



United Nations  
Economic Commission for Africa

## COUNTRY PROFILE

2016



# MADAGASCAR





United Nations  
Economic Commission for Africa

# COUNTRY PROFILE **2016**



## **MADAGASCAR**

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Addis Ababa, Ethiopia  
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First printing: March 2017

ISBN: 978-99944-70-21-1

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# Abbreviations and acronyms

ACP	African, Caribbean and Pacific Group of States
COMESA	Common Market for Eastern and Southern Africa
ECA	Economic Commission for Africa
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross domestic product
ILO	International Labour Organization
IMF	International Monetary Fund
SADC	Southern African Development Community
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
WFP	World Food Programme





# Acknowledgements

Country Profiles is a series published annually by the Economic Commission for Africa (ECA). The aim of the series is to disseminate country- and region-specific policy analyses and recommendations for economic transformation, with an emphasis on promoting sustainable growth and social development, strengthening regional integration and facilitating development planning and economic governance. The present series is the result of the close collaboration of ECA with its subregional offices and the African Centre for Statistics. Specific contributions are provided by relevant programme areas of ECA, in particular, the Macroeconomic Policy Division, the Regional Integration and Trade Division, and the Social Development and Policy Division.

The country profile on Madagascar was prepared under the overall coordination and substantive guidance of Giovane Biha, Deputy Executive Secretary for Knowledge Delivery of ECA, and the direct leadership of Andrew Mold, acting Director of the ECA Subregional Office for East Africa. The lead author of this country profile was Priscilla Lecomte.

The Madagascar country profile benefited from substantive inputs from national institutions, including the Central Bank of Madagascar, the National Institute of Statistics, the Ministry of Industry and Development of the Private Sector, and also from international partners and representatives of the private sector. The support of the Ministry of Foreign Affairs was critical to the success of the data collection project that was undertaken in September 2016. by Priscilla Lecomte and Andry Andriantseheno of the African Centre for Statistics.

Valuable contributions and comments were made by the internal review panel, put together by the Operational Quality Section of ECA. We would also like to thank Lambert N'galadjo Bamba, Economist from Côte-d'Ivoire and a Researcher in Economics at the Université Félix Houphouët-Boigny, Abidjan for his expert critique and review.

A special mention goes to the Publications Section for ensuring the editing, translation, design and printing of the 2016 Country Profiles series.

# Madagascar at a glance

General information		Rankings	Rank	Out of	Year	Source
Subregion	East Africa	Human development index	154	188	2014	UNDP
Official language	French, Malagasy	Gender inequality index	n/d	155	2014	UNDP
Currency	Ariary (MGA)	Ibrahim index of African governance	33	54	2016	Mo Ibrahim Foundation
Capital city	Antananarivo	Ease of doing business index	167	190	2017	World Bank
Regional Economic Community membership (s)	COMESA, SADC	Corruption perceptions index	145	176	2016	Transparency International



## Economic growth

The gross domestic product (GDP) grew by 3.1 per cent in 2015, against 3.3 per cent in 2014, signalling a fairly timid recovery scenario in the wake of the political crisis in the country between 2009 and 2013. The recovery is expected to accelerate in the coming years, with GDP growth expected to reach 4.1% in 2016 and 4.5% in 2017. The primary engines of economic growth were exports and investment; the agricultural sector showed near-zero growth, whereas the secondary sector was more dynamic (8 per cent growth in 2015).



## Fiscal policy

The rate of tax pressure is one of the lowest in the world, at approximately 10.5 per cent of GDP. Since the Government has opted for a more expansionary budgetary policy under its National Development Plan, with a growing rate of public investment, rising from 3.6 per cent of GDP in 2015 to 8 per cent in 2017, the budget deficit should continue to grow, reaching a projected 5 per cent of GDP in 2017 (against 2 per cent in 2013 and 3.7 per cent in 2015), and the level of external indebtedness should rise from 22 per cent of GDP in 2013 to 32 per cent in 2017.



## Monetary policy

Inflation grew significantly in 2015, reaching 7.6 per cent, and seems set to remain above 7 per cent in 2016, owing to a rise in the price of foodstuffs linked to poor harvests. At the same time, the exchange rate was fairly volatile, and the Central Bank sought to guarantee monetary stability while ensuring more flexible access to credit, thanks to a cumulative lowering by more than 1 point of the benchmark interest rate between 2014 and 2015.



### Current account

The current account deficit, which is 2.2 per cent of GDP, should continue to increase in 2016. At the same time, the commercial balance deficit shrank slightly, thanks, in part, to a rise in exports, and, on the other hand, a drop in the value of purchases of petrochemical products, which accounted for 15 per cent of imports. Mining products, in particular nickel, now make up 35 per cent of exports, against 20 per cent for textiles, and barely 10 per cent for vanilla.



### Capital and financial accounts

The situation of capital and financial accounts improved, with a confirmed recovery of direct foreign investment in 2016, in which year their share should reach 5 per cent of GDP. Thanks to this trend, the Central Bank was able to reconstitute its international reserves, which accounted for 3.5 months of imports in September 2016.



### Demography

The population, which is continuing to grow at an approximate rate of 2.8 per cent per annum, was estimated to be 24.2 million in 2015, of whom 40 per cent live in urban areas. The paradox of Madagascar lies in the fact that the demographic shift has not yet taken place, with a fertility rate of 4.5 children for each woman, despite the fairly widespread use of contraception (approximately 25 per cent). The twin phenomena of early pregnancies and marriage may be one explanation of this paradox.



### Poverty

While the poverty rate remains high, at 71.5 per cent, and has practically not changed over the past 20 years.



### Employment

The unemployment rate in the strict sense is 1.3 per cent, but the under-employment rate is as high as 84 per cent. The proportion of the population engaged in agriculture fell from 82 per cent in 2005 to 75.8 per cent in 2012.



### Health

The two main health-related challenges are food insecurity, with 75 per cent of the population lacking access to the minimum calorie intake, and maternal mortality (478 deaths per 100,000 live births) and infant mortality, which strongly correlate with the prevalence of early pregnancy. Nevertheless, the Government hopes to implement a system of universal health cover from 2017.



### Education

Despite a significant improvement in the rates of primary school enrolment (69.4 per cent, although somewhat lower since 2005, when the rate was 83 per cent) and secondary school enrolment (27.8 per cent), Madagascar has some 1.5 million children not in school. Furthermore, the quality of teaching is a problem: the sector has suffered for a number of years from an investment shortfall. The literacy rate is 71.6 per cent.



### Gender equality

Madagascar has reached gender parity in education (the enrolment rate for girls in secondary education is 29 per cent against 26.6 per cent for boys) and very nearly so with regard to employment rates (61 per cent for women against 65 per cent for men). On the other hand, women make up no more than 20 per cent of parliamentarians, and maternal health is a major problem, with a maternal mortality rate of 478 per 100,000.

## Overview

The Malagasy economy is pursuing a phase of timid recovery following a prolonged political crisis (2009-2013) which perturbed the economy and whose repercussions may still be felt in Madagascar society. Growth, estimated at 4.1 per cent in 2016, against 3.1 per cent in 2015, looks like picking up further in 2017 and continuing to rise in coming years, buoyed by diversified exports, renewed investments, and a relatively dynamic industrial sector. The National Development Plan (NDP, 2015-2019), now halfway through implementation, is aimed at achieving inclusive growth thanks to massive investment, both public and private, in infrastructure and the social sectors, while at the same time enhancing governance. Numerous institutional reforms have been undertaken in support of this programme. Funding for the National Development Plan remains problematic, since internal fundraising possibilities are very limited and the tax pressure rate is no more than 10.5 per cent of GDP. All the same, the renewed confidence of the international community confirmed by the December 2016 Donors and Investors Conference has enabled Madagascar to raise \$ 6.4 billion for the period 2017-2020, and hence to look to the future with greater serenity.

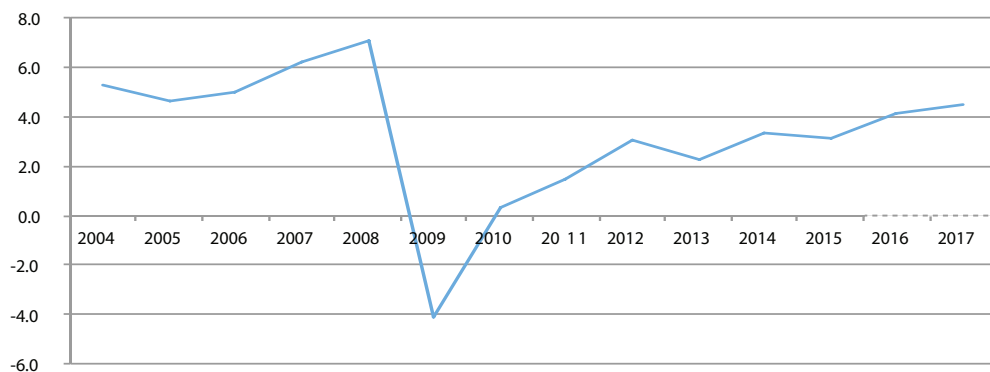
The population of Madagascar suffered deeply in the period 2009-2013, which saw a fall-off in investment in all social sectors. Generally speaking, the string of political crises and adjustment programmes adversely affected all social indicators and weakened governance by the State. Poverty, which affects more than 70 per cent of the population, has not changed since 1993, and Madagascar has not been able to achieve the Millennium Development Goals. In addition to structural poverty, which affects the bulk of the population chiefly employed in an agricultural sector of declining productivity, there are new factors relating to climate disruption. The “double disarticulation” described by Jean-Bernard Véron (2014) between, on the one hand, a modern economic sector focused on exporting and a well-connected urban centre, and, on the other hand, rural activities with poor productivity in marginalized rural areas, is borne out in practice. In the face of these challenges, the Government of Madagascar has made poverty reduction and infrastructure development key priorities in its National Development Plan, as has been confirmed in the budgetary priorities adopted since 2015.

At the beginning of the 1990s, Madagascar was one of the front-runners among African countries endeavouring to adopt an ambitious industrial policy based on tax incentives and free zones. It was one of the few countries that managed to implement such a policy successfully, which led to the emergence of an export-oriented, job-creating garment industry. Although this sector was sorely tried by the 2002 and 2009-2013 crises, it continues to be a heavyweight in exports, urban employment and investment. It is also a sector undergoing change, which attracts new investors and activities. To what extent can it be an integral part of the new ambition of the Government of Madagascar for inclusive and shared growth? What prospects are there for the Malagasy industrial sector, given the requirement of environmental sustainability in a country with one of the world's highest levels of vulnerability to climate change? That is the purpose of the thematic analysis provided in this country profile.

## 2. National and subregional context

The Malagasy economy is continuing its recovery in the wake of the 2009 political crisis, which plunged the country into recession (growth rate of -4 per cent of GDP in 2009, sharp fall-off in investment and exports, see Figure 1). The re-establishment of constitutional order in 2013 and the installation of a new Government in early 2014 helped both to kickstart the economic recovery and to ensure the renewed confidence of institutional and financial partners. In this connection, the African Growth and Opportunity Act<sup>1</sup>, which was interrupted in 2009, was resumed in 2015. Similarly, in July 2016, the International Monetary Fund (IMF) granted Madagascar an Extended Credit Facility (ECF) of \$ 307 million over three years<sup>2</sup>. Finally, on 1 and 2 December 2016, the main financial partners (African Development Bank, World Bank and European Union, in particular), undertook to support Madagascar to the tune of \$ 6.4 billion over a period of four years.

**Figure 1: Rate of growth of GDP, constant prices 2004-2017**



**Source :** Banque Centrale (2016), p.54. Values for 2016 and 2017 are estimates (BCM, 2016c).

1 Trade Law adopted by the United States of America in 2000 and since prolonged until 2025, the African Growth and Opportunity Act aimed at facilitating access to the United States market for products, in particular textiles and garments from sub-Saharan countries eligible to benefit from its provisions. It entails obligations of good governance and observance of human rights and labour legislation.

2 Begun in 2014, the resumption of relations with IMF led to the granting of an initial Rapid Credit Facility (RCF) of \$ 47 million in June 2014 and a further \$ 42 million in November 2015. (IMF, 2016a)

The recovered political stability, thanks to the re-establishment of constitutional order and the 2014 and 2015 elections, remains fragile, given the Madagascar history of recurrent crises. Furthermore, the current President of Madagascar, Hery Rajaonarimampianina, does not have a sound majority in the National Assembly, despite the formation of a new Government in April 2016. The democratic foundations of the new institutions and the enhancement of governance may both be seen as essential to ensuring the political and macroeconomic stabilization of the country.

On the economic front, recovery is proceeding slowly, with a GDP growth rate which is below the regional average. It was 3.1 per cent in 2015 (against 3.3 per cent in 2014), whereas it was 3.7 per cent for the whole of Africa and 6.9 per cent for the East African subregion.<sup>3</sup> It should be noted that Madagascar must be one of the few countries of the subregion to have registered a positive rate of GDP growth between 2015 and 2016, whereas most countries of East Africa seemed to have declining growth rates during the same period.

