the private sector has not achieved the scale or delivered the range of services needed by the entire country.

**Better infrastructure—transport, energy, ICT, and water and sanitation—is urgently needed to create opportunities for private sector growth in lagging areas and access to domestic and international markets.** Currently there is no grid-connected electricity in large swathes of the country and there is only unreliable electricity in the larger economic centers. Limited transport connectivity leads to high costs and time for trade logistics. An absence of good roads in many regions impedes the transport of people and goods, which depresses domestic demand in secondary cities, raises prices for essential goods, and limits opportunities to transport perishable agricultural produce. Even when better roads to the main port exist, the main port is congested, and limited infrastructure in secondary ports makes it difficult to scale up export-oriented industries. Only 10 percent of Madagascar's population use the internet, and only 40 percent have mobile phone subscriptions. While half of the population has access to improved water, only 12 percent has access to sanitation—the third-lowest proportion in the world.

**Substantial improvements in the functioning of key factor markets are also needed to attract investment and raise productivity.** Costs of operations in Madagascar are further driven up by inadequate (a) land market, (b) labor market, and (c) access to finance, which are discussed later in this section.

## 2.1 BUSINESS CLIMATE

### Government's Role as an Enabler for Private Sector Development

**Red tape, a symptom of underlying governance and institutional weaknesses, results in a range of problems that include policy uncertainty, difficulty with getting licenses, corruption, conflicting investment regimes, and unclear property rights.** Due to the weak governance and resulting perverse incentives, private sector reforms and solutions have been slow and have not always resulted in expected welfare improvements. This is what economists have termed "the pitfalls of partial reform."[21]

**In this context, it is critical to put in place reform machinery to systematically improve the business environment.** This effort will require incentives for better performance (such as payments based on performance), built around stronger competition, innovation, standards, benchmarking, and so on. This process needs to be complemented with support to level the playing field, including programs for MSMEs that can strengthen interfirm relationships, so that these companies can supply or partner with bigger companies and thereby enlarge their market access. A more effective platform for public-private dialogue (PPD) is needed. The existing platform was created in June 2015 (Presidential Decree No. 2015-915) and, although it has led to some consultations, the platform needs a sharper focus on monitoring the implementation and outcomes of reforms.

## Investment Framework

**The investment framework of the country is fragmented, reflecting a lack of a clear vision on investment policy.** Overall, investment is governed by the Investment Law,[22] which frames all related investment activities and provides key elements to consider when investing in Madagascar. Besides the investment law, there are general regulatory legal texts, including corporate law,[23] bank law,[24] the tax code, and land law.[25] Some inconsistencies among these legal texts may lead to confusion. Among other problems, the definition of investment, including FDI, presents some discrepancies between the Investment Law and the Foreign Exchange Code.

**Besides the global investment law and general regulatory legal text, the current legal framework outlines special regimes with the main objective of attracting more investments, particularly FDI.** Export processing zones have been put in place to attract export-oriented investment.[26] The law on special economic zones (SEZs)[27] was adopted in 2017 with the view of creating attractive poles that are geographically defined. The SEZ regime has not materialized in practice because of the lack of an implementing decree and a lack of political willingness to pursue its implementation. Finally, the Industrial Development Law,[28] adopted in 2018, is intended to develop specific industrial activities through the creation of industrial development zones and various incentives.[29] These regimes benefit from special incentives, mostly in the form of tax incentives. Currently, the export processing zone regime remains the only specific regime functioning practically.

**The PEM also intends to implement various zones.** The proposed emergence zones are economic emergence zones, industrial emergence zones, tourism zones, agricultural processing zones, and agriculture zones. Currently, it is not clear if these new zones would add to or replace the existing ones. It is important to strike the right balance between attracting investment policy through fiscal incentives and meeting government needs to increase domestic revenues, particularly given that fiscal incentives are not the first factor that motivates investors to come to the country.[30]

**The harmonization of the legal framework is critical to help build existing and potential investors' confidence and predictability about the business climate.** Harmonization is particularly needed in terms of key definitions and the scope of application. One of the elements to be clarified is related to the definition of the type of investment covered by the Investment Law and by the Foreign Exchange Code. Also, the applicability of the Investment Law regarding other legal and regulatory texts (such as the mining code, petroleum legal texts, telecommunication law ), specific regimes (export processing zones, SEZs, and so on), and public areas (state-owned enterprises, military-related affairs, and so on) needs to be clarified.[31]

**Enacted laws or regulations are not necessarily fully applied or are implemented with certain delays.** Some key laws are not always followed by the related implementing decrees that are stated in their core text. This is the case of the law on industrial development enacted in 2018 with some provisions that refer to other decrees. For other cases, related decrees are adopted only after a long period of time, contributing to an inconsistent application of the law. The decrees related to the export processing zones were adopted only in 2015, seven years after its enactment, delaying its full applicability. A harmonized legal system would contribute to the protection of investors from potential risk, including political risk (expropriation, breach of contract, and so on) through legal protection such as the implementation of guarantees in the law.[32]

## Institutional Capacity for Reform and Public-Private Dialogue Platforms

**The institutional framework of investment has difficulties with intragovernment coordination and limited private sector engagement.** All related investment regimes should be under the leadership of the Ministry of Industry, Trade and Craft (MICA) but the management of SEZs has been given to the Ministry of Spatial Planning. It is recommended to have one ministry take the lead on investment policy and its implementation to ensure consistent vision and strategy.[33] As per its mandate, the Economic Development Board of Madagascar (EDBM) is in charge of promoting overall investment but is also performing sectoral promotion. On the other hand, line ministries (such as the Ministry of Transports, Tourism and Meteorology) also perform sectoral investment promotion. Line ministries should coordinate with the EDBM on promotion activities to ensure consistency of actions and reduce duplication.

**The EDBM faces challenges in ensuring its objectives.** These challenges are particularly linked to its limited institutional capacity. Concerns include the lack of (a) human and financial resources, (b) coordination, and (c) priority setting.[34] With the support of the World Bank, some reforms have been implemented or are currently underway to improve the EDBM institutional capacity.

**The variety of regulatory bodies, particularly with the creation of the different zones, reinforces institutional multiplication and contributes to confusion.** The EDBM issues permits to benefit from the export processing zone regime. Under the law on SEZs and on industrial development, additional regulatory agencies are expected to take part with SEZs (Autorité de régulation des Zones Economiques Spéciales or AZES) and the National Agency for Industrial Development (Agence Nationale de Développement de l'Industrie). Regulatory agencies lack financial resources to perform their duties because they are largely subsidized by governance. This can be confusing and add to the administrative burden for the private sector. Such duplication of institutions could be avoided by assigning the management of the zones to the existing investment promotion agency (that is, the EDBM).[35]

**Reforms to improve the business climate have advanced sluggishly because of limited commitment from decision makers.** Strong engagement on the reforms from technical personnel can be seen; however, final decisions to move the reforms forward often have taken time to be delivered or have never been made. In addition, consultations are not always inclusive, excluding the private sector from the discussions. The committee in charge of reforms related to business law (Commission de Réforme du Droit des Affaires or CRDA)—composed of business law specialists and professionals—is not always consulted when a reform is considered.

**To respond to the COVID-19 pandemic crisis, the private sector and government have met regularly to discuss measures to be implemented.** Such discussions for the preparation of the private sector support angle under the multisectoral emergency plan and should continue for revising the proposed PEM to incorporate the recovery from the COVID-19 crisis.

## Competition Policy Framework

**The CEM in-depth review into market competition in Madagascar concluded that weak competition in key economic sectors is a major constraint to productive, inclusive, and sustainable growth.** The review considered both regulatory and nonregulatory barriers to competition, including business practices that can exclude firms from the market or create an uneven playing field, with case studies for telecommunications, petroleum, and agribusiness (specifically the lychee and vanilla value chains). Two main issues identified by the review were the pervasive effects of insufficient competition in key input markets and how limited competition in key export markets can concentrate gains in the hands of a few actors. Regulatory and nonregulatory barriers were a major reason behind limited competition. In telecommunications, for example, the weak enforcement of competition provisions, gaps in regulation concerning interconnection charges and an outdated spectrum assignment policy strongly affected the affordability and quality of ICT services.[36]

**Fostering competition requires legal and regulatory reforms, both economywide and sector-specific, and stronger enforcement of existing competition provisions.** Strengthening the institutional framework is critical. Specifically, there is a need to amend the Competition Law to prohibit the use of cartels, which could be supported by an effective Competition Council. In certain agribusinesses value chains such as cocoa, private associations with public interests have been important for ensuring the benefits of exports are felt more inclusively, which could be further promoted under an overarching regulatory framework. The CEM provides more details on these policy areas. The sectoral assessments presented in this report pinpoint specific competition and regulatory issues affecting jobs, productivity, and the competitiveness of the private sector and in particular the potential of MSMEs.

## Recommendations During the Next Three Years to Address Business Environment Constraints

**During the response phase, the government of Madagascar should speed up regulatory reforms that reduce the cost and time spent by businesses that operate formally, and in parallel roll out digital platforms to enable businesses to handle key procedures online.** Streamlining regulations and lowering the costs is needed in areas such as property registration, construction, procurement, and customs. This should be complemented with a program to fast-track digital platforms to enable businesses to handle key procedures online, reducing the time and cost of compliance, especially for services such as business registration, licensing, construction permits, and property transfers. Offering online government-to-business (G2B) services would provide for more regional inclusiveness because distance from the regional or national capital would be less of an issue for firms.[37]

**To attract investment for the recovery phase, the government needs to put into place a clear investment legal framework.** Investments have been governed by a multiplicity of laws and regulations that have not been applied equally. This CPSD recommends that the government (a) adopt an investment law that defines the different forms of investments, (b) address the scope for investment to clarify the framework for FDI, (c) list the activities reserved for local investment, and (d) harmonize the various laws and regulations. It is recommended to have MICA take the lead on investment policy and its implementation to ensure consistent vision and strategy.

**An overarching requirement to build investor confidence is to expand the country's institutional capacity for reform.** A first step is to improve the ability of the EDBM to carry out its mandate to promote investment. Currently its work overlaps with other agencies and line ministries with parallel initiatives. The EDBM faces sustainability funding issues and its one-stop-shop function is not always effective.

**The experience of other countries that have successfully coordinated business environment reforms helps identify good practices from which Madagascar could draw inspiration.** While there is no single approach to organizing a successful business environment reform program, top reformers share common characteristics such as strong high-level government leadership, long-term vision, and effective coordination mechanisms for monitoring and accountability. Private sector participation and communication efforts also contribute to the successful improvement of the business climate. Specifically, these practices would include the following.

- **Strengthening the EDBM's mandate so the EDBM has more legitimacy and can play the leading role in the investment climate reform process.** In particular, the following proposals should be considered:
  - The chairman of the board of directors and/or the director of the EDBM should sit in on Council of Ministers meetings when an item about the business climate is on the agenda.
  - Official recognition the EDBM Board of Directors' role as a high-level reform committee (steering committee) for the business environment should be strengthened with the following measures:
    - Establishing an escalation mechanism when a disagreement arises between the agencies to avoid impasse in the reform process.
    - Improving the decision-making mechanism, particularly within the board of directors, by clearly defining the procedure for approving proposals.
- **Improving the institutional capacity of the Department of Reforms and Private Sector Development of the EDBM** by recognizing its role as a supporting body of the reform mechanism. The implementation and monitoring of the reforms must be improved by establishing well-structured project teams with sufficient resources (human, financial, technical) to carry out this mission. Currently, the department is in charge of leading and coordinating the implementation of the Investment Climate Roadmap elaborated in late 2019.

## 2.2 INFRASTRUCTURE SECTORS

**Gaps in Madagascar's energy and transport sectors have contributed to slow economic development and widening regional inequalities, and deficiencies in each hinders progress in the other.** Because of lack of investment and maintenance, that infrastructure is largely in poor shape and in a state of decline. For example, fresh products cannot be delivered to the demand center, resulting in imports of processed products. Also, innovative businesses, such as agro-tourism, would have limited attractiveness and accessibility for tourists and tourism investors without suitable infrastructure. Private firms, particularly in the mining and tourism sectors, have invested in their own transport and energy systems. The road network expansion would help deliver equipment to isolated communities at lower cost, thus easing the electrical grid extension. Likewise, a monopoly in the jet fuel market that has led to overpricing contributes to Madagascar's air service not being competitive.

**More attention to climate resilience, disaster risk management, and sustainability will also be critical.** Extreme weather events have major impacts on infrastructure and livelihoods, with strong economic effects on rural and agriculture activities. Already this year, a tropical depression and torrential rains in January 2020 led to widespread flooding and landslides, affecting more than 127,000 people and flooding close to 16,000 houses. The government of Madagascar is taking steps to increase the institutional, technical and financial capacity to manage disaster and climate-related risks with support from DFIs.[38] Further steps will be needed to support the private sector, such as a climate-resilient electricity transmission and distribution system and intermodal transport system.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## Transport

**Madagascar's transport network suffers from overall low density, low connectivity, and poor quality.** Although its primary ports, airports, and road and rail networks have improved, they do not meet the needs of many users, and the secondary networks are in disrepair. The complementarity between the different modes of transport in the interior (road, rail, air, water) remains very low (figure 2.1).

### Roads

**The road connectivity of Madagascar was ranked 127th among 141 countries in 2018.**[39] Only 58 percent of the country's population is estimated to live in areas where agricultural goods can be delivered at affordable transport prices (<US$10 per ton), whereas the rest of the population, or 42 percent, must contend with transport costs as high as US$34 per ton, which curtails the domestic commerce of these goods.[40] Truckers frequently overload their trucks to increase their income, further contributing to the deterioration of road conditions.[41] Due to a lack of logistic arrangements, truckers can carry nothing on one way of a return trip, which increases the overloading tendency. Further, Madagascar has among the highest road fatality rates in the world, ranking 152 of 175 countries.[42] As the economy picks up, car ownership is likely to increase, leading to increased traffic fatalities if proper road safety measures are not in place.

**Madagascar's Rural Access Index shows that only 11.4 percent of the population has access to a good road network.** Some 17 million people—68 percent of the population—are disconnected. The road density is low, at only 5.4 kilometers per 100 square kilometers of land,[43] which compares unfavorably to some neighboring countries (for example, 6.9 kilometers per 100 square kilometers in Zambia, 10 kilometers per 100 square kilometers in Tanzania, and 28.4 kilometers per 100 square kilometers in Kenya). The World Bank estimates that achieving universal access to roads would cost at least US$5 billion.[44]

**The agricultural sector is impaired by the lack of access to markets among other reasons.** For example, only 20 percent of the lychee crop is exported. Rural accessibility is relatively high along the Ranomafana National Park boundaries, but areas throughout the island are served either by poor, unpaved roads or by no roads at all (figure 2.2). Areas of the south have higher levels of poverty with particularly difficult accessibility caused by heavy precipitation on unpaved roads.[45] The sectoral assessment reviews the constraints in agriculture, for example related to trade and competition.

**FIGURE 2.1. TRANSPORT INFRASTRUCTURE IN MADAGASCAR**


**FIGURE 2.2. CONDITIONS OF THE ROAD TRANSPORT NETWORK**


Source: World Bank. 2018. "Madagascar Spatial Analysis of Transport Connectivity and Growth Potential." Washington, DC: World Bank.

**Poor roads reduce the potential growth of the tourism sector.** Travel by road, where feasible, is often extremely lengthy, dangerous, and uncomfortable for tourists, and yet it often constitutes the main mode of transportation, especially for packaged tours in the north and south of the country. Certain tourist sites are inaccessible during the rainy season because of the poor roads. Some hotels charter flights from the capital city airport because visitors have no other way to reach their properties. The poorly connected areas further limit investors' interests, in addition to other limitations such as governance and regulatory barriers. The World Economic Forum (WEF) ranked the destination last out of 136 countries in terms of the quality of its roads in 2017. Tourism sector issues are reviewed in more detail below.

**The road and railway between the capital, Antananarivo, and the country's major port, Toamasina, are vulnerable to inclement weather** because cyclones increasingly hit the area and both the road and rail lines go through a mountainous area with steep slopes prone to landslides.[46] Freight haulers drive 8 to 12 hours to cross the approximately 220 miles between Toamasina and Antananarivo, a trip that can expand to 20 hours when conditions are particularly harsh. Throughout Madagascar, transporters report they budget up to 10 percent of their trip costs for repairs and additional workers to help when trucks get stuck along the way.[47] Poor security on national routes was also identified as a problem because transporters report being robbed when their trucks have been stuck; others say they lose money by making informal payments to officials policing the corridor.[48]

**Improving transport connectivity is key to opening up market opportunities and reducing poverty in rural areas.**[49] The average time to reach food markets increased from almost two hours in 2005 to close to two and a half hours in 2010 for the poorest quintile, and the average real price to transport goods (for example a 50 kilogram bag of rice) rose by 42 percent. Many agribusinesses do not operate in rural areas because of poor transport infrastructure. It also undermines the efforts of government policies. For example, policies aimed at stabilizing rice prices in the face of rising world prices depressed the domestic producer price disproportionately, intensifying rural poverty. While these measures kept the price of rice relatively stable for urban-based consumers, producers—who were also increasingly cut off from demand centers—were largely unable to benefit from rising world prices.[50]

**The government of Madagascar, with international assistance, has plans to construct, rehabilitate, or improve roads and thereby improve connectivity.** A number of such projects have been supported by the World Bank, the African Development Bank, the European Investment Bank, and the European Union in recent years. One of the World Bank road projects includes development of a digital platform and applications to help transporters and truckers optimize the use of their fleets by minimizing empty return trips.[51] It is crucial that the government ensures its commitment to increase the dedicated fuel tax for the road fund to 10 percent given the large needs, which remains significantly lower than most regional comparators.

### Rail

**Expanding and upgrading rail services would do much to ease the strain on roads and to convey people and cargo, but current networks offer very limited coverage and much of the system is in disrepair.** Madagascar's railways consist of two networks—north and south, inherited upon independence. Investing in the rehabilitation of the rail network would not only be more efficient but would also alleviate congestion on the only national road connecting the capital to the major port.

**The opportunities for rail are substantial as Madagascar revitalizes its northern rail line.** While the concessionaire improved the northern rails between 2005 and 2010, more work is required.[52] The company has operated the northern railway with a 40-year concession since 2003, with a 10-year renewal. The network's three lines cover the national capital, prime rice production areas, major apparel manufacturing areas, the major port at Toamasina, and the mining areas, and they transport fuel to the capital. The government of Madagascar is aware that transporting freight by rail could reduce emissions and alleviate road traffic.

**Firms could save up to US$3.7 million annually by switching to rail transport from truck transport on the road between the capital city and the port in Toamasina; rail is estimated to be economically and financially viable if infrastructure were properly invested in and maintained.** Using this rail line would provide a significant price differential over the road transport alternative estimated at US$8.3 per ton between Antananarivo and Toamasina.[53]

**The southern railway, the 164 kilometer Fianarantsoa-Cote-East (FCE) line has limited operations, providing mainly local service,** specifically for the communities of the cliff area east of Fianarantsoa. FCE is a Madagascar public company attached to the Ministry of Transport, Tourism, and Meteorology (MTTM), with autonomous management. The colonial-era railway line connects Fianarantsoa to Manakara in a region on the eastern coast that is partly inaccessible by road. An appraisal in 2000 noted that despite the line's very low traffic, discontinuing the services would accelerate environmental deterioration in the network's servicing area. The appraisal advised that any private operator was unlikely to be attracted without a minimum front-end investment by the public sector.[54] In November 2019, the MTTM aimed at increasing the frequency of travel on the passenger train by acquiring locomotives by early 2020.[55]

### Ports

**Seaports are vital for Madagascar's trade, but for a nation with a huge coastal economy, port service is underused.** In the early 2000s, with IFC's support, the government improved customs service at the main port at Toamasina, lowered the tariff, and contracted operations to a private concessioner, which invested in much-needed enhancements.[56] Madagascar exported over 1 million tons of goods by sea in 2016. From 2013 to 2018, export volume increased by 82 percent and import volume increased by 34 percent.[57] Despite these improvements, Madagascar's efficiency of seaport services ranked 97th among 141 countries on the basis of data from 2019 (or most recent available).

**The port at Toamasina, the main gateway to the Indian Ocean, is being expanded again to enable it to handle the volume of shipments that passes through it.** The port handles 75 percent of Malagasy freight transported by sea. Congestion at the port should be alleviated by an extension scheduled for partial completion by 2021 and full completion by 2026.[58] Meanwhile, with limited connectivity to the country's other 17 ports, only 14 percent of the population is able to reach a port within one hour (compared with, for example, 48 percent in Liberia).

**In the short- to medium-term, optimizing traffic distribution across ports may be preferable:** Antsiranana in the north, Toamasina in the east, Ehoala/Toliara in the south, and Vohemar in the north (for vanilla exports). At the same time, more balanced economic development across regions and inland connectivity need to be promoted, for example to support an industrial emergence zone at Andrakaka in the north, agricultural and fishery products in the southwest, and high-value exports like crayfish and lychees in the southeast.[59]

**Port infrastructure and fleets are not competitive.** They lack maintenance, are in disrepair, or are inadequate. National dhow routes suffer from insecurity, particularly for passenger transport because of the lack of standards and regulatory framework for equipment and sufficient professional qualifications.[60] Inefficient port performance is further affected by having most shipments come through feeder services from transshipment hubs, such as Port Louis (Mauritius) and other ports such as Langoni (Comoros) and Maputo (Mozambique).[61] This system leads to relatively long transit times and, compared with direct calls, expensive service.[62] Time for freight from Madagascar to reach Europe or Asia was 30–50 days in 2015.[63] When volumes are deemed too small, ports are skipped from the schedule.[64] Even when the port in Toamasina is able to expand its capacity, it can be competitive only if operations are efficient at port as well as at overseas and inland connections.

**Madagascar has no inland waterway for transport on a large scale.** The Canal des Pangalanes, which runs along the east coast, is largely impassable today because of obstruction of the track by freshwater hyacinths, silting at the mouths, and degradation of the banks. As the only means of access to basic services for the riparian population, the canal continues to be used to transport products and people by artisanal canoes and rafts to the main centers of the area. The minister of MTTM announced in November 2019 a plan to redevelop the Pangalanes canal starting in August 2020 to facilitate the transport of local products and open up the cities along the canal to create local jobs.[65] River navigation by traditional canoeing and craft units (kanota, laka) ensures the circulation of local products and the population and tourists along the rivers of the West Coast: Tsiribihina in Miandrivazo, Sofia in Port Bergé, and Betsiboka in Marovoay.[66]

### Airports

**As the fourth-largest island in the world, Madagascar is dependent on air transportation for both international and domestic travel.** The two major airports are Ivato Airport (serving Antananarivo), the country's gateway for international travel and hub for domestic flights, and Fascene Airport, located on the island of Nosy Be, the country's most popular tourist destination. The level of air service is not adequate for the country's needs, as discussed in more detail in the section on tourism.

**The private sector is taking the lead on upgrading airport infrastructure.** The two main international airports have been under a 28-year concession since December 23, 2016. The private consortium comprises subsidiaries of four large international companies. The contract stipulates the construction of a new international terminal at Ivato Airport (now complete) and the renovation of runways and terminals at the two airports, in addition to operation of the facilities.[67] IFC syndicated the entire €130 million loan to finance the €125 million project. Furthermore, Ivato Airport is the first airport to receive the IFC Excellence in Design for Greater Efficiencies (EDGE) award for green building of airports. Ivato Airport is still the only awardee in the EDGE airport category as of July 2020.[68]

**The two main airports are located far from priority economic development zones, and new initiatives are underway to improve secondary airports.** Although the secondary airports are underperforming, some are potentially bankable enough to attract the private sector to improve performance. Aéroports De Madagascar (ADEMA), the state's airport operator, launched a public-private partnership tender in June 2019 that seeks concessionaires for the financing, upgrading, and management of 10 secondary airports across the country. The tender is expected to significantly increase the quality and capacity of the country's domestic connectivity if appropriate partners are selected competitively and transparently. The COVID-19 crisis is worsening the situation. The tourism section later in this report provides a more in-depth review of air transport issues and policies that could enable tourism.

### Recommendations during the next three years to address transport constraints

**As in other countries, the near-term focus is the continuation of transport services addressing health risks from the pandemic.** Measures such as disinfecting surfaces, social distancing, avoiding cash handling, and implementing contactless online or mobile payments will be needed to enable essential social and economic activities.

**As the economy shifts gear into the recovery phase, the focus should be on implementing performance-based road maintenance contracts** when feasible to balance the road maintenance risk with private engineering, procurement, and construction contractors. Tolling roads has a low potential for success in Madagascar except for some key main road corridors that support important trucking volumes.

**Medium-term actions will be needed to strengthen competition between the road and rail sectors and develop a multimodal transport platform that can serve the needs of rural areas and new value chains.** The extension of the Toamasina container terminal port concession and private port container terminal expansion and restructuring of the railway concession are two important areas that will define the degree of private participation in the upgrade of critical transport infrastructure. Modernizing and building free ports in Mahajanga, Antsiranana, Tolagnaro, Sambava, Vohemar, Toliara, and Manakara and creating intermodal transport links (through roads and railways) to the hinterlands would optimize port capacity. Madagascar also needs to address operational and administrative inefficiencies at the ports that hinder export competitiveness.

