



COUNTRY PAPER FOR MADAGASCAR ON LABOR MARKET, ECONOMIC SITUATION AND DEVELOPMENT POLICY

Julia Rachel Ravelosoa
Paul Gérard Ravelomanantsoa
Ida Rajaonera
Faly Rakotomanana

The National Development Plan that the Malagasy government has been adopted and will implement to revitalize the economy and put the country on the path of development attaches special importance to inclusive growth. This concept is based on two fundamental principles: equity and equal opportunity for all to access to means of production and markets. At the sectoral level, the creation of decent jobs and the formalization of the informal sector part of the specific objectives of the plan.

Assuming that the labor market is the primary mechanism of transmission between economic growth and living conditions of populations, the impact of macroeconomic shocks on the living conditions of households depend largely on their impact on employment. Analyze on labor market will help leaders implement effective policies to stimulate growth. This requires a better understanding of the overall situation of the Malagasy economy, the interrelationship between the various economic and social sectors and développement policies that have been conducted.

Accordingly, this study aims to describe an overview of the economic situation, especially of the labor market in Madagascar. More specifically, the paper traces the evolution of the labor market. The case of agriculture, the informal sector and the EPZ will be treated specifically.

This research received financial support from the **Swiss Agency for Development and Cooperation** and the **Swiss National Science Foundation** under the **Swiss Programme for Research on Global Issues for Development**. The project *“Employment Effects of Different Development Policy Instruments”* is based at the World Trade Institute of the University of Bern, Switzerland.



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on Global Issues for Development



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ON LABOR MARKET, ECONOMIC SITUATION AND DEVELOPMENT POLICY

Authors

Julia Rachel Ravelosoa¹

Paul Gérard Ravelomanantsoa¹

Ida Rajaonera¹

Faly Rakotomanana¹

This report is part of a research program focused on Employment effects of different Development Policy Instruments funded by the SNSF (Swiss National Science Foundation) in Switzerland with the University of Bern and the University of Geneva.

¹ Institut National de la Statistique (INSTAT)

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Acronym

AGOA	: African Growth Opportunity Act
BIT	: Bureau International du Travail (International Labor Office)
BTP	: Bâtiments et Travaux Publics
DIAL	: Développement, Institutions et Mondialisation (Research Centre in Development Economics)
DSM	: Direction des Statistiques des Ménages (Department of Households' Statistics)
EE (LFS)	: Enquête Emploi (Labor Force Survey)
EPZ	: Export Processing Zone
GDP	: Gross Domestic Product
HDI	: Human Development Index
INSTAT	: Institut National de la Statistique (Statistical Office of Madagascar)
IRD	: Institut de Recherche pour le Développement (Research Institute for Development)
IPU	: Informal Production Unit
OCDE	: Organisation de Coopération et de Développement Économiques (Organisation for Economic Co-operation and Development (OECD))
UE	: Union Européenne (European Union)
UNDP	: United Nations Development Program

Introduction

The National Development Plan that the Malagasy government has been adopted and will implement to revitalize the economy and put the country on the path of development attaches special importance to inclusive growth. This concept is based on two fundamental principles: equity and equal opportunity for all to access to means of production and markets. At the sectoral level, the creation of decent jobs and the formalization of the informal sector part of the specific objectives of the plan.

Assuming that the labor market is the primary mechanism of transmission between economic growth and living conditions of populations, the impact of macroeconomic shocks on the living conditions of households depend largely on their impact on employment. Analyze on labor market will help leaders implement effective policies to stimulate growth. This requires a better understanding of the overall situation of the Malagasy economy, the interrelationship between the various economic and social sectors and développement policies that have been conducted.

Accordingly, this study aims to describe an overview of the economic situation, especially of the labor market in Madagascar. More specifically, the paper traces the evolution of the labor market. The case of agriculture, the informal sector and the EPZ will be treated specifically.

The document includes fourth main parts. After the introduction, the first part is devoted to the economic situation and conditions of life in Madagascar: economic growth and its determinants, inflation and its determinants, exchange rate and terms of trade, trade, firm landscape, conditions of life. The second part traces the situation of the labor market in Madagascar, demographic situation of population as laborforce and the impacts of recurrent crises on the main variables such as working time, wages and income, and employment adjustment. The third part describes the development of support sectors that have links on job creation and quality such as Education and Vocational training, Foreign Direct Investment, Microfinance and Energy. Fourth section summarizes the main sectoral policies such as the development of human capital, the private industrial sector, agriculture, tourism and crafts in Madagascar. The strategic pillars of National Development Plan are described in this part.

I Economic situation

I.1 Economic growth and its determinants

Weak and unstable growth

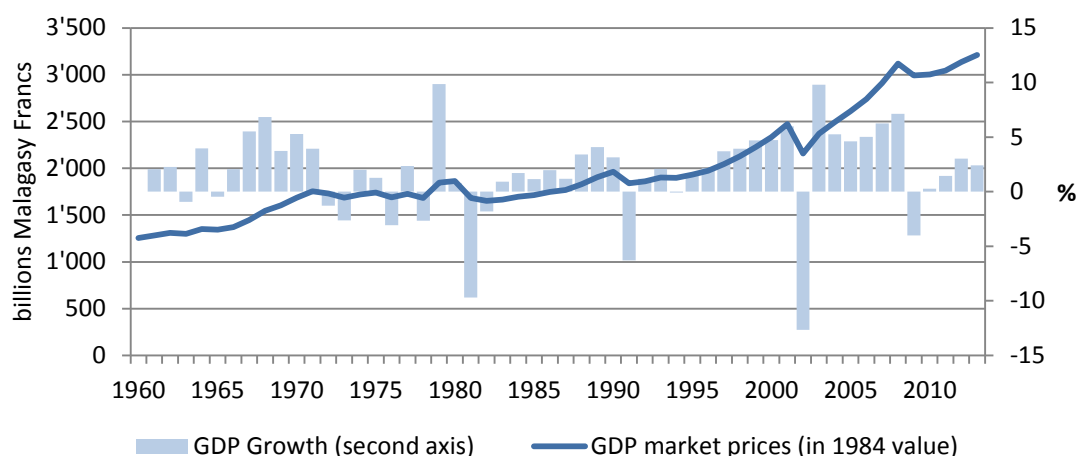
In 2014, despite the return to normal political situation and the crisis through the establishment of a democratically elected government, the economic situation remains fragile and economic recovery is slow in coming. The GDP growth rate was 2.4% in 2013 and 3.0% in 2014, lower rates or just over the growth rate of population. To boost domestic demand, public investment in major works have not started due to lack of funding following the delay of financing from foreign bilateral and multilateral partners. The classification of Madagascar by the international rating agencies among the high political risk countries does not dispel the distrust of foreign private investors and limits the flow of FDI. Despite the potential production and unused capacity following the contraction in demand, the continued decline in household purchasing power forced residents operators to limit their production level, so drop in profit and domestic savings.