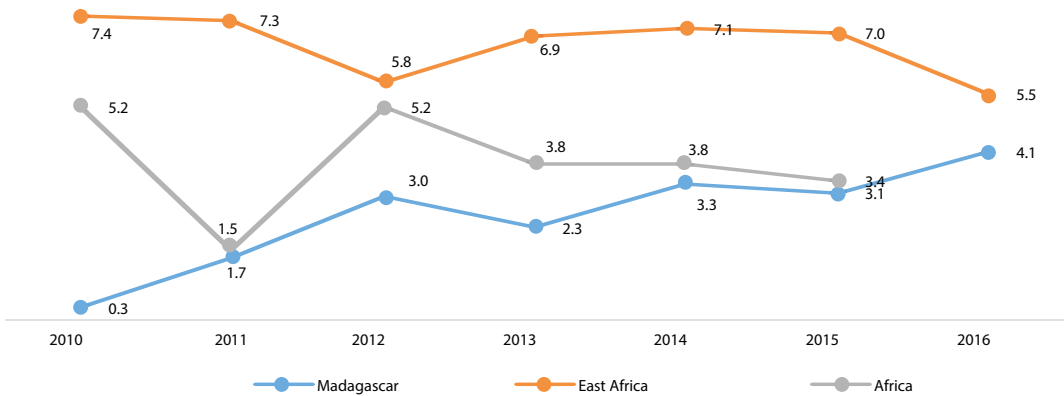
International commercial relations have a strong impact on the Malagasy economy, in particular on the textile industry, which was adversely affected by the cancellation of the Multi-Fibre Agreement in 2005. Fluctuations in the price of raw materials on world markets, especially of nickel and cobalt (falling in 2015/2016), and of vanilla and cloves (rising in 2015 and 2016) influenced the national income in various ways; revenue from mine products tended to stagnate despite the rise in production, while income from the export of vanilla and cloves was on a rising trend<sup>4</sup>.

At the regional level, Madagascar is a member of several economic cooperation organizations. The first is the Common Market for Eastern and Southern Africa (COMESA), which brings together the countries of Eastern and Southern Africa, and whose summit Madagascar hosted in October 2016 and of which it is President for one year. According to COMESA, trade among the COMESA countries rose from \$ 3.2 billion in 2000 to \$ 20 billion in 2014, following the creation of a free trade area, of which Madagascar was one of the first members. Madagascar could also benefit from the new tripartite free trade area among the Southern African Development Community (SADC), COMESA and the East African Community (EAC), launched in 2015. Madagascar is also a member of SADC, which brings together the countries of Southern Africa and which, according to the African Development Bank (AfDB) report on regional integration, is one of the most integrated economic communities of the subcontinent.

3 The subregion recognized by the Economic Commission for Africa (ECA) comprises 14 countries: Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Seychelles, Somalia, South Sudan, Uganda, and United Republic of Tanzania. The calculation of the subregional rate of growth excludes Somalia and South Sudan, for which insufficient data are available.

4 For example, the price of nickel was \$ 8,700 a ton in summer 2016 against \$ 17,000 in 2014. On the other hand, the price of vanilla reached \$ 320 in September 2016 against \$ 80 in 2015.



**Figure 2: Real GDP growth rates for Madagascar and regional comparison**

**Source:** Central Bank (2016) and calculations by ECA.

Furthermore, even if it brings together countries with very disparate profiles, the Indian Ocean Commission (IOC)<sup>5</sup> is an organization with growing influence, staking much on the blue economy, which is presented as a new pillar of sustainable development in the Indian Ocean (IOC, 2015), and in particular on the buoyant sector of digital, maritime and aeronautic connectivity among the IOC islands, among which Madagascar hopes to become the “granary of the Indian Ocean”. However, the economic integration of Madagascar with the African continent remains timid: the island has no more than 10 per cent of its trade with African countries, of which nearly one-half is with a single country: South Africa.

Finally, Madagascar is strongly dependent on unpredictable meteorological conditions and a victim of the effects of climate change. According to the Food and Agriculture Organization of the United Nations (FAO), Madagascar is the African country which is most exposed to natural disasters, and is regularly stricken by cyclones, floods, cricket invasions, and drought, the latter having become twice as prevalent over the past 25 years. The inhabitants are directly affected by these phenomena. For instance, the 2014/2015 cyclone season triggered numerous floods and led to the displacement of some 250,000 persons (OCHA, 2015). In the southern part of the island, climate change has resulted in a significant rise in temperature and a shortening of the rainy season (Direction Générale de la Météorologie, 2008), leading to increasingly frequent droughts. In 2016, it was estimated that nearly one-half of the population suffered from food insecurity as a result of drought (IPC, 2016), and a state of emergency was proclaimed by the Government in March 2016.

<sup>5</sup> IOC comprises Madagascar, Mauritius, Réunion, Comoros, and Seychelles.

**Box 1: Africa regional integration index - Madagascar****Overall performance:**

Thirteenth within SADC (score – 0.34); best score was South Africa (score – 0,74).

Ninth within COMESA (score – 0.42\*).

Free movement of persons	Trade integration	Productive integration	Infrastructure	Financial integration and macroeconomic policy convergence
Thirteenth within SADC (score – 0.20).	Ninth within SADC (score – 0.5). Best score: South Africa	Eighth within SADC (score – 0.3). Best score: Zimbabwe (0.74).	Thirteenth within SADC (score – 0.39). Best score: Botswana (0.82).	Tenth within SADC (score – 0.32). Best score: South Africa

Madagascar had a fairly weak overall performance within both COMESA (9th place) and SADC (13th place).

**Free movement of persons:** Madagascar has not yet ratified the COMESA and SADC instruments regulating the free movement of persons and workers. A visa is obligatory for nationals of all Member States.

**Trade integration:** Despite a low level of tariffs on imports from SADC (0.32 per cent), these represent no more than 3.6 per cent of the Madagascar GDP, and exports to SADC countries account for no more than 0.84 per cent of GDP, the lowest level of all SADC countries.

**Production integration:** Madagascar is poorly integrated into regional value chains, even though nearly 25 per cent of imports from SADC to Madagascar are intermediate products.

**Infrastructure:** More than 80 per cent of international flights are within either SADC or COMESA, which is low with respect to SADC countries, but relatively high for COMESA countries. The cost of intra-African roaming is among the highest in all SADC countries.

**Financial integration and convergence of macroeconomic policies:** The inflation rate of 5.8 per cent is relatively high for the subregion.

On the whole, the performance of Madagascar is relatively weak with respect to regional integration. The country might consider taking such measures as ratifying the COMESA and SADC instruments on the movement of people, the abolition of entry visas for nationals of the subregion, and the development of intra-regional trade.

\* A continent-wide ranking, in which all African countries from all regional economic communities will be compared with one another, is currently under development for the Africa regional integration index and will be added to subsequent updates of the ECA country profiles.

## Economic performance

### 3.1 Economic growth

In 2015, the GDP growth rate was 3.1 per cent in Madagascar, against 3.3 per cent in 2014. The country did not achieve the objective set in the National Development Plan (2015-2019) of a GDP rate of growth of 5 per cent in 2015. Nevertheless, the Government foresees a gradual acceleration of growth in 2016 and 2017 (see Box 2), and describes the Malagasy economy as “ready to take off” (Donors and Investors Conference for Madagascar, 2016). The growth rate for 2016 is estimated to be 4.1 per cent (Central Bank of Madagascar, 2016c) and 4.5 per cent in 2017; the Government hopes to attain more ambitious growth rates of around 6.5 per cent per annum by 2019 (Donors and Investors Conference for Madagascar, 2016).

In 2015, growth was spurred chiefly by the export of goods and services (+19 per cent) and investments (+18 per cent), both of which increased significantly in comparison with 2014, whereas internal demand (-16 per cent) was tending to shrink in real terms. The resumption of investment appeared to be confirmed in 2016, in particular thanks to a strong increase in direct foreign investment and public investment in infrastructure.

The timid nature of the recovery in 2015 may be attributed in part to the poor performance of the agricultural sector (Figure 3), which, together with fisheries, represented 25 per cent of value added in 2015, and which saw very weak growth, of the order of 0.7 per cent in real terms over 2014. Among the causes were the cyclones that destroyed some 40,000 hectares of rice paddies in 2014 and 2015 (World Bank, 2015), and chronic flooding and drought which affected the south of the country. But above all, the weak growth of the primary sector is symptomatic of the structural weaknesses of Madagascar agriculture, which accounts for 75 per cent of total employment, but only 25 per cent of value added, an indication of the poor level of agricultural productivity. The majority of the population of Madagascar makes its living from subsistence agriculture (mainly rice) and traditional modes of fishing.

There are several reasons for such weak agricultural productivity: climate hazards, weakness of inputs, poor access to production factors, given the ageing transport infrastructure and poorly developed rural credit systems. The situation is aggravated by the impact of climate change and the high levels of deforestation<sup>6</sup>, which are related to slash-and-burn

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<sup>6</sup> Over the past 60 years, Madagascar is said to have lost 50% of its forest cover, although the phenomenon appears to be slowing, thanks to the establishment of protected zones, which now cover 40% of the remaining natural forests (Desbureaux, *et al.* 2015).

agriculture, logging (including of protected species, such as rosewood) and the production of charcoal, which is the main source of domestic energy. It is clear that the productivity of the agricultural sector is likely to remain relatively weak in the medium term; the ambition of turning Madagascar into the granary of the Indian Ocean can only be realized if the country manages to accomplish an agricultural transformation. With an average yield of 2.8 tons per hectare for rice, Madagascar is not self-sufficient and needs to import approximately 200,000 tons of rice every year, whereas major global rice exporters boast of average yields of 6-7 tons per hectare<sup>7</sup>.

Agricultural production for export is focused chiefly on three products: fishing, mainly for shrimp, cloves and vanilla. Madagascar is the top producer of vanilla in the world, but production is declining in terms of both quantity and quality, as a result of heavy speculation on prices (Géopolis, 2016). However, prospects for 2016 seem somewhat better, with a sector-wide growth rate of 2.2 per cent, thanks to more abundant rainfall and a sharp rise in world vanilla prices. Investment foreseen in the National Development Plan 2015-2019 make transformation of the agricultural model and development of agricultural industry key priorities.

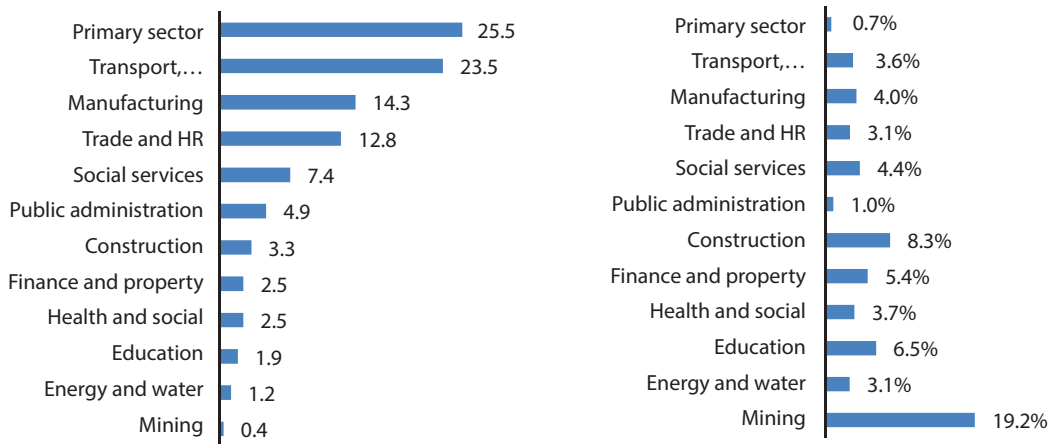
The secondary sector, which accounts for 16 per cent of value added, was the real engine of growth in 2015, with a sectoral growth rate of 8 per cent, sustained by manufacturing, including the textile industry. However, the Madagascar textile industry was less dynamic than expected, with investors being risk-averse given the persistent political uncertainty and strong competition from Asian countries. On the other hand, the mining sector was extremely dynamic (with a growth rate of 19.2 per cent), despite the slowing down of investment and falling world prices. In 2016, the dynamism of the sector appears to be slowing, with a sectoral growth rate estimated at 4.9 per cent (World Bank, 2016b), sustained chiefly by free zones, which nevertheless had a growth rate of nearly 10 per cent thanks to exports tripling under the African Growth and Opportunity Act agreement and increased exports of textiles and shrimp to the euro zone. The mining sector, which is continuing to contract as a result of falling prices of mining products, especially nickel, had an annual growth rate of 5 per cent (Donors and Investors Conference, 2016). The rate of investment in free zones and the recent firming of nickel prices may herald an upward trend in the sector in 2017.

Services, which account for 59 per cent of value added, saw an average growth rate of around 4.1 per cent in 2015, chiefly thanks to the building sector (+8.3 per cent), boosted by public investment in infrastructure. Buoyancy was less marked in other sectors, such as trade and hotels, restaurants and catering, particularly as a result of weak internal demand and lacklustre performance by the tourism sector. Estimates point to a services sector growth rate of the order of 4.8 per cent in 2016, thanks to a dynamic building sector, in addition to sound performances by transport and trade. The tourism sector also showed signs of recovery in the second half of 2016, which should be confirmed in 2017, with an objective of attracting one million tourists in 2019 (against barely 300,000 in 2015).

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<sup>7</sup> Interview with the Ministry of Agriculture, September 2016.