## Energy

**Madagascar lacks the energy it needs to power industry and to improve the quality of life for its citizens.** Some 77 percent of the population—18 million people—have no electricity at all, and 24 million people, or 88 percent of the population, are off the power grid.[69] Most Malagasy people burn wood or charcoal for cooking, threatening their health and the environment. And for industrial firms that have electricity, nearly 90 percent of those outside the largest city are forced to cope with regular power outages, squeezing productivity.[70]

### Limited access to reliable electricity

**Growth of the Malagasy power sector has not kept pace with need.** The network has been barely able to maintain its existing service level and investment in access expansion has been deprioritized. As a result, the on-grid access rate declined from 15 percent in 2008 to 12 percent in 2017,[71] as population growth outpaced new connections (23 percent electricity access rate including both on-grid and off-grid in 2018).[72]

**New electricity connections were rationed for the following reasons.** First, Jirama, the vertically integrated public electricity and water service utility (three grid networks and 130 isolated minigrids) lacked finance for investing in grid expansion. Also, its investment and procurement practices were not efficient or based on the least-cost principle. Jirama's financial and operational performance will continue to be an obstacle to electricity access and private sector development to drive economic growth. Second, many households cannot afford to pay the connection costs. Third, Jirama has limited financial incentives to connect individual households because their low consumption is eligible for the low tariff category and Jirama cannot recover the cost. Fourth, Jirama has limited incentive to regularize the shared connections among families because the overall consumption level currently falls in the higher tariff category—thus, regularizing the connection per households would result in individual households falling in the lower tariff category.

**The lack of reliable power severely impairs export-oriented industries, such as garment manufacturing and seafood processing.** Frequent power outages and oscillating voltage cost an average Madagascar company losses of 13.6 percent in sales per year outside the capital city of Antananarivo, by far the highest among benchmark countries.[73] Power outages experienced by companies outside the capital city are frequent, with an average outage lasting two to three hours per day, more than once a week.[74] Those firms that can afford it invest in generators, but the lack of connectivity and reliable power dampens opportunities for foreign direct investment and for employment to grow outside existing population centers. In addition, micro-outages and current variations decrease companies' appetite to invest in more modern machines, which could quickly be damaged or force them to invest in back-up electricity supply. Costs to some customers ranged between US$0.80 per kilowatt-hour for power from small diesel-powered units and US$0.20 per kilowatt-hour for the largest heavy fuel oil plants in 2018.[75]

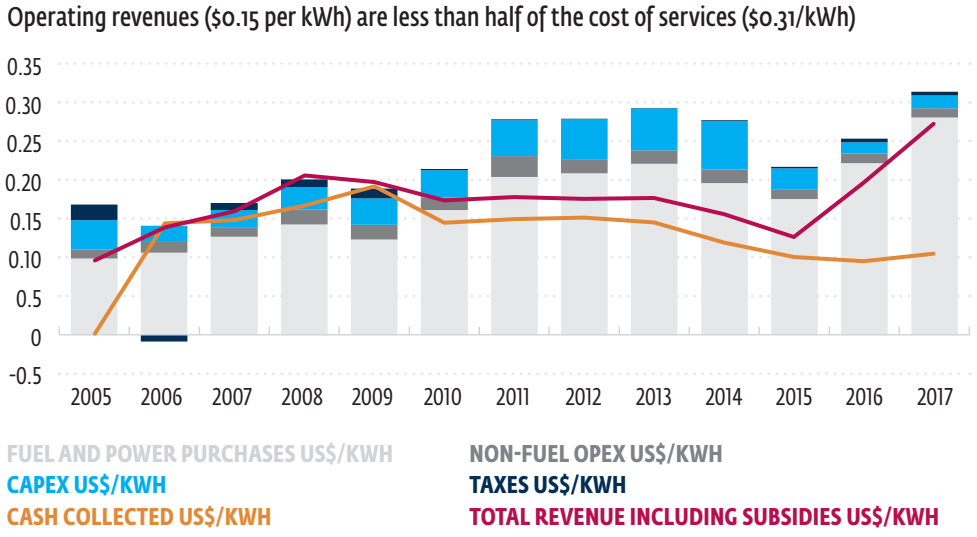
### Costly generation and inefficiencies in transmission and distribution affect the cost of electric power

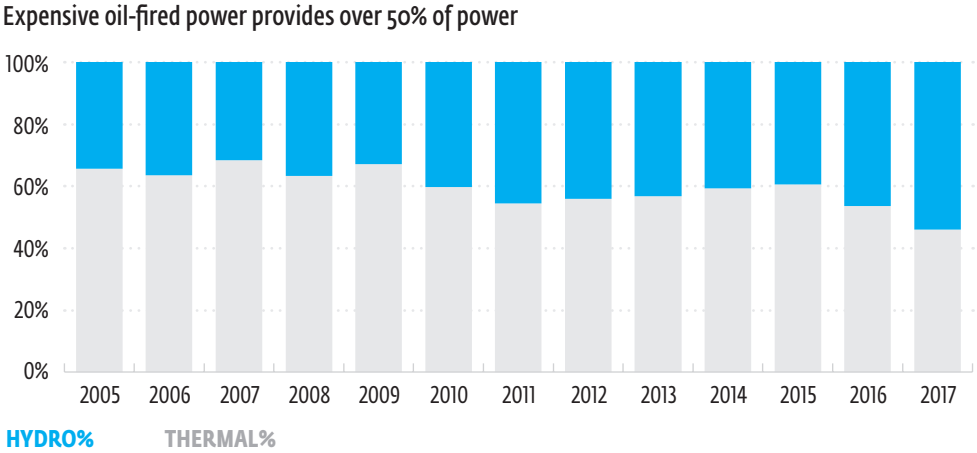
**Sizable private sector participation in generation has not yet brought expected benefits.** The private sector provides about half of power generation for Jirama as of February 2019. The government has been awarding independent power producer (IPP) contracts for thermal and renewable energy power generation through uncompetitively contracted and costly power purchase agreements (PPAs).[76] Initially the IPPs were awarded in this way to resolve a power crisis in 2003, but these practices continue to date, not only for IPPs but also other equipment and fuel procurement, sometimes redundant to ongoing projects and the least-cost power development plan.

**One-third of power produced never reaches the customer.** It is estimated that two-thirds of that loss occurs because of "nontechnical" reasons such as theft. Further, lack of maintenance causes the equipment to break down regularly, leading to even more outages and system losses and reducing the economic life of the equipment.[77]

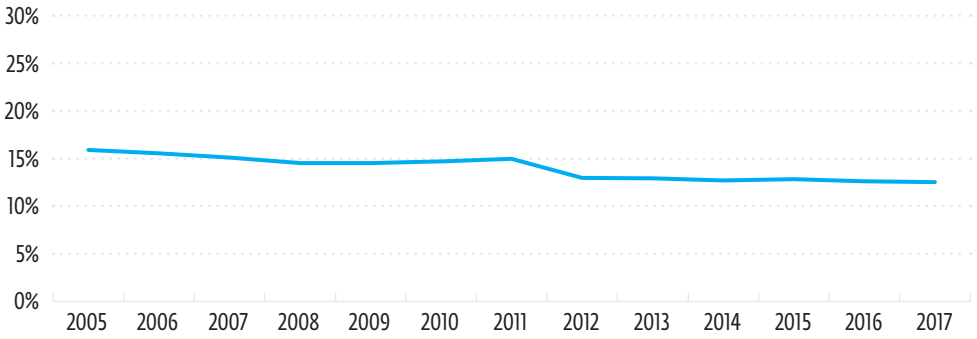
**Because of expensive IPP agreements, overpriced fuel supply contracts, and operational inefficiencies, Jirama's operating revenues of US$0.15 per kilowatt-hour are less than half the cost of service, which is US$0.31 per kilowatt-hour (figure 2.3).**[78] Between 2008 and 2015, the state utility's cost recovery rate (cash collected) fell from 84 to 47 percent, its operating margin declined from 13 to –59 percent, and its liabilities climbed from 1.3 percent to 5.6 percent of GDP. The daytime electricity tariff for industrial customers (including textile and apparel) supplied by the state-owned utility is heavily subsidized, about US$0.044 per kilowatt-hour as of 2019. Full operating costs are not passed on to some consumers, thereby contributing to the utility's rising quasi-fiscal deficit, in which the company's liabilities to suppliers were estimated at 3.5 percent of GDP in 2019.[79] Government transfers (average 1.1 percent of GDP equivalent during 2014–17) fell short of closing the gap of cash flows.

**FIGURE 2.3. PERFORMANCE MEASURES FOR MADAGASCAR'S JIRAMA POWER UTILITY**



Electricity on-grid access has declined in recent years, now standing at 12 percent




Source: World Bank. Internal Document.

Note: CAPEX = capital expenditures; hydro = hydroelectric; kWh = kilowatt-hour; OPEX = operating expenses.

**Madagascar is unusual in not having a national pricing policy for electricity.** To reflect differences in costs (particularly fuel), and in factors such as load density and load factor, Jirama has classified its networks in three "tariff zones," with prices being lowest for zone 1 (and zone 1 bis) and highest for zone 3. Zone 1 comprises three of the larger systems, where generation comes mainly from hydropower. Zone 2, including Mahajanga and Toliary, corresponds to larger thermal systems that use mainly heavy fuel oil. Zone 3 covers the rest of the systems, which generate power from plants using only diesel. Therefore, it is not surprising that large customers are mainly located in zone 1, and 99 percent of the medium-voltage customers also are in zone 1. Such a system risks regional disparities in economic development because many potential firms may not be willing to locate in the higher tariff zones, 2 and 3. Hence, developing an interconnected network, developing cheaper renewable energy sources such as hydroelectric or solar or both could promote more countrywide economic development.

**Accelerating the implementation of the new connection policy and the new residential tariff structure should contribute to improving access to electricity.** The new connection policy recently adopted by Jirama's board aims at easing "lifeline access" to affordable electricity by allowing the most vulnerable populations that are already close to the grid to get timely grid connection. The electricity regulatory office has recently approved a new residential tariff structure to align tariffs across regions to increase fairness in electricity pricing, favoring equal opportunities for economic development for each region. The effects of these reforms will be offset by tariff increases for "premium" segment customers and are expected to result in an overall increase in residential tariff revenues of about 18 percent for Jirama, contributing to the financial viability of this state-owned utility company, which should allow it to improve its services. The World Bank has supported these reforms under COVID-19 response development policy financing and other projects.[80]

### Renewable generation, off-grid systems, and energy efficiency important needs

**Madagascar has significant low-carbon, least-cost options for renewable energy for power generation.** The government of Madagascar's sector strategy calls for doubling generation capacity (from today's 577 megawatts) with 85 percent of grid electricity to be produced from renewables by 2030 (against less than 45 percent today). Meeting rapidly increasing demand while reducing the share of thermal production from almost 60 percent today to 15 percent will require large investments in diverse renewable assets. The recently completed Least-Cost Development Plan for the Malagasy Power Sector shows that, even with optimistic completion dates for new hydroelectric generation capacity coming online by 2025, more than 100 megawatts of new solar generation capacity will still be needed in the short to medium term.

**Major solar resource potential exists, but questions remain regarding grid integration.** In addition to over 7 gigawatts of hydropower resources, preliminary analysis has confirmed the substantial potential for grid-connected photovoltaic (PV) generation in Madagascar. However, a disconnected and poorly maintained transmission grid narrowly limits suitable sites to be developed in the short term to a handful of locations close to major demand centers. Other than making considerable investments in transmission infrastructure and modern power dispatch systems, investments in grid-scale battery storage will be necessary to maintain grid stability as new PV plants come online.

**Stand-alone off-grid solar (OGS) systems, distributed and operated by the private sector, have started filling the service gap** left by the slow expansion of public electricity service in Madagascar and are now estimated to serve almost as many households as the grid. To scale up the OGS market, OGS distributors will need stronger finances, lower costs of rural distribution, improved transport infrastructure, predictability of fiscal incentives, and access to management and technical skills.[81]

**Local supply systems are the least-cost solution in many cases (box 2.1).** Madagascar's difficult topography, small demand, and large distances separating load centers complicate the establishment of interconnected power grids. Self-producers or captive IPPs for businesses such as mining companies could serve as load centers and share electricity to the local community, the grids, or both, to complement the efforts of the country.

**Outside the main grids, in 2002, a Fonds National de l'Electricité (FNE) was created for rural electrification** mainly by providing investment subsidies from a tax on electricity bills to the private sector minigrid operators. It was limited because it did not allow other financial contributions. Public-private partnership authorization was also limited in geography and customers (less than 500).[82] FNE has been restructured several times to operate with greater independence and flexibility to fit a variety of service providers and funding sources.

### BOX 2.1. LEAST-COST ELECTRICITY ACCESS DEVELOPMENT PLAN AIMS TO CONTRIBUTE NEEDED POWER

**A least-cost development plan for the electricity sector concluded in 2018 that solar power with battery storage is cheaper than all thermal alternatives if it could be procured below a price threshold of around US$18 cents per kilowatt-hour.** Recent results of tenders during 2016–19 in Africa suggest that this threshold price can easily be beaten.

**The practice of uncompetitive procurement hampers Madagascar's ability to take advantage of alternative energy sources and to benefit from private sector participation in the power sector.** For example, in 2018, Jirama's first 20 megawatt solar independent power producer (IPP) plant went online with a "take-or-pay" tariff of US$0.14 per kilowatt-hour. In comparison, under the IFC's scaling solar initiative, Zambia's solar tariff for 54 megawatts in 2016 was US$0.06 per kilowatt-hour and Senegal's solar tariff for 60 megawatts was US$0.04 per kilowatt-hour in 2018. Unsolicited bids for photovoltaic projects for a total capacity of over 500 megawatts had been made in Madagascar by late 2019. Those projects are unlikely to offer competitive tariffs.

**Further, because Madagascar's only operating solar plant does not include any storage facilities and Jirama does not operate a modern dispatch center, the utility is struggling to manage the ramp up and ramp down sequences and variable solar energy fed into the grid.** The suboptimal solution adopted to stabilize the fragile and saturated grid involves significantly reducing the annual production of Jirama's only major hydropower plant (Mandraka), currently the utility's cheapest source of power, to keep the capacity reserve needed to compensate for the variable photovoltaic plant's output.

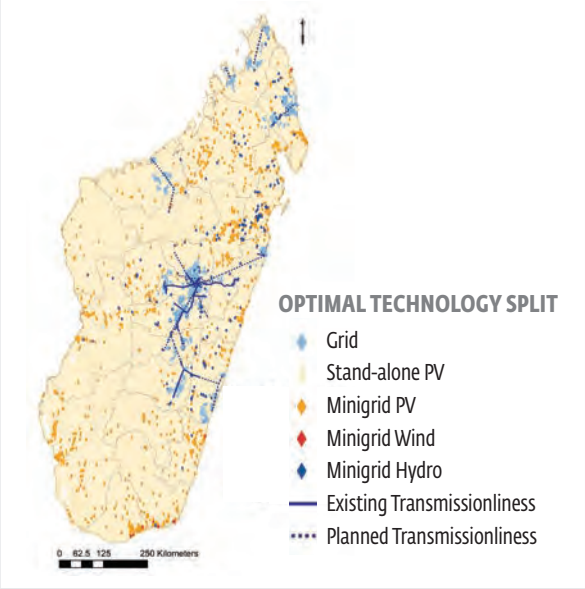
**The World Bank Group is planning to support a proposed 120 megawatt Volobe hydropower IPP project, which could contribute to decreasing the cost of the electricity supply.** The plant would charge a levelized tariff estimated around US$0.09 per kilowatt-hour, which compares with a cost of US$0.29 per kilowatt-hour for the average thermal generation that it would displace.

**Climate change is adding to the costs of the power system.** Madagascar is exposed to disaster risk, with cyclones setting back years of infrastructure investments. Extra investments to increase resilience depend on each case, but overall the extra costs, risks, and uncertainties affect private investors, who require higher returns or guarantees, adding pressures on the cost recovery tariff.

**Approvals and implementation of a new Electricity Law, a grid code, a revision of the PPP Law, and dispatch centers are necessary to realize the utility scale of renewable energy power generation.** These matters have been pending since 2019. Current electricity and PPP laws have some inconsistencies in awarding IPPs. Madagascar began drafting a new grid code in 2019. Any power purchase agreement signed before the code is enforced could lead to significant negative fiscal impacts for the government due to risks from the legal changes. The code needs to be completed before the Scaling Solar and Volobe projects reach commercial close. Furthermore, Jirama manages grids without dispatching centers, making variable renewable energy integration difficult.

**Private sector minigrid development with nonthermal energy sources could electrify Madagascar more quickly and at a lower cost than trying to expand the existing grid.** Figure 2.4 displays the locations where the different electricity generation technologies would be used for the least-cost plan. Stand-alone diesel and minigrid diesel systems are absent from the map because they were not able to provide least-cost electricity. Grid-extension is a suitable option in central and northern parts of the country. Minigrid hydro systems are predominantly found in areas with high resource (water) availability, while solar photovoltaic systems seem to be deployable in many locations throughout the country. Grid connections in urban and peri-urban areas can be achieved at a comparatively low cost per connection through grid densification.

**FIGURE 2.4. OPTIMAL TECHNOLOGY SPLIT FOR LEAST-COST ELECTRICITY**




Source: KTH Royal Institute of Technology, "Electrification Pathways for Madagascar: An Analysis Based on the Open Source Spatial Electrification Toolkit (OnSSET)" (KTH Energy Sources Analysis division, Stockholm, 2018).

Note: PPP = public-private partnership; PV = photovoltaic.

Source: World Bank Internal document.

Note: IPP = independent power producer.

**At the same time, energy efficiency could play a big role.** Energy efficiency has been called the fuel you do not have to use—it is abundantly available and cheap to extract. On the supply side, investing in operations and maintenance could contribute to reducing technical losses. To obtain heat energy, liquefied natural gas could be substituted for heavy fuel oil. The OGS market, especially the very basic lighting markets, could be further expanded. Madagascar should develop a recycling plant at scale, which could generate electricity and reduce health and environmental hazards by handling waste (in October 2019, the Japanese government announced it would finance Madagascar's first large scale recycling plan, a US$34 million recycling plant).

**Demand-side management practiced by the private sector could do much to stretch the supply of electricity.** As mentioned, large energy consumers could have energy audits to identify opportunities to save energy and costs and to improve efficiency. Jirama's move toward financial recovery will inevitably be accompanied by a rise in tariffs, which should cause industrial customers to start investing in more energy-efficient solutions. Adopting such solutions not only would increase the reliability and lower the cost of energy and other resources but also could contribute to attracting international investors and partners, who view addressing climate change, the circular (waste-free) economy, and labor standards as critical to the survival of industry.

### Access to clean and affordable cooking fuels

**On the household side, less than 1 percent of households in 2017 had access to clean cooking fuel, leaving more than 26.5 million without such access and threatening their health.**[83] Household air pollution (HAP) is the second leading cause of death and disease in Madagascar.[84] Average concentrations of fine particulate matter in homes using biomass fuels exceed European Union standards by up to 100 times. Such air pollution increases the risk of life-threatening illnesses, particularly in children and women over 30, two vulnerable groups in the public health sector. The burden of ill health due to HAP stands at nearly 12,000 deaths per year, of which 10,000 per year are children under the age of five.[85] About 20 percent of all deaths of children below the age of five are due to acute lower respiratory infections and 370,000 disability-adjusted life years are estimated to be lost every year due to HAP.[86]

**Cooking with biomass fuel also threatens biodiversity and contributes to deforestation and land degradation, reducing productivity and increasing global warming.** The practice has links to deforestation in certain zones where biomass is collected illegally from native forests.[87] Loss of trees represents lost habitats for various animal species unique to Madagascar. The loss of ground cover impairs the water cycle, drying the microclimate. Thus, cooking practices reduce agricultural output while contributing to greenhouse gases and pollutants.[88] Alternative cooking methods can reverse the trends.[89]

**Promotion of ethanol cooking and liquefied petroleum gas (LPG) could help in this direction:**

- In 2019, a World Bank report noted that the same excise duty rate was applied to drinking alcohol and to fuel ethanol. As a result, some private sector distributors have to pay excise duties on drinking alcohol to clear their ethanol. Furthermore, value added tax (VAT) is 20 percent of the fuel. This results in a significant loss for distributors and prevents them from distributing ethanol at an affordable price. Additionally, licensing and authorization for some local ethanol producers is unclear and excessively long. Ministries lack the capacity for key steps, such as completing an environmental impact assessment. There is an urgent need for policy makers to clarify the situation so that the market can continue to develop.
- Preliminary discussions with private sector players indicate that the demand for LPG in Madagascar needs sustainable policy initiatives and incentives to trigger action. The major private players believe there is scope to enlarge the target market and target the lower income bracket. LPG is expensive, with a 9 kilogram bottle costing US$30 while the average price in other similar African markets is US$12. The size of cylinders needs to be suitable to fit income strata. Under IFC's support to LPG cooking in Kenya, the business model made LPG available and affordable for bottom-of-the-pyramid customers.[90]

### Recommendations during the next three years to address energy constraints

**In the near-term, Jirama should focus on improving its operational and financial performance as part of the medium-term recovery plan.** Jirama should (a) implement the new electricity consumer tariff structure based on efficient pricing optimization and cost recovery; (b) reduce technical and nontechnical system losses; and (c) review operational practices, including procurement, operations and management, administration, inventory, human resources, and training, and identify which controllable costs could be reduced by improving efficiency. The government of Madagascar has committed to implementing a medium-term recovery plan for Jirama. This plan should balance Jirama's accounts, address the issue of accumulated liabilities to avoid the risks of increased public transfers and financial distress, and improve the production and distribution of electricity. A broad medium-term strategy was endorsed by Jirama's board in October 2019. It specifies measures including efficiency improvements (such as optimizing fuel supply and improving collection); a strategy for restructuring remaining arrears; the renegotiation of thermal contracts (expected to generate large savings); investments in hydroelectricity; possible adjustments in the tariff schedule; and a residual subsidy from the government to cover the cash deficit.

**In terms of policy, the pending Electricity Law decrees and a new grid code should be approved and implemented.** The decrees allow the government of Madagascar to legally award production-related concession agreements to any private sector operator that would be competitively selected. Madagascar initiated the drafting of a new grid code in 2019 and needs to complete it to enable commercial close for new projects, including Scaling Solar and the Volobe and Sahofika hydropower projects.

**In the medium-term, as the economy moves into the recovery phase, revision of the Public-Private Partnership (PPP) Law and establishment of a dispatching center are essential to expanding the quality (that is, reliability) of the electricity supply provided at affordable costs by PPPs.** Private sector participation is governed by a multilayered set of inconsistent legal texts. The PPP Law needs to be amended to remove legal impediments to PPP implementation. Jirama manages over 100 electricity grids across the country. None of these grids has a dispatching center. Without dispatching centers, Jirama will be able to produce electricity only with thermal plants (that produce firm power) and not with solar/wind power plants (that produce variable power).

**Although addressing governance issues may be a long-term process, bottom-up solutions—such as energy efficiency and conservation, fuel substitution, and off-grid renewable energy—could be initiated in the near-term and scaled up.** During CPSD consultations, the team identified private sector solutions that could help with access to clean energy. The government should work to promote demand-side and supply-side efficiency and conservation as well as fuel substitutions; to expand conservation through the circular economy; and to install the first large scale national recycling plant with potential energy generation.

**On the private sector side, large electricity and water users such as industrial customers should conduct energy and water audits (water systems consume significant energy) and implement demand-side energy and water measures.** This practice also should be scaled to small users and should be sustained even after the recovery (priorities are the industrial, manufacturing, services, health, and education sectors) to assess the potential for power generation from waste. Some industry and manufacturing companies could transition from heavy fuel oil to liquefied natural gas for heating energy where feasible.

**Creating a larger market for cleaner cooking can help mitigate the health and deforestation problems.** Some private sector firms have already been interested in wider distributions of LPG and ethanol for cooking. The government of Madagascar should remove the country's kerosene subsidy to allow solar-powered lighting to compete on a level playing field and should clarify and streamline the ethanol policy and regulations. The government and the private sector should conduct a feasibility study for piloting investments in projects that promote cooking with LPG to increase penetration in the market at affordable costs and to identify if specific policies are required—for example, carbon (and health impacts) financing.

## Digital Infrastructure

**Digitalization and digital transformation are critical to Madagascar's development agenda.** While the country enjoys among the fastest fixed broadband download internet connections in Sub-Saharan Africa, and has a dynamic BPO and information technology (IT) outsourcing sector, the digital transformation in other sectors has been slow due to major challenges in electricity and internet access. It is also critical to have a sufficient and adequately skilled workforce to successfully manage digital transformation. Box 2.3 reviews the trends and challenges in the digital economy.

### BOX 2.2. DIGITAL ECONOMY SHOWING POTENTIAL TO CREATE JOBS

**Madagascar's nascent digital economy has seen positive developments in recent years.** Private sector investments deployed submarine fiber optic cable that connected Madagascar in 2009, with further upgrades in capacity completed in 2021. A growing international connectivity has enabled Madagascar's telecom operators to offer one of the fastest fixed broadband internet connections in Sub-Saharan Africa.

**Combined with the availability of graduates, these investments have contributed to the expansion of the business and knowledge process outsourcing (BPO/KPO) sectors**, one of "bright spots" in the economy according to the Country Economic Memorandum—a sector contributing to job creation, with links to other sectors of the economy. The BPO sector generates an estimated US$115 million in revenue and has created around 45,000 jobs[91] to date, which could rise to 100,000 by 2030.a As of 2020, 3G networks covered 78 percent of Madagascar's population and LTE (4G) covered 67 percent. This has favored the growth of DFS and the uptake of social media and CivicTech initiatives.