The slow growth since 2012 is derived exclusively from the boom in the sector "mining" with a growth rate of 183% in 2012 and 219% in 2013. Since 2012, the major mining investments (ilmenite, nickel, cobalt) initiated since 2005 have been entering in exploitation and export phase. The agro-industry, energy and industrial free zones are other industrial activities that have experienced a significant increase in production in 2013 with growth rate more than 6 %. Regarding the primary sector, the growth rate varies significantly from one year to another 1.5% in 2012 and 6.1% in 2013. Agricultural production is highly dependent on weather conditions and natural disasters. This is due to the insufficient and deteriorating infrastructure (irrigation, feeder roads, etc.), inputs access difficulties (problems of supply or availability, cost, etc.) and suspension of activities rural development projects and other support structures. In 2013, the locust invasion and secherresse have reduced agricultural production. In service sector, the "Bank" is the only one that has increased by more than 5% of value added. For cons, the value added of "trade" fell by 3% in this year.

The analysis of the evolution of GDP growth highlights strong instability marked by sharp breaks Series (1972, 1982, 1991, 2002, 2008) and different trends in different periods. In the of the post-independence period 1960-1971, the Malagasy economy recorded a steady growth with annual average growth rate of 5% with substantial foreign support facilitated by membership in the zone "franc" (within savings were very low or even negative between 1960-1965). Then, during the period of "socialist revolution" and nationalization between 1973-1982 occurred after the 1972 crisis, strong economic instability is observed: the growth rate going from positive to negative from one year to another varying between -9.7% to 9.9%. Between 1983-1996, after the agreements with the Bretton Woods institutions (IMF, World Bank) for the implementation of financial stabilization programs monitoring of structural adjustment programs interrupted by

the political crisis of 1991, the economy has undergone stagnation with an average annual growth rate by only 1%. With various structural reforms (economic opening, liberalization of production and distribution) the economy back on track for sustained growth only from 1997 to 2001. This momentum was abruptly and brutally interrupted with the advent of the political crisis of 2002, the growth rate fell by -12.7%. In 2003, the situation improved relatively quickly with a growth rate of 9.8%. Between 2003-2008, the growth accelerated with a relatively high average annual rate of about 6%. In 2009, the country descended again into crisis and the economy has lost 4% of its wealth. Until 2014, the crisis persisted and the economy turned in slow motion with an average annual growth rate of 2%: below the rate of population growth. It was only in 2014, six years after the crisis as GDP recovers its level in 2008, before the crisis.

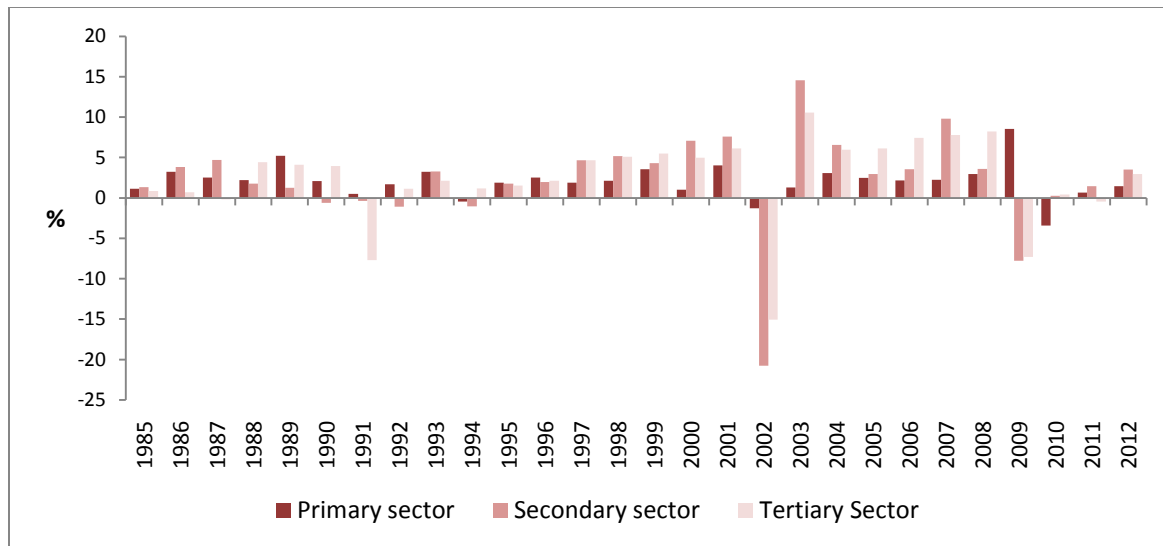
Figure 1: GDP growth rate since the independence



Sources : INSTAT/DSY : national account. Our own calculations.

The analysis of the evolution of production by sector shows that the Malagasy economy has not experienced any real change or revolution from a traditional agricultural economy to modern agriculture. The growth rate is the lowest in agriculture and generally less than the rate of population growth in spite of the rural estates development program conducted since independence: five-year program of the 60s, food self-sufficiency program years 70, the promotion of agribusiness and the professionalization of farmers-jobs 2000s using modern production techniques (inputs, mechanization, irrigation, etc.). Production level is always conditioned by climate and natural disasters. The development of industry has more breadth between 1997-2001 with growth rate went from 5% in 1997 to almost 8% in 2001. With regard to services, a relatively significant growth was observed in the 2003-2008 period with growth rates ranging from 6% to 8%. These were only embellished short period since they were annihilated by the adverse effects of successive crises in Madagascar. Industry production levels and services fell by -21% and -15% respectively in 2002 and -8% and 7% in 2009.