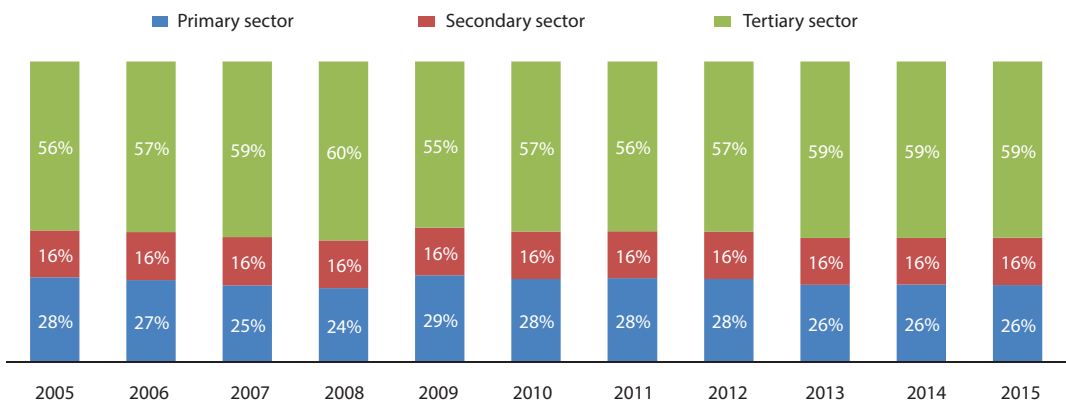
**Figure 3: GDP growth rate breakdown by sector in 2015 and variation against 2014 (per cent)**



**Source:** Ministry of the Economy and Planning (2015b), Central Bank of Madagascar (2016).

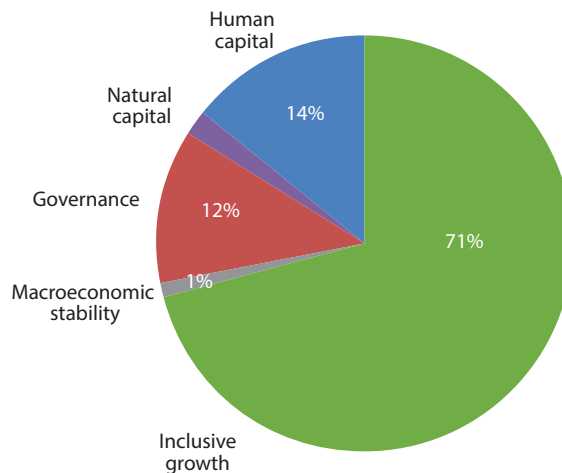
Analysis of growth rates by sector over the past decade (Figure 4) shows a very slow change in Madagascar in the direction of structural transformation, with the proportion of the primary sector dropping from 28 per cent to 25 per cent, whereas that of the tertiary sector was rising. The secondary sector does not appear to have been the real engine of that transformation: its proportion stagnated over the decade, even if it contributed significantly to diversifying exports.

**Figure 4: Changes in the structure of the economy, by activity sector (per cent)**



**Source:** ECA calculations using Madagascar Central Bank statistics (2016).

**Figure 5: Budgeting of the National Development Programme 2015-2019**



**Source:** ECA calculations using Implementation Plan statistics (Primature, 2015).

The Government launched a National Development Plan in 2015 (Ministry of the Economy and Planning, 2015a), which sets an objective for the period 2015-2019 of sustainable and inclusive growth, and which is meant to be aligned on the Sustainable Development Goals. The National Development Plan has five strategic axes: the most important, “Inclusive growth and locally-based development”, is aimed at developing infrastructure and supporting buoyant sectors and helping branches with high added value, such as extraction industries, tourism, fishing and intensive agriculture targeting the international market, with the objective of making Madagascar the “Thailand of Africa”. Projections of the structure of GDP for 2019 foresee a reduction in the contribution of the primary and tertiary sectors to the benefit of the secondary sector, in particular extraction industries and free zones.

The budget of the National Development Plan, set forth in its Implementation Plan (Primature, 2015) is estimated to be \$ 18 billion over a period of five years. Part of the funding appears to have been confirmed at the Donors and Investors Conference held in Paris on 1 and 2 December 2016, during which financial partners pledged to contribute some \$ 6.4 billion to the National Development Plan, mainly in the form of grants and concessionary loans. The funding of the National Development Plan also depends on mobilizing public-private partnerships (PPPs); in that connection, more than \$ 3 billion worth of PPPs were signed at the donors’ conference.

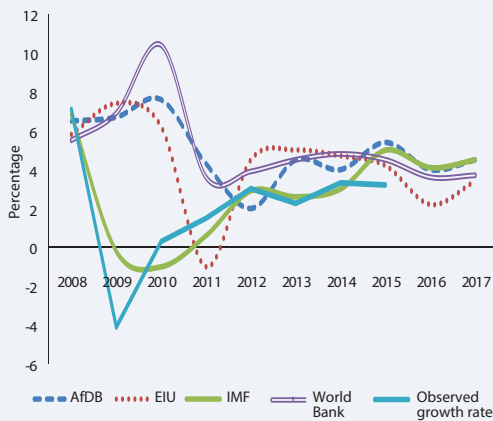
## Box 2: Comparing economic forecasts for Madagascar

Growth forecasts for 2016 have been revised slightly downwards in view of the weak recovery in 2015 and the slow implementation of structural reforms. Madagascar institutions deem it unlikely that Madagascar will achieve 7 per cent GDP growth in 2016, as hoped for. The amended Finance Law for 2016 foresees a growth rate of 4.1 per cent for the year, as does the International Monetary Fund (IMF), and the estimates of other international organizations vary between 4 per cent for the African Development Bank, 3.6 per cent for the World Bank, and 2.2 per cent for the Economist Intelligence Unit (see figure A). For 2017, the Madagascar Finance Law foresees growth of 4.5 per cent, as do the African Development Bank and IMF, whereas the World Bank forecasts 3.7 per cent and the Economist Intelligence Unit 3.4 per cent.

Economic forecasts are essential information for decision-makers in both the public and private sectors, and serve as a basis for fundamental choices of principle. During the period 2008-2017, divergences between forecasts were as great as 11.4 percentage points. The World Bank had the most optimistic forecasts, with an average growth rate of 5.1 per cent for the period 2008-2017 (see Figure A).

The accuracy of these forecasts is very important. ECA has therefore undertaken an analysis with a view to assessing their reliability by using the root mean square error and the mean absolute error in percentage terms, which are the most common measures used. For the period 2008-2014, it was the IMF forecasts that were the most accurate, especially as IMF adjusted its estimates more rapidly in the light of the political crisis of 2009. On the other hand, the African Development Bank and the Economist Intelligence Unit had relatively high error levels (see Figure B).

**Figure A: Forecasts of real GDP growth rates, according to institution**



**Source:** AfDB, EIU, IMF, World Bank, Madagascar Central Bank (2016) and ECA estimates.

**Figure B: Forecasts of real GDP growth rates, according to institution**



**Source:** AfDB, EIU, IMF, World Bank, Madagascar Central Bank (2016) and ECA estimates

### 3.2 Fiscal policy

Until 2013, Madagascar was pushing for macro-economic stability and pursuing a policy of keeping the budget deficit under 2 per cent of GDP. With the renewed trust of multilateral donors, that strategy started to shift in 2015 towards a more expansionist policy by seeking “pro-poor” growth by developing infrastructure and social services. The budget deficit was 3.3 per cent in 2015.<sup>8</sup> In 2016, it is expected to rise to 4.5 per cent of GDP in terms of commitments (see table 1).

Madagascar's fiscal policy is one of the key challenges for funding the country's development, given that the GDP funding deficit before the donors' conference was approximately 70 per cent. With a tax burden estimated by the Central Bank at 10.4 per cent of GDP in 2016 (Central Bank of Madagascar, 2016b), there is fairly limited room for manoeuvre. Even taking into account non-fiscal receipts and donations, the share of total receipts is below 13 per cent of GDP, which is the second lowest rate in sub-Saharan Africa.<sup>9</sup>

The low level of budget revenues in Madagascar may be explained, on the one hand, by the relatively large size of the informal sector, as well as by tax evasion, which became more prevalent during the political crisis between 2009 and 2013. Furthermore, the lowering of customs tariffs thanks to the signing of free-trade agreements (COMESA, European Union, etc.) led to a reduction in duty levied on imported products, which account for a majority of tax receipts. Otherwise, the volume of grants remained relatively low with respect to the size of the country, accounting for no more than 1.5 per cent of GDP in 2015.<sup>10</sup> With regard to tax receipts, when it signed an Extended Credit Facility for more than \$ 300 million in August 2016 (IMF, 2016a), the Government undertook to raise the fiscal pressure rate by 0.5 per cent per annum, thus bringing it to 12 per cent of GDP by 2019.<sup>11</sup> In order to do this, the Government put in place numerous fiscal reforms, some right away in 2015, which helped to broaden the tax base, to enhance monitoring and recovery mechanisms, and to combat tax evasion. Other measures helped to ensure better mobilization of internal resources, such as comparing tax returns and customs declarations, and tightening tax inspections; receipts from customs duties were expected to continue to fall.

8 The figures are given on a cash basis. In terms of commitments, the net budget deficit was 3.7% in 2015.

9 The lowest is Sudan (ADB/OECD/UNDP, 2016, p. 376).

10 For example, donations accounted for 4.8% of GDP in Burundi in 2014.

11 This figure is considered realistic by members of the international community that we consulted, who even pointed to a rate of 17% as being feasible.



**Table 1: Tax receipts, in millions of Malagasy ariary (MGA) and per cent of GDP**

MGA millions	2011	2012	2013	2014	2015
Total receipts and donations	2,646,000	2,643,400	2,818,200	3,239,900	3,528,858
Taxes	2,219,400	2,263,000	2,451,500	2,582,845	3,010,562
Non-fiscal receipts	36,301	117,500	70,500	64,153	94,069
Donations	390,300	262,900	296,100	592,900	424,227
Total expenditure and net loans	2,983,700	2,918,000	3,235,600	3,833,200	4,477,675
Current expenditure	2,141,900	2,322,800	2,505,200	2,817,300	3,458,979
Of which: wages and salaries	1,060,400	1,167,300	1,341,700	1,444,600	1,527,118
Of which: interest payments	143,200	144,000	124,000	142,400	230,920
Equipment expenditure	841,800	595,200	730,400	1,015,900	1,018,696
Fiscal balance	- 337,700	- 274,500	- 417,400	- 593,300	- 948,817

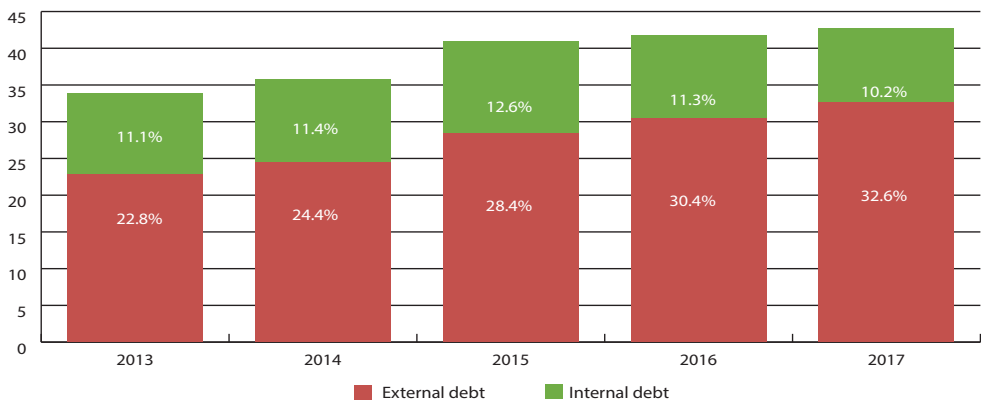
Percentage of GDP	2011	2012	2013	2014	2015
Total receipts and donations	13.2	12.1	12.0	12.6	12.3
Taxes	11.1	10.4	10.5	10.0	10.5
Non-fiscal receipts	0.2	0.5	0.3	0.2	0.3
Donations	1.9	1.2	1.3	2.3	1.5
Total expenditure and net loans	14.9	13.4	13.8	14.9	15.7
Current expenditure	10.7	10.7	10.7	10.9	12.1
Of which: wages and salaries	5.3	5.4	5.7	5.6	5.3
Of which: interest payments	0.7	0.7	0.5	0.6	0.8
Equipment expenditure	4.2	2.7	3.1	3.9	3.6
Fiscal balance	- 1.7	- 1.3	- 1.8	- 2.3	- 3.3

**Source:** Central Bank of Madagascar (2016a).

Approximately one-half of expenditure goes to wages and salaries, and a non-negligible part goes to so-called non-priority expenditure, especially providing operating subventions to state companies (including MGA 290 billion in 2016 for Jirama (Jiro sy rano malagasy: State-owned electric utility and water services company) and payments to pension funds. Such transfers account for 15 per cent of expenditure and hamper the Government's investment capacity. In all, operating expenses account for 65 per cent of all expenditure. Since 2015, the Government has set the goal of reducing non-priority expenditure and increasing investment efforts. Since 2016, it has abolished subventions for petrochemical products, and revised subventions to Jirama and pension funds downwards in the Finance Law 2017<sup>12</sup>.

<sup>12</sup> Madagascar has undertaken a wide-ranging reform of Jirama, in partnership with the World Bank. Under this reform, electricity prices rose by 15% during 2016, which should help the State to reduce its operating subvention.

**Figure 6: Public external and internal debt (per cent of GDP)**



**Source:** IMF (2016a).

Otherwise, public investment, which was 3.6 per cent of GDP in 2015, should be approximately 5.2 per cent in 2016, having been boosted by major infrastructure projects in connection with the COMESA and Francophonie summits. In 2017, the investment efforts should come to just over 8 per cent of GDP, and the Public Investment Programme should be increased by more than 70 per cent. Priorities are infrastructure (transport and energy) and education and health services. In that context, the challenge remains that of ensuring efficient budgetary implementation, especially since previous periods saw relatively weak levels of investment, which tended to be concentrated in the last months of the year. In order to meet this challenge, the Ministry of Finance plans to strengthen measures to monitor budgetary implementation.

As part of this ambitious programme of expenditure, financing the budget deficit remains a crucial issue. The renewal of donors' confidence has given the Madagascar State broader room for financial manoeuvre; the level of external borrowing rose sharply in 2015 and 2016, while internal indebtedness remained under control (Figure 6). The Finance Law 2017 foresees a significant rise in external debt, and this is confirmed by new loans granted by the donors' conference in December 2016. Despite this rise, the risk attached to Madagascar's debt is considered to be weak (UNCTAD, 2016), with more than 90 per cent of the debt being concessional and multilateral.