**Despite these encouraging figures, the challenges remain substantial, and enacting a digital transformation will require targeted and sustained support.** Internet usage (less than 10 percent of the adult population uses internet, according to the WEF Global Competitive report 2019) and digital services uptake (figure 2.5, panels a and b) are still constrained by low levels of basic

digital skills (ranking 132 of 141 countries in digital skills among active population in the WEF report) (figure 2.5, panel c), the high cost of internet service, and internet-capable and structural factors such as lack of electricity. Furthermore, limited competition adds to the costs. These factors curb the provision of digitally enhanced services in both the public and private sectors and create barriers for trade, commerce, communication, and human development. Creating the enabling environment for the expansion of new skill acquisition, entrepreneurship, and DFS will be crucial.

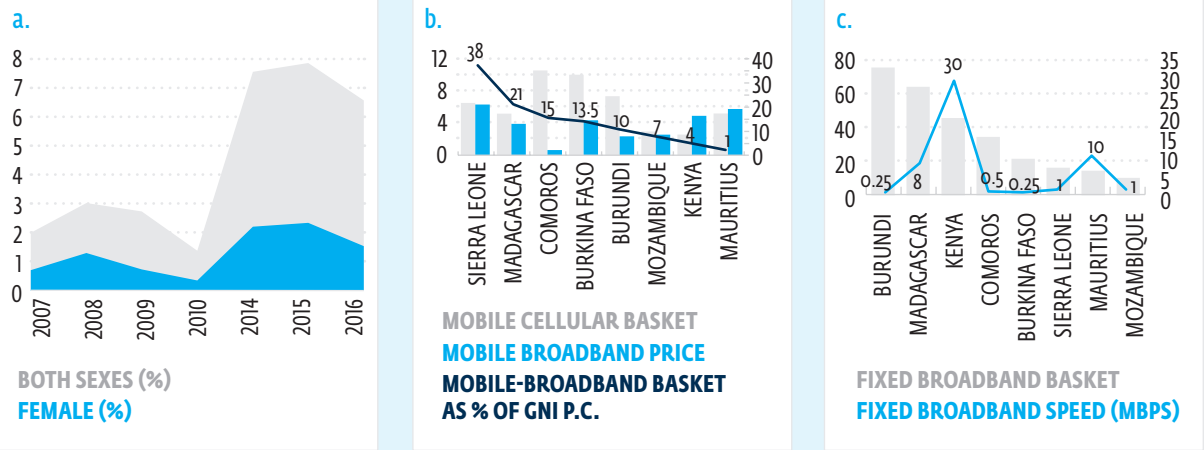
**The arrival of COVID-19 has shown that a well-functioning digital economy is critical infrastructure.** ICT has proven essential to allow people and businesses to communicate and maintain their operations while lockdown measures to mitigate the spread of COVID-19 are in place. To get the maximum benefit, digital policies should focus on (a) increasing bandwidth and managing congestion to keep the internet from breaking; (b) insuring the continuity of public services to safeguard the welfare of populations; and (c) powering financial technology to support the most impaired businesses and communities.

**FIGURE 2.5. DIGITAL FACTORS IN MADAGASCAR**

a. Share of graduates from ICT programs

b. Cost of mobile cellular basket, mobile broadband, and mobile broadband basket (% of GNI per capita)

c. Cost of fixed broadband basket (US$, 2017) and broadband speed (Mbps, 2017)




Source: panel a. World Bank, "Madagascar Digital Economy Assessment (DEA)" (World Bank, Washington, DC, 2019); b. and c. International Telecommunication Union ICT Price Baskets (https://www.itu.int/net4/ITU-D/ipb/).

Note: GNI = gross national income; ICT = information and communication technology; Mbps = megabits per second; p.c. = per capita.

Source: This box and recommendations are based on the IFC 2021 Madagascar Digital Assessment Internal Report.

Note: 3G = third generation internet; 4G = fourth generation internet; BPO = business process outsourcing; DFS = digital financial services; ICT = information and communication technologies; KPO = knowledge process outsourcing; WEF =World Economic Forum.

a. World Bank, Madagascar Country Economic Memorandum (Washington, DC: World Bank, 2019).

b. WEF (World Economic Forum), Global Competitiveness Report 2019 (Geneva: WEF, 2019).

**An efficient regulatory framework and a level playing field for all market participants are needed to scale broadband penetration.** Three major issues would need to be addressed. First, affordability—domestic internet protocol (IP) transit prices will have to decrease to achieve lower end-user mobile broadband prices and increase the availability of broadband capable devices. Second, service coverage and quality—currently, 22 percent of the population in Madagascar is not covered by mobile broadband network (coverage gap), while an additional 60 percent is not connected despite having access to a network (usage gap) in 2020. A holistic approach that addresses not only high costs but also handset penetration and content quality is critical in reducing both coverage and usage gaps.[92] Third, regulation and market competitiveness—effectively enforcing an open market entry policy will simultaneously drive prices down and increase the quality of the offer.

**Key regulatory and policy recommendations for the development of a competitive digital infrastructure include the following:**

- **National ICT strategy**: The country requires a clear statement of ICT policy that embraces further steps toward ICT liberalization and provides a degree of predictability to all market participants.
- **Telecom Law revision**: The Telecom Law should be revised to increase the independence of the regulator, allow it to perform market reviews and dominance designations, and equip it with more effective enforcement powers.
- **Spectrum allocation and pricing**: A spectrum roadmap should be issued to allow for more coherent spectrum pricing.
- **Digital literacy**: Policy changes aimed at increasing digital literacy are required to support broadband usage. The section on human capital discusses this important issue in more detail.
- **Revision of the PPP Law and implementation:** The revision and implementation of the PPP framework are necessary conditions for the expansion of the digital sector, as in other sectors like energy.

**Successful implementation of the recommendations presented above can decisively boost broadband adoption.** Estimates based on this scenario indicate that the share of the population connected to mobile broadband would increase from 18 percent in 2020 to 60 percent in 2030, while fixed broadband would increase from 1 percent to 16 percent. This favorable development compares to an increase of just 30 percent for mobile broadband and 2 percent for fixed broadband in the scenario where no regulatory reforms are implemented.[93]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## 2.3 FACTORS OF PRODUCTION: IMPROVING ACCESS TO SKILLS, FINANCE, AND LAND

### Human Capital

**Low levels of human capital are a result of living conditions among poor households and food insecurity, exacerbated by coverage gaps and low-quality education and health services.** Since independence in 1960, the Malagasy population has multiplied about fivefold, whereas real economic output has only tripled, putting pressure on public schools and hospitals. The Human Capital Index score of 0.37 means that children born in 2017 will be only 37 percent as productive as adults as they would be if they grew up with a complete education and full health.

**Poor health outcomes have a huge social and economic cost.** One of the areas in which Madagascar scores worst on the Human Capital Index is stunting (about 49 of 100 children are stunted, the fourth-worst proportion in the world). Children who are stunted are more likely to do poorly in school.[94] Malagasy's water, sanitation, and hygiene indicators ranked the third-worst in the world, and poor sanitation is closely related to stunting. The previous section indicated how important clean energy is to health. The weak health system has led to Madagascar's suffering the largest measles epidemic in the world.[95]

**Human capital is a key determinant of labor productivity and plays an essential role in determining a country's long-term development path.**[96] The Global Competitive Index ranks the inadequacy of an educated labor force as Madagascar's seventh most problematic constraint, with the country ranked 123rd of 137 economies. The rest of this section reviews education and skills in more detail.

## The Growing Role of the Private Sector in Education and Skills Provision

**Overall education levels remain low, with a secondary school completion rate of only 31 percent for males and 42 percent for females.**[97] The low capacity of teachers to instruct in subjects such as mathematics and French hampers the ability of students to develop basic vocational skills as well as skills in business and management, financial literacy, and ICT, and for operating in a francophone environment. In Madagascar, 97 percent of children at late primary age today are not proficient in reading, adjusted for out-of-school children.[98]

**The share of students going to private schools has grown, particularly at higher levels of education.** Private schooling caters to 19 percent of primary-level learners in Madagascar, but it mainly serves well-off and urban learners. However, some religiously affiliated schools operate in remote areas. At all levels of education, private schools were 27 percent of total school establishments in 2018. Private schools make up the largest share in colleges (grades 6–9), lycées (grades 10–12), and higher education, at 56 percent, 72 percent, and 85 percent, respectively.

**In primary education (grades 1–5), private schools, which represent less than one-quarter of institutions, provide better education than do public schools, but teacher capacity is similar.** Malagasy children seem to learn math better than reading, and students in private schools learn more. Four of 10 children in primary school drop out before the last grade. A persistent share (20 percent) of learners repeat their class every year in public schools (only 7 percent in private schools). Public schools have a greater school absence rate, at 35.9 percent, than private schools do, at 14.4 percent, especially in urban public schools, where the absence rate is 41.9 percent. Even when students are in school, teachers may not be in the classroom teaching: teachers in public schools are almost twice as likely to be absent from classrooms (42.2 percent) than are their colleagues teaching in the private sector (24.4 percent). In college and lycée, the quality of private education is slightly better than that of public. Both private and public colleges are struggling financially.

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**Madagascar has 141 universities, of which 120 are private universities, which have sprung up in Madagascar since the early 2000s.** A few highly specialized private institutions have emerged more recently that focus on subfields, such as graphic design and multimedia. Although the Ministry of Higher Education intends to inspect private universities to assure their quality (through the Centre National d'Habilitation), because of lack of funds no inspections were carried out in 2018. The proliferation of low-quality private sector training institutions is a concern, as only 13 percent of candidates were able to pass the public service entrance exam in 2018.[99] While institutions currently must receive accreditation certificates from the Ministries of Health and Higher Education, there is no effective regulatory body to ensure accreditation quality. Public universities obtain funding from a variety of sources, such as partnerships and donors but the investment is very low. Private universities depend on tuition fees only.

**To fill the skills gap, large private companies have been providing Malagasy workers with limited training for specific technical tasks, but the majority of workers lack such opportunities.** Anecdotal evidence indicates that large export-oriented companies (such as in apparel and ICT-BPO) furnish their own training programs to compensate for the deficiencies of the education system and are thus able to operate at productivity levels similar to those of countries that specialize in labor-intensive manufacturing and services. But the majority of the workforce lacks such opportunities because of informality, and they are vulnerable to difficult working conditions. For example, the artisanal mining sector at the peak of production employs 0.5 million people—significantly more than the textile industry.

**Digital skilling of Madagascar's young and growing population is urgently needed to drive digital transformation of both government and key business sectors, enable full participation in the digital economy, and realize economic growth.** The availability of graduates with digital and French language skills has enabled the growth of the digital economy, one of the bright spots regarding formal skilled jobs. The development of digital skilling programs at scale through public-private partnerships can create thousands of new jobs, as well as up-skill and re-skill existing employees in high-growth and high-potential industries. Expanding the talent pool in a targeted way would create pathways to prosperity for young people (box 2.4).

### BOX 2.3. INVESTING IN DIGITAL SKILLING CAN CREATE JOBS AND ACCELERATE DIGITAL TRANSFORMATION

**It is critical to have a sufficient and adequately skilled workforce to successfully manage digital transformation.** While Madagascar has some good education and training providers, current digital skilling mechanisms will fail to produce sufficient talent to unleash GDP growth and digital transformation across key sectors. Public and private stakeholders need to come together to effectively coordinate and address the digital skills gap. The current issues that need to be taken into account are the following:

- **Mismatch of supply and demand for digital skills.** Curricula and training methods are not aligned to industry requirements. Absence of knowledge-exchange mechanisms between employers and training institutions, such as job competency frameworks and apprenticeship programs, contributes to a persistent gap between expectations and needs by employers and outcomes by digital skilling programs. In a survey of 135 companies across sectors in Madagascar conducted by IFC in 2021, 45 percent of respondents reported an inadequate level of digital skills in their workforce.
- **Funding a core constraint to scaling digital skilling programs.** Individual trainees often do not have the resources for tuition, and there are few programs to help students finance their education. Employers have little incentive to invest in training due to high employee turnover.
- **Undersupply of digital skills talent to meet growing need.** An acute shortage of digital skills will limit GDP growth in certain sectors. For example, the same IFC survey suggests that to keep pace with the 20-plus percent projected annual growth in the IT/BPO sector, around 7,500 new highly skilled IT professionals (software engineers, application developers, cloud architects, and so forth) will be needed each year for the next five years, yet only 2,000 such professionals are being trained annually. Securing the necessary talent to enable projected growth requires 5,500 additional people be trained each year.
- **Need for greater public-private collaboration to unlock systemic bottlenecks and deploy innovative new approaches.** Several market failures lead to the quantity and quality gaps in digital skills. Industry, employers, training providers, and government need to come together to define skills and standards, facilitate demand aggregation, and support the financing of training programs. Successful partnerships can result in significant economic and social benefits.

**A digital skilling program to address the demand for skilled professionals in the IT/BPO sector could have immediate payoffs.** While higher quality digital skills are needed across sectors and levels (low, medium, and high digital skills complexity), one area that could generate significant employment, and have major spillover effects to other sectors, is a digital skilling program to address the approximately 30,000 new high-complexity digital skilled professionals the IT/BPO sector needs over the next five years. Securing this talent can also generate an estimated US$50 million in tax revenues for the Malagasy government over the next five years, thanks to new jobs created and increased economic output. Enhanced capacity in the domestic IT outsourcing sector can also accelerate the digital transformation of other sectors, ultimately leading to stronger GDP growth, as well as increasing the human capital and knowledge spillovers to the rest of the economy. Other digital skills programs can also bring strong benefits, but require additional ecosystem challenges to be addressed in parallel.

Source: Based on the survey collected as part of the IFC 2021 Madagascar Digital Skills study.

Note: BPO = business process outsourcing; GDP = gross domestic product; IT = information technology.

### Recommendations during the next three years to address human capital constraints

**In the near-term, integration of digital teaching in education systems at all levels should be actively explored.** A digital education system could reach remote and sparsely populated areas, such as through greater use of massive open online courses. The private sector could support public education in adopting the digital system.

**Given advances in education technology, private sector expertise could enhance the quality of education and enhancements to vocational training given the growing young population.** The private sector could help the public sector obtain know-how to evaluate the reliability and suitability of new technologies and inform the up-to-date skills required in the labor market.

**The COVID-19 pandemic is putting at risk the skills gained on-the-job and productivity of human resources.** Given that a significant number of firms closed permanently or temporarily, in-house training opportunities have also stopped or become further limited. Some workers have even been laid off or furloughed. In the rescue phase, support to new and current (or formal) workers, particularly youth, is critical to help them reengage with more productive activities through refreshing and retooling skills (including through vocational training) and upgrading to adapt to a postcrisis context (for example, increased digitization of operations).

**During the recovery phase, an independent regulatory body needs to be established to ensure the quality, efficacy, and efficiency of educational institutions.** The key to improving education in Madagascar is enhancing the ability of teachers, especially at the public primary school level and in key subjects such as mathematics and French. A possible route to improvements could be obtaining the private sector's support for use of educational technology to enhance the quality of public schooling and vocational training, particularly through teacher training.

## Access to Finance

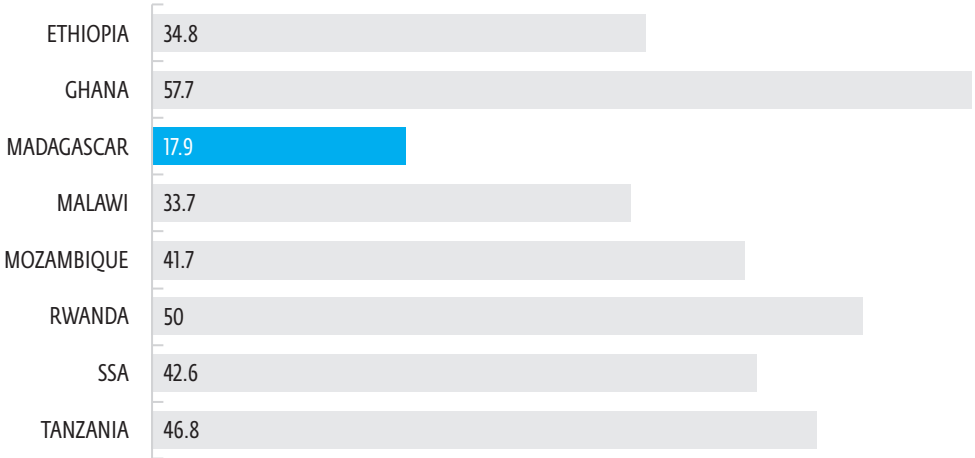
**The financial sector, largely dominated by banking activities, remains well-capitalized.** It consists of 11 banks, with the 4 largest banks belonging to foreign groups. Together, these 4 banks hold 80 percent of the total assets. The other banks include privately owned domestic banks. The banking sector was relatively well capitalized with enough liquidity until the COVID-19 outbreak, standing at 12.7 percent, well above the 8 percent capital adequacy ratio, and with ample liquidity buffers—as confirmed by annual stress tests conducted by the supervisor. The liquidity ratio was 35 percent, and the return on equity stood at 43.1 percent while return on asset was at 4.4 percent; these compare favorably with other countries in the region. Despite the relative stability of the banking sector, nonperforming loans (NPLs) have been going up from 15.5 percent in 2017 to 18 percent in 2019.

**The microfinance institution sector faces a deterioration of credit portfolio quality, worsened by the impact of the COVID-19 pandemic.** Over the past few years, the activities of microfinance institutions (MFIs) have expanded rapidly, even though the sector accounts for only 5 percent of the total financial system assets and less than 2 percent of the country's GDP. Microfinance has become a viable source of financing for MSMEs and low-income populations in Madagascar (1 million customers, US$164 million of outstanding loans and US$110 million in deposits, and 710 service points as of May 2020). Due to the pandemic, however, MFIs have seen a 30 percent decrease in deposits and an increase in the share of NPLs from 15 to 30 percent of the total portfolio. Several MFIs face liquidity constraints and are therefore limited in their ability to take risks and expand their branch network into rural areas. Moreover, financial management is deemed poor, mostly because of weak IT systems. Lastly, many MFIs lack experience in digital technology and did not expand their activities to branchless banking. To further address bottlenecks to financial inclusion, some government-sponsored initiatives by banks and MFIs aim to increase access to credit to wider segments of the population, notably in rural areas, through electronic payment platforms developed with mobile phone operators.

## Access to finance

**Access to financial services has increased, essentially driven by rapid adoption of digital financial services.** According to the World Bank's 2017 Global Findex Survey, the percentage of adults with a transaction account increased to 17.9 percent in 2017, from 8.6 percent in 2014, well under comparator countries, Sub-Saharan Africa (43 percent), and the global average (69 percent) (figure 2.6). Speed of growth is attributable to mobile money account ownership, which tripled during the same period. The licensing of additional e-money issuers in 2018, under the Inclusive and Resilient Growth Development Policy Financing project, has contributed to an increase in the value of mobile money transactions, from 1,125 billion to 1,685 billion Malagasy ariary between 2016 and 2019.

**FIGURE 2.6. ACCESS TO A BANK ACCOUNT AMONG COMPARATOR COUNTRIES, PERCENT OF ADULTS**



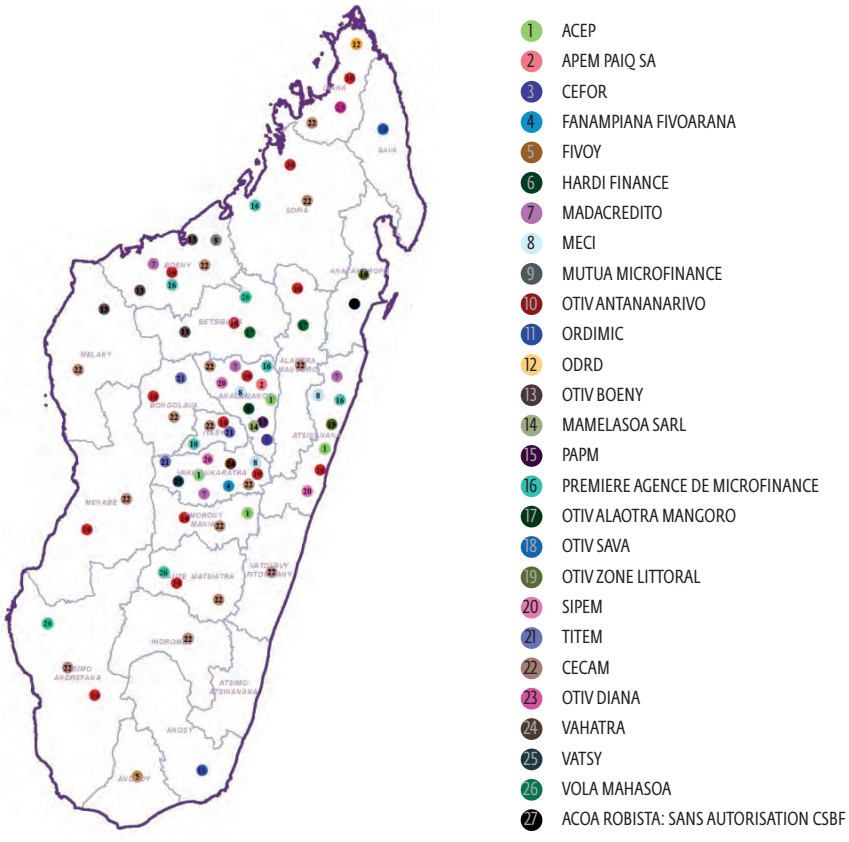

Source: World Bank, Global Findex data, 2017.

Note: SSA = Sub-Saharan Africa.

**However, geographical inaccess to financial infrastructure hampers financial inclusion.** The 2019 Financial Access Survey indicates an extremely scarce banking access network with 2.94 ATMs and 2.38 commercial branches per 100,000 adults, well under what is available in comparator countries (Mozambique, 10.82 ATMs, and Kenya, 9.12 ATMs, per 100,000 adults). Banks face high costs in expanding branch networks into rural areas, where 80 percent of the population lives but few households have enough income to make them conventional bank customers.[100] Digital payments tripled in three years, from 5 percent to 15 percent between 2014 and 2018, but access to other services, such as savings and credit through digital platforms, remains limited, revealing a strong attachment to cash. The remittances dynamic also proves this trend as more people receive remittances through cash and over the counter than through an account. Mobile money still represents only 3 percent of GDP, while it is at 8.8 percent in Mozambique and 74 percent in Ghana.

**Dominant drivers of financial exclusion (lack of account ownership) in Madagascar stem from the high rate of poverty,** according to the Global Findex survey. Over 75 percent of Malagasy attribute lack of account ownership to insufficient funds. Forty-eight percent attribute their lack of account ownership to the high cost of financial services, which digital financial services (DFS) could help reduce. Forty-seven percent attribute their lack of accounts to remoteness from financial services (figure 2.7). Forty-six percent of the people surveyed attribute lack of an account to their lack of documentation to open an account. Other key reasons highlighted for lack of financial accounts include lack of trust in financial institutions, religious reasons, and lack of literacy skills.

**FIGURE 2.7. LOCATION OF MICROFINANCE ENTERPRISES**



**Access to credit continues to be limited, especially for the poor, the less educated, women, and rural populations.** In aggregate, only 4 percent of Malagasy above 15 years of age have borrowed from financial institutions—one of the lowest levels of access to loans in Sub-Saharan Africa. This number is even smaller for the rural population (2 percent), bottom 40 percent of the population (2 percent), women (3 percent), and people without secondary education (3 percent). However, most Malagasy people borrow from family and friends, a source that usually neither needs collateral nor charges transaction costs.

**Access to finance is also a key constraint to private sector businesses, especially small firms.** The 2016 World Economic Forum (WEF) survey shows that access to financing ranks as the second highest among the most problematic factors for doing business in Madagascar, a one-step deterioration from 2015. The 2014 Enterprise Survey shows that in Madagascar only 4 percent of investment is financed by bank loans (compared with 10 percent for the Sub-Saharan Africa region) and only 6 percent of working capital is financed by bank loans (compared with 9 percent for the Sub-Saharan Africa region).

**Access to finance seems to be concentrated in medium-size manufacturing firms, with a slight bias toward firms run by male managers.** The 2014 Enterprise Survey suggests that 4.3 percent of all investments in the manufacturing sectors were financed by loans (4.2 percent in the services sector), while 9.4 percent of working capital in the manufacturing sector was financed by loans (4.3 percent in services). Manufacturing firms in mining-related and textile activities had the highest access to loans for financing their investments (8.8 percent and 8.0 percent, respectively) and for working capital (20 percent and 18 percent, respectively). Small firms (with 5–19 employees) have the least access to finance, financing just 1 percent of their investments and 2.5 percent of their working capital through bank loans. Medium firms (with 20–99 employees) have the highest access to loans, financing 6.8 percent of their investments and 17 percent of their working capital using bank loans. Small firms are often perceived as too risky, requiring significant collateral or guarantees. Firms managed by males finance a higher proportion of their investments and working capital (4.4 percent and 7.2 percent, respectively) than do those managed by females (3.5 percent and 4.2 percent, respectively).

**Strengthening financial access would buttress Madagascar's emerging entrepreneurial spirit.** According to the World Bank's 2019 CEM, evidence from the 2017 Global Entrepreneurship Monitor's survey suggests that an estimated 22 percent of the working population is engaged in entrepreneurial activity, with the country ranking 7th out of 54 countries in the lower-income group, second only to Vietnam. Entrepreneurship is viewed as a good career choice but is largely concentrated in the informal sector and dominated by small firms. Providing access to finance (along with training) would be useful for encouraging more formal entrepreneurial activities.

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## Digital financial services

**The rapid expansion of mobile money services has become an important opening for financial inclusion in Madagascar.** The dynamic in Madagascar is following the trend in Sub-Saharan Africa, where the gains in financial inclusion have been driven by mobile money, although to a lesser extent than in countries like Kenya and Uganda.[101] With the three existing mobile money providers, demand for mobile money increased steadily, the number of active subscribers reaching 1.3 million (about 10 percent of the adult population) in June 2018 (up from 758,589 in 2015). The accounts are mainly used to make money transfers and pay basic utility services such as electricity and water. Some government operations—such as tax collection in pilot communes (municipalities) of Madagascar—are operated by these mobile money providers. The World Bank Madagascar Financial Inclusion Project (P161491) supported digitalizing the payment of teachers' salaries and scholarships for students in remote areas.