Figure 2: Evolution of GDP growth by sector

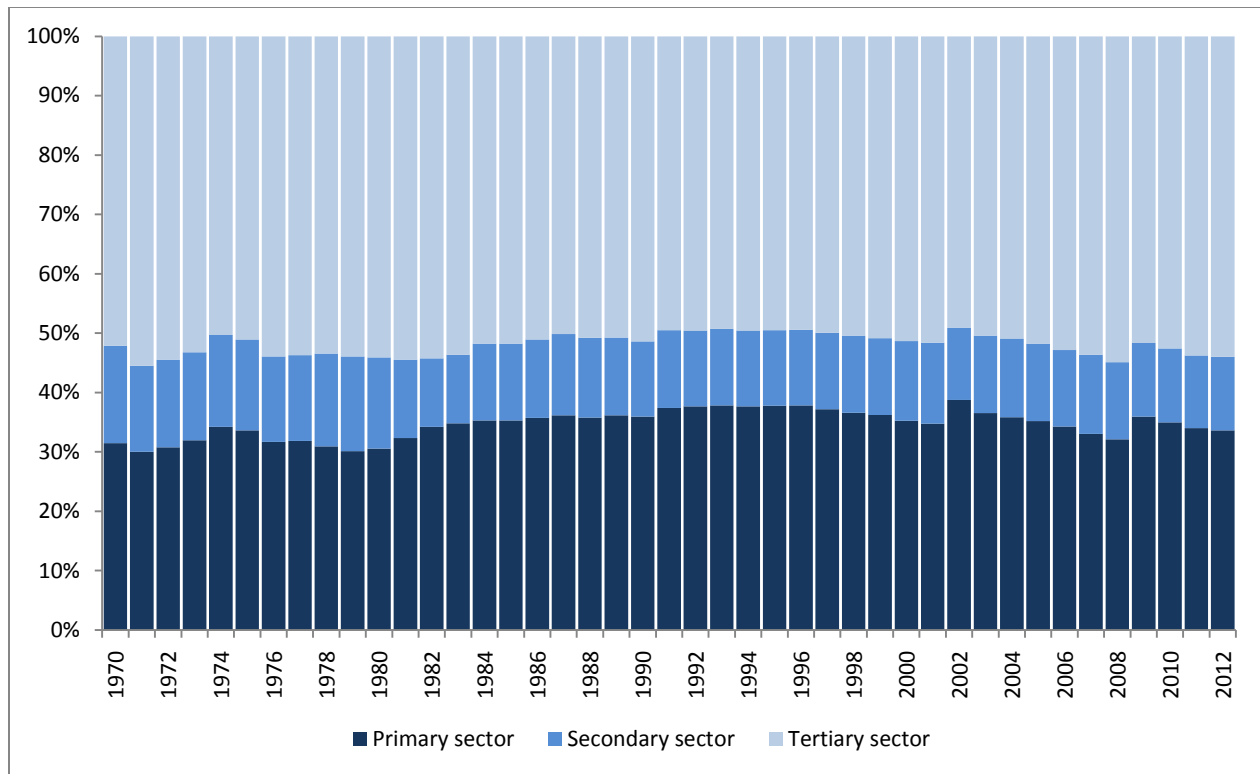


Sources : INSTAT/DSY : nationalaccount. Our own calculations.

By sector, the GDP structure in Madagascar has not changed significantly since independence. Service activities contribute around 52% of the wealth creation in Madagascar, and around 35% for agriculture activities. The economic importance of the industry is relatively small, of the order of 13%. During the 70s, in the which the Malagasy government had opted for the import substitution policy and was put forward as « Industry engine of economic growth », the contribution of manufacturing in GDP had increased by 3 points to 16% in 1979. Since 1980, this proportion has declined and has not exceeded 13%.

During crisis periods (1991, 2002, 2008), declines activities mainly affect service sector who lose each time at least 2 points of contribution to GDP and, to a lesser extent the activities of the industry. By cons, negative shocks to agricultural activities are relatively minor. Their weight in GDP increased by 4 percentage points during the crisis years.

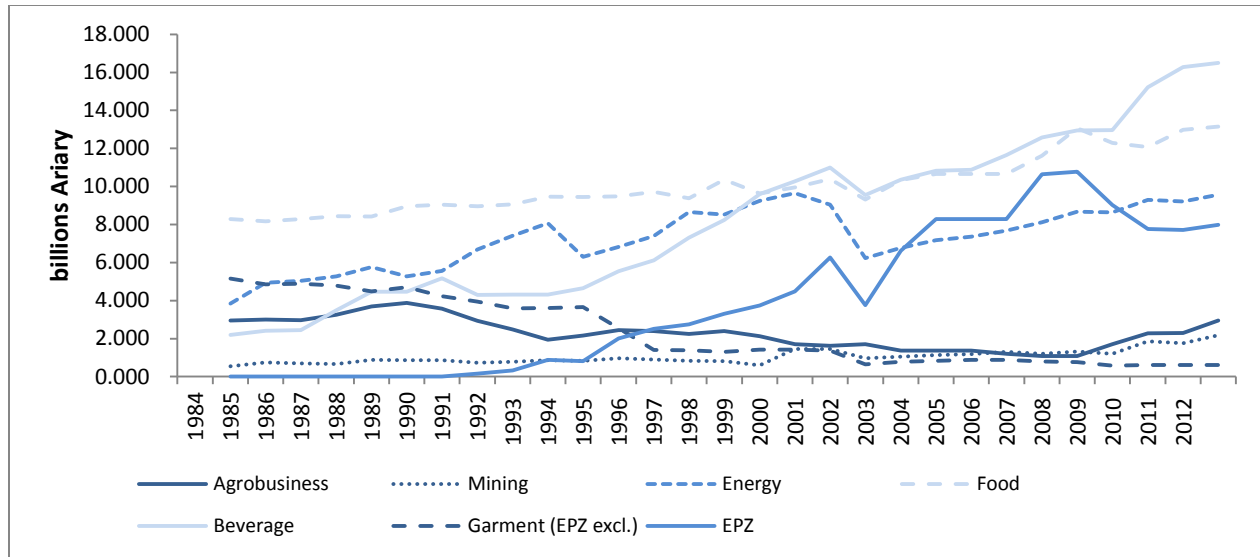
Figure 3: Evolution of GDP structure by sector



Sources : INSTAT/DSY : nationalaccount. Our own calculations.

The structure of activities in the industry has undergone a change since the mid-90s after the structural reforms initiated in the mid-80s (economic openness and liberalization). In 2012, industries drinks (and not alcoliques alcoliques) and food industry (sugar production, flour, etc.) occupy the largest weight in the production industry: 24% and 19 %. These types of industry including the beverage industry have grown rapidly since the mid 90s. Companies of EPZ who settled for the first time in Madagascar in the mid-90s have grown considerably until 2008: production levels tripled between 1996-2001 and 2003-2008. They are severely affected by the crisis: with falls in production level of 40% in 2002 and 16% in 2009, they accounted for only 11% of the production industry in Madagascar. Large mining projects entered recently into production phase and their contributions in industrial production are still low: 3% in 2012.