### 3.3 Monetary policy

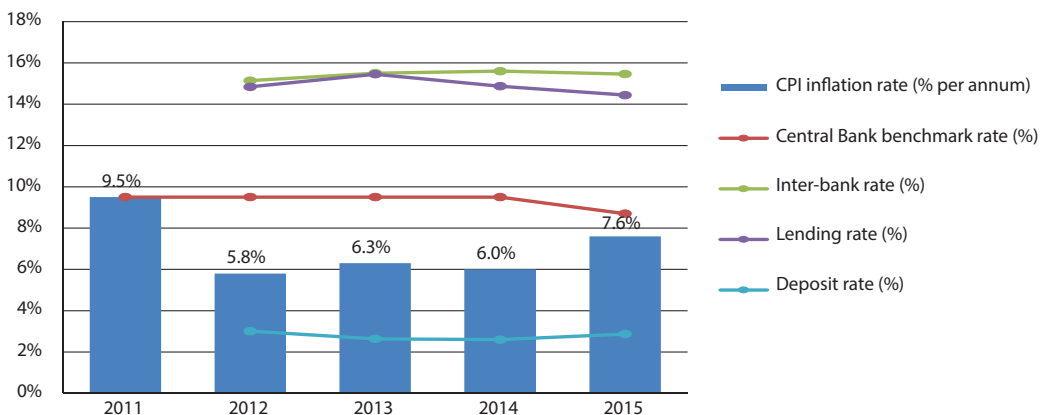
Inflation accelerated in 2015, reaching 7.6 per cent in the year-on-year rate, thanks to the fall in agricultural production, which triggered a rise in the price of foodstuffs (Figure 7). The trend was reversed slightly in 2016, and the inflation rate should be an annual 7.1 per cent according to Central Bank forecasts. Inflation is chiefly fuelled by foodstuff prices, but the downward trend of fuel prices helped to contain the inflationary tendencies for imported products. According to the Central Bank, inflation should remain at a rate of 7.1 per cent in 2017.

At the same time, the total money supply saw strong growth, of the order of 15 per cent, boosted by the development of credit to the private sector. This expansion appears to be continuing at the same rate in 2016.

The relatively high rate of inflation prompts the Central Bank to maintain a fairly cautious approach to monetary policy, focusing on monetary stability, despite some increased flexibility from 2015 on. Since the objective was to facilitate access to credit for the private sector and to support economic growth, the Central Bank reduced the prime rate (which dropped from 9.5 per cent in 2014 to 8.7 per cent and then 8.3 per cent in 2016) and reduced the level of obligatory reserves for commercial banks.

Despite this interventionist policy, the room for manoeuvre of the Central Bank is fairly weak, since the monetary system is not very fluid, the economy is poorly monetarized, and the inter-bank market is relatively inactive, given that the sector is dominated by four main banks. In its August 2016 report, IMF recommended giving greater depth to the financial system by introducing more frequent and closer supervision of banks and encouraging modern payment

**Figure 7: Rate of inflation and interest rates**



**Source:** Central Bank of Madagascar (2016b) and Central Bank of Madagascar weighted average rates.

methods, while taking care to preserve the ensuring financial stability of the system. IMF believes that while the financial system is stable and well protected for the time being, it may become more vulnerable with an increased lending rate (IMF, 2016b).

In 2015, the Government began a reform of the Central Bank with a view to granting the institution greater autonomy and transparency. One of the first measures was to securitize the State's commitments to the Bank.

With regard to exchange rate policy, the Madagascar ariary (MGA) exchange rates (MGA 3,160 = \$ 1 in September 2016, against MGA 2,415 = \$ 1 in 2014) showed a certain volatility, thanks to the seasonal influx of foreign currency, for instance on the vanilla market or in the mining sector. In order to stabilize the currency's exchange rate and curb the tendency for the value of the currency to appreciate, which could cause the Malagasy economy, and in particular exports from Madagascar, to lose competitiveness, the Central Bank proceeded to buy back currency on the currency market, but later put an end to that procedure, which influenced the exchange rate artificially. One of the financial objectives of the Government is furthermore to better manage the influx of external capital in order to limit the destabilizing impact on the macroeconomic framework (Donors and Investors Conference for Madagascar, 2016).

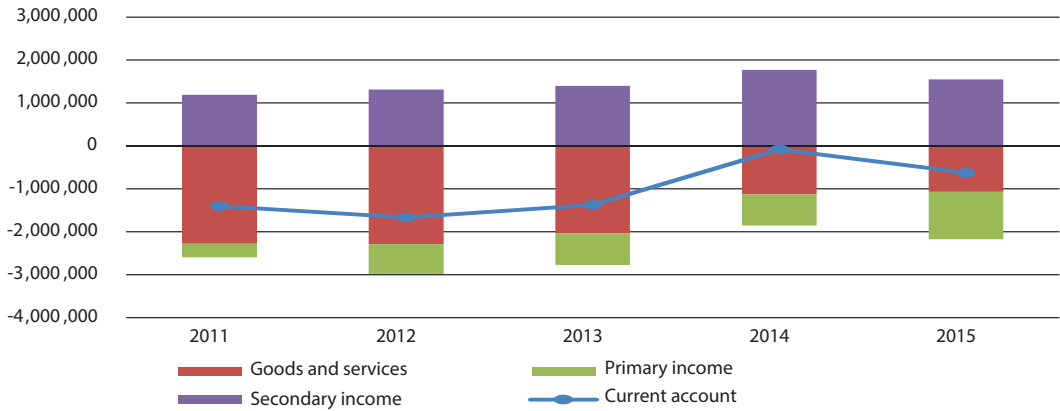
### 3.4 Current account

While it was nearly balanced in 2014, the current account again deteriorated in 2015, due to a worsening of the balance of primary income and a reduction of secondary income (Figure 8). The worsening of the balance of primary income is said to be linked to the increase in debt service and payment of dividends to non-residents, in particular mining companies and free zones, the total amount of which (World Bank, 2016a) is thought to be close to \$ 350 million (more than 3.5 per cent of GDP). This tendency might be explained by the fact that foreign businessmen who invested massively in Madagascar between 2008 and 2012 are beginning to repatriate the profits from their productive investments.

This tendency is set to continue, despite a concomitant increase in public transfers (grants and loans). The current account deficit, which was 2.2 per cent of GDP in 2015, should reach 2.4 per cent in 2016 (Central Bank of Madagascar, 2016b).

Although the trade balance has a deficit, it has been improving since 2009. The trade balance deficit in merchandise, which was 22 per cent of GDP in 2008, fell to 5 per cent in 2015, thanks to the constant increase in exports. Falling world oil prices also helped to lessen the trade deficit, with the share of energy sliding from 20 per cent in 2014 to 15 per cent in 2015 within the import structure.

The structure of Madagascar exports appears to be relatively diversified. Nickel has been the main export commodity (27 per cent of sales) since 2014, with the Ambatovy mine coming on-

**Figure 8: Current account, in MGA millions**

**Source:** Central Bank of Madagascar 2016.

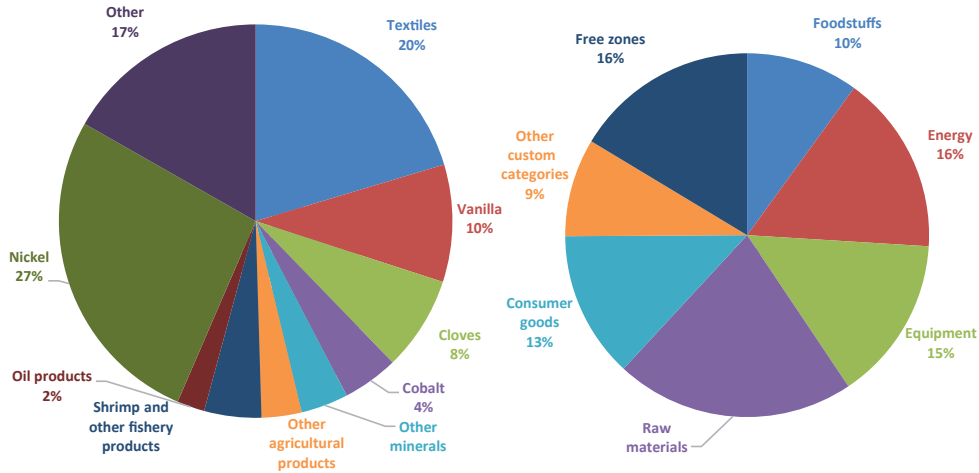
stream. The share of nickel held its own in 2015, despite a significant drop in prices, thanks to an increase in the volume of exports of around 30 per cent. Mining products, including cobalt, titanium, chrome, etc. accounted for 27 per cent of all exports in 2015, whereas in 2000 they made up fully 60 per cent of exports. Other products exported are vanilla (10 per cent of exports), of which Madagascar is historically the top exporter (followed closely by Indonesia and China), and whose sales have been boosted by a strong speculative surge in world prices, giving rise to tensions concerning production and a fall in overall quality. Sales of cloves also increased in 2015, thanks to increased production. Finally, in recent years in Madagascar, service activities have become more important, especially telephone call centres.<sup>13</sup>

The structure of imports remained relatively stable over the past five years; in first place were raw materials (coal, phosphates, limestone) corresponding to the needs of the construction and mine sectors. Energy (mainly oil) now accounts for no more than 16 per cent of imports, thanks to the fall in oil prices. Inputs needed for the textile industry represent 16 per cent of imports, and foodstuffs 10 per cent.

Finally, it should be borne in mind that illicit trade accounts for a significant share, albeit one which is difficult to measure. Such trafficking, for the most part in gold and other mining products, rosewood, fishing, but also, if to a lesser extent, coffee and other agricultural products, regularly make the headlines of the local press. For a number of years now, Madagascar, which was subject to an embargo on the export of rosewood imposed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora, has been threatened with a full embargo on trade in all protected species, if the Governmental fails to provide

<sup>13</sup> The Central Bank of Madagascar (2016a) estimates service exports at more than \$ 1 billion for 2014/2015, with the balance of services having a surplus or being neutral since 2012.

Figure 9: Structure of exports and imports, in per cent, in 2015



Source: Banque centrale Madagascar (2016a), Ambassade de France à Madagascar (2016).

tangible proof of any action it might have taken to halt such illicit trade. According to the World Bank<sup>14</sup>, studies carried out on mirror statistics showed serious underestimation of gold exports relating to illicit trade. While it is difficult to evaluate the total value of such trafficking, it may be recalled that the Global Financial Integrity report (Kar; Spanjers, 2015) estimated the annual level of illicit financial flows from Madagascar during this period at \$ 500 million<sup>15</sup>.

Madagascar's chief client is the European Union, to which more than 40 per cent of its exports go. France is the top client for exports (15 per cent), but its share is falling rapidly to the benefit of the United States of America (13 per cent) and Asian countries, in particular China (7 per cent). African countries account for 9 per cent of sales from Madagascar, with South Africa taking the lead, with a sharply rising proportion (6 per cent).

For the most part, the country's imports come from Asia, above all China (25 per cent). France is the second source of imports (10 per cent). African countries account for approximately 10 per cent of imports to Madagascar, most of which come from South Africa and Mauritius.

14 Interview conducted in September 2016.  
15 These illicit flows, according to the calculations of ECA on the basis of the statistics contained in its report, are said to have been equivalent to 2% of GDP in 2013, and approximately 7% of GDP in 2008.

### 3.5 Financial accounts and capital accounts

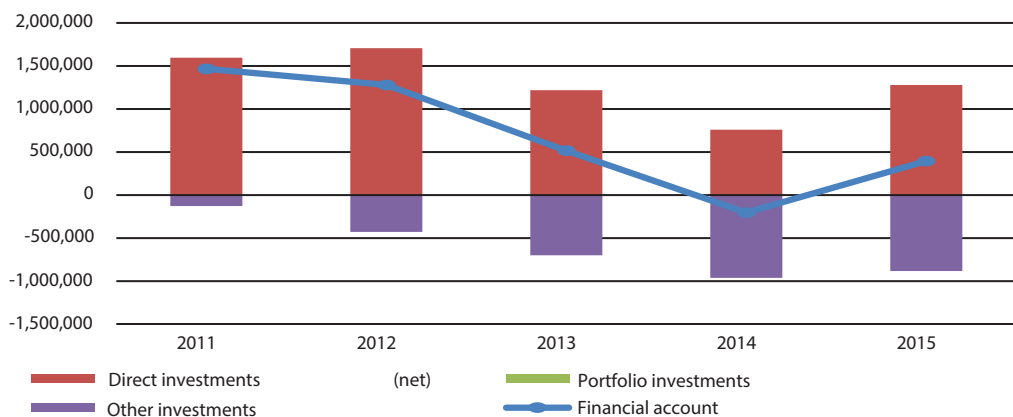
The situation of the financial accounts improved in 2015, and that trend is set to continue in 2016, following a slack period in 2013 and 2014 related to a fall-off in investments.

The improvement noted in 2015 may be explained to a large extent by the increase in foreign direct investment (FDI), which in 2015 was more than \$ 400 million, or approximately 4.5 per cent of Madagascar's GDP<sup>16</sup>. The volume of foreign investment should continue to grow in 2016, reaching \$550 million or around 5 per cent of GDP (LFI, 2017). The Central Bank has confirmed this trend, registering growth of 27 per cent of FDI in the first nine months of 2016 over 2015 (Central Bank of Madagascar, 2016c).

However, it should be noted that this encouraging result is offset by a significant slide in other investments, of the order of \$ 300 million, relating in particular to unrepatriated export revenue (IMF, 2016a).

It appears from an analysis of the type and origin of foreign investment, that nearly 40 per cent of FDI in 2013 and 2014 concerns financial activities (Ministry of the Economy and Planning, 2015). The fact that 29 per cent of FDI is from Mauritius appears to explain this situation, which would tend to confirm the significance of financial flows from Mauritius to Madagascar, as noted in meetings with local business leaders. Furthermore, the mining sector continues to attract a significant amount of FDI (nearly 20 per cent of the total), even though its share has fallen off in recent years. Manufacturing, most of which is no doubt related to

**Figure 10: Financial accounts**



**Source:** Central Bank of Madagascar (2016a).

<sup>16</sup> According to the latest estimates by the Central Bank, \$517 million.

the textile industry, accounts for 7 per cent of FDI, and the telecommunications sector is expanding strongly (16 per cent, probably related to the call centre boom). Finally, it should be noted that the agriculture and fisheries sectors attract less than 2 per cent of FDI. Regarding the origin of FDI, apart from Mauritius, France continues to account for a large share (19 per cent), despite a significant increase from China (7 per cent in 2014) and the United States (5 per cent).