**The increasing use of digital financial services has the potential to unlock financial inclusion for the poorer and underserved population in remote areas.** Increasing use of digital delivery channels is particularly important in the context of COVID-19. Temporary crisis-related payments to individuals and businesses are best made through electronic (digital) systems with lower cost, more control and transparency, faster payments, and decreased risks of waste and fraud. The spread of DFS in remote areas (cash points of service, agent distance banking), where traditional financial services are not present, creates an opportunity to reach out to the underserved. Mobile money operators cover most of Madagascar with 3G (third generation internet) and 4G (fourth generation internet) services. Some banks and microfinance institutions have started leveraging partnerships with these operators to target individuals and informal and very small enterprises all over the islands. These firms operate with a minimum know-your-customer process and offer digital savings products through mobile savings accounts and nano-loan products (ranging from US$2 to US$100) and at a shorter maturity, from one hour to 30 days.

**To encourage the scale up of DFS, several constraints need to be addressed:**[102] (a) the legal and regulatory framework for DFS is limitative and not up to date with digitalization developments; (b) cost of entry into the market for new competitors is high; (c) existing and potential DFS operators need capacity building; and (d) a financial literacy program and consumer protection framework is needed to accompany the use of DFS instruments.

**The legal and regulatory framework for DFS is not able to keep up with the market dynamics.** The World Bank Inclusive and Resilient Growth Development Policy Operation (P162279) in 2016 supported the implementation of the legislation on e-money and e-money institutions, which regulates the issuance of e-money and defines the regime of e-money issuers. To date, five e-money providers[103] are legally licensed by the regulator. However, the regulator lacks the capacity to supervise the new DFS providers operating financial technology tools and to monitor the market environment.

**There is a potential to develop a comprehensive DFS market system.** The authorities have invested in improving information in the credit industry, through the development of the public registry and the new private credit bureau, with support from the World Bank and IFC. Leveraging the data from the new credit bureau, the government could invest in new tools such as market sharing data or an e-know-your-customer (e-KYC) platform and database that could help to monitor the market, increase the authority's supervision capacity, and leverage private sector expertise in the system. This effort would not only allow information consolidation and sharing by the government to enable a competitive and transparent environment, but would also create a market for transparent public information to promote competition in the financial sector.

**The high cost of entry into the DFS market and technology limitations challenge banks and MFIs to adopt DFS.** Most financial actors operate with old systems that are incompatible with the required IT systems, and half of existing MFIs do not have integrated basic management information system systems.[104] Market distortions related to security fees and entry fees for new electronic money providers need to be corrected. Telecommunications companies are practicing anticompetitive behavior by limiting financial institutions' access to the Unstructured Supplementary Service Data (USSD) channel and by keeping tariffs high.

### Affordable housing and leasing

**Access to finance to buy and upgrade housing is impossible for most Malagasy households.** Owning a house has always been perceived culturally as a sign of social achievement in Madagascar; 87 percent of Malagasy households live in self-built housing. Most of the residential housing development sector targets high-income households and expatriates. Few, if any, private property developers focus on building affordable and well-located units. However, the high cost of acquiring and servicing land increases the prices of the housing, making it unaffordable for the economically weaker segments of society.

**Different factors have affected the lack of access to affordable and well-structured housing in Madagascar:** (a) large-scale migration from rural to urban areas that has resulted in informal and unstructured settlements; (b) vulnerability to natural disasters, including floods and cyclones, which are exacerbated by climate change; (c) the absence of a social housing scheme; (d) limited financing options available to beneficiaries; (e) high rates of poverty and inequality and high costs associated with construction; and (f) inefficient property registration and construction permit processes.

**To resolve this housing deficit, the government's PEM highlights building affordable housing in partnership with the private sector.** The government aims to define a housing policy for low-income households in vulnerable and slum areas, based on a leasing-sale model , in partnership with the private sector. This program would be accompanied by a decentralized land policy, and those vulnerable households would be relocated to a new special settlement area under a long-term innovative financial mechanism. This new program is supposed to be government led with a PPP scheme. The technical supervision would be provided by the Ministry of State in charge of Presidential Projects, Spatial Planning and Equipment, while financial supervision would be provided by the Ministry of Finance and Budget. Through this initiative, the government may implement policies, incentives, and subsidies to encourage private sector involvement in the sector. The program will need to adapt to the up-to-date real estate market, driving supply and promoting economies of scale to result in more efficient service delivery.

**Those government plans are generally aligned with IFC recommendations regarding potential PPP models for affordable housing development**. Recommendations include that the government (a) develop and implement policies to provide incentives for developers to develop affordable housing and (b) focus on the demand side by enabling financial institutions to develop credit products that citizens could afford and apply in acquiring houses. This could be a game changer to reduce the large share of the population in substandard living conditions in slums and other informal settlements. Integrating a green building scheme could add climate co-benefits.

**Leasing opens the potential for financial institutions to develop a credible alternative to finance medium- to long-term investments.** Whereas the cost of collateral is cumbersome for banks and MFIs, developing a leasing instrument is an alternative way to finance investment for households and for MSMEs. IFC estimated the potential market for equipment leasing in Madagascar at US$140 million in 2017, while the current market is estimated at US$50 million. A few financial institutions are investing in leasing markets for equipment, mainly in the agriculture sector.

**Although the potential is huge, the current regulatory framework and the capacity to handle leasing need improvement.** A leasing law adopted in 2005 does not incentivize leasing sufficiently, particularly the issue of value added tax (VAT) neutrality. The new draft law on movable secured transactions and collateral registry is expected to allow more security for a leasing registry, including the repossessing of assets. The World Bank Madagascar Financial Inclusion Project (P161491) is helping to upgrade the collateral registry system and develop a centralized electronic, web-based registry for security interests in movable property, in line with international accepted practices. On the other hand, the Central Bank needs to have supervision rules to monitor leasing operations.

**Other innovations that could increase financial inclusion in Madagascar include agriculture index insurance (box 2.5).** Index insurance offers needed protection for farmers, particularly as climate shocks continue to produce uncertainty. However, the insurance markets need improved financial stability and supervision to reach their full potential.

### BOX 2.4. OPPORTUNITIES FOR AGRICULTURE INDEX INSURANCE IN MADAGASCAR

**Madagascar lacks an active agriculture insurance market, even though three of four working Malagasy are employed in the agriculture sector.** In addition, the country is vulnerable to extreme climatic shocks such as cyclones and droughts (with an average of three cyclones per year, severe droughts affecting the southern region of the country, and increased exposure to certain pests and diseases). Only 9 percent of agriculture households practice commercial agriculture and three-quarters of the households consume what they produce. The impacts of climate change are hurting the agricultural sector, which is the country's leading employer. Half of farming households in Madagascar declared having lost their crops because of climatic shocks.

**The Malagasy insurance sector is dominated by two state-owned companies, ARO and Ny Havana, with a combined market share of 76 percent and low insurance penetration in Madagascar,** which stands at 0.7 percent of gross domestic product. Thus, increasing the penetration of index insurance could de-risk agricultural production and investments, increasing farmers' access to other financial products such as credit. Recent reform efforts include (a) reforming the insurance code to better liberalize the insurance sector and (b) transferring the supervision of insurance from the Ministry of Finance to the Banking and Financial Supervision Commission of the Central Bank. These developments are part of broader reforms to strengthen the digital financial services and financial inclusion agendas.

**Agriculture index insurance offers a significant opportunity in Madagascar.** Although it is not well known, agriculture insurance has been offered in Madagascar since the 1990s, when a single insurer provided the product but did not succeed because farmers were not aware of it. Insurance could help farmers build their resilience against damage caused by climate change, thereby protecting their livelihoods. It would further complement initiatives being implemented by development partners (such as the Food and Agriculture Organization of the United Nations) that intend to promote adaptive agricultural practices and by Germany, which is offering climate risk insurance.

**Index insurance has the potential to increase insurance penetration in low-income rural areas, service smallholder farmers, and pay out benefits based on a predetermined index** (such as rainfall or temperature), without requiring the traditional services of insurance claims assessors. It allows for the claims settlement process to be quicker and less expensive, making index products more affordable in the long run. The claims settlement process is also objective, an attribute that could help the insured farmers develop trust in the products offered.

**Current entry points could be to start building capacity and raising awareness with key stakeholders.** The effort would include engaging with relevant stakeholders in the agricultural and insurance sectors (Ministry of Agriculture, insurance regulator, insurance and reinsurance companies present in the country, and agriculture value chain actors) with the goal of (a) disseminating information on the fundamentals of index insurance and identifying potential key partners that IFC could support through technical and financial assistance to create a market for agricultural insurance; (b) working with Madagascar insurance sector practitioners to build their capacity in risk modeling for agricultural insurance; and (c) exploring the possibility of availing financial instruments, such as the Global Index Insurance Facility Experience Account, that could help insurers manage the claims volatility usually associated with agricultural insurance.

### Recommendations during the next three years to address access to finance constraints

**In the near-term, it is important to remove entry barriers that limit DFS offerings, as this can improve access to finance for lower-income households.** The regulator should fast-track issuing e-money operator licenses, as several applications are outstanding and only one e-money provider has been licensed. The Central Bank and Ministry of Posts, Telecommunications, and Digital Development would need to develop and approve the new regulations governing e-KYC (to allow for easy, remote account opening), consider developing a digital identification database (to avoid the issue of lack or duplicate identification, fraud, and so on), and enable USSD access at fair prices (to allow new companies to use this channel for digital transactions).

**Ensuring MFIs' stability will be important to support the financing needs of MSMEs in the recovery phase.** To support the resilience of MFIs, it is critical to deploy technical and financial support to develop their capabilities to manage new technologies, particularly DFS, and to improve their abilities in management information system. Enforcing the new MFI Law should also help improve the regulatory framework of the sector and help ensure the stability of the sector, which will contribute to restoring or developing new economic activities. In the medium-term, the government should work with DFS providers (banks and mobile network operators) to enable greater use of digital payments. One area regards government-to-person payment channels (such as social grants or salaries into mobile wallets) as this can facilitate financial inclusion for unbanked users. In agribusiness, there are opportunities to promote digital payments that will allow traceability and reduce security issues, and this will require revisions of the regulations requiring vanilla farmers to be paid in cash.

**Developing leasing instruments could help leverage access to finance.** As part of this recovery phase, the government of Madagascar should consider reforms to the leasing law, specifically to remove the double VAT burden for the lessor that makes leasing activity unattractive to financial institutions. Other measures that could deepen leasing are (a) the implementation of the law on an electronic centralized collateral registry for movable assets and (b) reform of the judicial system to allow stronger collateral enforcement. Those reforms would enable international finance institutions to risk-share with financial institutions (MFIs and banks) to provide lease financing to smallholder farmers and MSMEs.

**PPPs could be one of the mechanisms to scale affordable housing, as highlighted as a priority in the draft amended finance law 2020 for COVID-19.** The draft amendment law concerns the construction of 40,000 social housing units and establishment of 10 sites planned for 2020, including a PPP for the construction of the new city Tana Masoandro.

## Land

**Land, which lenders often prefer as collateral for financing, is unavailable to Malagasy borrowers because of economic and legal barriers and the culture of land ownership.** In Madagascar, land is perceived as a cultural asset. The family property is bequeathed from generation to generation. Malagasy people, especially in rural areas, are attached to their land, so it is rarely sold, and although it is occasionally rented to neighbors or close relatives, it is not seen as economic capital. In urban areas, land markets remain highly informal. A Land Observatory survey conducted in 2019 in three districts of Antananarivo found that 56 percent of landowners acquired their property through inheritance, legacy, or donation, and only 35 percent through purchase. Furthermore, 94 percent of land sales are concluded directly between private parties (generally relatives or neighbors) or through a network and 4 percent are facilitated by intermediaries.

**In rural areas, the land market is constrained by the practices of mortgaging and sharecropping.** *Varo-maty* is a rural practice consisting of the temporary cession of a piece of land to a neighbor, relative, or usurer in exchange for a lent sum of money. The creditor may exploit the land until the borrower returns the amount borrowed in full as well as the interest. Sharecropping, though banned by legislation 50 years ago, is practiced somewhat in rural areas.[105] Sharecropping contracts are risky to the land owner and the tenant because they are not written.

**Limited land titling and formal land transactions are a reflection of the difficulties with undertaking the necessary procedures, as well as cultural norms.** The procedure takes a long time and is opaque and costly, and farmers fear having to visit administrative offices, thus they are reluctant to register their land. The titling of land refers to the recognition of a single owner, when culturally the land is often considered a common good to the family, made available to the neediest or to those who can exploit it. Often, land remains titled to the grandfather or great-grandfather without formal transfer to current occupants. This situation results in the increase of informal transactions and the use of *petits papiers*.[106] In 2008, it was estimated that only about 8 percent of family crop land was titled.[107] For Antananarivo, only 25 percent of land titles managed by land administration match landowner information and land.[108]

**Weak administrative capacity means that local governments have been unable to effectively track taxable land and collect taxes.** Land taxation was decentralized to communes (municipalities) from the state tax collection center in 2006. Communes are now responsible for the land census, collection of the tax, and use of all the land tax revenue. Because of the lack of logistical and financial capacity to develop local land taxation maps, the land tax census remains declaratory—that is, the information is solely declared by taxable landowners. Studies have demonstrated that communes collect only 11 percent of the potential revenue from land. This loss of revenue is equivalent to about 60 percent of communes' current budgets, on average.[109]

**Land certification is seen as an alternative to land titling that can be used to develop a formal land market and access to credit.** To date, about 416,000 land certificates have been established for about 540 of 1,600 municipalities with a local land office according to the Land Observatory 2020. Of these, about 138,000 were issued through December 2020 under the World Bank Agriculture Rural Growth and Land Management Project

(Projet de Croissance Agricole et de Sécurisation Foncière, CASEF).[110] After the substantial halt in the implementation of land reform in 2009, the government reiterated its commitment to land security through land certification with an update of its land policy approved in August 2015 and with the launch of the second National Land Tenure Program (2016–20).[111] Land certificates are being scaled up with the support of other donors. It is necessary to repeal the uncompleted survey operations of land as obsolete status and allow the municipal land offices to issue land certificates to secure the property rights of families who have lived in these areas for decades.

**In regard to gender, there appears to be a gap between what is stipulated in the law and common practice**. Malagasy laws grant women and men equal access to land and allow for joint land ownership between husband and wife on both titles and certificates. In practice, only 23 percent of land certificates are registered under women's names (either alone or jointly), largely influenced by customs, under which land has been traditionally inherited by males, and by the assumption that the rights granted through marriage are sufficient.[112] An additional grant from CASEF is intended to significantly tackle the gender gap in women's land rights by registering rights under women's names (either alone or jointly) on 1.1 million parcels.[113]

**Allowing foreigners to definitively acquire land remains a concern, and the leasing framework does not provide sufficient security for long-term investment.** Access to land remains a major barrier to entry for foreign investors, particularly in sectors such as agribusiness. The Malagasy legal framework (including the 2010 Constitution Law, the law on private titled property, and the 2007–036 Investment Law) allows for foreign land acquisition. However, these provisions are rarely applied, and long-term (99 years) or ordinary (18 to 30 years) leases are de facto offered as an alternative. In practice, decisions made by land administration services are based on whether the firm has the capacity to provide a (Malagasy) nationality certificate furnished by a civil justice court. The Private Titled Property law was submitted to the Parliament in 2017 and aims to ease land transfer procedures and maintain the opportunity of land acquisition by foreigners.[114]

**For investors, some support is available, but it is insufficient.** Originally, the EDBM's mission included facilitation of land acquisition for investors. The authorizing law stipulated that the EDBM would be able to deliver land acquisition authorization to foreigners and to support investors in land prospection, formalization of transactions, and conflict mediation. The EDBM role was de facto suspended in 2009, and investors were left to deal with state land administration agents themselves. Although that service was reinstated, a critically needed land catalogue on public land available for investments is still missing.

**Another development in land ownership is the transfer of land to a special purpose vehicle, such as the proposed Moramanga Special Economic Zone (SEZ)/Textile City Project.** The 80-hectare site for the first phase is currently under the ownership of the Ministry of Industry, Trade and Handicraft (MICA) as an interim step before the land ownership is transferred to a new entity called AGZEI (l'Agence de Gestion des Zones d'Emergence Industrielle). The Mauritius Africa Fund was supposed to enter into a joint venture with the AGZEI to establish the special purpose vehicle that will develop and manage the Moramanga Textile City project.

**The government's plan to set up the AGZEI to control all land assets for the development of SEZs in Madagascar is still facing challenges.** The decree to establish the AGZEI was submitted to the Cabinet but is yet to be approved. The Council of Ministers recently decided that the Société Nationale de Participations (SONAPAR) would represent the Malagasy government in the Moramanga project. It is unclear how AGZEI and SONAPAR would divide the responsibility.

### Recommendations during the next three years to address land constraints

**In the near-term, the government of Madagascar should adopt the Private Titled Property law**, which aims to ease land transfer procedures and establish the opportunity for land acquisition. Swift adoption and implementation would help the country recover foreign investors. This needs to be complemented by an initiative to update obsolete titles for land whose owners cannot be traced, and issue land certificates to the current female- or male-headed families living on the land.

**The Framework Law defining the different land statutes and their regimes would need to be updated** with specific statuses that clarify the procedure, the type of securing model, and the relationship between the ministry in charge of the land and sector ministries regarding areas for investment, including agricultural investment zones. The logistical and financial capacity of communes should be strengthened so they can establish a land census, optimize tax collection, and adequately use the land tax revenue. The municipal land offices should be permitted to issue land certificates to secure the property rights of families that have lived on the land for decades, and women should be able to register rights under their own names.

**As the recovery phase takes off, the government should develop digitized land information and offer services with public online access.** The online system should include a land catalogue (including map, location, surface, use, price, lease, specification, legal status, and so on). Price ranges should be harmonized through land administration services and tax centers.

**The government also has a substantial role to play regarding private investment on urban land promotion and security.** First, updating the Detailed Urban Management Plan (plan d'urbanisme détaillé, PUDé) would define the zoning of dedicated land use, particularly economic activities such as industrial and commercial districts. The development of the PUDé is dependent on the development of urban Local Occupancy Plans.[115] For instance, nowadays in the municipality of Antananarivo, only three or four PUDé have been developed. With a clear vision on land use structuring, the state can generate initiatives to create land reserves responding to public policy needs: housing, public infrastructures, industries, commercial zones, and so on.

**More clarity on land ownership and transfer to the AGZEI needs to be addressed as a critical factor for the project to proceed as planned.** Streamlined regulations pertaining to land acquisition, ownership, and leasing opportunities are critical to structuring zone projects. The establishment of the AGZEI is now delayed.

# 3. SECTORAL ASSESSMENTS

**On the basis of the CPSD diagnostics and consultations, three sectoral assessments were undertaken for (a) agribusiness, (b) apparel manufacturing, and (c) tourism.** These sectors show potential for investment scale-up; are labor-intensive and can absorb low-skilled workers coming into the labor market; could increase formal employment opportunities; and show potential across many regions of the country. Within each sector, there are specific value chains in which Madagascar is well placed to integrate into regional and global value chains and thereby become more competitive and export oriented.

**The sectors align well with the government's priorities, independent assessments, and the DFIs consulted.** The CEM, completed in June 2019, identified the comparative advantages of the agribusiness and apparel sectors and noted that the CPSD would cover tourism. The proposed sectors are consistent with the Madagascar government's PEM. Furthermore, they align well with the IMF's macroeconomic outlook,[116] which suggests growth can be increased by (a) improving the quality and quantity of public investment in infrastructure; (b) increasing private sector activity, especially tourism, light manufacturing (such as apparel), mining, and agriculture; (c) focusing on gradually enhancing the productivity of smallholder agriculture; and (d) developing export-oriented agribusiness to support inclusive growth.

**Several more sectors were reviewed in the sector scan but were not prioritized for assessments.** Information and technology–business process outsourcing (IT-BPO) was extensively covered by the CEM and a World Bank flagship "Madagascar Digital Economy Assessment" (DEA) completed in June 2019. Mining has been an important source of FDI in recent years; however, the consultations with the IFC team indicated that there were limited opportunities for scaling-up in the three- to five-year term considered by the CPSD because of the need for upstream exploration and feasibility studies to be carried out, which have been hindered by the mining cadaster.

## 3.1 AGRIBUSINESS

### Highlights of the Agriculture Sector in Madagascar

**Madagascar's agriculture sector exhibits substantial duality: subsistence farming and high-value cash crops.** Overall, the sector, dominated by smallholder farmers, is the livelihood for over 68 percent of the population (2018) and accounts for 20 percent of GDP (2017) (see figure 3.1 panel a).[117] On the one hand, most people involved in the sector depend on subsistence farming of staple foods, such as the rice cultivated by about 85 percent of farms (80 percent of Madagascar's rice cultivated land is irrigated).[118] Because of weather shocks and other factors, subsistence farmers are unproductive and suffer food insecurity and high poverty.[119] Further, because of low productivity and lack of market incentives to produce, rice production has not kept pace with population growth, so increasingly rice has to be imported. On the other hand, the agriculture sector has a comparative advantage in several high-value tradable/exportable cash crops (box 3.1), which dominate the Malagasy export basket. Vanilla is the most prominent as Madagascar continues to the largest exporter worldwide, but faces risks going forward (see box 3.1).

**The agriculture sector is a source of stability for the Malagasy population in general but more prominently during times of crisis.** Agriculture has been the sector least affected by temporary political shocks. This is true in part because much agriculture remains disconnected from urban centers, especially Antananarivo.[120]

**On aggregate, however, the sector has not been transformed, and agricultural labor productivity is very low**—significantly lower than the average for Sub-Saharan Africa in 2017—and it has fallen by 31 percent since 1991 (figure 3.1 panel b). Thus, in Madagascar agribusiness employs well over half of Madagascar's workers yet accounts for only one-fifth of the country's GDP.

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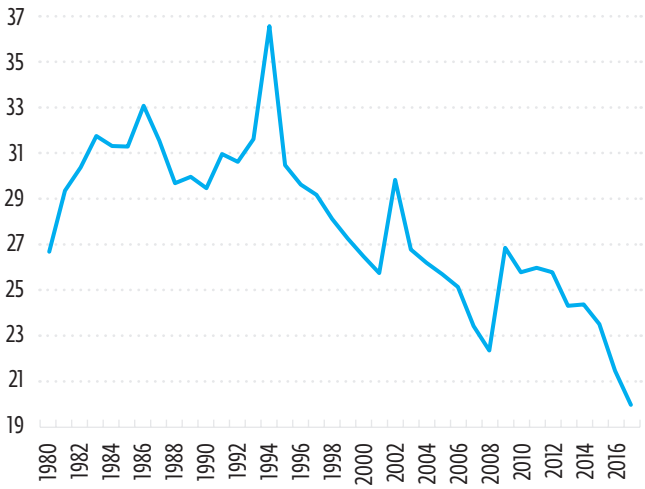
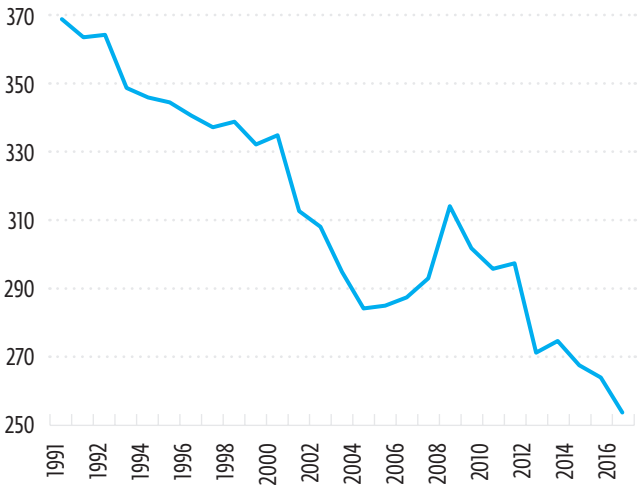
**FIGURE 3.1. AGRICULTURE CONTRIBUTIONS TO THE MALAGASY ECONOMY**

a. Agriculture contribution to GDP, 1980–2017




b. Agriculture value added per worker, 1991–2017




Source: World Bank, World Development Indicators data.

Note: GDP = gross domestic product.

**Agribusinesses are concentrated where market access is good.** As of 2017, there were 1,309 agribusinesses in Madagascar.[121] A large majority are located in the Analamanga, Vakinankaratra, and Haute Matsiatra regions that are interconnected with the Route Nationale (RN) 7, and in the Lake Alaotra district, one of the main rice-baskets in the country. These figures do not account for the informal sector, and a diagnostic of the agribusiness sector that would help understand the industry (typology, size, age, and ownership structure of firms) is missing.[122]

**Strong regional heterogeneity of agricultural production results in differing development impacts.** For example, as of 2016, half of the national production of maize originates from four regions only—namely, Vakinankaratra, Itasy, Atsimo-Andrefana, and Boeny. Cassava, the second most cultivated crop after rice, is produced on 70 percent of the farms across the island, but half of the total production originates in the south, especially in the regions of Matsiatra Ambony, Androy, Atsimo-Andrefana, and Anosy. Three-fourths of dairy milk output is from the Dairy Triangle, a zone that accounts for 80 percent of Madagascar's dairy production. Industrial and artisanal processing units are located in this zone.