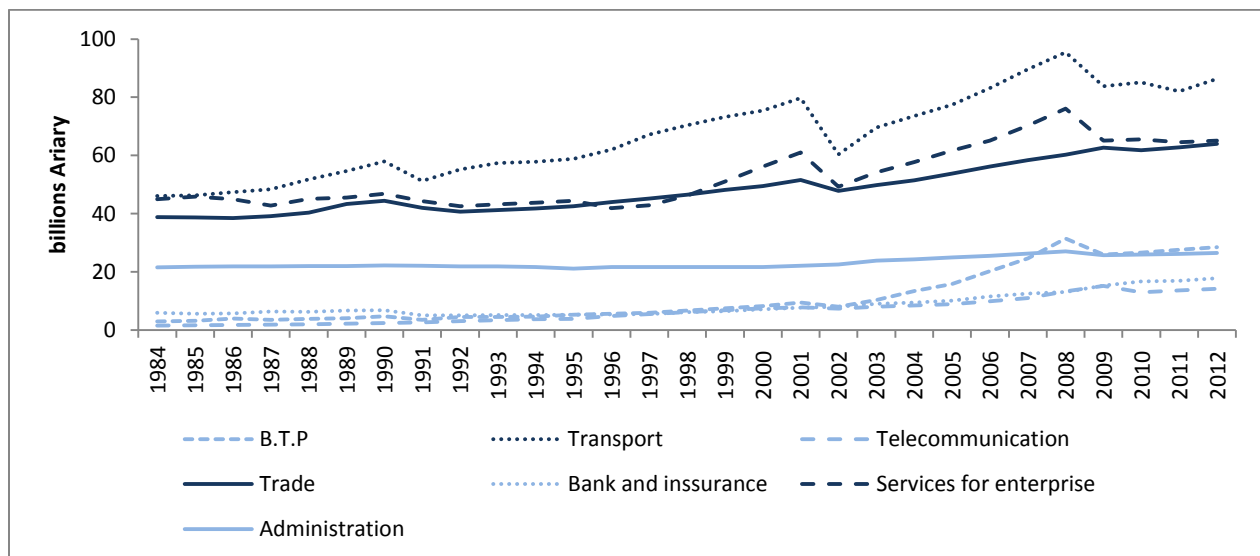
Figure 4: Evolution of GDP by activity in Secondary sector (in 1984 price)



Sources : INSTAT/DSY : nationalaccount. Our own calculations.

Regarding the service sector, no major change was observed in the structure of activities. Transport contributes to over 28% of production, followed by "trade" and "services for enterprise" each representing 21% of the total output. However, we should mention the sharp increase in the production of construction (BTP) from 2001 to 2008 taking into account special efforts undertaken by the government for road construction. Telecommunication also knows a steady development since the 90s with the promotion of mobile telephony.

Figure 5: Evolution of GDP by activity in Tertiary sector (in 1984 price)



Sources : INSTAT/DSY : nationalaccount. Our own calculations.

The determinants of growth in Madagascar

This analysis includes the main economic and institutional factors that can stimulate growth according to the results of previous studies (Barro, Sala-i-Martin, 2003; Sachs, Radelet, Lee, 2001; Lee, 2009) : initial conditions, technological evolutions, government spending, inflation, the investment rate, the openness coefficient, the exchange rate (Kormendi, Meguire, 1985), the quality of institutions and governance, political stability (Rodrik, 1999; Acemoglu, 2003).

Analysis of the effects of these variables on growth is relatively complex for two main reasons. First, interactions between these variables are possible and must be taken into account to determine the impact of a variable to another. Second, the relationship between these variables can be short-term or long-term effects.

To reflect these concerns, the methodology adopted is to conduct multivariate analyzes that can separately evaluate the possible short-term effects and long-term potential varying effects on growth. Short-term relationships are analyzed using a vector autoregression (VAR) model which endogenize all variables in the model and take into account their interdependencies. For analysis of the long-term effects, cointegration analysis method with Vector error-correcting model (VECM) is retained.

The endogenous variables are GDP, the Consumer Price Index (CPI), the investment rate, the openness coefficient, the exchange rate USD / MGA, Public consumption. The indicator variable on the existence of a political crisis or political regime change was introduced as an exogenous variable.

The approach follows steps. First, the unit root test by the method Augmented Dickey-Fuller (ADF) to test the stationarity and determine the order of integration of different variables. According to the test results, all variables are non-stationary and first order differentials are integrated in the short term VAR model. Then, the test of the optimal number of lags to consider in the model showed that two lags of variables are to be included in the model (according to the criteria LR Test, Final Prediction Error, Hannan-Quinn information). Finally, cointegration Johansen test indicates the need to integrate three numbers cointegration in the model and the model with quadratic trend and intercept is the best specification to consider.

Overall, an empirical study on the determinants of growth in Madagascar confirms the results from the economic literature.

In Madagascar, Inflation affects negatively and significantly growth. This result confirms the negative relationship between inflation and growth (Stockman, 1981; Fischer, 1993; De Gregorio, 1993; Barro, 1997; Ghosh, Phillips, 1998) with the main hypothesis of complementarity between money and capital. The impact of inflation on growth can go through several mechanisms: via savings and real interest rates, via the public deficit through the inflation tax and tax erosion through efficient production through the gap between the yields on real capital and financial capital. From the demand side, high inflation reduces the advantage household purchasing power, so disposable income and consumption of goods and services. It also shows the inability of the state to control the economy, a fact that can create a climate of uncertainty among investors and producers and has a negative impact on the investment (Bernanke, 1983; Caballero, 1991)

The investment rate has positive impact on growth in Madagascar. Physical capital accumulation induces a significant positive impact on growth (Levine, Renelt, 1992). Infrastructure (roads, communication, ICT) positively affect the productivity of factors. Investment includes public investment, domestic private investment and foreign direct investment (FDI). Investments act initially on aggregate demand and are increasing the country's production capacity.

Economic openness has a positive effect on growth in Madagascar. The result confirms the idea that international trade is "an engine of growth". According to the growth assumptions driven by export, reallocation of resources in the export product sectors where the economy is competitive with respect to the rest of the world is more optimal (Bhagwati, Thirukodikaval, 2002). Access to external markets improves the profitability of domestic industries. This promotes job creations and makes benefit from economies of scale. And with imports, consumers benefit from cheaper products from the world as well as technology transfer.

The exchange rate has a negative impact on growth in Madagascar. It reduces the level of activity by increasing the relative price of energy (Finn, 1991). Until now, Madagascar imports all of its fuel needs for good production and for electricity production. The exchange rate affects the economy of the funding level and the balance of payments (Connolly, 1983) by the influx of foreign financial capital and foreign direct investment.