From the point of view of financing, Madagascar enjoyed a level of donations and loans in 2015 and 2016 which helped it to reconstitute its international reserves, both in absolute and in relative terms, going from 2.2 months of imports in 2013 to 2.9 months in 2015, and 3.5 of imports in September 2016 (Central Bank of Madagascar, 2016c).



## Social developments

Malgache society has endured the economic, social and environmental consequences of the repeated cycles of violence that shook the country in 1972, 1991, 2002 and 2009-2013, depressing per capita GDP by 30 per cent between 1950 and 2010 in constant value, while per capita GDP of sub-Saharan Africa was practically multiplied by three, which prompted Mireille Razfindrakoto (Razafindrakoto; Roubaud; Wachsberger, 2013) to speak of a Madagascar enigma and paradox, the paradox being the fact that despite these violent episodes, the Big Island (Madagascar) was able each time to bounce back, forge new opportunities and be innovative.

A study<sup>17</sup> in 2012 showed that, in order to buy one kilo of rice (basic foodstuff in Madagascar), a person needed to work a little more than an hour in 1963, but almost three hours in 2008, which is symptomatic of the decline in purchasing power. Today, neither economic growth nor investment flows or registered trade statistics have been able to reduce poverty levels significantly, and at the same time, new social risk factors have appeared, often related to climate change.

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17 The study was carried out by SeFaFi, the Observatory of Public Life in Madagascar, quoted by ATD Quart Monde

### Box 3: African social development index: Madagascar

#### The socio-economic context

The analysis carried out in calculating this index highlights the very high cost of the 2009-2013 crisis: approximately \$ 6.3 billion, which is 15 times public expenditure on health.

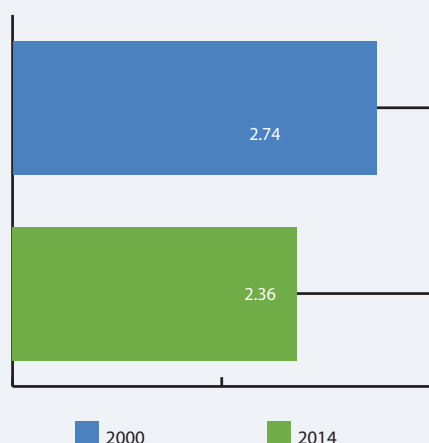
Beginning in 2015, the Government introduced a national social protection policy, with the main objective of reducing the number of Malagasy living in extreme poverty by 15 per cent (Ministry of Population, Social Protection and Promotion of Women, 2015, p.15), focusing both on assistance policies and on social security.

#### Measure of human exclusion in Madagascar

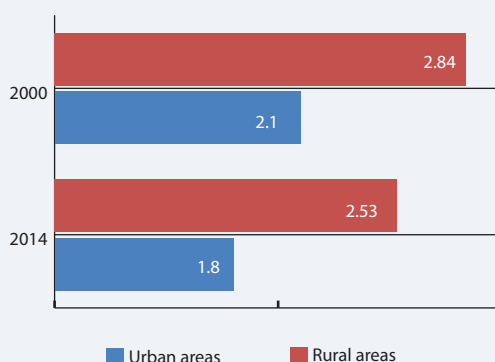
Between 2000 and 2014, there was a general improvement in the level of social inclusion (Figure A), mainly thanks to the significant decrease in child mortality of around 50 per cent during this period. That was most likely a result of specific policies in favour of maternal and child health implemented since the late 1990s, especially free vaccination (provided to 78 per cent of children) and distribution of vitamin A (100 per cent of children). These positive developments are somewhat more marked for women than for men, in part thanks to the effectiveness of gender parity policies, particularly in education.

The level of exclusion remains distinctly higher in rural rather than urban areas (Figure B). The mediocre quality of schools, clinics and other public services in rural areas in Madagascar is eloquent testimony to the need to address those specific forms of exclusion in the country.

**Figure A: African social development index in Madagascar**

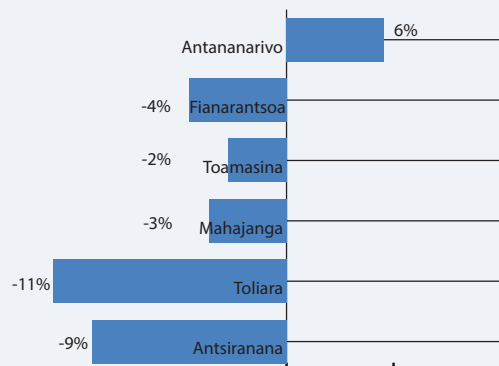
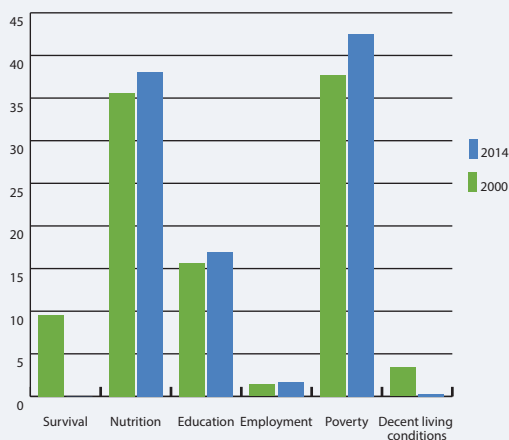


**Figure B: Human exclusion according to habitat**



Thanks to the rural exodus, spurred by insufficient public services and growing poverty, it is in the capital, Antananarivo, that human exclusion is on the increase. On the other hand, other regions of the country have seen an improvement in inclusion, to varying degrees – thanks above all to a drop in the child mortality rate and in children's retarded growth –, which appears to be linked to better food intake in rural areas (Figure C). For instance, Toliara Province, the most vulnerable area of the island, received the largest share of humanitarian aid, which led to the sharpest improvement in terms of inclusion.

Factors of human exclusion reaffirm the importance of under-nourishment and poverty in generating exclusion; the share of those factors has increased over time, and exceeded 80 per cent in Madagascar in 2014 (Figure D). On the other hand, despite a significant reduction in child mortality, retarded growth among children remains a serious factor of exclusion in Madagascar.

**Figure C: Human exclusion at the subnational level****Figure D: Factors of human exclusion****Considerations affecting policy**

In the short and medium terms, the frequency of climate change phenomena, in particular El Niño, risk having an impact on agricultural production and hence on growth in Madagascar, and therefore on food insecurity and poverty elimination. The national objective of allocating 3.5 per cent of GDP to social protection, against the current rate of 1 per cent, is unlikely to be achieved given the numerous inhibiting factors. Future growth of public receipts and expenditure on social development will depend strongly on aid provided by donors, whose long-term sustainability is far from assured. The programme of social protection linking the fight against vulnerability to the structural causes of poverty is a step in the right direction, namely inclusive sustainable development. However, implementation of this programme is contingent on mobilizing sufficient resources, which presupposes strengthened governance and the existence of a stable environment which is conducive to attracting productive investment in the country.

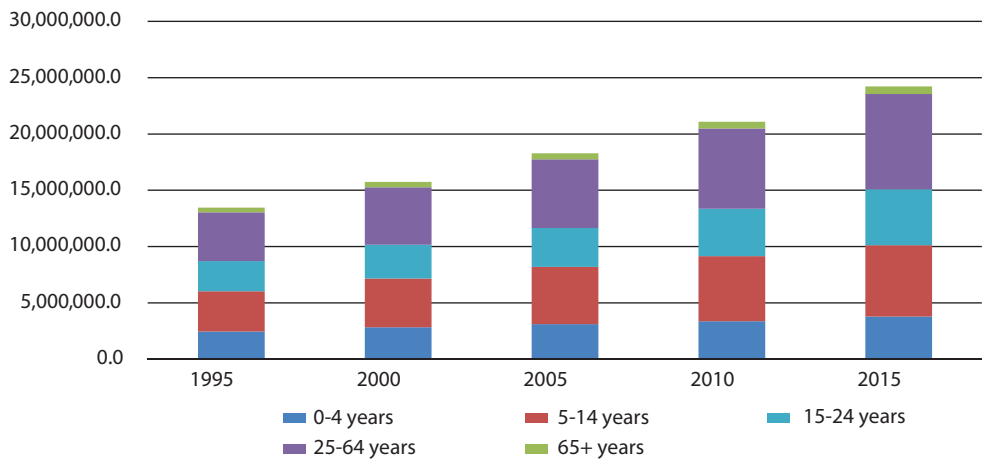
## 4.1 Demography

The population of Madagascar, which was 24.2 million inhabitants in 2015 according to some estimates<sup>18</sup>, is continuing to grow at a rapid rate, estimated at 2.8 per cent per annum by the Institut national de la statistique malgache (INSTAT – Madagascar National Institute for Statistics). The population is extremely young, with under-25s accounting for more than 60 per cent of the inhabitants (Figure 11). At the same time, life expectancy at birth, which continues to rise, is now 64 years.

Consequently, the dependency ratio remains very high, at around 80 per cent in 2015 (against 95 per cent in 2000), and this is preventing Madagascar from benefiting from the demographic dividend. There are also disparities between regions: the dependency ratio is higher in rural areas (105.4) than in urban areas (67.3), with southern regions showing a ratio higher than 100 (INSTAT, 2014).

<sup>18</sup> By the Institut national de la statistique malgache (INSTAT), since no census has been taken since 1993.

**Figure 11: Changes in the structure of the population**



**Source:** UNSTATS (2013), World Population Prospects.

According to the United Nations Population Fund (UNFPA)<sup>19</sup>, the extremely young population constitutes a major challenge, since it entails considerable needs for investment in social sectors, such as education, health and infrastructure, etc. UNPFA also speaks of the “Madagascar paradox”, in the sense that the demographic transition has not yet taken place, with a fertility rate of approximately 4.5 children per woman, even though the contraception utilization rate of approximately 25 per cent is slightly higher than the regional average<sup>20</sup>.

The maintenance of a high fertility rate may be explained by the relatively young age of unions and pregnancies in Madagascar: one-half of women between 25 and 49 years old had their first union before the age of 19, and 10 per cent of them before 15, even though the legal age of marriage is officially 18. Statistics also show that adolescent fertility is very high, at 163 per thousand (UNFPA)<sup>21</sup>.

With regard to demography, the main challenge is urbanization, with the urbanization rate today close to 40 per cent. While the population of the country has practically quadrupled since the 1960s, the population of the capital Antananarivo is six times higher, according to ATD Quart Monde (2012), who estimated that one-third of the inhabitants of the capital are living in misery, falling outside statistical calculations and occupying undeveloped urban areas in conditions of great squalor. Given the extremely rapid rate of rural exodus, investment in the urban infrastructure has not been sufficient to meet the growing needs, and access to basic services is increasingly difficult. Precarious slum quarters with primitive shacks have become

<sup>19</sup> Interview conducted with the national UNFPA team in September 2016

<sup>20</sup> The rate of use of modern contraceptive methods, according to the World Bank, was 22% in 2012 for sub-Saharan Africa.

<sup>21</sup> World Bank statistics give an adolescent fertility rate of 130 per thousand, which is higher than the sub-Saharan Africa average of 117 per thousand.

common in Antananarivo. In 2011, the budget of the capital was \$ 4 per inhabitant per year, seven times less than that of Dakar (World Bank, 2011).

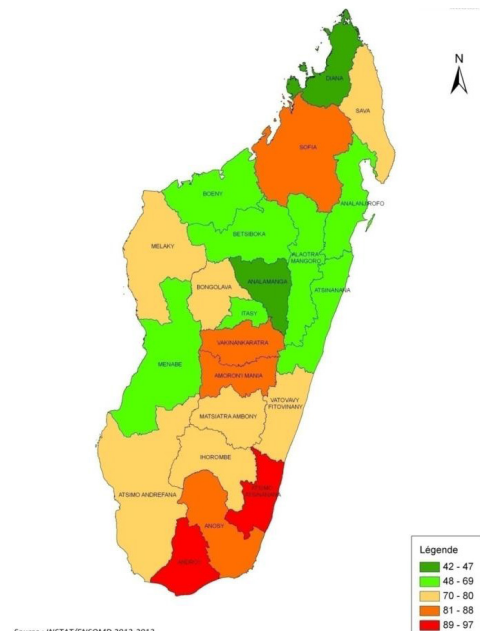
## 4.2 Employment and poverty

Over the last 20 years, Madagascar has not seen encouraging developments with respect to poverty. According to the Madagascar National Institute for Statistics (INSTAT), 71.5 per cent of the population was living under the poverty line in 2012 (INSTAT, 2014)<sup>22</sup> against 70 per cent in 1993.

According to the World Bank, which defines poverty as \$ 1.90 per day in purchasing power parity terms, the poverty rate was from 69 per cent in 1993 to 78 per cent in 2012. This trend may be explained, on the one hand, by the various periods of political crisis which led to major disinvestment in the social sectors, and on the other hand, by sluggish growth, which has not managed to alleviate poverty, especially in rural areas.