**The supply of horticultural products is highly diversified.** The largest portion of the vegetable supply comes from the highlands (Antananarivo-Antsirabe-Fianarantsoa Road); those production areas are located in the vicinity of large urban consumption centers. As for fruits, banana and lychee production is concentrated in the east (and exported), mango production in the north and northwest, and papaya, pineapple, and temperate fruits (apples, peaches, citrus fruits, strawberries) in the highlands. Spice and perfume plants (vanilla, cinnamon, pepper, clove, tea, cocoa, ylang-ylang, and so on) grow on the coastal areas of the northern half of the island.[123]

**Madagascar's fisheries sector is a potential source of economic development, employment, and nutrition.** Madagascar has 5,600 kilometers of coast, a maritime exclusive economic zone covering 1 million square kilometers and more than 117,000 square kilometers of continental shelf. In 2013, fisheries accounted for 5 percent of GDP (decreased since 2006; before shrimp production collapsed, fisheries were estimated at 7 percent of GDP) and 13 percent of exports. A 2011–12 frame survey found that the sector employed an estimated 84,500 low-skilled small-scale fishers.[124] Between 50 percent and 70 percent of the more than 600,000 people living in coastal towns are dependent on fishing. The fisheries sector also plays a key role in Madagascar's food security and nutrition, and it accounts for 20 percent of the country's protein consumption.[125]

**Madagascar lacks the productivity to take full advantage of its biodiversity and to increase production of capture fisheries.** Critical infrastructure needs—including cold storage, ice, and processing plants and landing sites and roads to provide access to markets—are areas that could benefit from private sector investment. Potential opportunities for expansion of the sector include harvesting seaweed and cultivating prawns and oysters. Inland, Madagascar has a new farm of sturgeon producing caviar for high-end markets, rice aquaculture, and limited cage aquaculture of tilapia.

**The livestock subsector has been diminishing over time.**[126] Poultry and cattle account for the major share of livestock population, followed by pigs. Production does not meet national demand and has been decreasing over the years: the per capita availability of beef, milk, and fish has decreased from the beginning of the 1990s. The volume consumed, therefore, remains very low compared with global averages—about 10 kilograms of meat, fish, and poultry per capita per year against a global average of 40 kilograms.[127] Milk yields are less than 5 liters per day over a short 190–200-day lactation period but could easily reach 10 liters or more per day over a 220–230-day lactation period with improved feeding and water supply. A 2015 study suggests that the regions with large herds of livestock (Atsimo Andrefana and Androy) are less affected by stunting. Richer food is noted in regions with large herds of sheep and goats, which rely less on staple grains; these regions produce larger amounts of rice substitutes, such as cassava and maize.[128]

### BOX 3.1. THE GLOBAL VANILLA MARKET AND ITS PROSPECTS

**Madagascar remains the world leader in the vanilla market, however, the value chain has confronted highly volatile prices, and domestic restrictions on prices could pose risks for future growth.** Vanilla accounted for 20 percent of export revenue in 2018 and supports as many as 200,000 jobs. At US$432 per kilogram, vanilla prices for 2019 were below the peak of US$600, but much higher than the median price between 2000 and 2019 (US$55) or the mean price (US$177). The volatility in prices largely reflects supply bottlenecks that result from erratic weather conditions in Madagascar and the behavior of market players, as high prices have led to theft, premature picking, and other practices that lower quality. The introduction of a floor price for exported vanilla at levels above long-term trends and other trade restrictions will be tested by supply and demand conditions and could negatively impact the sector.

**In the long term, even with the COVID-19 crisis, the global vanilla bean market is witnessing substantial growth, with East Asia and Latin America projected to offer lucrative opportunities during the forecast period of 2020–2030 at a compound annual growth rate of 4.7 percent.** Increasing use of natural vanilla flavor in cosmetics along with the pharmaceutical industry is contributing to the growth of the global vanilla bean market. Leading market players and others are focusing on increasing trading practices and reinforcing their distribution networks to strengthen their positions in the global vanilla bean market. Increasing production capacity and improving quality are other strategies being adopted by key players to gain a competitive edge in the global vanilla bean market.[a]

**Madagascar can maintain or increase its market share by exploiting its advantage as the major supplier of high-quality and organic vanilla.** To take advantage of the opportunities under the African Growth and Opportunities Act and the European Union Economic Partnership Agreement, Madagascar needs to prioritize meeting the quality standards under both agreements. This could be helped by strengthening the regulatory authority. Branding and marketing will need improvement to signal differentiated quality. Solutions need to be found for issues of security, environmental damage, and child labor. IFC has been supporting vanilla exports with investment and advisory services to reduce deforestation and obtain sustainability certification. The World Bank has been supporting vanilla producers on sustainable best practices and the set-up of the Vanilla Council PPP Platform.[b]

Note: PPP = public-private partnership.

a. Persistence Market Research, Vanilla Bean Market: https://www.persistencemarketresearch.com/market-research/vanilla-bean-market.asp

b. World Bank. Madagascar Sustainable Landscape Management Project (PADAP–P154698); Second Integrated Growth Poles and Corridors Program (SOP-1, P113971); and Integrated Growth Poles and Corridor SOP-2 (P164536).

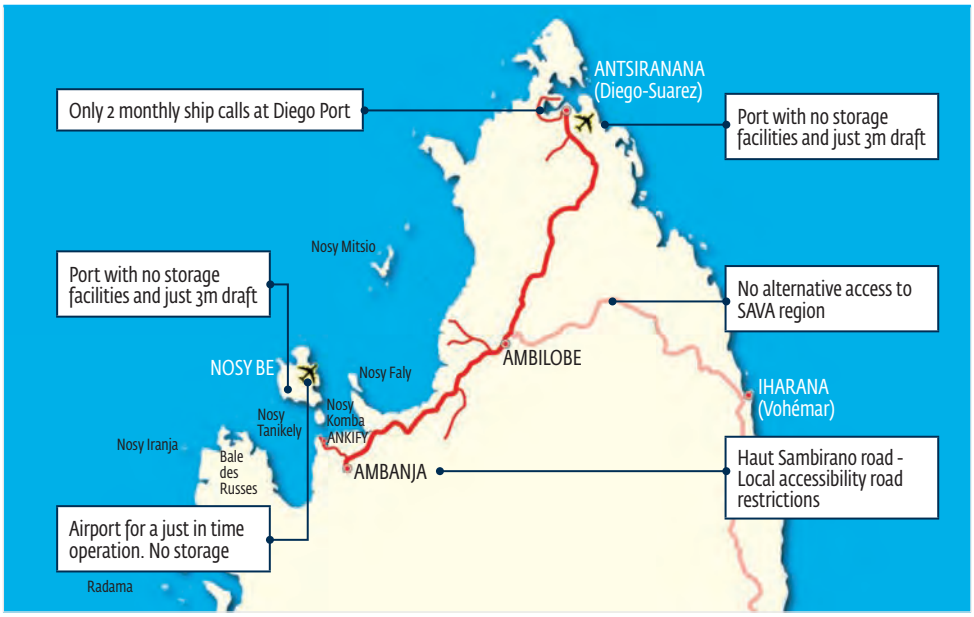
## Constraints to Scaling Up Agriculture and Recommendations for Overcoming Them

Transformation in agribusiness faces cross-cutting constraints that include low productivity exacerbated by the poor condition and low availability of connectivity infrastructure, low human capital, an unfriendly business environment, and low uptake of improved technologies and modern inputs. Specific constraints and opportunities are the following.

### Logistics infrastructure

**The current state of infrastructure and transport that supports the commercialization and particularly the export of agricultural products reduces market access.** Export volumes of raw products or products that have received primary processing (such as vanilla, cloves, and fresh lychees) are stagnant, although the market potential has not been fully exploited. For example, only 20 percent of lychee production is exported, and one of the major production areas along RN12A in the southeastern part of the country is disconnected from markets. The current condition of infrastructure and agro-logistics in the Diego Analalava region (figure 3.2), in the Northern part of the country, does not facilitate the export of high-value agricultural products (such as cocoa, ylang-ylang essential oils, and vanilla): two-thirds of the cocoa production in the Ambanja region is locked in the High Sambirano valley and the worsening state of the disrepair of the RN6 doesn't facilitate goods transport to and from the port of Diego Suarez.

**FIGURE 3.2. CURRENT STATE OF INFRASTRUCTURE AND TRANSPORT IN THE DIEGO ANALALAVA REGION**




Source: World Bank, "Project Pôles Intégrés de Croissance (Integrated Growth Poles Project) 2.2" (Project Appraisal Document, Competitive Industries and Innovation Program, World Bank, Washington, DC, May 2018).

Note: M = meter; RN = Route Nationale .

**Thus transport and logistics infrastructure needs to be upgraded.** Planned rehabilitation of the agricultural corridor road network (RN44) linking the rice basket region of Ambatondrazaka to the main trunk road of Madagascar under the Connectivity for Rural Livelihood Improvement Project will improve market access and increase competition among collectors in the rice value chains and increase the incentive for farmers to produce surplus crops for the market. The project will also enhance the supply chain links between producers, buyers, and the transporters or truckers in real time through a digital platform and a smartphone app. Other investments in feeder roads, such as the RN12A rehabilitation along the southeastern coast, would unlock horticultural as well as export-oriented crops, such as spices and honey, in a coordinated effort with the European Union, the African Development Bank, and the World Bank. Through the project, the World Bank is set to rehabilitate a 35-kilometer section of RN12A and another 250 kilometers of feeder roads in priority communes in the southeastern part of Madagascar that are connected to RN12A. The rehabilitation of the High Sambirano road, under World Bank Madagascar Integrated Growth Poles and Corridor SOP-2 (P164536), would improve market access of two-thirds of the national production of cocoa.

**Sustainable financing of road infrastructure maintenance should be examined and established with good governance** of *ristournes* (local levies related to commodity transportation at the commune level) by, for example, improving the Fond Routier (Road Fund). Improving the availability of (ideally) privately managed agro-logistics could also ease the aggregation of production and reduce transport costs, for example for storage facilities and the cold chain.

**Better roads are essential, but it's important to note that exports are also facing congestion at ports and that various trade restriction measures are inhibiting their development,** as in the case of the lychee value chain, which is reviewed by the CEM. To improve export operations, improvement of secondary port operations also should be considered, including establishment of dry ports where appropriate (such as in Ambanja in the cocoa area). Export operations are mainly concentrated in Toamasina port, which is handling about 90 percent of container volumes in Madagascar:[129] in 2019, spices and other agro-exports from the Fort Dauphin region, where Ehoala port is located, had to travel 1,400 kilometers to join Toamasina via Antananarivo.

**Reforms to make the warehouse receipt system more flexible and, in the longer term able to issue negotiable receipts, could also benefit farmers** (with premium prices from delayed sales) and market intermediaries (by reducing transaction costs because they could wait to collect once a consistent volume of a commodity is gathered).[130] Promoting dematerialization of commodity transactions linked to these warehouses would improve security on transport corridors and bring producers closer to the market.

**Increased use of ICT for extension services, market information, and access to finance would benefit the agriculture sector.** Initiatives to digitize farmer records, enterprises, and markets remain weak, given the weak digital infrastructure, especially in rural areas. Besides more modern ICT, traditional media (such as radio) could be used more intensively for agricultural extension and market information systems to reach remote and poor areas. The feasibility of developing mobile money transfers (such as IFC's feasibility study on digitization of agricultural value chains, identifying cocoa with vanilla and beans) and insurance against climate change and disasters (such as IFC's Global Index Insurance Facility) could be further examined. The World Bank will support digitally enabled transport and agricultural services though mobile phones and community information kiosks for farmers without mobiles phones, providing market prices, agro-climatic data, transport prices, and so on, in selected areas of the road network (RN44, RN12A).[131]

### Quality infrastructure

**Private sector players are generally focusing on a high-quality marketing strategy, supported by labeling products as "organic" and "fair trade."** Meeting agro-logistics requirements is crucial for some commodities (such as fruits, vegetables, aquaculture products, and seafood).[132] Other subsectors require significant investments in research and development to improve productivity, cope with climate change, and preserve the resource, such as in sea cucumber farming.[133]

**Compliance with sanitary and phytosanitary measures and quality standards has been difficult because of the low availability of extension services and untrained production staff.** Standard requirements are less stringent for export outside European Union (EU) and North American markets, but regular import rejection for aflatoxin on groundnuts and excess pesticide residues on beans has been registered at EU borders.

**Efforts to establish exports in sectors such as livestock face challenges.**[134] They include sociocultural impediments to selling cattle, lack of reliable feed supply, lack of animal traceability and security threats, a burdensome regulatory framework and complicated administrative process for purchasing cattle, an export ban on zebu meat, and lack of skilled human resources.[135] The World Bank is providing support to train veterinarians, rehabilitate laboratories, and provide better animal care for internationally recognized health certificates, opening up the export market.

**Potential solutions include increasing the provision of extension and business development services and redesigning training curricula.** Public and private extension services should be strengthened. For example, by strengthening producers' capacities in first-stage cocoa processing as under the Integrated Growth Poles and Corridor project, extension agents are promoting value addition and improving the producer's share of the final price. Curricula in public and private training institutions should also be adapted to market needs (for example, hygiene, quality control, and industrial maintenance expertise is needed in the agribusiness industry, and skills on sanitary and phytosanitary standards are needed in the field). Investment in skill development in the sector through technical and vocational education and training (TVET) and apprenticeship programs that could be implemented through PPPs are pathways to increase the skills of the existing young workforce in the sector.

**To cope with the low availability of well-trained extension services and of inputs, private companies are promoting contract farming with direct sourcing from the producers.** But the firms consequently incur additional costs for technical assistance and close monitoring of the farmers.[136] Resource-seeking FDI firms have expressed interest in starting businesses in Madagascar and already go beyond sourcing directly from producers.[137] Several FDI firms have been promoting corporate social responsibility in their industry.

**To improve opportunities for export, the sector should promote programs that develop geographical indications and organic certifications.** Investors are attracted by niche markets that use Madagascar origin as a source of market differentiation (for example, in cocoa, essential oils, honey, spices such as pink pepper, and potentially livestock such as zebu beef and goat). Madagascar Origin is largely used by manufacturers to increase the value of their products. Since 2017, the "100% fine" label for Madagascan cocoa has increased local players' appetite to explore the feasibility of labeling or providing a geographical indication to add more value to products. The growth of the global organic market also offers potential for exports of organic products of Malagasy origin. In 2017, organic farming occupied more than 60,000 hectares and 21,000 farms; cultivated areas registered an average annual growth rate of 20 percent over the 2007–17 period.[138] Madagascar is the principal producer of organic shrimp in Africa. The recent adoption of the law on organic agriculture[139] reflects the political will to develop this segment.

### Policies to promote competition and trade

**Weak connectivity and weak value chain organization increase information asymmetry, leaving smallholders at the mercy of informal market intermediaries in long value chains.** The situation may also occur in short value chains. Given agro-logistic gaps, the perishability of the product, and limited access to finance, farmers in the lychee value chain have no option but to sell their products at low prices at harvest time. Exporters also collectively fix the prices they are willing to pay for products, cutting into the profits of market intermediaries.

**In addition, unclear rules of the game (such as discretionary licensing procedures) associated with loose regulations and weak law enforcement threaten the development of agribusiness.** The obsolescence of legislation and regulations, the complexity of the license application process and the lack of information on the application process, the unequal treatment of the files depending on geographical areas and the subsequent risk of corruption, and the lack of ex-post control missions from the administration contribute to this situation.[140] This lack of clarity has led to increased insecurity related to the sea cucumber farming value chain in the southwest, for instance.[141] Moreover, private operators complain that certification costs are high and only one agency is providing certification services for organic production in Madagascar.

**Barriers to competition in export-oriented high-end agribusinesses and in emerging domestic-oriented agribusiness are undermining productivity, value, and job generation along the value chains.** The market is concentrated among a few operators and families close to them. This is the case for domestic cereal markets,[142] but also for some traditional export commodities (lychee and vanilla). Value chains are sometimes too tightly or too loosely connected. For example, the Lychee Exporters Group has structured the value chain on lychee in ways that have led to anticompetitive behavior that limits new investors' access to the market.[143] Conversely, in some subsectors the absence of value chain organization leaves smallholders at the mercy of informal market intermediaries in long value chains.

**Local agribusinesses, including poultry, dairy, and flour milling, also face strong competition from imported products that benefit from tax exemptions (such as rice) and from illegal imports.** For example, imported rice receives tax exemptions, and imported flour can be declared as rice at customs to receive the tax exemption. Overall, formal players face strong competition from the informal sector. This high level of informality also reduces access to finance. In addition, the private sector oriented to the domestic market faces problems of insufficient demand due to the high level of poverty and connectivity issues. Leveraging the export-oriented sectors could increase income and growth and have spill-over effects to increase domestic demand and could ultimately improve the performance of agribusinesses targeting domestic markets.

### Technology adoption and innovation

**Overall, promoting coordination to favor technology and knowledge transfer would pay dividends to agriculture in Madagascar.** Formal and informal producers' organizations could serve as vehicles for technology transfer. To help overcome the weaknesses that have afflicted agricultural advisory services, the private sector intervention proposes solutions within the framework of contract farming schemes with producer groups or individual producers. Support to farmers' organizations through cooperatives would ease product collection and transactions. However, that is generally limited to high-value products for export (such as vanilla and other spices, vegetables, stevia, village aquaculture of sea cucumber and seaweed, and organic farming), in which monitoring is desirable to meet market standards and the risks of side-selling are lower. In the aquaculture sector, formalized professional relationships among farmer groups, exporting companies, and local development partners, inspired by the productive alliances model,[144] were supported by the Integrated Growth Poles and Corridor Project SOP-1. The project was supporting a private sector operator's expansion and the partnership allowed for the efficient recruiting, training, structuring, and equipping of aquaculture farmers, offering them a direct job and market opportunity in the context of diminishing fishing revenues, while allowing the operator to respond to export market demand.

**The vertical coordination that is developing in these high-value sectors offers an opportunity to introduce innovation.** Moreover, international players support the conditions for sustainability and corporate responsibility in the industry (see box 3.2). Another option includes financing value chains through finance institutions by engaging with end-buyers to support actors engaged in a sustainable sourcing approach, through investment and advisory services.

**BOX 3.2. LIVELIHOODS FUND FOR FAMILY FARMING**

**In response to customers' desire for increased engagement with farmers and direct traceability of their food sources, contract farming arrangements are developing in Madagascar's vanilla producing regions.** Within these programs, end-buyers remove intermediaries from the traditional supply chain and source directly from farmers. Since 2017, the Livelihoods Fund for Family Farming, an impact investment fund, has invested in a program in the Analanjirofo region to train farmers in sustainable practices to increase vanilla productivity and quality through agro-forestry techniques. The project targets 3,000 family farms and aims to tackle food security for farmers and biodiversity conservation as well.

**The implementation partner, a Malagasy nongovernmental organization called Fanamby, has supported the establishment of producer groups and their integration in Sahanala.** Sahanala is a newly created economic interest group bringing together producers involved in organic farming, environmentally conscious private operators involved in fair trade, and civil society organizations involved in conservation. (Sahanala operates in the vanilla, spices, and maize sectors).

**Under the Livelihoods vanilla project, farmers are offered a stable market price and receive a price premium linked to certification.** A network of extension workers provides agronomy support and promotes best practices among the farmers. Extension workers use mobile devices to capture information from each farmer and maintain the traceability of vanilla beans.

**To increase modern input use, reforms are needed in national input markets, mainly in the value chains for staple crops where there is still enough room to maneuver to increase productivity.** Seed registration procedures need to be reviewed to incentivize investment in the seed industry and develop a seed trade (box 3.3). This action would be part of the expected harmonization of national seed regulations to Regional Economic Communities (RECs) seed regulatory frameworks.[145] Support to initiatives that help ensure farmers' access to high-quality, unadulterated fertilizer could also be promoted. This reform would include the establishment of a national catalogue of registered fertilizer and an effort to harmonize standards and regulations on fertilizers to ease trade with RECs. If subsidies are required, the government should avoid non-market-smart input subsidy programs to raise investor confidence. Temporary smart subsidies commonly target poor farmers to encourage incremental use of fertilizer by those who would otherwise not use it. Distributions of inputs (seed, fertilizer) should be based on producer characteristics.

### BOX 3.3. ISSUES FOR IMPROVING THE ENABLING ENVIRONMENT FOR AGRICULTURE

**Upgrades to the enabling environment for agriculture in Madagascar should be reflected in the laws, regulations, and bureaucratic processes that support agriculture development and marketing.** In 2019 the country's ranking in the World Bank's enabling environment report deteriorated to 83 (from 81 in 2017) out of 101 countries, with its overall score declining from 36.34 to 36.26. Within Sub-Saharan African countries and low-income countries, Madagascar's performance is around the median, suggesting that some of the challenges are generally common to these countries.

**In Madagascar, the most critical challenges include the following:** (a) ensuring supply of high-quality inputs, particularly seeds and fertilizer, (b) registering agricultural machinery, and (c) marketing agricultural produce and access to finance. The regulation of seed quality is very poor, and the country has no standard practices to guide the time it takes to register a cereal seed company and the cost of starting such a company. This scenario is even worse for fertilizer because there currently are no regulations for ensuring the quality of fertilizer. In particular, there is no regulation that compels private companies to register new chemical fertilizers to have them commercialized, no legal limit on the validity of fertilizer registration (in years), no requirement that labels contain comprehensive information on and instructions for using fertilizer in the country's official language, and no requirements on the maximum allowable content of heavy metals. For agricultural machinery in Madagascar, registering is very easy, but the cost to register is high relative to per capita incomes.

**Trading agricultural products within Madagascar and exporting them are problematic.** It takes 78 hours to obtain agriculture-specific export documents, and it costs US$85 to obtain these documents. The government needs to adopt regulations to support better and equal access to finance and to establish laws, regulations, and bureaucratic processes for the operation of warehouse receipts. The warehouse receipts could be used as collateral to obtain credit and enhance financial inclusion, enabling farmers to purchase inputs and finance harvesting, processing, and transporting operations.

Source: World Bank Group, Enabling the Business of Agriculture (Washington, DC: World Bank, 2019).

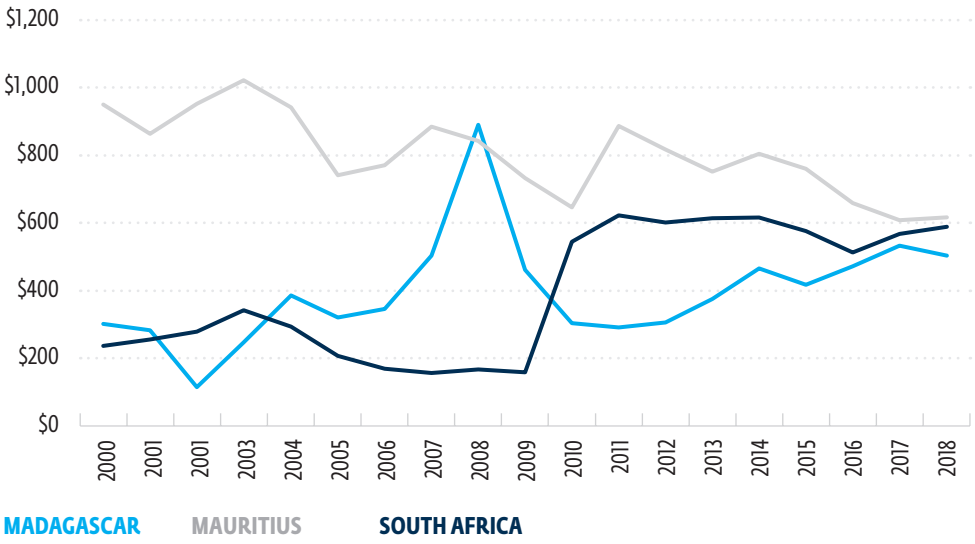
## 3.2 APPAREL MANUFACTURING

### Highlights of the Apparel Sector in Madagascar

**The apparel sector is the largest formal employer in the country, accounting for 20 percent of formal employment** or around 150,000 employees.[146] The industry is primarily concentrated in Antananarivo, the capital, and in Antsirabe, a three-hour drive from the capital.

**A vital contributor to Madagascar's trade, the apparel sector accounted for the third-largest export values or 15 percent of total exports in 2018.**[147] Apparel and textile exports grew from nominal US$129 million in 1995 to nominal US$681 million in 2018.[148] Indeed, the sector is almost exclusively export oriented,[149] a large majority of firms receive FDI (77 percent),[150] and most are fully foreign owned. Madagascar was the third largest apparel exporter in Sub-Saharan Africa in 2017, behind Mauritius (US$610 million) and South Africa (US$570 million), and before Kenya (US$340 million) (nominal prices)[151] (figure 3.3).