Instability or periodic political crises cause adverse effects to growth (Alesina, Perotti, 1996; Rodrik, 1999; Acemoglu, 2003). It can also have negative effects on other variables such as human capital, investment, inflation, relations with the rest of the world. They weakened public power, decrease the efficiency of the administration and negatively affect the quality of governance. These situations increase the waste of resources and encourage corruption following the phenomena of rent-seeking (to the detriment of profit-seeking).

Public consumption negatively affects growth in Madagascar. Public consumption should be considered as an investment rather than consumption (infrastructure, health center, school, etc.). On the one hand, with the crowding, public consumption reduces private investment and undermines the long-term growth (Barro, 1991). On the other hand, it calls into question the effectiveness of public spending that are often engaged in non productive investments or do not improve the productivity of the private sector.

Table 1 : Determinants of growth in long term (real GDP)

Explanatory Variables	GDP (log)
CPI (log)	-0.196332
Investment rate (log)	0.100369
Openness coefficient (log)	0.209312
\$/Ariary Exchange rate (log)	-0.054214
Money supply (log)	0.068842
Public consumption (log)	-0.116752
TREND	0.035261
C	23.85538

Table 2 : Determinants of growth in short term (real GDP)

Error Correction:	D(L_GDP)
CointEq1	0.549458**
CointEq2	-0.006463
CointEq3	0.007665
D(L_GDP(-1))	-1.107963***
D(L_GDP(-2))	-0.364799***
D(L_CPI(-1))	0.043512
D(L_CPI(-2))	-0.068540
D(L_INVESTMENT RATE(-1))	0.184500***
D(L_INVESTMENT RATE(-2))	0.017526
D(L_OPENNESS COEFFICIENT(-1))	0.178913**
D(L_OPENNESS COEFFICIENT(-2))	0.061660
D(L_\$/ARIARY EXCHANGE RATE(-1))	-0.017127
D(L_\$/ARIARY EXCHANGE RATE (-2))	0.030601
D(L_MONEY SUPPLY(-1))	-0.062508
D(L_MONEY SUPPLY (-2))	-0.055867
D(L_PUBLIC CONSUMPTION(-1))	-0.038403
D(L_PUBLIC CONSUMPTION (-2))	0.028031
C	0.013377
@TREND(72)	0.002396***
CRISIS	-0.133500***
R-squared	0.805120
Akaike AIC	-3.978554
Schwarz SC	-3.125445

Sources : INSTAT . Our own calculations by Eviews Software

I.2 Inflation and its determinants

Relatively high inflation and highly variable in time

The inflation rate is relatively high in Madagascar nearby 9% each year. Inflation usually comes from supply shocks and demand: production volume or insufficient import, depreciation of the national currency inducing increases in production costs (imported inputs, energy), problems related to supply and circulation of goods and services due to lack of infrastructure, long and complex distribution channel promoting speculation on prices.

In Madagascar, imported inflation via the exchange rate and exogenous price shocks in the international market influence greatly the evolution of prices in the domestic market. The highest level of inflation was observed in 1995 with a rate of 48%. This exceptional situation was mainly due to the change in the fixed exchange rate to the flexible exchange rate regime in 1994, which was decided when the external reserves were low following the suspension of foreign aid and relations with traditional donors. The national currency depreciated sharply (more than 60% with USD). The same phenomenon, but with a small magnitude was observed in 1988 after the devaluation of more than 58% of the Malagasy currency in 1987. Price developments in Madagascar are also very sensitive to external exogenous shocks. Following the second oil shock of 1979, inflation has increased from 17% in 1980 to over 29% in 1981 to 31% in 1982.

By affecting the process of production and distribution, political crises are increasing at very short terms the consumer price. Just one year after the 2002 crisis the chock on supply due to a drastic decline of production overwhelmed the progressive decrease of demand resulting from a rigidity of

consumption behavior. In the mean term, the back to normal situation of production and the reduction of demand, especially of private consumption as a follow up to the decreasing of the purchase power make progressively the price rising slowing down.

For 2002 crisis, price rose for more than 16%, after registering a deceleration between 2000 and 2001. The most relevant price increasing was observed in March and April of 2002 (with monthly variation of more than 7%), due mainly to the blockade against the capital. At the supply level, severe shortage of almost commodities and services was observed in the country, and especially in the capital. During the first semester of 2002, the prices rose for more than 20%. Then after the blockade removal and the back to normal situation, prices diminished by 6% during the second semester of 2002.

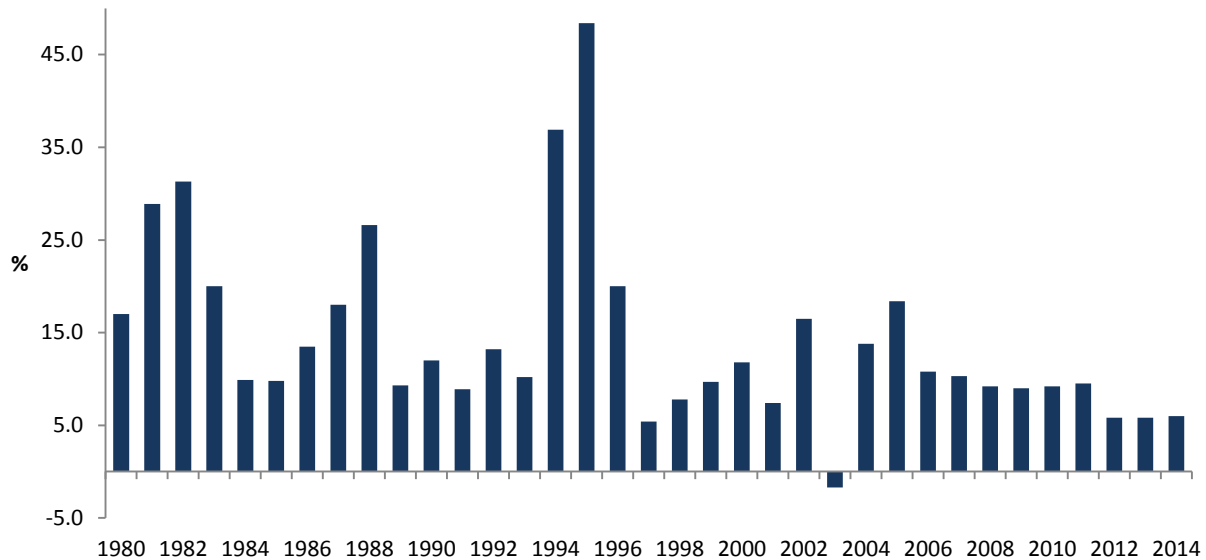
Since the beginning of the 2008 crisis, inflation in Madagascar had met two distinguished evolutions. Until 2010, the inflation reached relatively high level: in annually average index, the inflation rate fluctuated between 9.0% and 9.5%. This situation results essentially from the following facts. At the monetary level, exchange rate drastically raised between 2008 and 2009, (with an increasing rate of about 14.5% for 1 \$US) due to a weak capital inflow. Between 2009 and 2010, the depreciation of local currency still went on but at a moderated pace: about 7%. In 2010, the delayed impact of the world food crisis and the reduction of local rice production (due to bad production and climate) made rising the price of this commodity in the domestic market. Because of the prevalent share of the rice in the basket consumption in Madagascar and speculation effects in other commodities, the inflation rate reached its highest magnitude: 10.2% in yearly slip, and 9.2% in annual average index. Moreover, between 2009 and 2010, the average increase of more than 11% of petrol products following the rising of this commodity price in the world market affected the production cost and other price such as the transport cost.