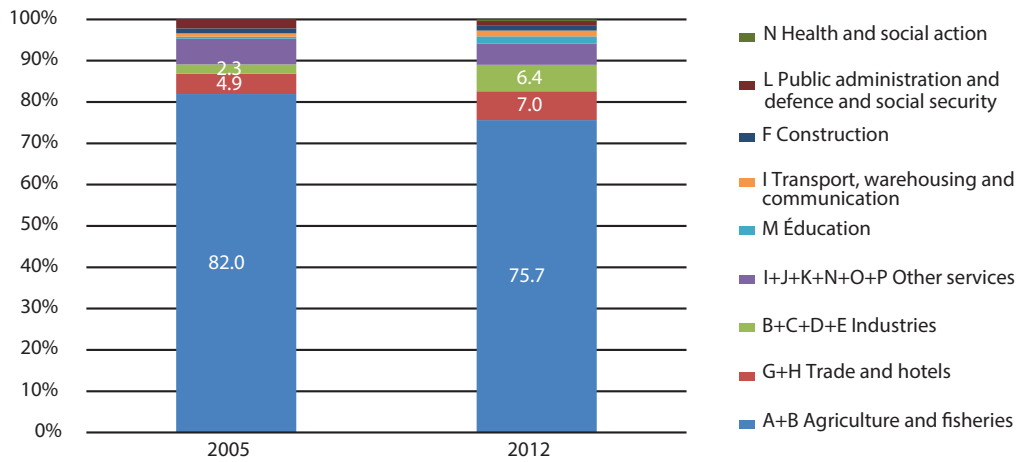
Geographical disparities with respect to poverty are highly marked: while poverty rates in the south, which is not fertile and is vulnerable to climate instability, can be over 90 per cent, they are under 50 per cent in the capital and the tourist region of the north-west (in dark green on the map). With regard to Madagascar, it seems right to speak of a dual economic system (Lewis, 1954), with a manufacturing sector offering very low wages, but sufficiently attractive to entice workers from the countryside, and an agricultural sector which has very low productivity.

Madagascar thus shows slow, but constant changes in the structure of employment (Figure 12). The share of agriculture went from 82 per cent in 2005 to 75.7 per cent in 2012, while during the same period, the secondary sector went from 2.3 per cent to 6.4 per cent of the labour force, and the trade and hotel sector also improved. However, these figures conceal strong regional disparities between rural areas, where the share of agriculture is often above 80 per cent, and urban and tourist areas, where industry accounts for as much as 20 per cent of the active population, and trade nearly 15 per cent. Furthermore, while the unemployment rate is relatively low (1.2 per cent in strict terms and 8 per cent in a broader sense), the rate of under-employment is



<sup>22</sup> Calculated using an approach involving the consumption of households.

**Figure 12: Changes in the structure of employment, 2005-2012**



**Source:** INSTAT (2006) and INSTAT (2012).

very high (84 per cent according to the definition of the International Labour Organization (ILO)), especially in the poorest rural areas. Official unemployment particularly affects urban areas and individuals who have completed secondary education. It should also be noted that the relatively low official rate of activity (63.2 per cent) may be explained by the fact that national statistics take into account the activity of children of five years and above<sup>23</sup>. Finally, 92 per cent of jobs are unsalaried, and 46 per cent of them provide no kind of remuneration at all, and only 4 per cent of the active population enjoys any kind of social protection.

From 2015 on, the Government of Madagascar began to implement an ambitious programme of investment in social sectors, with inclusive growth as its priority objective. The development of human capital is thus one of the five main planks of the National Development Programme (2015-2019).

The adoption of the national social protection policy in 2015 is a good illustration of the plans to ensure some form of social protection to 50 per cent of the population of Madagascar by 2030 (Ministry of Population, Social Protection and Promotion of Women, 2015). This will entail developing assistance to the poorest (by means of transfers of money and labour-intensive work), enhancing access to basic social services, providing assistance to vulnerable groups, and consolidating the contributions-based system of social security.

But the Madagascar system of social protection is facing a triple bind (Radert, 2015): to begin with, social security expenditure is ridiculously low, of the order of 1 per cent of GDP, against

<sup>23</sup> 20% of children between 5 and 14 years old have a professional activity (INSTAT, 2012).

an average 3.5 per cent for sub-Saharan Africa, and is subject to strong fluctuations, since it is heavily dependent on external aid. Secondly, institutional management of such protection is highly fragmented, and finally, those services appear to be not very transparent and driven by the providers rather than by the beneficiaries.

In fact, funding for the social sector comes to no more than 14 per cent of the provisional budget of the National Development Plan, and is focused chiefly on basic education and health services. The Finance Law for 2017 allocates about 20 per cent of investments to the social sectors, through the health and education programmes. These two sectors nevertheless account for nearly 40 per cent of the priority investment projects funded by donations.

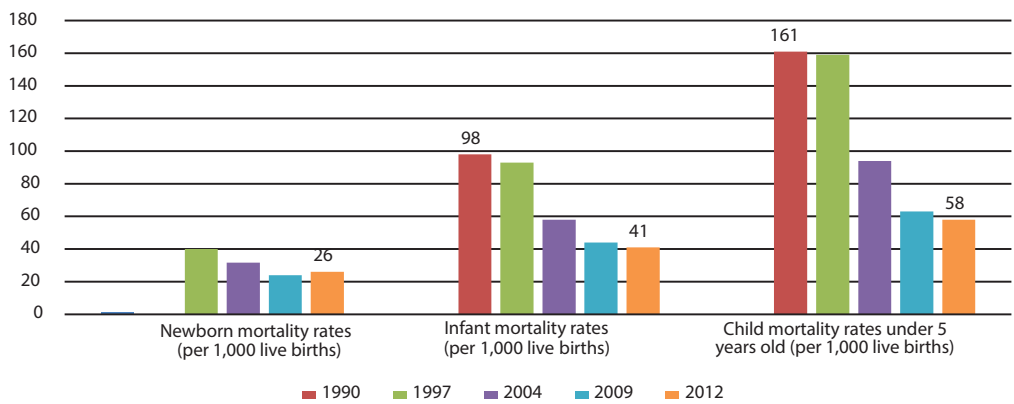
### 4.3 Health

In the field of public health, malnutrition is the main challenge facing Madagascar. Some 75 per cent of the population are said not to have access to the minimum calorie intake (INSTAT, 2014) and 9 per cent of the population to be in a situation of food insecurity according to the latest joint report by the World Food Programme (WFP) and FAO (FAO/WFP, 2016). Here again, the disparities between regions are great, since the regions of the south have been more particularly affected by chronic drought, which harms agricultural production. In 2016, more than 600,000 people were said to be suffering from severe food insecurity, and several southern regions are at risk of starvation in early 2017. Food insecurity seriously affects nutrition and children's development, with 37 per cent of children under five years old suffering from low birthweight; Madagascar is one of the countries most affected by the delayed growth of children<sup>24</sup>. In order to address this problem, the Government has launched a nutrition policy through the National Nutrition Office, aimed at helping the most vulnerable populations, in particular women and children, by establishing community centres and introducing specific programmes, such as school canteens, although finding funding for the health sector continues to be a problem, even if that is one of the sectors that is best supported by donors. According to a study published in 2015, (Ministry of Public Health, 2015), 40 per cent of health expenditure comes from direct contributions by households, which constitutes far too heavy a burden for many poor families.

In fact, many health indicators have declined over the past decade, as a result of the lack of funding during the political crisis. For example, the proportion of births assisted by health personnel was 51 per cent in 2004, but only 44 per cent in 2012 (INSTAT, 2013). Some improvements have nevertheless been noted, such as access to neonatal care in basic health centres, which went from 2 per cent in 2009 to 30 per cent in 2016. The most significant advances in child mortality were achieved in the 1990s (Figure 13).

<sup>24</sup> Some 8 million Malagasy are reckoned to be affected by the consequences of retarded growth, which has a direct impact on their productivity.

Figure 13: Changes in newborn, infant and child mortality



Source: INSTAT (2013).

Otherwise, the maternal mortality rate is one of the highest in the world, with 478 deaths per 100,000 live births. This problem is closely linked to early pregnancies, with one-third of maternal deaths occurring among women under 19 years old; the main causes are complications with the pregnancy and abortions. A close correlation has been established in Madagascar between early fertility and maternal and child mortality (Binet, 2010)<sup>25</sup>. In 2015, the health sector accounted for no more than approximately 8 per cent of the state budget (Ministry of the Economy and Planning, 2015), a proportion which is still far from the objective of 15 per cent set in the Abuja Declaration. Still, health is one of the public priorities of the Government, which in 2015 undertook to provide universal health coverage (UHC). Officially included in the provisional finance law 2017, universal health coverage was initially to be launched in four pilot regions. The Government has already financed the rehabilitation of numerous basic health centres, which were abandoned during the political crisis, relaunched equity funds and held vaccination campaigns.

Compared with other African countries, Madagascar has been relatively spared by the AIDS epidemic, which has a prevalence of no more than 0.4 per cent<sup>26</sup>, although it is possible that the number of infections has risen in recent years, especially since access to antiretroviral treatment and to services for the prevention of mother-to-child transmission of HIV is very poor.

25 The children of mothers under 20 years old are said to have 30% less chance of surviving than the children of mothers between 20 and 29 years old.

26 Interview with UNAIDS. These figures need to be handled with care, in the absence of more recent statistics. Poverty, early pregnancies, low levels of education, the false feeling of security prompted by the low prevalence of HIV and the low rates of use of condoms are factors which lead UNAIDS to believe that the prevalence of HIV may have increased in Madagascar in recent years.

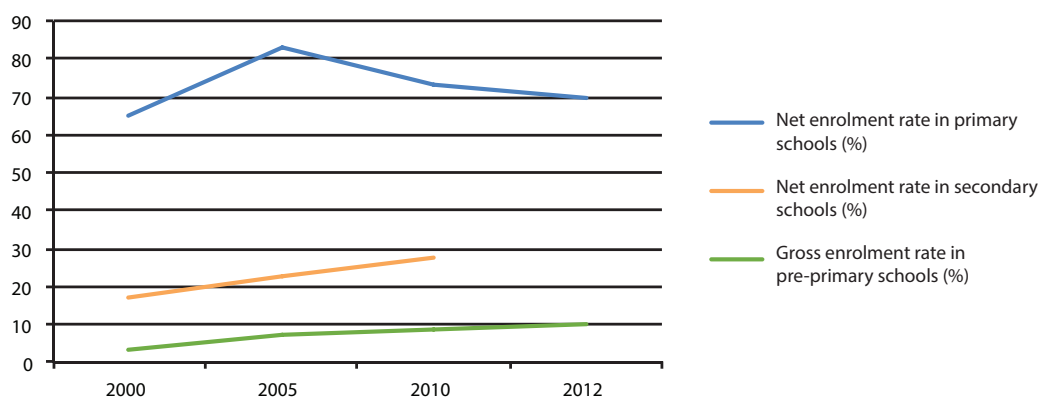


## 4.4 Education

The Madagascar education system appears to have suffered from the period of political transition between 2009 and 2013, from the point of view of both access to education and the quality of education. Following the introduction of the policy of universal primary education in 2003, the gross enrolment rate increased strongly, reaching nearly 140 per cent at the primary level in 2005. In the wake of the political crisis in 2009, primary school attendance rates fell sharply, as did achievement rates and school survival rates, which suggests that the socio-economic situation not only acted as a brake on the enrolment of new pupils, but also encouraged dropping out, with INSTAT estimating that nearly 1.5 million children dropped out of school. On the other hand, there has been a constant rise in enrolment rates at the pre-school and secondary levels, especially in urban areas (Figure 14).

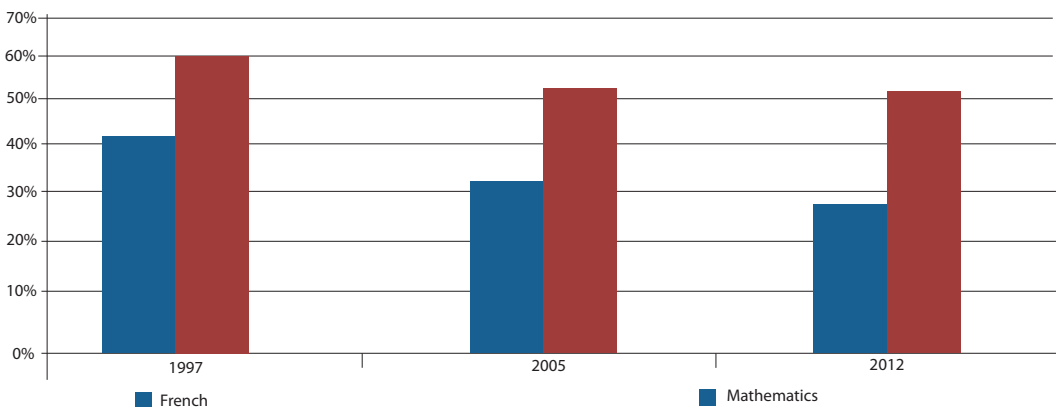
At the same time, the quality of education was affected by the crisis. In 2005, the results of the Programme of Analysis of Educational Programmes (PASEC) of the Conference of Ministers of Education of French-speaking Countries (CONFEMEN) put Madagascar in the middle range of African countries with regard to the performance of primary-school pupils in French and mathematics, despite a sharp drop, especially in French, over the survey carried out in 1997, no doubt linked to the introduction of Malagasy as the language of teaching in primary schools. The fall in school results continued through the transition period, according to the results of a survey carried out in 2012 (AUF/AFD, 2014 – see Figure 15).

**Figure 14:** Changes in enrolment rates in pre-school, primary school and lower secondary school.



**Source:** UNESCO (statistics for 2000), Household surveys 2005 and 2010, MDG survey 2012.

**Figure 15:** Scores (per cent) in PASEC-type exams in fifth year of primary school



**Source:** PASEC 1997, PASEC 2005, AUF/AFD 2014.

This situation is not unique to Madagascar: the drop in quality has been noted in numerous countries that have adopted education for all (EFA) policies which require massive recruitment of new teachers. In the case of Madagascar, the Government urged the recruitment of so-called FRAM community school teachers, who are supported by the State and by parents; today, they represent some 75 per cent of teachers, but have not received proper teacher training.

The drop in quality is also related to the poor funding of the education sector, as compared with other sub-Saharan African countries. In 2005, the Madagascar Government allocated 3.8 per cent of GDP to the education sector. That proportion has been falling constantly since 2005, and reached 2.5 per cent in 2013 (Ministry of National Education, 2015), against an average 4 per cent for sub-Saharan Africa.

The Madagascar Government has set three priorities for the education sector in its National Development Plan: to ensure effective access to EFA, to improve the functioning of the education system, and to strengthen the system of vocational and technical training. An emergency programme was launched in 2014 targeting drop-out children. The 2017 Finance Law allocates to the Ministry of Education the largest budget after the Ministry of Finance. The objectives set for 2017 are the rehabilitation of infrastructure (damaged schools and classrooms) and the recruitment of community school teachers.