**FIGURE 3.3. APPAREL EXPORTS FROM MADAGASCAR, MAURITIUS, AND SOUTH AFRICA, 2000–2018, US$, MILLIONS**

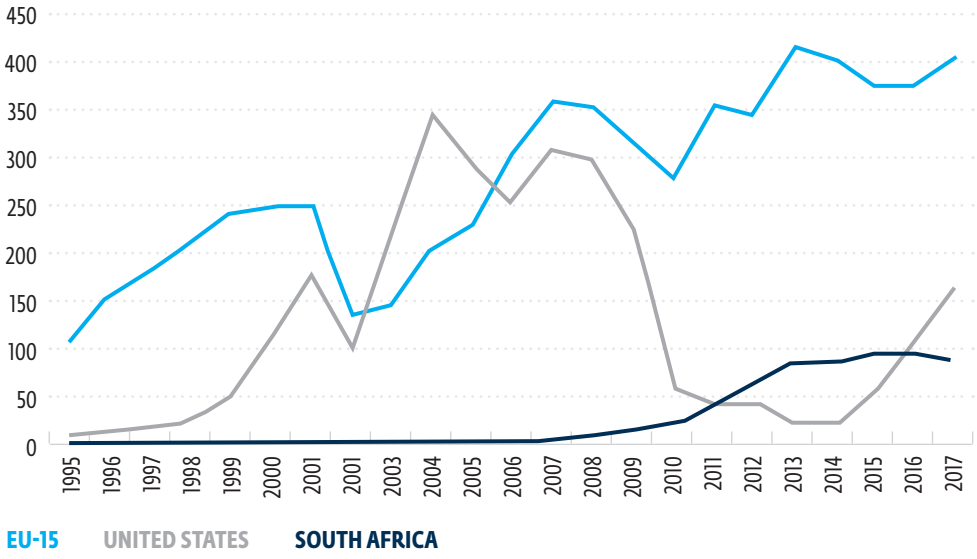



**Madagascar's apparel industry is well integrated into regional and global value chains.** With the exception of one company that has its own textile production (weaving, dyeing, washing, pattern printing) and a few manufacturers that have some minimal vertical integration (design, thread dyeing, small-scale knitting), most companies source their fabrics and other inputs, such as buttons, zippers, and dyes, from countries including Bangladesh, China, India, and Mauritius. Thus, the involvement of these firms has helped link Madagascar-based production into global value chains, but upgrading local and regional supply chains has generally been limited.

**Nevertheless, some MSMEs have been able to develop by serving as subcontractors to export-oriented apparel companies.** These mostly women-owned MSMEs produce apparel, accessories, jewelry, and home decor. Several firms provide printing, dyeing, and embroidery services, as well as producing polybags and carton boxes, which are used by the locally owned apparel export firms.[152]

**Apparel companies in Madagascar provide added value through "cut, make, trim" production** before shipping the final product to their customers. Clients are mostly based in Europe, with 60 percent of products going to France, Germany, the United Kingdom, and Italy; 21 percent going to the United States; and 9 percent to South Africa,[153] with the latter pointing to an emerging potential to tap into regional markets (figure 3.4).

**FIGURE 3.4. APPAREL EXPORTS FROM MADAGASCAR TO THE EU-15, SOUTH AFRICA, AND THE UNITED STATES, 1995–2017, US$, MILLIONS**



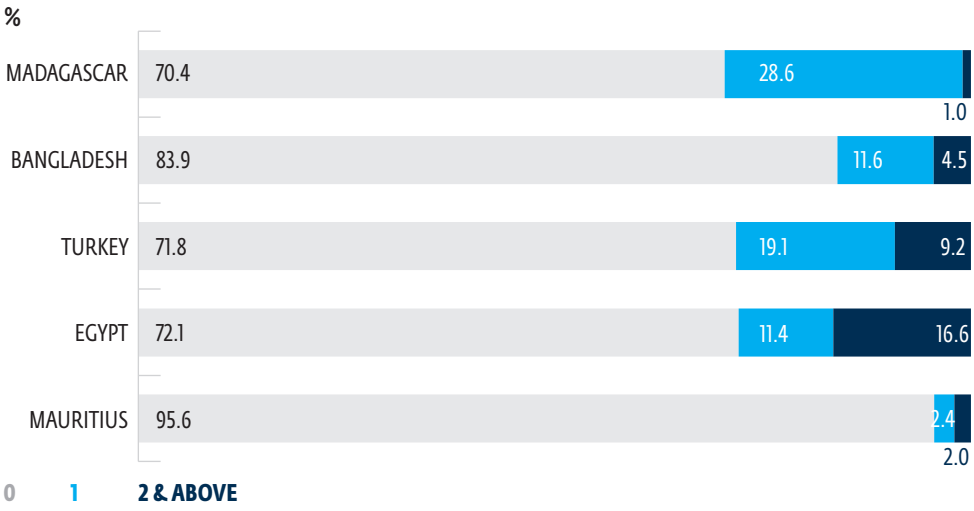

Source: UN COMTRADE 2018, EURSTATE 2018.

Note: Apparel represents HS 92 61 and 62; exports represent partners' imports. Data for EU-15 for the year 2017 are derived from EUROSTATE and converted to US$. EU-15 = Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom. EU = European Union; UN = United Nations.

**Malagasy apparel exports to South Africa are the result of a regional production network** in which a few Mauritian-owned firms use their home country–based textile mills and design teams for their apparel firms in Madagascar. These firms have built a rather strong presence in the South African apparel market that they supply from Mauritius and Madagascar.[154]

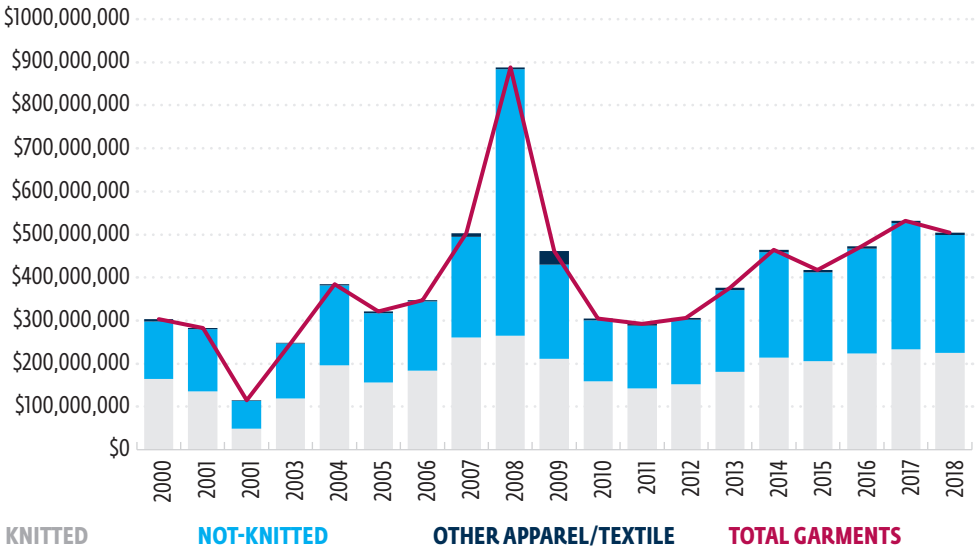

**Thanks to a skilled labor force in Madagascar, apparel companies offer a diversified range of value-added products that cater to their clients' growing need for differentiation.** Local firms generally produce niche products and higher-value products (figure 3.5),[155] unlike firms in most other less-developed apparel exporter countries, and compared with the Mauritian-, European-, and Asian-owned foreign firms in Madagascar, which mainly produce basic products on a large scale (basic knitwear, woven trousers, medical uniforms) and intermediate products (casual and formal shirts, sportswear, lingerie) (figure 3.6).[156] The US$504 million in garment exports in 2018 represented a steady increase since Madagascar's previous slump in 2010, when exports totaled just over US$300 million. Roughly 45 percent of the exports are knitted garments and 55 percent are not-knitted garments.[157]

**FIGURE 3.5. BENCHMARK OF ECONOMIC COMPLEXITY OF APPAREL GOODS FOR FIVE APPAREL EXPORTER COUNTRIES IN 2017**



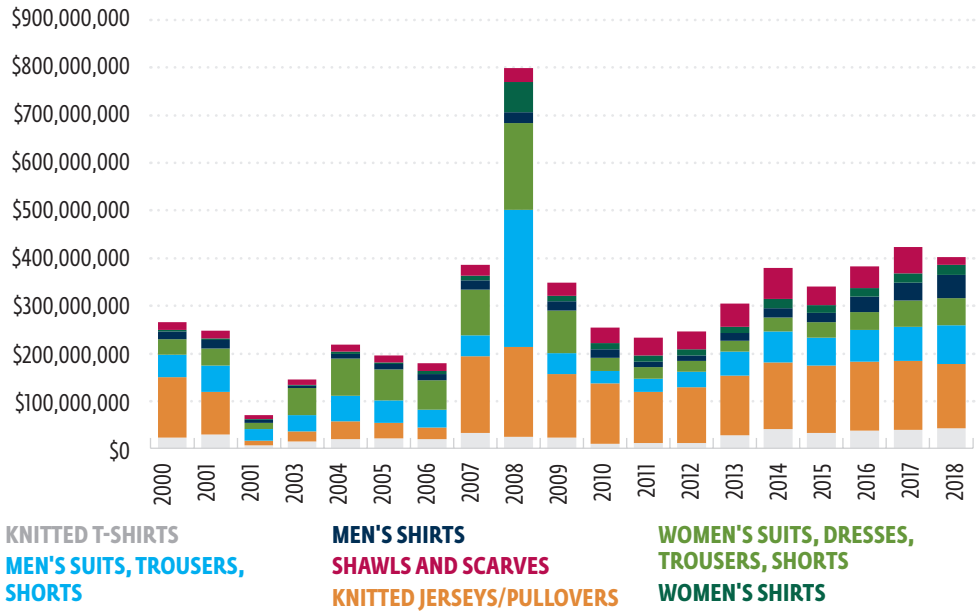

Note: Benchmark is on a scale of 0 to 6, 0 being the least complex and 6 the most complex.

**FIGURE 3.6. KNITTED, NOT-KNITTED, AND OTHER GARMENT EXPORTS IN VALUE, MADAGASCAR, 2000–2018, US$**




Of the 34 types of garments exported by Madagascar, seven types of garments account for over 80 percent of total apparel exports (figure 3.7).

**FIGURE 3.7. GARMENT TYPES MOST EXPORTED BY MADAGASCAR**




Source: United Nations COMTRADE database, H61, H62.

**Export-led industries, such as apparel, which anchored the economic recovery during 2014–19, suffered an outsized blow in 2020 as a result of the COVID-19 pandemic.** Major export and import partners from Europe, the United States, and China have been severely disrupted by the COVID-19 pandemic. The EDBM survey estimates that the industry stands to lose US$64 million and up to 60 percent of all jobs because of demand reductions in major consumption markets, supply chain disruptions, and large-scale order cancellations. The operating model employed by cut-make-trim manufacturing, in which hundreds of workers are in close proximity, is being tested by the new normal and the need for social distancing. As of February 2021, 3 percent of members have closed their doors (44 percent of total members are textile firms) according to Groupement des Entreprises de Madagascar. Lower than usual textile orders have led to a 40–60 percent decrease in revenue in 2020.

## The Development of the Textile and Apparel Industry in Madagascar

**The textile and apparel industry in Madagascar has a long, rich, resilient history** despite exogenous constraints. The industry originally started in the 1940s to serve the domestic market, with a few companies investing in fabric mills. Using local cotton production, fabrics were produced and sold domestically through national distributors and resellers for local garment making.

**In the past, the value chain was more vertically integrated, with cotton production and spinning being done in Madagascar.** With the rise of communism in 1976, many companies were nationalized, and the nascent textile sector collapsed altogether. Foreign and local investors pulled out of Madagascar and some companies relocated to nearby countries such as Mauritius. Value chains like cotton were neglected and slowly disappeared, mostly because of the lack of investment in road infrastructure, which hampered easy and fast transportation of the cotton to factories in the highlands. Those logistic constraints have been further exacerbated by climate change factors, which brought droughts and water scarcity to the traditional cotton regions, making it harder to grow good-quality cotton in sufficient quantities.

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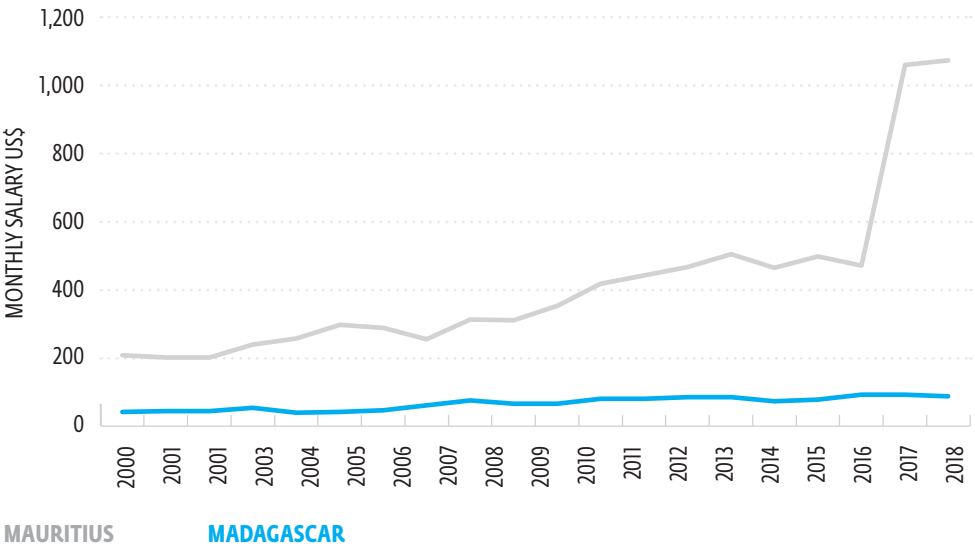
**In 1991 and in response to a deteriorating economy, the government instituted private sector reforms, such as the designation of export processing zone companies, granting tax incentives to companies that export at least 95 percent of their production.** Large international apparel companies looking to cut costs quickly took advantage of this new law by opening apparel factories in the country. The law offers a generous tax regime for export-oriented processing companies, with 100 percent exemption from customs duties and VAT. Furthermore, free zone companies enjoy corporate tax exemption for the first two or five years (depending on the type of transformation activities), followed by a reduced rate of only 10 percent, instead of the usual 20 percent.

**The economic transformation of Mauritius since the 1990s was also very beneficial for Madagascar's apparel sector.** Increasing labor costs led Mauritian garment companies to close shop or delocalize production to cheaper countries such as neighboring Madagascar. This move was further exacerbated by the establishment in 2018 of a minimum wage for textile workers in Mauritius, which more than doubled the rate, going from US$117.6/month to US$264.6/month (figure 3.8).[158]

**FIGURE 3.8. MONTHLY SALARY IN THE APPAREL SECTOR FOR MAURITIUS AND MADAGASCAR, 2000–2019**




**The industry grew slowly with the addition of internationally owned companies and focused on a market niche in higher-complexity garments produced for the European market.**[159] The close connection to Mauritius allowed for higher-value-added services and linking to global markets. Many of the entrepreneurs came to Madagascar by way of Mauritius. But the crises in 2002 and again in 2009 created important disruptions. Not only did the country lose unrestricted duty-free access to the United States through loss of its African Growth and Opportunities Act (AGOA) accreditation between 2009 and 2014, but private entrepreneurs also went through major difficulties. Foreign and local investors pulled out of Madagascar, and some companies relocated to nearby countries such as Mauritius. Those events continue to hinder growth because some uncertainty persists in the private business community.

**The sector began to rebound in 2013 as EU exports expanded and new markets were found, especially in South Africa.** In 2014, with the return to constitutional order, Madagascar was reinstated as a member of AGOA, and thus exports to the United States resumed. In addition, several Mauritian firms returned to Madagascar to restart and expand their factories. However, after reaching its highest amount in 2008 with over US$888 million exported, exports have not yet fully recovered, reaching just over US$500 million in 2018.

**At present Madagascar's preferential access to export markets constitutes a major strength for the industry.** The country's free zone law has been credited with attracting direct foreign investment from France, Mauritius, India, and other countries. As of January 2020, 101 apparel manufacturers benefited from the 2008 Free Zones and Companies Law (Law No. 2007-037).[160] Madagascar is connected with most major international economies through free trade agreements and generalized systems of preferences. The country has unrestricted duty-free access to the United States under AGOA and the European Union under the Economic Partnership Agreement. In 2017, Madagascar also signed the Tripartite Free Trade Agreement between the Southern African Development Community, the Common Market for East and Southern Africa, and the East African Community.

**Madagascar's labor force, especially in the high plateau regions of Antananarivo and Antsirabe, is well known for its dexterity and talent for fine needlework.** The productivity of the labor force is high, ranging from 60 to 80 percent, largely because of the skilled workforce and high retention rates.[161]

**The productive and skilled workforce combined with one of the lowest monthly wages worldwide gives Madagascar a unique competitive advantage.** Malagasy salaries are low among benchmark countries, ranging from US$60 to US$115 per month, yet above the country's minimum monthly wage of around US$50 in 2019. [162] In addition, the willingness of the apparel labor force to work night shifts gives the industry an added competitive advantage.

**Delocalization of Chinese apparel companies has also benefited Madagascar to some extent.** As China's economy develops and its labor costs rise, the Chinese apparel industry is seeking more cost-efficient destinations. Of the 101 export processing zones companies registered in Madagascar, 12 are Chinese owned and 8 of those have been established in the past seven years, signaling a shift in apparel production toward lower-income countries like Madagascar.

## Short- and Medium-Term Recommendations for the Apparel Industry

**Industry competitiveness remains fragile, with other locations around the world emerging as potential apparel destinations or improving the efficiency of their current industry.** For Madagascar to scale up its apparel industry and position itself as a major destination for apparel manufacturing, four conditions will need to be in place: improved logistics and infrastructure (connectivity), a skilled labor force, reliable energy and resource efficiency, and a stable government with a long-term vision.

**During the rescue phase during the COVID-19 pandemic, the government of Madagascar and other international finance institutions should support repurposing apparel production lines** into masks and other personal protective equipment (PPE) for business survival and for the needs of society.

**As recovery begins, the government should focus on the four conditions for growth in the apparel sector:**

### Strengthen connectivity

**The government of Madagascar should strengthen administrative systems to support the implementation of road projects financed by investment partners.** The 2019 Country Economic Memorandum of Madagascar notes that while several infrastructure projects are in the works, timely execution is undermined by poor public investment management practices.

**The large geographical distance from Madagascar's main markets compounded by its poor infrastructure, burdensome logistics, and expensive freight will need to be overcome for the country to respond to the industry's increasingly shorter apparel cycles and heightened need for more reliable speed to market.** Extremely poor road conditions and long distances to the main port of Toamasina, located about 220 miles from Antananarivo, require around an 8- to 12-hour drive and up to 20 hours in bad conditions.

**Other commercial ports around the island, such as the one in Fort Dauphin, have the capacity to ship large containers, but no viable roads currently link the capital to the southeast of the island.** Thus, the distances to the port are too long and too difficult to be traveled by large container trucks. Customs processes and corruption are also often cited as generating additional delays and costs that reduce companies' competitiveness.

**Extending the Open Skies agreement and lowering jet fuel prices would increase airline competition and lower cargo prices.** While Madagascar has started the process of moving toward an Open Skies agreement, there is scope to do much more. Opening new routes and allowing new airlines to fly into the country's airspace would not only reduce transportation costs through increased competition but also provide apparel companies with more options to serve new markets. Opening the jet fuel market to competition would further reduce prices for cargo and provide a boost to export-oriented companies that currently prefer routes that go via Mauritius, where costs are lower and frequency of flights is higher.

**During the rescue phase, the government should establish more regular air freight service,** particularly for higher-end companies that can afford it and are less affected by order cancellations.

### Reinforce skills, foster upward mobility, and prepare the labor force of tomorrow

**As the apparel industry grows, it will require investments in human capital to develop a labor force that is able to handle jobs that require higher skills.** Developing a holistic approach to teacher training and career management would bridge the skills and qualifications gap and improve the learning outcomes for the next generation.

**With only about 40–45 percent of workers having completed primary education or having attended literacy training courses, improvements to basic education skills should be accompanied by a review of the vocational training curriculum, which currently fails to meet the needs of the private sector.** While local training centers do exist, there is a mismatch between the curriculum content and sector demands, with most firms preferring to provide costly training in house. The public sector could play a key role in promoting coordinated inputs from major industry players to the vocational training curriculum. The sector's workers are predominantly women; thus initiatives that advance the provision of childcare, equal pay, and gender equity will contribute to the success of the sector.

**Furthermore, investing in soft skills training and managerial know-how would facilitate upward mobility for high-performing factory workers and give them access to middle and higher management positions currently held by imported labor.** A common sentiment expressed by stakeholders is that there is a pronounced need for technical training for machine operators and supervisors, as well as for middle management, upper management, and business workers in such areas as accounting, finance, and marketing.

**Creating opportunities for domestically owned MSMEs to supply special economic zone companies will require the MSMEs to develop their production capacity as well as their ability to acquire equipment and machinery.** MSMEs need access to technical assistance for improving their business functions, such as developing a business plan, strengthening their management, and designing their trade strategy. Further, MSMEs will need to know how to take into account social and environmental sustainability to service some of the major international buyers.

### Enhance energy efficiency and reliability

**To complement the longer-term reforms in the energy sector already underway, apparel manufacturers should complete energy and waste audits to identify significant potential energy savings, increase reliability of their energy supply, and improve overall competitiveness.** Fashion companies are increasingly tracing their suppliers to ensure adherence to global standards and measure their impact on climate change along their value chain. Apparel manufacturers in Madagascar should take advantage of this trend and implement programs that reduce industrial waste and greenhouse gas emissions.

**With energy efficiency being the most powerful and economical way to reduce industrial carbon footprints, companies should consider implementing energy management programs and smart investments in upgrading outdated machinery.** Manufacturers also should partner with their clients to identify and track water, energy, and chemicals consumption and pollution in the processing stage to create a baseline so that manufacturers can then implement efficiency programs in collaboration with their clients. IFC has supported important global garment exporters elsewhere, such as in Bangladesh and Vietnam, with such efforts in the past and could explore further support to Madagascar to fit the specific needs and opportunities there.

**Updating the sector legal framework by adding fiscal incentives for companies to invest in energy efficiency and renewable energy would strengthen the industry's competitive edge and help alleviate pressure on the state-owned utility.** Indeed, the lack of a clear regulatory framework to incentivize energy efficiency investments and renewables for industrial auto production and consumption has deterred many companies from investing in more efficient state-of-the-art machinery and decentralized renewable power generation. Having a clear framework would enable companies to become more competitive and energy independent as they produce clean energy.

**Reforms to address energy quality and costs as well as Jirama's poor financial health are ongoing.**[163] The utility's move toward financial recovery will inevitably be accompanied by a rise in industrial tariffs, at least in the short run, which should incite apparel companies to start investing in more energy-efficient solutions.

### Establish a long-term vision

**In Madagascar, the vision and strategy for the apparel industry is unclear.** Although apparel has been identified as one of the five strategic sectors in the country's PEM, the government strategy until now has focused solely on creating an industrial park, or textile city, in Moramanga, a city situated midway between Antananarivo and the main port of Toamasina. The goal is to create an export processing zone dedicated to textile and apparel making with a vertically integrated value chain. The site could accommodate more than 100 production plants with Mauritian textile companies having expressed interest in relocating some of their production facilities to benefit from overall lower labor and production costs. However, many outstanding issues remain, such as (a) choosing the proper legal framework for the zone, (b) resolving major constraints linked to logistics and energy access, and (c) addressing compliance issues to ensure the zone will be environmentally and socially friendly. The project is still very much in the inception phase and no construction has begun.

**To start, the government should take action to reestablish trust with private sector operators so that together they can establish a common vision for the industry.** Private sector actors complain that they do not trust government officials, whose unpredictability indicates a lack of understanding of industry and its challenges. Formal operators complain that government takes advantage of them, because they are easier to target, rather than recognizing the operators' contribution to the formal economy. For example, the government imposed a 2 percent advance levy on taxes for export-oriented companies, which private operators have said seriously constrains their working capital.

**An effort to establish a formal, sectoral PPD platform under the leadership of the prime minister's office or the presidency, to ensure high-level backing and follow-up, is underway and has been supported by IFC since May 2020.** The apparel PPD platform will help private operators identify and prioritize key constraints faced by the industry, while assisting the government in providing constructive solutions and identifying further technical assistance needed to advance the recommendations. Keeping communication channels open during the COVID-19 crisis will be particularly important to show the government's goodwill and intention to provide actionable solutions. A textile council based on the model of the cocoa council would be a step in the right direction. As part of a new IFC advisory project in the pipeline, a textile deep dive will be prepared, aiming to culminate in a textile and apparel sector strategy for the government that will contain a business development component with the identification of a pipeline of investments.

**Madagascar should focus on growing its share of the higher-end apparel market,** capitalizing and building on the know-how and industry relationships that have accumulated since the inception of the industry. The cut-make-trim model that the country has specialized in is expected to remain the most labor-intensive part of the value chain and is projected to lead to more, higher-skilled jobs. Indeed, automation in apparel factories is not happening at the same rate and scale as in other industries because of the pliability of fabrics, different styles and sizes of garments, and the high cost of technology.[164]

**For the industry to realize its full potential, the government will need to ensure that it complies with the requirements of each trade agreement.** The past instability led to the revocation of the AGOA rights, the closure of many companies, and massive layoffs. The industry will also need to prepare for the expiration of trade agreements, especially AGOA, which is due to expire in 2025.

**Improving the investment climate and business environment to ease current constraints on established companies and foster further investment in the sector should be a short-term priority for the government.** Harmonizing and optimizing the country's investment law could be a first step to increasing investor confidence. Indeed, Madagascar has recently developed other special regimes in addition to the 2008 Free Zones and Companies Law, which could create overlaps or contradictions between regimes and leave investors confused as to which regime to choose. Furthermore, the 2008 law, which gives generous tax incentives for export-oriented companies, has no statute of limitations, leading to forgone tax revenues for the country.

**Fostering greater regional collaboration and integration, especially in material sourcing to achieve better scale of production, would enable the region to take a larger share of the production of garments in global value chains.** Because most materials and accessories are being imported (mainly from China, India, and Europe), the industry should explore opportunities to develop the upstream sector in southern Africa through promotion of industrial clusters. The connection to South Africa as a market is also important because exports to the Southern Hemisphere can soften seasonal demand swings, especially for high-end knitwear, but also for woven cotton garments.