Since 2010, the inflation rate never stopped to decline and reached 5.8% in 2012 and 2013. Different facts explain this situation. As the household power purchase decreased, so the demand. In other hand, at the supply level, agricultural production and especially the rice production experienced an improvement in 2012 with an increasing of the volume of 3.8% due to a favorable weather. The self consumption experienced an improvement and cut down the pressure on the demand in the domestic market. In 2013, the dropping down of 20% of the rice production (due to locust invasion, drought, cyclones) was fulfilled by the rice importation which more than doubled: 400,000 tons instead of 150,000 tons per year before 2013. These phenomena restricted the speculation and resulted in the slowing down of the inflation in the domestic market. This fact is confirmed by the smoothing of the price seasonality (price monthly variation between 0.7% and 1.9% in 2009 and between 0.2% and 0.9% in 2003), which is more profitable to a logic of permanent income rather than seasonal or temporary income.

The informal sector boosting in accordance of the week performance of formal sector and the decline of productive investment (especially FDI) and the AGOA stoppage made globally diminishing the production cost (less electricity demand, less fuel demand, less taxes) as well as producers benefit. Furthermore, the exchange rate of the local currency remained stable between 2010 and 2013, if not decreasing by 3% between 2010 and 2011. The petrol product price which is supposed to affect the price of other commodities, despite of its weak share in the goods basket, was stable during the crisis period.

For 2014, the inflation rate is 6.1% in monthly average index and 6.0% in yearly slip. The local currency depreciation which began at the end of 2013, and the gradually back to the real price implementation of petrol products, the increasing of the economy and investment thus the global demand are likely to make rising the price in mean term. This will be specially the case for rice, whose price will register about 15% increasing between the beginning and the end of 2014.

Figure 6: Evolution of Inflation rate during 1980-2014 (variation of annual average index)



Sources : INSTAT/DSM : CPI 1980-2014. Our own calculations.

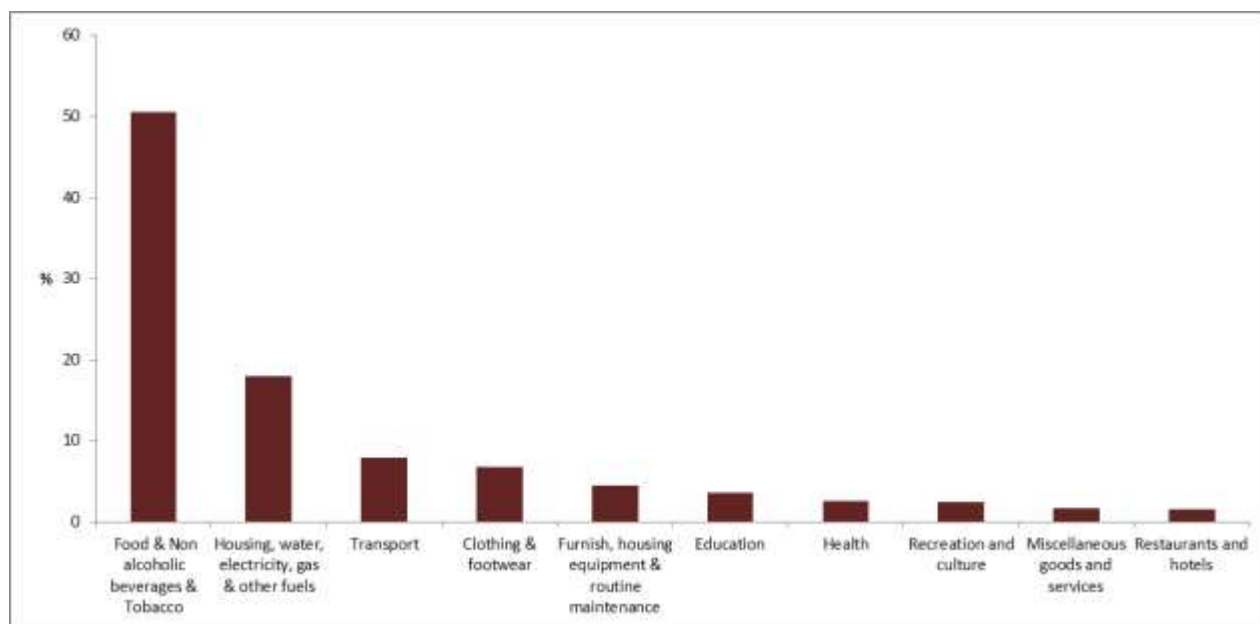
Diversified price-formation by type of product

The price-formation depends on the type of product. For fuels, following the liberalization of the oil sector, since 1999, the operators, under the control of the Malagasy Office of Hydrocarbons "(OMH), are free to set their prices:" Prices and margins in the supply chain are freely determined by operators on the principle of supply and demand. " Concerning water and electricity prices are regulated and determined by the evolution of fuel prices, the exchange rate and the inflation rate. For transport, the transit fee is fixed agreement between individual operators grouped in different transport cooperatives. By cons, haulage prices are set by individual operators. For air transport, monopole power of the national carrier on domestic routes is shared with some foreign companies for international trip. Regarding education, tuition fees are subsidized and free in public schools. Similarly, the care, the costs of consultations and drug prices in public health centers are subsidized. For other types of products including rice, prices are free and follow the law of supply and demand.

Inflation largely dictated by changes in the price of rice and the energy

Depending on the structure of the basket of household consumption in 2010, the prices of food products, including rice (staple food of Madagascar) contribute most to the development of the index of consumer prices with respective weight of more 50% and 15%. Other prices that have strong influences on the overall price index are those of petroleum products and transportation, which despite their low weight in the consumer basket (9% and 8% respectively), snap multiplicative effects via production costs.