## 4.5 Gender equality and women's empowerment

Gender inequalities and the situation concerning women's empowerment may be measured with respect to key areas, shown in the circular chart below. These areas are decisive for enhancing the living conditions of women and for ensuring their contribution to the sustainable and shared growth of Africa.

In order to evaluate the magnitude of gender inequalities and to measure the level of parity and empowerment of women in Africa, the Economic Commission for Africa (ECA) has developed its African Gender and Development Index (AGDI), a monitoring tool to enable political decision-makers to evaluate their own performance in implementing policies and programmes aimed at putting an end to the marginalization of women.

Marking is done on the basis of the Gender Status Index (GSI), a component of the AGDI. For each key indicator, the mark corresponds to an unweighted arithmetic average: the men/women ratio of the indicator is multiplied by 10 and the result is rounded to the nearest integer. A mark of 0 stands for the highest level of inequality; 5 is average parity; 10 is perfect parity. Levels of parity above 10 account for situations where women are better off than men, no matter what the level of development of the field under consideration.

Most of the figures used to calculate the marks come from the most recent national data. However, for some indicators, where the countries did not have broken-down data, the data used were international in origin, such as the results of surveys by Madagascar's National Statistical Institute, Survey 2010, AGDI report 2012, Interparliamentary Union report 2016, and World Bank Global Data Index 2014.

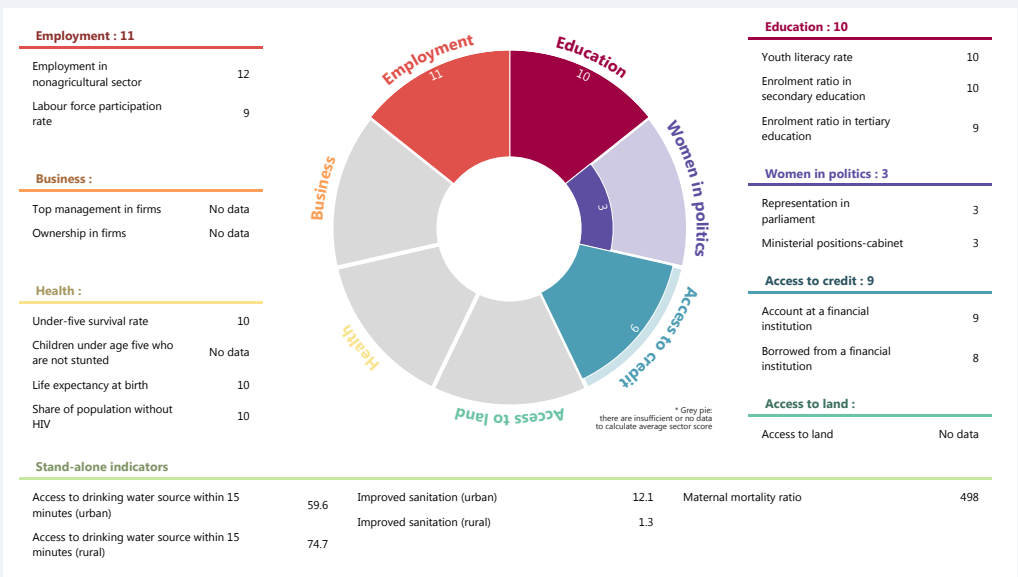
### Box 4: Gender equality and women's empowerment – Madagascar

In the case of Madagascar, women have overtaken men in the employment sector, particularly with regard to paid employment in non-agricultural sectors. The percentage of women with paid employment in the non-agricultural sector was 26.5 per cent against 22.3 per cent for men, the parity mark of 12 being attributable to the relative size of the garment sector in formal employment, which attracts a majority of women. With regard to the activity rate, parity has almost been achieved, with a score of 9; 61.1 per cent of women are counted as active, whereas 65.3 per cent of men are deemed to be active.

Health indicators reveal a situation of equality among men and women (10 being the parity mark), especially with regard to survival rates among children under 5 years old, or life expectancy at birth, which is 66.6 years for women and 63.6 years for men.

In the education sector, equality may be observed in the net rate of enrolment in secondary education and literacy among young people, with a mark of 10 according to UNESCO data. The net rate of enrolment in tertiary education for women is 4.1 per cent against 4.4 per cent for men, which gives a score of 9.

Despite the good progress achieved in certain sectors, there remain several areas of concern. Women are clearly disadvantaged with respect to men in political life, especially in terms of representation in parliament and in ministerial posts. Women occupy no more than 20 per cent of ministerial posts and 20.5 per cent of parliamentary seats. Finally, the maternal mortality rate (MMR), which is very high (478 per 100,000 live births) and is strongly correlated with the practice of early marriage, shows that the situation of young people remains a source of concern.



Source: ECA Calculations.

## Thematic analysis: The role of free businesses in the growth and structural transformation of Madagascar

Madagascar was one of the first countries in the 1990s to establish a free commercial zone regime and to develop an industrial sector oriented towards exports. However, that sector appears to have had limited success and has not helped to create quality growth in the country. Nor has it helped much to bring about a structural transformation of the economy. The adoption of a new industrial policy and the emergence of new stakes linked to climate change should lead to transformations in this sector, which currently accounts for 5 per cent of GDP and is one of the engines of growth and employment in Madagascar.

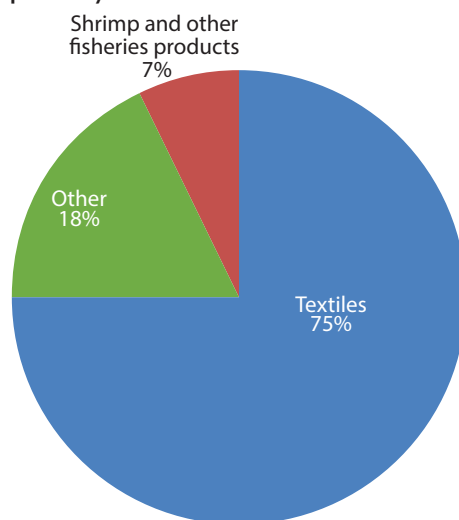
### 5.1 An engine of economic growth and employment

The establishment of free zones in Madagascar in the early 1990s was, to begin with, a real success story. Introduced by Government order in December 1989 and supplemented in 1991, the free zone regime was part of a growth strategy on the East Asian model, based on the development of exports of manufactured products. The adoption of numerous incentives, especially tax incentives<sup>27</sup>, helped to attract investors and make exports competitive despite relatively high production and transport costs. The long-term objective was to harness the dynamism of the free-zone sector as a launch-pad for a true industrialization of the country.

The garment industry represents the majority of new businesses established (there were more than 200 garment businesses in 2001), and accounted for more than three-fourths of exports of such businesses in 2014, as shown by the figure below.

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27 Investors enjoy a low rate of taxation (reduced to 10% for tax on profits, against an average 35%) and a complete exemption on profits for a period of as long as 10 years, an exemption from taxes on imports and exports, free acquisition of foreign currency and free transfers of capital abroad.

**Figure 16: Structure of exports by free businesses**

**Source:** Central Bank of Madagascar (2015), p. 38.

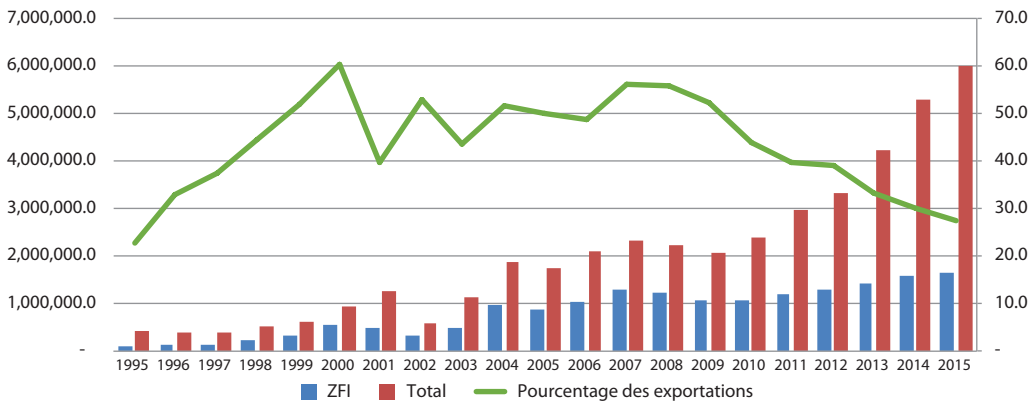
The majority of investors in free zones are foreign: in 1997, 47 per cent were French and 28 per cent Mauritian (ILO, 2012). The current trend is for increased numbers of Asian, particularly Chinese, investors.

The dynamism of textile exports was boosted by various free-trade agreements: the Cotonou Agreement and the African, Caribbean and Pacific–European Union Agreement, and in 2001 with the United States under the African Growth and Opportunity Act<sup>28</sup>. Textile exports to the United States accounted for nearly 40 per cent of textile exports from Madagascar in 2009. Between 1990 and 2008, free zones underwent exceptional growth, with exports from free zones growing by more than 30 per cent per annum between 1991 and 2005 (ILO, 2012). During that period, the share of free businesses in GDP also grew, from 0.5 per cent in 1991 to 5.4 per cent in 2008<sup>29</sup>.

Ultimately, the free zones have helped Madagascar exports to grow significantly and diversify rapidly. Their overall volume tripled in constant dollars between 1991 and 2001 (Cling; Razafindrakoto; Roubaud, 2005), and manufactured products accounted for nearly half of total exports in 2001 (see Figure 17).

<sup>28</sup> The US African Growth and Opportunity Act of 18 May 2000, grants eligible sub-Saharan African countries special access to the American market for a certain number of products, under specific conditions, such as good governance. Madagascar was deemed eligible for access to the Act in 2001. It was suspended in January 2010 in the wake of the political crisis, and readmitted in June 2014. Garments are the main products exported by Madagascar to the United States under the African Growth and Opportunity Act. Furthermore, it should be noted that Madagascar, like other low-income countries, is exempt from the original rule in the garment sector and is allowed to procure its raw materials (chiefly cotton) from a third country.

<sup>29</sup> This percentage has remained more or less the same since then

**Figure 17: Share of industrial free zones in exports, in MGA millions and per cent of total**

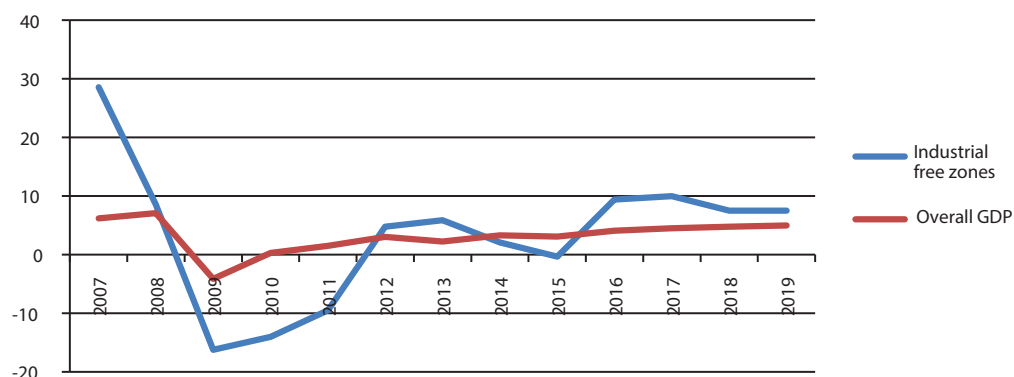
**Source:** Central Bank of Madagascar (2016a), p. 46.

According to Central Bank statistics, free zones accounted for as much as 60 per cent (in 2000) of total exports. Clearly, exports were particularly affected by the political crises in 2002 and 2009-2013. While the recovery was very rapid after the 2002 crisis, it was slower in the wake of 2009<sup>30</sup>. The political crisis of 2009 and the related interruption of the African Growth and Opportunity Act compounded the difficulties of an already difficult economic situation for Madagascar's textile industry arising from the recession affecting the developed countries in 2008, the consequences of the end of the Multi-Fibre Agreement (MFA) in 2005, and the tendency for the Madagascar ariary (MGA) to appreciate in value in 2007-2008, which was linked to the explosion of foreign direct investment (FDI) in the mining sector (\$ 1 billion in 2007 and 2008), which in turn raised the cost of inputs for entrepreneurs in the free zones. Between 2009 and 2011, numerous businesses closed or saw their purchasing power decline sharply.

Since 2014, the sector has enjoyed a timid recovery, which should become firmer in 2016/2017<sup>31</sup>. The rather weak recovery noted in 2014/2015 appears to be related to increased competition from Asian countries and to the sluggish European market. In the 2017 Finance Law, the Madagascar Government is nevertheless pinning its hopes on growth in the free zones of 9.4 per cent in 2016 and 11.2 per cent in 2017, thanks to a rise in the cost of Chinese labour. Indeed, this sector is reckoned to be one of the engines of growth in coming years (Figure 18). In 2015, 24 new businesses were approved, against 19 in 2014 and 12 in 2013. Madagascar businessmen also benefit from free-trade agreements signed recently, especially within COMESA, which have opened the South African market to Madagascar exports.

<sup>30</sup> The fall in the share of free zones in exports from 2008 on is related to the exponential growth in mine exports. It should nevertheless be noted that textile exports have continued to grow in volume since 2011.

<sup>31</sup> Garment businesses interviewed during our mission to Madagascar in September 2016 said that they were experiencing exceptional growth in turnover.