**Indeed, as the country graduates to a lower-middle-income country, new and more sophisticated industries will develop, attracting workers out of the apparel industry and into better-paying industries such as agro-processing and BPO.** Skills acquired in the apparel industry, such as lean manufacturing, environmental compliance, and assembly line work, are transferable and will encourage the growth of other sectors.

## 3.3 TOURISM

**Tourism plays an important role in Madagascar's economic and social development.** In 2018, the sector's direct contribution to GDP was 5.1 percent (US$694 million), and it accounted for 4 percent of direct employment (237,500 jobs). When considering the sector's total (direct and indirect) contribution to GDP and employment, those numbers more than triple to 15.7 percent of GDP and 13.2 percent of employment.[165] The country ranks well in terms of female participation in the tourism labor market (11th out of 136).[166] In addition, Madagascar's tourism attractions are spread throughout the island and extend beyond urban areas into rural areas, where nearly 80 percent of the population lives and where poverty rates are more than double urban rates. Thus, tourism development has the potential to create pockets of economic growth in some of the very poorest regions, where people have few alternative sources of income and employment.

**In the long-term, and with the right policy mix, there is significant potential for growth in tourism jobs and investment, as Madagascar is endowed with a tremendous diversity of underexploited tourism assets.** Madagascar's tourism products leverage the country's astounding biodiversity and landscapes and an entirely unique culture manifested in its cuisine, crafts, traditions, and architecture. Tourist demand for nature-based and cultural products increases the value placed on natural and cultural assets by communities and can generate increased income for their management. For example, the economic value of gorilla tourism in Uganda is estimated at US$34.3 million and has led to policy that supports conservation and ecotourism.[167] With the development of adequate legislation to enable investment, and infrastructure to enable visitation, Madagascar's exclusive biodiversity could potentially generate similar results: a 2012 visitor survey indicated that 64 percent of visitors to Madagascar visit at least one national park.[168] Recent World Bank analysis[169] has indicated that, given its pristine beaches, islands, and coral reefs, the country has a comparative advantage in the region for the development of luxury marine/nautical tourism development, if the appropriate regulatory frameworks and infrastructure can be put in place.

**Short-term, however, the COVID-19 pandemic is overwhelming Madagascar's tourism sector, which will have a disproportionate impact on certain regions, despite the mitigation efforts underway.** Global travel restrictions have had particularly dramatic effects on tourism and airline activity given the sector's reliance on European markets, while confinement measures led to a sharp drop in service activity and disrupted global value chains. The World Bank estimated that in 2020 alone, tourism in Madagascar would see a 75 percent drop, as well as a reduction of GDP growth of around 3 percentage points.[170] Recent data shared by the Tourism Confederation of Madagascar indicates a 90 percent loss of revenue for the sector in 2020. Anecdotal evidence indicates that planned tourism investment projects will be significantly delayed, if not temporarily abandoned, as a result of the crisis. Tourism operators are benefiting from some limited measures implemented by the government (such as deferring certain payment deadlines), although more direct support is required to ensure their survival.

## Highlights of the Tourism Sector in Madagascar Prior to the COVID-19 Pandemic

**Visitation to Madagascar has grown at a slower rate than in competitor countries and nearby destinations.** Although arrivals rebounded after the 2009–14 crisis—reaching 293,000 in 2016— they are still below the 375,000 reached in 2008 before the crisis. In 2018, Madagascar registered 256,872 international arrivals, a number reduced by cancellations stemming from a severe plague outbreak from late 2017 to early 2018. Overall growth in visitation between 2010 and 2017 (30 percent) was notably slower than in the Seychelles and Sri Lanka, where visitation doubled during the period, but not so far behind Mauritius (whose visitation increased 44 percent).[171] The country was ranked 121st out of 136 countries for overall tourism competitiveness in 2017.[172]

**On the positive side, Madagascar's yield (average spent per visitor) in 2010–17 was by far the highest among six comparator countries,**[173] with US$2,626 earned per tourist in 2017.[174] In addition, the country continues to enjoy a high average length of stay (15 days)[175] and high return visitor rates (40 percent) among leisure tourists.[176]

**Visitors are mainly European leisure tourists.** Because of a combination of constraints (see below), key markets for Madagascar are those with historical links to the country. France is by far the largest source market, with 24.33 percent of international arrivals in 2018. Other key markets are Italy (15.1 percent), particularly for the northern island destination of Nosy Be, and the United States (2.19 percent).[177] More than 7 out of 10 of tourists (71 percent) come for leisure and recreation (2017).

**Visitation is highly seasonal.** Extreme peaks and troughs in visitation are caused by a variety of factors, including a reliance on traditional European family travelers who vacation in July and August, poor communication about weather-related constraints (such as in cyclone season), and a lack of incentives for low-season visitation.[178] This situation leads to uneven revenues across the year and limits operators' appetite and capacity for reinvestment. Average occupancy rates can be as low as 20–30 percent, even at popular destinations.[179] Many companies close down entirely during the low seasons.

**Tourism is almost entirely small scale.** Large-scale tourism is limited to the northern island destination of Nosy Be, home to the largest hotel in Madagascar (204 rooms) and the only destination outside the capital with multiple direct international flights per week (prior to the pandemic). Tourism growth and investments in hospitality and tourism in Nosy Be were stimulated by the provision of basic infrastructure (road and port connectivity, utilities), an improved local investment climate, and tourism product development led by the World Bank Integrated Growth Poles Project (P083351).

**High-potential hospitality sector investments in Madagascar have been scarce, but recent years have seen renewed market and investor interest, spurred by enabling reforms and investment.** Globally, the tourism and hospitality sector is the second largest generator of foreign direct investment: greenfield FDI in tourism increased from 234 projects in 2017 to 514 projects in 2018, worth US$22.3 billion in capital investment.[180] Despite some interest over the years, constraints have deterred international investors in Madagascar. However, The World Bank has supported a recovery strategy that focuses on helping to establish the enabling infrastructure for tourism investments,[181] while also improving connectivity.[182] Extensive support from the World Bank and IFC through a technical assistance project by the EDBM resulted in a large international hotel group, the first in Madagascar, signing in 2019 to operate three hotels (254 rooms). Following an international investment forum held in September 2019, another 18 international operators and investors have signed letters of intent for travel and tourism investment projects, although many of these are expected to be delayed as a result of the pandemic.[183]

## Constraints to Tourism Growth in Madagascar

**Tourism investment continues to be constrained by a challenging overall investment climate, despite reform efforts.**[184] The 2017 WEF Travel and Tourism Competitiveness Report ranked Madagascar 126th of 136 countries in terms of business environment, with particular issues in property rights and the cost of dealing with construction permits.[185] The legal and regulatory dimensions of the overall investment framework lack coherence. Financing can be slow to materialize, both from commercial banks and DFIs such as IFC. Public sector capacity for investment promotion is limited and the roles of various agencies in such promotion remain unclear, creating space for questionable deals.[186]

**Underdeveloped sector-specific legislation and regulation hinder investment opportunities and growth in high-potential markets.** Despite extensive donor support,[187] the country continues to lack a regulatory framework for land titling and private concessions in national parks—some of the country's strongest tourist draws. Similarly, regulation of the arrival and registration of private leisure boats (such as yachts) is not aligned with international standards, stunting growth of and investment in the high-value marine tourism market.

**Limited public sector capacities and coordination constrain sectoral planning, management, and growth**. Sector development does not follow a master plan, hindering adequate investments in hotels, infrastructure (including energy, water, sanitation, roads, and airports) and services (such as waste management). In addition, the Ministry of Transport, Tourism and Meteorology has limited capacity to monitor developments and ensure quality. Public sector marketing activities lack resources, innovative approaches, and alignment with private sector priorities, reducing their strategic impact. Finally, limited public sector capacity to gather and disseminate reliable data on Madagascar's tourism performance further complicates informed planning and deters interested investors, operators, and airlines.

**Limited and uncompetitive air connectivity is one of the most significant constraints for increased tourism supply and demand.** Madagascar is dependent on air transportation for both international and domestic travel. The World Bank Group has supported aviation reforms, including the signing of a strategic partnership for the national airline (the partnership was dissolved in 2020), and the signing of PPPs for the two main international airports. Although the government made some progress in attracting new long-haul airlines and promoting lower-cost fares (through gradual implementation of an Open Skies policy) prior to the pandemic, flights to Madagascar are still expensive and limited in number and origin. Reliability of domestic connectivity improved with the creation of a domestic subsidiary in 2018, although flights remain infrequent and expensive. The COVID-19 pandemic has altered the global aviation landscape and its lasting impacts on Madagascar's air connectivity remain to be seen.

**Inadequate airport infrastructure and standards—including safety standards—prevent regional (secondary) airports from reaching international certification** and limit their ability to respond to changing demand (such as by receiving larger aircraft and operating at night). This limits the possibilities for packaged multidestination travel within the country, one of the key product types, and constrains growth of regional destinations in major economic development zones identified as priorities by government of Madagascar. The World Bank Integrated Growth Poles Series of Projects has supported the upgrading of certain secondary airports in its target regions to enable such development.

**High jet fuel prices exacerbate airline competitiveness issues and are detrimental to tourism development**.[188] The cost of fuel is one of the major factors influencing an airline's operational costs, and thus its fares.[189] In Madagascar one company has a monopoly over the supply of jet fuel, resulting in one of the highest prices in Africa.[190] Further, standard practices for international airlines to purchase jet fuel according to worldwide agreements cannot be followed. Fuel costs are hampering the national airline's financial recovery plan as well as (prepandemic) plans to open new routes in the region and broaden tourism development. Moreover, jet fuel prices vary regionally, leaving high-potential, emerging tourist destinations such as Fort Dauphin and Morondava with some of the highest costs. In the absence of increased competition, commercial airlines are more likely to look for opportunities to refuel outside of Madagascar, also contributing to forgone tax revenues. However, this option is not available for domestically operated flights and direct long-haul flights, further reducing competitiveness.

**Poor road connectivity limits the quality of some of the most popular products and circuits.** While 70 percent of Madagascar's 5,626 kilometers of paved roads are in good to fair condition, 70 percent of its 26,014 kilometers of unpaved roads were in poor condition in 2017. [191] Travel by road, where feasible, is often extremely lengthy, dangerous, and uncomfortable for tourists, and yet often constitutes the main mode of transportation, especially for packaged tours in the north and south of the country. Some of the country's most famous tourist sites are inaccessible during the rainy season because of a lack of proper road infrastructure. Poor road connectivity also limits investor interest in more isolated attractions.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**A lack of qualified labor burdens the private sector and impairs the visitor experience.** Tourism and hospitality training opportunities in the country are limited, largely concentrated in the capital and out of the financial reach of many. The private sector is burdened with (a) hiring unqualified labor, lowering the quality of the visitor experience, and (b) providing in-house training, with related risks of high turnover of trained staff. In this context, investors often prefer smaller-scale investment projects to avoid extensive training costs. The domestic supply of investor and firm skills in areas such as conducting market analyses and feasibility studies, as well as local law firms skilled in hotel contract negotiation, are also limited. Madagascar ranked 122nd of 136 countries for human resources and the labor market in the tourism industry in 2017.[192]

**High input costs limit the willingness of operators and investors to engage.** Where state-provided electricity connections are possible and functioning, the cost of the energy is excessively high. Given the country's geographic isolation and limited connectivity, the import of many goods—both from overseas to Madagascar and from mainland Madagascar to its surrounding islands or poorly connected areas—represents an additional strain on operational costs.

**Political instability, as well as health and insecurity issues, have significantly depressed investor interest and tourism demand for Madagascar.** Tourism demand is highly sensitive to internal shocks, such as the 2009 crisis and even uncertainty surrounding the national elections in late 2018 and early 2019. Previous and recurrent health crises, such as the particularly serious plague epidemic of August–October 2017, and the COVID-19 pandemic since 2020, have led to cancellations and decreased demand.[193] In addition, investors, both domestic and international, frequently cite low hygiene standards and poor sanitation as a deterrent, and tourists are deterred by a lack of adequate health services.

## Short- and Medium-Term Recommendations for the Tourism Sector

### Short-term recommendations

**Reassess marketing strategies and modalities in light of the COVID-19 pandemic.** Public and private tourism stakeholders are working to relaunch tourism following the COVID-19 crisis. Such plans must follow an integrated approach, taking into account private sector priorities and activities as well as air connectivity possibilities in the new global aviation context and shifts in tourist demand and behavior. The pandemic has provided an opportunity to step back and assess how best to reposition the destination in this new context—an opportunity that Madagascar must take. Particularly given the COVID-19 context, marketing and promotional activities (by the National Tourism Board, MTTM, EDBM, and the private sector) should shift further to digital channels and rely less on traditional events and methods to attract tourists and investors. A review of the institutional setup of the National Tourism Board is recommended to increase impact and synergies with the private sector for tourism promotion.[194] Improvements to the way in which the tourism "vignette"[195] is collected, reported, and distributed are also recommended to ensure a more consistent flow of resources for public marketing activities at national and regional levels.

**Collaboratively set and implement strategic tourism priorities.** National-level strategic tourism priorities such as those of the 2017 Tourism Policy Letter, which are currently under review, and a needed review of the 2004 Tourism Master Plan should be (a) developed in partnership with the private sector, (b) based on data and market intelligence where feasible, and (c) accompanied by logical, complementary investments in infrastructure, marketing, or both to send a clear and cohesive message to potential investors and markets. The strengthened public-private dialogue platform linked to the creation of the Tourism Confederation of Madagascar (CTM) should be leveraged throughout these processes. The CTM can also be leveraged to better link central and local stakeholders in efforts to set priorities and improve overall competitiveness. Such improved planning mechanisms should be leveraged to plan for the reopening of Madagascar's key destinations for post-COVID-19 recovery, for instance through the development and implementation of health protocols and standards.

**Harmonize, institutionalize, and expand the investment climate and address gaps in legislative and regulatory frameworks.** Investment climate reforms such as those facilitated by IFC and World Bank projects have stimulated a positive reform agenda that should be continued and strengthened (for example, commercial justice and land policy and exploring possibilities for enhanced tourism investment incentives). A clear overarching regulatory framework for investments and specific sectoral frameworks for concessions in protected areas[196] and for marine tourism[197] will be key to stimulating growth in these two high-potential markets. In addition, the new law covering Terrains a Statut Specifiques (including Réserves Foncières Touristiques) must clarify roles and responsibilities of involved ministries in reserve and protected-area investments and concessions. Officials need to add a strong investment aftercare service to ensure seamless processes for obtaining permits and licenses. However, improvements to the investment climate—across sectors—will depend on increased government willingness and good governance of investment and transaction procedures.

**Enact air transport policy reform to enhance competitiveness.** Strategic priorities for air connectivity were set in the 2017 Air Transport Policy Letter.[198] A multistakeholder, public-private Route Development Committee and related executive team, conceived in 2019 to plan and guide improvements in long-haul air services, should be reconvened, strengthened, and leveraged in the process of implementing these priorities, including the Open Skies policy—particularly in the context of COVID-19 sector recovery.[199] A thorough review of current jet fuel policy and regulations is also critical for lowering the costs faced by airlines and stimulating any kind of airline competitiveness.

**Provide clarity on the future of Air Madagascar and its domestic subsidiary.** The dissolution of Air Madagascar's strategic partnership and the lack of information on the airline's future are generating significant uncertainty, particularly over the potential impact on domestic air connectivity and the legitimacy of the PPPs established for the two main international airports. Such uncertainty will inevitably shake investor confidence unless the issues are swiftly and transparently resolved. In this context, future tourism investor confidence—and tourism growth in general—in the country will depend on (a) the process of finding a new partner (or another alternative) being conducted in a highly transparent manner; (b) the integration of highly qualified, competitively selected air transport professionals at management levels; and (c) a realistic development plan to continue the development of Tsaradia airline, and potentially Air Madagascar.

### Medium-term recommendations

**Continue and expand investments in connectivity infrastructure.** Following improvements to international air transport infrastructure,[200] upgrading secondary airports is a priority to ensure an increased spread of tourism investments and benefits to regional destinations in the country (such as the regional destinations supported by the Integrated Growth Poles SOP).[201] In addition, large-scale and well-coordinated public investments in road connectivity for regional tourism hotspots by the national government and international donors will continue to be critical for improving the tourist experience, increasing options for new product development by the private sector, and stimulating investment beyond the capital city. Promoting and facilitating PPPs in a transparent manner to enhance marine infrastructure—for instance, leisure marinas—will be key for growing this high-value market.

**Enhance the relevance, availability, and accessibility of sector training opportunities.** The tourism and hospitality training supply should be better matched to private sector needs—particularly in the COVID-19 context—through improved PPD, integration of tourism into TVET programs, and more partnerships between training institutes and private sector (on-the-job) training in regional destinations. A compensation or incentive mechanism for the private sector to train workers could be piloted in one destination, for instance Nosy Be, for later scaling up. In the COVID-19 context, options for increased online delivery of tourism and hospitality training should be explored, also to avoid heavy investments in physical infrastructure and materials. Training in areas such as digital skills (for example, online booking, payment systems, and online promotion) should also be expanded as globally the sector increasingly depends on digital channels. Domestic investor and firm capacity should also be strengthened in the areas of conducting market analyses, feasibility studies and financial assessments, and hotel management contract negotiations, to enable more effective collaboration with international investors.

**Invest in the provision and management of basic services.** Public investments in basic service provision and public health, as well as the integration of municipalities in destination management (such as for solid waste collection), will be critical for securing tourism and investment demand, improving operating conditions for firms, enhancing the visitor experience, and ensuring destination sustainability—especially in urban destinations such as Nosy Be and Tulear and particularly given the COVID-19 context.

**In the longer term, the sector could benefit from establishing greater links with agribusiness, ultimately strengthening both value chains, although further analysis is required before providing recommendations.** For instance, the private sector could lead development of agritourism products based on Madagascar's oils and spices (such as vanilla and ylang ylang), creating new attractions and circuits and greater value for local agribusiness infrastructure. Local agribusiness producers could be supported to increase and diversify their production to supply local premium tourist facilities, reducing tourism's dependence on imports, reducing costs, and increasing the authenticity of the tourism product. Climate change considerations will also be critical for Madagascar's tourism sector in the long term, because the sustainability of key nature-based tourism products (such as coastal areas and coral reefs) will depend on climate-resilient development led by the private sector.

# NOTES

1 Through adjustment to the Country Partnership Framework to support COVID-19 response (with an envelope of US$226 million for the relief phase, US$302 million for the restructuring phase, and US$450 million for the recovery phase).

2 IMF rapid credit facility (US$166 million agreed in April 2020; US$172 million agreed on July 30, 2020). In addition, an Extended Credit Facility Arrangement amounting to US$312 million was approved by the IMF Executive Board on March 29, 2021.

3 Including additional emergency budget support by the Agence Française de Développement and African Development Bank ; US$58 million in total.

4 Additional activities supporting the energy reforms are the Madagascar Power Sector Financial Sustainability Advisory Services and Analytics (ASA) (P168776), which was initiated in 2018, and the ongoing Least-Cost Electricity Access Development (P163870) Investment Project Financing (IPF).

5 The current Partial Portfolio Credit Guarantee Schemes (PPCGS) is a guarantee mechanism for loans extended by banks and MFIs to MSMEs and was established in July 2014 with the support of the World Bank. The scale-up is related to focus on expanding the PPCGS's scope and risk coverage, expanding eligibility criteria to include additional sectors, and providing capital relief for financial institutions making use of the credit guarantee. It will also open two new windows for the PPCGS for temporary restructuring of loans and guarantee on new credits to provide needed cash.

6 USSD ("quick code") liberalization and pricing controls are needed to allow nontelecommunications companies to use this channel for digital transactions to remote or underserved populations at an affordable cost.

7 According to the World Health Organization (WHO), from January 3 to November 18, 2020, there were 17,310 confirmed cases of COVID-19 with 250 deaths, https://covid19.who.int/region/afro/country/mg.

8 Government of Madagascar, "Draft Plan de Mitigation pour Le Secteur Privé Face au COVID-19, " 2020.

9 First wave of the survey was run between June 10 and July 15, 2020, by the National Institute of Statistics with technical support by the WBG. Figures here have been calculated using the global BPS harmonized methodology, including sampling weights, and may differ from country reports. Only formal businesses are represented.

10 Information drawn from a political economy assessment prepared as a background paper for the World Bank, Madagascar *Country Economic Memorandum* (Washington, DC: World Bank, 2019).

11 World Bank Group, Madagascar Systematic Country Diagnostic (Washington, DC: World Bank, 2015).

12 ECI is a ranking of countries based on how diversified and complex their export basket is. Countries that are home to a great diversity of productive know-how, particularly complex specialized know-how, are able to produce a great diversity of sophisticated products. See the Atlas of Economic Complexity, "Glossary," https://atlas.cid.harvard.edu/glossary.

13 Comprehensive information on the characteristics of the Malagasy private sector is limited. There has not been a private sector census to determine the size of the private sector (such as the number of firms), the sectoral composition of firms, and the composition of the private sector by firm size. To that end, this CPSD primarily relies on two sources to analyze the Malagasy private sector: (a) data on aggregate private sector investments and (b) data from the World Bank Group's 2013 Enterprise Survey—which only represents a sample of firms surveyed.

14 Based on data from the Madagascar Tax Administration.

15 World Bank, *Madagascar Country Economic Memorandum*.

16 Instat, "National Survey on Employment and the Informal Sector," Antananarivo, 2013.

17 Banky Foiben'i Madagasikara, "Enquête Sur La Conjoncture Économique (ECE): Quatrième Trimestre 2020," Antananarivo, 2020.

18 Banky Foiben'i Madagasikara, "Enquête Sur La Conjoncture Économique (ECE): Quatrieme Trimestre 2019," Antananarivo, 2019.

19 World Bank, "World Development Indicators: Country Institutional and Policy Assessment" (World Bank, Washington, DC, 2019).

20 Kaunain Rahman, Casey Kelso, and Matthew Jenkins, "Overview of Corruption and Anti-corruption in Madagascar: Focus on Natural Resource Sector and Gold" (Transparency International, Berlin, 2019).

21 Kevin M. Murphy, Andrei Shleifer, and Robert W. Vishny, "The Transition to a Market Economy: Pitfalls of Partial Reform," *Quarterly Journal of Economics* 107, no. 3 (1992): 889–906.

22 Loi n°2017-036 du 14 janvier 2018 sur les investissements.

23 Loi n°2003-036 du 30 janvier 2004 sur les Sociétés Commerciales.

24 Loi n°95-030 du 22 février 1996 relative à l'activité et au contrôle des établissements de crédit.

25 There are different types of law that are relative to the land administration. Key texts here are the loi n° 2005-019 du 17 octobre 2005 fixant les principes régissant les statuts des terres and loi n° 2006-031 du 24 novembre 2006 fixant le régime juridique de la propriété foncière privée non titrée.

26 Loi n°2007-037 du 14 janvier 2008 sur les Zones et Entreprises Franches.

27 Loi n°2017-023 relative aux Zones Economiques Spéciales.

28 Loi n°2017-047 du 29 janvier 2018 sur le Développement de l'Industrie.

29 The industrial development law does not apply to all industrial activities but only to those that have particular focus on research, innovation, and training.

30 According to an interview conducted by the World Bank in 2019 with the private sector in the textile and IT-BPO (for the preparation of the *Country Economic Memorandum*), investors report that reduced labor costs is the first main factor that attracts investment.

31 World Bank, "Investment Policy and Promotion in Madagascar—Harmonization of the Investment Legal System" (Consultation Project Note, World Bank, Washington, DC, July 2019).

32 World Bank, "Investment Policy and Promotion in Madagascar."

33 World Bank, "Investment Policy and Promotion in Madagascar."

34 Rapport préliminaire de diagnostic organisationnel et fonctionnel de l'EDBM et de Madagascar en matière de promotion des investissements, EDBM et PIC, décembre 2015.

35 World Bank, "Investment Policy and Promotion in Madagascar."

36 A particular area of concern is the high cost and limited coverage for fixed broadband, a service that enables higher speeds, as Madagascar ranks 172 out of 173 countries in terms of affordability in the most recent International Telecommunication Union data. More information about each segment can be found in International Telecommunications Union, Measuring Digital Development: ICT Price Trends, Geneva: ITU, https://www.itu.int/en/ITU-D/Statistics/Documents/publications/prices2019/ITU_ICTpriceTrends_2019.pdf.

37 In parallel, when introducing G2B electronic services, it would be useful to adopt case management systems, as well as performance indicators; publish service level agreements for selected G2B transactions; and establish e-payment systems so companies can pay a selected number of key government fees and taxes (beyond corporate income tax and VAT) electronically.

38 Specifically, operationalizing the Disaster Management Fund and introducing new norms for public building and guidelines to mainstream disaster risk management and climate resilience in territorial planning.

39 WEF (World Economic Forum), Global Competitiveness Report 2019 (Geneva, WEF, 2019).

40 WEF, *Global Competitiveness Report 2019.*

41 World Bank, *Republic of Madagascar Diagnostic Trade Integration Study (DTIS) Update—Leveling the Playing Field for Renewed and Inclusive Growth* (Washington, DC: World Bank, November 10, 2015).

42 WHO (World Health Organization), "Global Status Report on Road Safety" (Geneva, WHO, 2018).

43 The classified road network measures 31,640 km, out of which 5,600 km connect regional capitals and Antananarivo. Secondary roads connect primary roads and important ports and economic poles. The tertiary roads of the classified network connect district centers and villages.

44 World Bank, "Madagascar: Spatial Analysis of Transport Connectivity and Growth Potential" (World Bank, Washington, DC, 2018).