Figure 7: Weight in Price Index by product



Sources : INSTAT/DSM : CPI 2014. Our own calculations

Impact of the energy price on inflation

Changes in prices of petroleum products systematically induce changes in relative prices of inputs, the structure and level of production costs, which will affect the prices of consumer products through multiple multiplicative effects. The direct effect of the increase in prices of petroleum products on the consumer price is rising prices of passenger transport (urban and long trips) representing nearly 8% of household consumption in Madagascar. Estimated an increase of 3%, twice a year, fuel prices would lead to a 0.9 percentage point of inflation (in terms of changes in the Index of Consumer Prices) a decrease of 0.9 percentage points of their purchasing power.

Table 3 : Simulation of the impact of rising fuel prices on inflation

Scenarios	average annual increase	year-on-year increase
Inflation in 2014 (realisation)	6.1	6.0

Inflation if petroleum prices remains level in 2015	6.0	6.1
Inflation if fuel prices increased by 3% twice a year in 2015	6.9	7.1

Sources : INSTAT/DSM : CPI 2014. Our own calculations

Changes in relative prices since the 2008 crisis: the decline of rice and transport up as energy and education

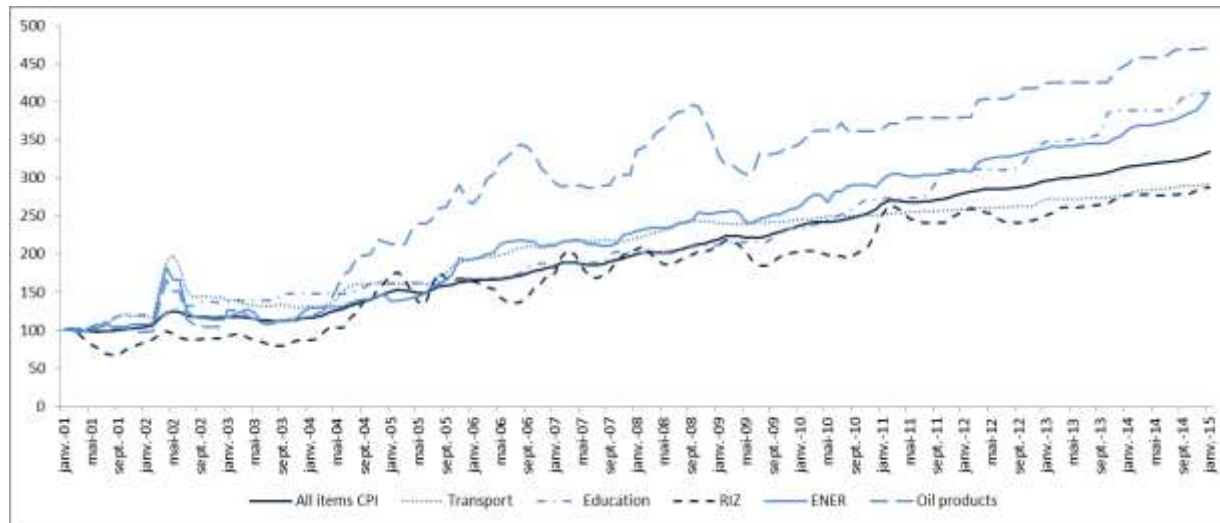
The evolution of consumer price keeps closer to that prices of food group taking account of the importance of its weight in the consumer basket (over 50% of the basket). One dominant component of this group is rice which is the staple food in Madagascar representing over 31% of all the food basket. The price of rice following strong fluctuations depending on the harvest season: rising prices during the lean season between November and April, and lower prices during the harvest period between May and July and then gradually increased . Since 2009 until 2014, during the political crisis, the index of rice prices increased less rapidly than the overall index and the relative price of rice has fallen. Level constraints in demand due to the reduction of income and household purchasing power mostly poor, and competition at the retail rice traders make downward pressure on profit margins, so the price and limit speculations. These phenomena result in slowing the rise and the reduction of rice price fluctuations.

Since 2004, the relative price of transport has also declined sharply and is taken off as energy and fuels. Since the crisis of 2008, the situation worsened. To mitigate the effects on the living conditions of households increases in the pump price of fuel following the rise in oil prices on the international market, the public authority in consultation with the cooperatives in transport adopts the compensation system. Transporters maintain their prices. In return, the state pays to transporters amounts corresponding to the increase in production costs due to higher fuel prices.

The relative energy prices (including fuel) and education have increased especially after the crisis of 2008. The price indices for these products are growing faster than the overall index. In the case of education, following the crisis and the suspension of foreign aid, the State can no longer subsidize tuition and children's school fees in public and private schools.

For energy, prices are set by monopolies. The price of electricity has doubled between 2006 and 2011. The adjustments in electricity rates based on inflation, exchange rates and fuel prices lead to a spiral of rising electricity prices. This is due to the dependence principally fuel production relatively high electricity: in 2011, more than 45% of electricity generation from thermal power plants. This dependence has increased in recent years to the extent that fuel consumption has increased by 54% between 2006-2011, while electricity production increased by only 26% in volume.

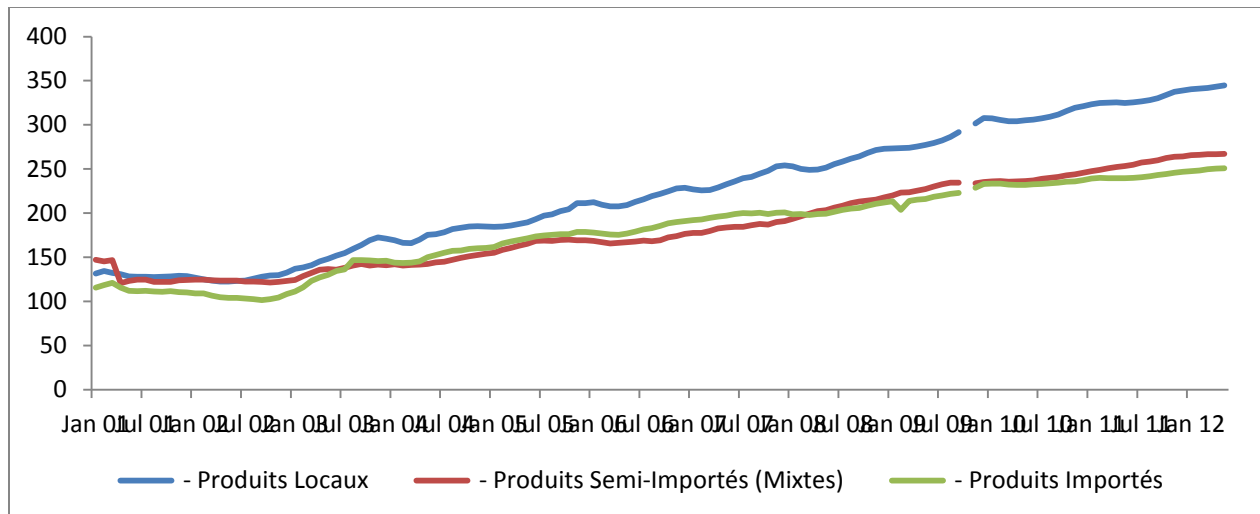
Figure 8: Evolution of Consumer Price Index of main products during 2000-2014