**Figure 18: Annual growth rate of industrial free zones and of Madagascar GDP**

**Source:** 2007-2015: Central Bank of Madagascar annual reports; 2017 Finance Law for 2016-2019.

In addition to an extremely favourable tax regime, investors have been attracted to Madagascar by the comparative advantage of the workforce. The productivity of the workforce,<sup>32</sup> in tandem with one of the lowest wage costs in the world,<sup>33</sup> enables Madagascar textiles to be extremely competitive on the world market. The question of employment is thus vital for the Madagascar textile industry, which is very labour-intensive. In the 1990s, the free zones were among the biggest creators of jobs in the economy (Razafindrakoto; Roubaud, 2002), with more than 70,000 jobs created in 10 years. Their contribution to job creation is said to have been as great as that of the informal sector over the past decade. According to the most recent statistics available (2007, quoted in ILO, 2012), the number of employees in the free zones was 120,000. According to the statistics contained in the 2012 employment survey by INSTAT, the garment sector (which may be partly equated with the free zones) accounts for no more than 2.8 per cent of total employment (75.8 per cent is linked to the primary sector), but 8.3 per cent of employment in the capital, and nearly 20 per cent of formal employment.

Is it possible to conclude that the development of free zones has contributed to the structural transformation of the Malagasy economy? Analysis of the structure of the economy over the past 20 years would not seem to confirm that. While the share of the secondary sector rose between 1991 and 2008, from 12.8 per cent to 16 per cent of GDP, that share has since tended to stagnate. The share of industry in employment went from 2.3 per cent in 2005 to 6.4 per cent in 2012, but nothing suggests that this tendency is bound to continue. According to Cling, Razafindrakoto and Roubaud (2005), the free zones have effectively put Madagascar

32 Entrepreneurs speak in glowing terms of the employees: "good-quality workforce", "disciplined", "no absenteeism" were some of the comments we heard about textile industry employees.

33 It was said to be \$ 0.25/hr, or the equivalent of the rate in Bangladesh, whereas it is \$ 0.40/hr in Sri Lanka or in China (ILO, 2012). One entrepreneur we met said that each pair of jeans manufactured in Madagascar cost \$ 0.80, against \$ 2.20 in Bangladesh.



on the “road to industrialization”, but their relatively weak weight in the economy and the absence of any “ripple effect” have not enabled them to exert a more significant impact on poverty reduction.

## 5.2 A controversial role in the economic transformation of Madagascar

The activities of the free zones, and more especially of the garment sector, are facing numerous constraints which hamper their future development. The global outlook for the textile industry, with growing competition on world markets and preferential trade agreements with African countries being called into question, is likely not to be favourable to Madagascar.<sup>34</sup> Furthermore, the high costs of production inputs,<sup>35</sup> the weakness of the local infrastructure,<sup>36</sup> the cost of transport,<sup>37</sup> the lack of training of personnel, and problems of governance are all constraints weighing on the free zones in Madagascar. In his analysis of African free zones, Bost (2007) clearly shows how the adoption of multi-sector strategies, the geographical concentration of free zones, and the search for complementarities between the export-oriented sector and local industry are all key elements in ensuring the success of the free zones and in producing “ripple effects” for the rest of the economy.

The free-zone sector in Madagascar is not well connected to the rest of the economy. It has been calculated that 75 per cent of the inputs of free businesses are imported, whereas the rate is an average 53 per cent for Madagascar export businesses (ILO, 2012). According to the Central Bank, the coverage rate of the sector is still favourable, albeit declining. In 2014, it was around 150 per cent (Central Bank of Madagascar, 2015). Furthermore, the local market does not appear to be particularly dynamic, since the sector is constrained by legal requirements limiting local sales by free-zone businesses to 5 per cent of their turnover. In fact, the dynamic investment campaigns in the free zones have not actually had the hoped-for ripple effect on the rest of the industrial sector and the economy in general, even if Razafindrakoto and Roubaud (2002), for example, are of the view that 50 per cent of the value added produced by the sector is injected directly into the economy in the form of remuneration for work. Even if free zones are relatively concentrated in urban areas, especially in Antananarivo, that concentration has had little positive effect given the absence of a local network of subcontractors and providers.

34 The Ministry of Foreign Affairs, in an interview in September 2016, pointed to the need for a post- African Growth and Opportunity Act transition strategy.

35 The price of water, electricity and telecommunications is significantly higher than for competitors such as Mauritius or Sri Lanka (ILO, 2012).

36 The poor quality of roads to the main port of Toamasina and the difficulties of dump-loading electricity were both mentioned by entrepreneurs.

37 Some 30% of that cost will be transport from the factories (most of which are located in the capital) to the port of Toamasina. Furthermore, the cost of a maritime container from Madagascar to the United States ranges from \$ 3,000 to \$ 5,000.

On the other hand, questions need to be asked about the fiscal impact of the sector. Given the lack of an in-depth analysis of Government receipts from the free zones, it is not possible to determine their global fiscal impact. In their 2002 analysis, Razafindrakoto and Roubaud claim that the special tax status of the free zone generates additional resources for the State, particularly as 66 per cent of the free enterprises would not have been established without that tax regime. Nevertheless, a recent IMF report (IMF, 2016a) stresses that the significant tax exemptions enjoyed by the free zones depress the overall tax intake, and might in future be called into question. In addition to tax exemptions, free enterprises also get VAT reimbursed, and delays by the State in paying out the reimbursements have been accumulating for several years now.<sup>38</sup>

At the same time, the effect on the jobs market is paradoxical. While the free zones have contributed strongly to formal employment, this does not appear to have helped to improve the quality of employment or to raise wage levels overall. Wages in the free zones are on average 37 per cent lower than in other formal sectors, and the work there is harder and working hours are longer, even if the social protection of workers appears to be better (ILO, 2012) and those social advantages have progressively been extended to other sectors of the formal economy (Cling; Razafindrakoto; Roubaud, 2005). Furthermore, the concentration of nearly all the free zones in Antananarivo has aggravated inequalities and social fragmentation between the capital and rural areas.

Finally, analysis of the economic situation of Madagascar over the past 20 years has prompted certain analysts to raise the spectre of the “Dutch disease”.<sup>39</sup> Their theory (Andriamananjara; Sy, 2015) is that the boom in textile exports linked to the African Growth and Opportunity Act triggered an appreciation in the value of the currency, leading to falling competitiveness in other export sectors (in particular, coffee and spices) during the period 2004-2009. The rise in non-textile exports after 2009 and the suspension of the African Growth and Opportunity Act, according to them, confirms this theory, and they conclude that the impact of the Act was too focused on a few individual sectors, and that the agreement was not sufficiently inclusive. While one may agree with the conclusions concerning the inclusiveness of AGOA we nevertheless feel that the appreciation in the value of the currency was more likely to have been triggered by massive investment in the mining sector from 2007 on, which also reduced the competitiveness of the textile sector.<sup>40</sup> There appears still to be a risk of a Dutch disease in Madagascar in view of the massive increase in mining exports. In any case, the appreciation in the value of the ariary which may ensue risks adversely affecting the competitiveness of the textile sector.

38 During an interview in September 2016, the Ministry of Finance admitted that it was in a situation of fiscal deficit with both free and mining enterprises.

39 The “Dutch disease” was theorized by Max Corden and Peter Neary as a phenomenon involving appreciation of the value of the local currency in tandem with increased receipts from exports. The upshot is a loss of competitiveness in other export sectors.

40 The destabilization of the textile sector and the increase in technical unemployment in late 2008 might even be one of the factors that triggered the political crisis of 2009.

### 5.3 Conclusion: A sector on the verge of major changes

Taking into account the advantages and challenges of the industrial free zone sector, two alternative scenarios appear likely for the coming years.

On the one hand, Madagascar should undertake a reform of its industrial policy in order to ensure that it promotes growth of an inclusive type, and that it brings about a structural transformation of the economy, on the model of the successful experiments of other African countries, such as Morocco and Ethiopia. In both cases, the development of free zones was accompanied by an ambitious industrial policy, with the development of transport infrastructure (made easier by the geographical concentration of free zones, which is not the case in Madagascar) and enhanced energy supplies, as well as massive investment in training.<sup>41</sup> This appears to be the very strong position adopted by the Madagascar Government, which is drafting a new law on industrial development aimed at boosting the share of the industrial sector from 16 per cent to 25 per cent of GDP and raising annual investment to \$ 500 million within five years. This new industrial policy will lay greater stress on the development of small- and medium-sized businesses and rural industry, in particular agro-business,<sup>42</sup> for example by developing the transformation of cocoa, vanilla, fisheries products, and natural pharmaceutical products. In this connection, one may point to the new investment projects by the Madagascar textile operator SOCOTA aimed at creating 13,000 new jobs in the textile and agro-business sectors. These projects should be accompanied by a reform of the investment code of practice, and in particular by bilateral agreements for investment protection. Taken together, these various measures should help to ensure the competitiveness of the Madagascar industrial sector, full mastery of value chains, and diversification of the sector. The project to relaunch the national cotton industry, which is part of the National Development Plan, is a good example of this strategy.

On the other hand, given the environmental challenges facing Madagascar, it would seem vital for the country to work for growth which is more environmentally sensitive. Adverse climate changes are already affecting Madagascar, and thus constitute an economic, social and cultural challenge for a country which is home to some of the greatest wealth in biodiversity in the world. Madagascar has already lost 50 per cent of its forest cover (Desbureaux; Nazindigouba Kéré; Combes Motel, 2016), and an estimated 5 million Malagasy live in areas which are under threat from climate natural disasters (UNDP, 2015). In this connection, the commitment of Madagascar, with its great energy needs (112 million Kwh consumed in 2014), to a renewable energy policy is crucial for the textile industry, which today depends chiefly on fossil fuels. Furthermore, Madagascar could benefit considerably by developing its “blue economy” sector and laying greater stress on its “blue carbon” capital (ECA, 2016b). The development of

41 In Morocco, the free zones around the port of Tangiers, which are specialized in textiles, electronics, and the automotive and aeronautical industries, have at their disposal a veritable multimodal transport network (Bost, 2007). Together with a “local content” strategy, they provide Morocco with a real lever for development. In Ethiopia, the construction of industrial zones has gone hand in hand with the development of transport infrastructure and the enhancement of the business climate, which have helped to achieve industrial growth rates of the order of 12% per annum.

42 Interview with Nouridine Chabani, Minister of Industry and Private Sector Development, September 2016.

environmentally responsible shrimp farms at Mahajanga is a good example of such innovative strategies.

The report, *Greening Africa's Industrialization* (ECA, 2016a), suggests that “a strategy for greening this process, in its many dimensions, will deliver a more competitive and resource-efficient industrial sector – one that provides employment, is climate resilient and is decoupled from environmental degradation,” which is a crucial challenge for Madagascar.

## 6. National data quality evaluation

**Methodological note:** The quality of national data sources for key indicators in the country profiles was evaluated. The results are presented in colour codes, with green indicating that the data source is “good”; yellow, “satisfactory”; and red, “needs improvement”.

The evaluation focused on the transparency and accessibility of the national data sources, while taking into account the periodicity of the published data based on the timeliness and frequency of the data updates in accordance with international standards. It measured the comparability of the data series based on length, definition and standard units of measurement. Also reviewed were the accessibility of the data to the general public, the format of the data and the ease with which the data can be downloaded and shared. In addition, data citations, together with references to primary or secondary sources, were assessed. Lastly, the completeness of metadata for data release and the clarity of documentation and notes were evaluated.

Demography	Value	Evaluation
Population (millions)	23.7 (2016)	●
Child (0-14 years)	47.0 (2016)	●
Adult (15-64 years)	51.0 (2016)	●
Aged (65+ years)	2.0 (2016)	●
Urban population (%)	17%	●
Growth rate (%)	2.71	●
Fertility rate	5 (2013)	●
Life expectancy at birth (years)	65 (2013)	●
Crude death rate (per 1000 population)	7.0	●
Crude birth rate (per 1000 population)	34.9 (2013)	●








Key macroeconomic and sectoral performance	Value	Evaluation
Real GDP growth rate (%)	4.1 (2016)	●
GDP current prices (billions of dollars €.-U.)	9.744 (2015)	●
Inflation rate (%)	7.6	●
Current account balance (billions of dollars €.-U.)	340	●
Current account (of GDP)	-2.2 (2015)	●

Economic trends and performance indicators	Value	Evaluation
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Real GDP growth rate (%)	4.1 (2016)	●
GDP current prices (billions of dollars €.-U.)	9.744 (2015)	●
Inflation rate (%)	7.6	●
Current account balance (billions of dollars €.-U.)	340	●

Education and employment	Value	Evaluation
Literacy rate (% 15-24 years)	80.5 (2013)	●
Net enrolment rate in primary education (%)	69.4 (2013)	●
Proportion of pupils beginning in primary school who complete their last year of secondary school	33 (2012)	●
Ratio of girls to boys at primary school	52.5%(2013)	●
Ratio of girls to boys at secondary school (years 7 to 9)	46.5% (2013)	●
Ratio of girls to boys at secondary school (years 10 to 12)	43% (2013)	●
Total rate of employment rate (%)	83.3 (2013)	●
Population living below the poverty line (%)	71.5 (2015)	●
Unemployment rate (%)	1.7	●
Youth unemployment (%)	not available	●

Health	Value	Evaluation
Under 5 mortality rate (per 1000 live births)	58 (2012)	●

Maternal mortality ratio (per 1000 live births)	478 (2012)	
Prevalence of underweight children under 5 years of age (%)		
Infant mortality rate (per 1000 live births)	41 (2014)	
Proportion of births attended by skilled health professionals	44.3 (2012)	
Rate of use of contraceptives (by women)	24.8% (2013)	
HIV prevalence among population aged 15–24 years	0.44%	
Incidence and death rates associated with malaria (%)	41 (2012)	

#### Data Sources Code Index

1. Instituto Nacional de Estatística
2. Ministério do Planeamento e do Desenvolvimento Territorial
3. Ministério da Saúde
4. Banco Nacional de Angola

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*Printed in Addis Ababa, Ethiopia by the ECA Printing and Publishing Unit.  
ISO 14001:2004 certified. Printed on chlorine free paper.*

ISBN 978-99944-70-21-1