45 World Bank Group, *Madagascar Country Economic Memorandum: Scaling Success*.

46 World Bank, "Transport Infrastructure Investment Project (APL2). Implementation Completion and Results Report (ICR)" (World Bank, Washington, DC, 2013).

47 World Bank Group, *Madagascar Country Economic Memorandum*.

48 IFC, "Madagascar Country Strategy 2020–23" (Draft, IFC, Washington, DC, 2010).

49 World Bank, Country Partnership Framework for the Republic of Madagascar" (Report No. 114744-MG, World Bank, Washington, DC, 2017).

50 World Bank."Connectivity for Rural Livelihood Improvement Project (P166526)" (Project Appraisal Document, World Bank, Washington, DC, 2019).

51 World Bank, "Connectivity for Rural Livelihood Improvement Project."

52 World Bank, *Republic of Madagascar Diagnostic Trade Integration Study (DTIS) Update*.

53 World Bank, "Madagascar Spatial Analysis of Transport Connectivity and Growth Potential," 2018. The year on which the estimated costs are based is not noted in the report. Estimates are based on potential capacity: >450,000 tons per year (about 80 heavy trucks per day).

54 World Bank, "Madagascar Transport Sector Reform and Rehabilitation Project (APL-Phase 1)" (Project Appraisal Document, World Bank, Washington, DC, 2000).

55 Discours d'Ouverture du Salon International des Transports, Logistique, Manutention, Novembre 18, 2019.

56 IFC, "Public-Private Partnership Impact Stories: Madagascar Port of Toamasina" (Private Infrastructure Development Group Series, updated August 2013).

57 World Bank Development Indicator (WDI).

58 World Bank Group, *Madagascar Country Economic Memorandum: Scaling Success*.

59 World Bank 2016. Madagascar: Spatial Analysis of Transport Connectivity and Growth Potential.

60 Government of Madagascar 2019. Plan Émergence Madagascar (PEM) 2019–2023. Draft.

61 Global Cargo Directory: Ports: https://www.cargorouter.com/directory/ports/Madagascar/.

62 World Food Programme (WFP) Logistics Capacity Assessments (LCAs). https://dlca.logcluster.org/display/public/DLCA/2.4+Madagascar+Railway+Assessment.

63 World Bank *Republic of Madagascar Diagnostic Trade Integration Study (DTIS) Update*.

64 World Food Programme (WFP) Logistics Capacity Assessments (LCAs).

65 Discours d'Ouverture du Salon International des Transports, Logistique, Manutention. Date: Novembre 18, 2019. MTTM website, http://www.mttm.gov.mg/discours-douverture-du-salon-international-des-transports-logistique-manutention/.

66 World Food Programme (WFP) Logistics Capacity Assessments (LCAs).

67 Government of Madagascar, PEM draft.

68 See "Antananarivo International Airport," EDGE website, https://www.edgebuildings.com/projects/antananarivo-international-airport/.

69 World Bank country energy staff.

70 World Bank, "Enterprise Surveys: Madagascar," 2013, https://www.enterprisesurveys.org/en/data/exploreeconomies/2013/madagascar#infrastructure.

71 World Bank. "Madagascar Least-Cost Electricity Access Development Project—LEAD (P163870)" (Project Appraisal Document, World Bank, Washington, DC, 2019). The figure of 12 percent grid access in 2017 was updated by the World Bank energy staff.

72 World Bank, "MG-Electricity Sec Operations and Governance Improvement Project (ESOGIP) (P151785)" (Project Appraisal Document, World Bank, Washington, DC, 2016).

73 Figure from World Bank, "Enterprise Surveys: Madagascar," 2013. See also, IFC, "Scoping Study: Madagascar Textiles and Apparel, Summary of Findings" (Internal Document, Manufacturing, Agribusiness and Services (MAS) Advisory, IFC, Washington, DC, updated June 2019).

74 World Bank, "MG-Electricity Sec Operations and Governance Improvement Project."

75 World Bank, "Madagascar Scaling Solar Guarantee Project Concept Note (PCN)" (World Bank, Washington, DC, 2018).

76 None of these projects have been financed by DFIs.

77 World Bank, "Madagascar Least-Cost Electricity Access Development Project."

78 World Bank, internal document, 2018.

79 IMF (International Monetary Fund), "Madagascar: Staff Report for the 2019 Article IV Consultation and Sixth Review under the Extended Credit Facility Arrangement" (IMF, Washington, DC, March 2020). Of the total arrears equivalent to 3.5 percent of GDP, 1 percent of GDP of arrears to Jirama suppliers was later paid in early 2020.

80 Madagascar Power Sector Financial Sustainability ASA (P168776), which was initiated in 2018; the ongoing Least-Cost Electricity Access Development (P163870) IPF; and the Infrastructure Governance and Lifeline Connectivity Project for Results (P173932, pipeline).

81 World Bank, "Madagascar Least-Cost Electricity Access Development Project."

82 World Bank, "Institutional Approaches to Electrification. The Experience of Rural Energy Agencies/

Rural Energy Funds in Sub-Saharan Africa" . (World Bank, Washington, DC, 2012).

83 Custodian Agencies, "Tracking SDG7: The Energy Progress Report—Madagascar" (International Energy Agency, International Renewable Energy Agency, United Nations Statistics Division, the World Bank, and the World Health Agency, 2019), https://trackingsdg7.esmap.org/country/madagascar. Most recent data are from 2017.

84 Global Burden of Disease Study 2010 (GBD 2010), which is the most recent available data on the link between household air pollution and cause of death and disease.

85 WHO (World Health Organization), "Indoor Air Pollution: National Burden of Disease Estimates," 2007, cited in Susmita Dasgupta, Paul Martin, and Hussain A. Samad, "Addressing Household Air Pollution: A Case Study in Rural Madagascar (Policy Research Working Paper WPS 6627, World Bank, Washington, DC, 2013); Jean-Christophe Carret, "Madagascar—Country Environmental Analysis (CEA): Taking Stock and Moving Forward" (World Bank, Washington, DC, 2013).

86 World Bank, "Madagascar Ethanol Clean Cooking Climate Finance Program Project Appraisal Document" (World Bank, Washngton, DC, 2016).

87 Carret, "Madagascar—Country Environmental Analysis."

88 Erin Litzow and others, "Cooking Practices, Human Health, and the Environment: The Case of Mandena, Madagascar," *Energy and Development*, T. Robert Fetter and Faraz Usmani, eds. (Durham, NC: Global Energy Access Network, Duke University, 2017).

89 For example, a feasibility study estimated that by 2040, 1.3 million households or 16 percent of the Malagasy population, could adopt ethanol cookstoves, saving 442,000 disability-adjusted life years and between 670,000 and 1.4 million hectares of nonproduction forest, US$37.9–47.5 million in avoided deforestation, US$368 million in time savings benefits, and US$34 million in health savings over 30 years. See Carret, "Madagascar—Country Environmental Analysis."

90 The business model made LPG available and affordable in urban and peri-urban areas using small-size cylinders and unique filling stations that allow partial filling equivalent to spending on kerosene and charcoal, and it helped SMEs run the stations. Distance, storage, delivery dynamics, and justifiable cross-subsidies will require a pricing mechanism similar to gasoline. Entry cost (adoption) can be high relative to income brackets.

91 As per verbal communication by the Ministry of Posts, Telecommunications and Digital Development on November 16, 2021.

92 it is also important to look at service quality for mobile broadband, as this is an area where Madagascar underperforms its regional peers in regards broadband speeds, reflecting a network quality issue.

93 IFC, "Madagascar Digital Assessment Internal Report," 2021.

94 World Bank, "Madagascar Country Economic Memorandum." A 2015 study suggests that regions with herds of livestock are less affected by stunting. Nutritionally richer food is noted in regions with large herds of sheep or goats (lower reliance on staple grains) that produce larger amounts of rice substitutes, such as cassava and maize. The 2015 study finds that in regions where the proportion of women earning more than their husbands is higher, the prevalence of stunting is lower. In regions where more women are able to make decisions (on their own), quality of food intake is also better.

95 In the eight months following September/October 2018, almost 900 people died and close to 125,000 people had measles. The recent outbreak of measles is a reminder that almost 30 percent of all deaths in Madagascar are still attributable to preventable infectious and parasitic diseases. The country's public health system faces many challenges from coping with annual outbreaks and epidemics, including cases of the plague.

96 Human capital is composed of six components: survival to age five, expected years of school, harmonized test scores, learning-adjusted years of school, adult survival rate, and not stunted rate.

97 ILO 2015.]

98 World Bank, "Madagascar Learning Poverty Brief" (Washington, DC: World Bank, 2019).

99 World Bank, "Madagascar—Investing in Human Capital Development Policy Financing (P168697)" (World Bank Group, Washington, DC, 2020).

100 World Bank Group, "Madagascar Financial Inclusion Project," (Project Appraisal Document, World Bank, Washington, DC, 2018).

101 Leora Klapper and others, "Sub-Saharan Africa: Mobile Money and Digital Financial Inclusion" (Findex Note 1, World Bank, Washington, DC, March 2019).

102 World Bank, "Madagascar Digital Economy Assessment (DEA)" (Draft, World Bank, Washington, DC, 2019).

103 As per verbal communication by the Central Bank of Madagascar on November 16, 2021

104 A mutualized management information system project for MFIs is underway, currently supported by the World Bank Financial Inclusion Project (P161491).

105 National estimates vary. For example, sharecropping is estimated on 13.6 percent of land, according to Service of Agricultural Statistics, "Agricultural Census 2004–2005" (report, Ministry of Agriculture, Antananarivo, 2008). In some regions, such as Itasy, 70 percent of land is believed to be involved in sharecropping, according to World Bank, "FID Survey Report" (World Bank, Washington, DC, 2007).

106 Literally "small papers," referring to other types of documents that prove occupation or property rights (such as act of sale, land tax payment receipt, and so on).

107 Services of Agricultural Statistics, "Agricultural Census 2004–2005."

108 Services of Agricultural Statistics, "Agricultural Census 2004–2005."

109 Z. Ravelomanantsoa, "Capitalisation des expériences combinées de sécurisation foncière groupée et de recensement fiscal," (Madagascar Land Reform: Perspectives and Prospects Economic in Sector Work), (P132491) (World Bank, Washington, DC, 2013).

110 World Bank, "The World Bank Agriculture Rural Growth and Land Management Project (Projet de Croissance Agricole et de Sécurisation Foncière, CASEF—P151469) (Implementation Status and Results Report, Sequence number 8, World Bank, Washington, DC, February 2019).

111 World Bank, "The World Bank Agriculture Rural Growth and Land Management Project."

112 World Bank, "The World Bank Agriculture Rural Growth and Land Management Project."

113 World Bank, "The World Bank Agriculture Rural Growth and Land Management Project."

114 World Bank internal document, 2019.

115 Using very high resolution aerial imagery and landholding delineation and survey.

116 IMF, "Fifth Review under the Extended Credit Facility Arrangement" (Report, IMF, Washington, DC, August 2019).

117 World Development Indicators (WDI). In 2018, the rural poverty rate was 85 percent while the urban poverty rate was 40 percent.

118 World Bank, "Agriculture and Rural Development in Madagascar (P153329)" (World Bank, Washington, DC, 2016).

119 World Bank, "Madagascar Country Economic Memorandum."

120 Alain D'Hoore and Victor Sulla, Face of Poverty in Madagascar: Poverty, Gender, and Inequality Assessment (Washington DC: World Bank Group, 2014).

121 Output-related agribusinesses, including large plantations, collectors, processing companies, and exporters, are dominant—with 902 companies in the official firm registry database. On the other hand, there are 399 input-related agribusinesses, such as fertilizer and other input dealers and equipment suppliers. This official categorization covers up the fact that a firm may operate both in input and output markets. A. Limi, *Optimal Locational Choice for Agrobusinesses in Madagascar: An Application of Spatial Autoregressive Tobit Regression (*Policy Research Working Paper 8488, Washington, DC: World Bank Group, 2018).

122 Moreover, producer organizations and cooperatives may also comprise the pipeline for future (formal) agribusiness firms, and understanding this segment may help target policies and investments. Export-oriented agribusiness cooperatives are operating in high-end niche markets like cocoa, spices, fruits, and honey, but others are also targeting domestic markets (seeds, rice, inland aquaculture, and dairy sectors). However, figures related to the cartography of these cooperatives, share and contribution of producer organizations, and cooperatives in the agribusiness sector are not available.

123 World Bank, "Agriculture and Rural Development in Madagascar."

124 Republic of Madagascar, "Enquete Cadre Nationale 2011–2012," 2013. Cited in World Bank, "Second South West Indian Ocean Fisheries Governance and Shared Growth Project (P153370)" (Project Appraisal Document, World Bank, Washington, DC, 2017).

125 World Bank, "Second South West Indian Ocean Fisheries Governance."

126 World Bank, "Agriculture and Rural Development in Madagascar."

127 Institut national de la statistique, Madagascar (INSTAT), "Enquête Périodique Auprès des Ménages—Madagascar," 2010. Cited in World Bank, "Agriculture and Rural Development in Madagascar."

128 World Bank, "Agriculture and Rural Development in Madagascar."

129 Martin Humphreys and others, *Port Development and Competition in East and Southern Africa: Prospects and Challenges* (International Development in Focus series, Washington, DC: World Bank, 2019).

130 Community warehouses have become a place for individuals to collateralize crops for obtaining seasonal finance from microfinance institutions such as CECAM (Caisses d'Epargne et de Crédit Agricole Mutuels) and OTIV (Société Coopérative d'épargne et de credit). A depositor can receive a loan for up to 75 percent of the crop's market value at the time of deposit. Under the CECAM program, depositors are charged 3 percent monthly interest for a minimum of five months. To withdraw the crop from storage, the loan must be repaid in full. If the crop is withdrawn before the minimum storage period, five months of interest is still due. The crop must be withdrawn at the end of a period of 10 months. Storage receipts are nontransferable and nondivisible, meaning a depositor must be physically present to make a withdrawal and may withdraw the full amount only once.

131 World Bank, "Connectivity for Rural Livelihood Improvement Project."

132 Agro-logistics concerns all activities in the supply chain that match product supply from the farm with market demand for those products. It aims to get the right agro-product to the right place at the right time, according to the right specifications (including quality and sustainability requirements) at the lowest cost (J. Van der Vorst and J. Snels, "Developments and Needs for Sustainable Agro-Logistics in Developing Countries" [World Bank Position Note on Agro-logistics, Multidonor Trust Fund for Sustainable Logistics, MDTF–SL, World Bank, Washington, DC, 2014]. It includes, therefore, logistics decisions related to network design (such as plant site selection), sourcing, order fulfillment (including demand forecasting), transportation management, inventory management, materials handling, and goo storage.

133 Sea cucumber farming has been developed following research and development activities in the southwest of Madagascar initiated by a private operator in partnership with local research institutions. The depletion of the resource by overfishing and the high level of demand for trepang from Asia motivated these investments.

134 Livestock exports are supported by the World Bank and IFC.

135 IFC, "Helping Bovima Create Export Markets for Madagascar's Meat Products: Smart Lessons," 2019.

136 Therefore, it is more appropriate for high-value differentiated products; it is a way for the firms to ensure on-time appropriate supply (such arrangements are risky for food crops that can be sold on local markets because farmers would be tempted to side-sell).

137 Examples of going beyond: technology transfer (best practices in production and post harvest); working with communities to ensure sustainable production (environment conservation programs); and offering health benefits and improved education programs.

138 IFC author calculations from the Research Institute of Organic Agriculture (FiBL) statistics database, https://www.fibl.org.

139 Law N°010/2019 of 28 November 2019 on Organic Agriculture (adopted by the National Assembly on 12 May 2020).

140 EDBM/World Bank, "Business Licensing Reforms Analysis in Madagascar," 2019.]

141 Sizeable exports of sea cucumber are currently feasible only with products from aquaculture farms because of the depletion of the stock of sea cucumber in the natural environment. However, in the absence of traceability requirements, any operator who holds an export license can export sea cucumber. This situation has led to opportunistic behaviors that generate insecurity; private operators reported that thefts with armed attacks resulted in 20 to 40 percent loss of production of a sea cucumber farm in September 2019.

142 Narson and Mazava Volana (both pseudonyms), "Harvesting in Menabe: Abuses of Power, Intimidation and Monopoly," Malina, May 13, 2019, https://malina.mg/en/article/harvesting-in-menabe---abuses-of-power--intimidation-and-monopoly. For example, the exporters' association has worked with importers and the government to set export quotas (World Bank, Country Economic Memorandum, 2019).

143 For example, the exporters' association has worked with importers and the government to set export quotas (World Bank, Country Economic Memorandum, 2019).

144 Productive Alliance models (that fall within contract farming models) were implemented successfully in many countries in Latin America and adopted more recently in a World Bank–financed project in Africa. The approach involves three core agents: (a) a group of smallholder producers, (b) one or more buyers, and (c) the public sector, which are connected through a business proposition, or "business plan."

145 Southern African Development Community Harmonized Seed Regulatory System and Common Market for Eastern and Southern Africa Seed Harmonization Implementation Plan.

146 Numbers vary but sources generally agree that the sector employs anywhere from 150,000 to 200,000 workers. Year of data is not available. IFC, "Scoping Study Madagascar Textiles and Apparel Summary of Findings."

147 Atlas of Economic Complexity. The largest was agriculture, followed by services. https://atlas.cid.harvard.edu/explore?country=136&product=undefined&year=2018&productClass=HS&target=Product&partner=undefined&startYear=undefined

148 Atlas of Economic Complexity. https://atlas.cid.harvard.edu/explore?country=136&product=undefined&year=2018&productClass=HS&target=Product&partner=undefined&startYear=undefined

149 Export processing zones require that at least 95 percent of production be exported.

150 World Bank, Madagascar Country Economic Memorandum 2019 Deep-dive interviews.

151 United Nations Comtrade Database, H61, H62, and H63.

152 Lindsay Whitfield and Cornelia Staritz, "Local Firms in Madagascar's Apparel Export Sector: Technological Capabilities and Participation in Global Value Chains" (Centre of African Economies Working Paper 2018:3, Roskilde University, Denmark, 2018).

153 United Nations Comtrade Database, H61, H62, and H63.

154 Whitfield and Staritz, "Local Firms in Madagascar's Apparel Export Sector."

155 These may be Malagasy-owned or French diaspora–owned firms.

156 Whitfield and Staritz, "Local Firms in Madagascar's Apparel Export Sector."

157 United Nations COMTRADE database, H61, H62.

158 Economic Development Board of Mauritius statistics, 2020, and Private Social Security Institution (CNAPS) database, 2020.

159 International Trade Center (ITC) Trade Map, 2018.

160 EDBM statistics, January 1, 2020.

161 IFC, "Scoping Study: Madagascar Textiles and Apparel, Summary of Findings."

162 A caveat is that the skill levels, cost of living (because this is not a purchasing power parity comparison), and the year of data across the benchmark countries may not be exactly the same. The benchmark countries include Kenya US$175, Uganda US$105, Bangladesh US$95, and Tanzania US$90, IFC "Scoping Study: Madagascar Textiles and Apparel."

163 Key reforms include continued improvements to Jirama to move toward financial recovery and ensure that pipeline renewable energy projects are implemented according to plan. Further, these new investments are to be selected on a least-cost basis in line with demand and capacity to pay, supported by financial, social, and environmental feasibility studies.

164 IFC, "Sector Deep Dive: Manufacturing Roadmap for Textiles and Apparel" (IFC, Washington, DC, January 2020).

165 WTTC ( World Travel and Tourism Council), "Madagascar: 2019 Annual Research, Key Highlights"(WTTC, London, 2019).

166 WEF, *The Travel and Tourism Competitiveness Report 2017* (Geneva: WEF, 2017).

167 Yakobo Moyini and Berina Uwimbabazi, "Analysis of the Economic Significance of Gorilla Tourism in Uganda" (Rwanda: International Gorilla Conservation Programme, n.d.), http://www.igcp.org/wp-content/themes/igcp/docs/pdf/MoyiniUganda.pdf.

168 Conducted with support of the World Bank Integrated Growth Poles Project SOP-2 (P113971).

169 Conducted through the World Bank Integrated Growth Poles and Corridor SOP-2 (P164536).

170 World Bank Group, "Madagascar—Macroeconomic Impact of COVID-19 and Access to Emergency Financing" (World Bank Group, Washington, DC, 2020).

171 The growth figures of these three countries largely reflect their position within the tourism life-cycle model, which suggests that emerging destinations will have higher growth rates than more mature destinations. World Tourism Organization (UNWTO), Compendium of Tourism Statistics dataset (electronic), updated on March 3, 2018.

172 WEF, *The Travel and Tourism Competitiveness Report 2017.*

173 In addition to Madagascar, Kenya, Mauritius, Seychelles, Sri Lanka, and Tanzania.

174 UNWTO, Compendium of Tourism Statistics dataset.

175 World Bank analysis from August 2019 suggests that average length of stay for leisure tourists is 15 days. However, the country has traditionally quoted a figure of 21–22, established through a 2012 visitor survey conducted with the support of the World Bank Integrated Growth Poles Project SOP-2 (P113971).

176 This figure is from a 2012 visitor survey, conducted with support of the World Bank Integrated Growth Poles Project SOP-2 (P113971).

177 UNWTO, Yearbook of Tourism Statistics dataset.

178 It should be noted that the country's high season can be considered quite long, from around mid-July to mid-November.

179 Anecdotal evidence from discussions with multiple hoteliers during the September 2019 mission in Madagascar for World Bank projects P113971 and P164536. For instance, all hoteliers who met in the destination of Tulear/Anakao during this mission reported average annual occupancy rates of 20–30 percent.

180 fDi Intelligence, "Tourism Takes Off: The Hotels and Tourism Sector Saw a Huge Increase in FDI in 2018," fDi, https://www.fdiintelligence.com/News/Tourism-FDI-takes-off.

181 For instance, tourism growth and hospitality investments in Nosy Be (2010–15) were stimulated by the provision of road and port connectivity, improved utilities, an improved local investment climate, and tourism product development (P083351).

182 For instance, by supporting the government in the signing of PPPs for the two main international airports and Air Madagascar's recovery plan, which boosted domestic traffic flows to levels approaching those seen in the past.

183 Ten "priority" hotel projects from among the 20 have been selected to receive technical support from the World Bank Integrated Growth Poles Project SOP-2 (P164536) to ensure that they develop into concrete projects, either through the signing of management agreements with operators or through identification and engagement of co-investors.

184 The World Bank Integrated Growth Poles SOP (P113971 and P164536) and the IFC Investment Climate Reform Program (ICRP) have been supporting overall and tourism sector–specific investment climate reforms.

185 WEF, *The Travel and Tourism Competitiveness Report 2017.*

186 While EDBM has the clear mandate to promote investments and support investors, many sectoral ministries and other agencies also intermediate private sector deals.

187 For instance, through the World Bank Integrated Growth Poles SOP (P113971 and P164536) and the IFC Investment Climate Reform Program (ICRP).

188 All comparisons presented here are based on data collected in May 2018 by the World Bank Madagascar Finance, Competitiveness and Innovation (FCI) team.

189 Fuel is estimated to account for approximately 35–40 percent of the operational costs of major international airlines. The relative cost of fuel depends on the fleet mix, routes, and variations in the price of fuel. ALG Transportation, Infrastructures and Logistics, "Etude pour l'amélioration de la desserte aérienne vers Madagascar, en particulier vers Antananarivo, Nosy Be, Fort Dauphin, Diégo, Tuléar" (ALG, Barcelona, 2014).

190 On average, for domestic and international flights, the cost of jet fuel is 34.3 percent higher in Madagascar than in Johannesburg, and Port Louis, Mauritius. And outside of Africa, the price differences are even starker: prices in Madagascar are 38 percent and 44 percent higher than Guangzhou, China, and Paris, respectively. Airline data obtained by Airport and National Airline surveys conducted by the World Bank Madagascar Finance, Competitiveness and Innovation team, 2018.

191 Road inventory survey carried out in 2017, cited in World Bank, "Madagascar: Spatial Analysis of Transport Connectivity."

192 WEF, *The Travel and Tourism Competitiveness Report 2017.*

193 Cancellations were for both leisure and business travelers, as well as for regional cruises that normally have three ports of call planned for Madagascar—Diego, Fort Dauphin, and Nosy Be. Ministry of Tourism, Government of Madagascar, 2018.

194 This review will be supported by the World Bank Integrated Growth Poles Project SOP-2 (P164536). Negotiations with a consultant are underway at the time of writing.

195 A fee paid by hotel guests and reported by hotels to the government of Madagascar and the National Tourism Board. The vignette funds are split between the National Tourism Board and regional tourism offices for marketing purposes.

196 Supported by the IFC Investment Climate Reform Program.

197 Supported by the World Bank Integrated Growth Poles Project SOP-2 (P164536).

198 Supported by the World Bank Second Integrated Growth Poles and Corridor Program (P113971).

199 Recent World Bank analysis suggests that filling all existing international flight capacity to Madagascar would already achieve the government's goal of 500,000 international visitors. Load factors on some existing international routes are low and unprofitable routes risk cancellation. An air service development program should first assess the needs of existing airlines and routes prior to seeking new airlines and routes.

200 A new international terminal at the main international gateway (Ivato), and terminal upgrades at the second busiest airport in the country (Nosy Be) have been completed by their private operators, with support from IFC and the Multilateral Investment Guarantee Agency (MIGA).

201 Aéroports de Madagascar (ADEMA), the state's airport operator, launched in June 2019 a public-private partnership tender seeking concessionaires for the financing, upgrading, and management of 10 secondary airports across the country. The tender could significantly increase the quality and capacity of domestic connectivity, but only if appropriate partners are selected and contracts are effectively negotiated, monitored, and managed by the state.

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