Sources : INSTAT/DSM : CPI 2001-2014. Our own calculations

The analysis in long term of the price reveals that the price rising affect in particularly the domestic products compare to the imported or semi-imported products. This situation is mainly due to two facts. The lack of domestic production of rice, which weights more than 15% in the consumption basket of Malagasy people, will tense permanently on the price. The continuous increasing of energy price will rise the production cost of domestic firm, and thus the consumption price. Indeed, changes in the prices of petroleum products systematically induce changes in relative prices of inputs, the structure and level of production costs, which will affect the prices of consumer products through multiple multiplicative effects. The direct effect of the increase in prices of petroleum products on the consumer price is rising prices of passenger transport (urban and long trips) representing nearly 8% of household consumption in Madagascar. Estimated an increase of 3%, twice a year, fuel prices would lead to a 0.9 percentage point of inflation (in terms of changes in the Index of Consumer Prices) a decrease of 0.9 percentage points of their purchasing power.

Figure 9: Evolution of Consumer Price Index by product origin during 2000-2014



Sources : INSTAT/DSM : CPI 2000-2013. Our own calculations.

I.3 Trade

This part proposes to analyse the trade liberalization and openness of Madagascar economy. These situations have impact on labor market: level and structure of employment, wage or income inequality, skill upgrading, underemployment and unemployment. The literature and empirical studies suggests overall ambiguous relation. The employment impact of trade openness depends on many parameters especially country-specific factors. Trade liberalization induces reduction in inequality mostly in Asie, in Latin America inequality has increased (Adrian Wood – 1997).

Traditional theoretical models are based on Heckscher-Ohlin model/Stolper-Samuelson theorem and on full employment hypothesis (Wolfgang Stolper and Paul A. Samuelson -1941, Adrian Wood – 1997, Rachel McCulloch – 2005). According to the model, countries exports goods using intensively relatively abundant production factors and imports goods using intensively relatively scarce production factors. Thus, developing countries specialize in goods or activities intensive in unskilled labor. In these countries, the expansion of low skill intensive sector increases demand and wage level for abundant low skill labor (large part of poor population) relative to scarce high skill labor. The increase of international trade have positive effects on employment increasing employment rate and average income and reducing within-country wage or income inequality in developing countries. Openness may impact positively on employment due to technology transfer (Daron Acemoglu-2003), outsourcing of activities from developed countries to developing countries, and adoption of more skilled intensive technology in order to improve the competitiveness.

Regarding trade openness impact on employment and inequality, recent literature and empirical studies have not the same findings and outcomes. Job creation may be limited due to many constraints such as difficult mobility of labor, lack of infrastructures, imperfect credit market

and inequal land distribution. Moreover, negative effects of openness on employment are possible. Labor-shaving effects through technology transfer and mergers and acquisitions following multinational implantation from developed countries to developing countries may imply job destruction. Job net creation may be negative because of possible crowding out of non-competitive and nascent firms for domestic or non-tradable production implying by imports (especially china products invasion). Chronic deficit of trade balance deteriorate the terms of exchange induce depreciation of national currency, which in turn causing inflation, increasing nominal wage and reducing demand of labor.

Trade liberalization especially could have impact on informal sector in developing countries. In general, face to foreign competition (competitiveness) and imports, formal firms make effort to reduce production cost: seeking inputs from informal sector, proceeding to laying-off workers, subcontracting with informal establishments. These facts increase demand for informal production and extend informal sector. But the labor reallocation from formal to informal sector depends on labor market institutions and regulation (P. K. Golberg and N. Pavcnick – 2003, M. Barchetta and E. Ernst- 2009). The more rigid labor market is, the more important informal employment creations. Some literature gives opposite results. Trade liberalization could diminish informal activities, especially in tradable sectors. The demand increase on formal production (exports) makes more profitable for firms to formalize their situation, rather than remaining in informality (B. Aleman-Castilla – 2006). The impact of trade openness to informal sector depends also on evolution of real exchange rate and relative sector productivities. When the large part of informal production is domestic consumption and non-tradable, trade liberalization could reduce the price of non-tradable goods in terms of tradable goods. This situation could lead to decrease of the demand to informal goods and the size of informal sector, especially informal transformation firms (N. Fiezz and M. Fugazza – 2008).

Positive effects of economic openness on growth after structural reforms

During the socialism regime from 1975 to 1981, Madagascar applied interventionist policy, which aimed mainly the economic self-sufficiency. The government has committed itself to protectionism and import substitution policies, particularly for basic foods. Tariff and non-tariff barriers have been implemented. Foreign currency reserves were exhausted for maintaining the exchange rate at artificially high level in order to subsidize essential goods and oil products. The government used to try to contain these deficits but could not succeed. Because of these restrictions, international trade was low with varying degrees of openness of the economy below 45% of GDP. The trade deficit was relatively low (on average less than 5% of GDP) had risen sharply between 1979 and 1980 (over 15% of GDP) due mainly to “big push” investment and the second oil crisis which, on one side inflated the value of imports and, on the other hand increased production costs and reduced the level of local production of export.

Between 1983-1989, the financial stabilization program accompanied by series of Structural Adjustment Program implemented measures related to rigorous restriction of imports, introduction of incentives for exports and exchange rate adjustment. Quantitative restrictions on imports and on exports licence have been relaxed. A new system of foreign currency allocation (SILI) based on law of supply and demand was implemented for importation of few sensitive products like inputs products, spare parts and capital goods. The tariff barriers and subsidies (especially for rice) had been slid progressively. Export taxes had been phased out gradually and replaced with ad-valorem taxes: in 1985 for non traditional export products and pepper, in 1987 for traditional export products like coffee and clove and in 1997 for vanilla. The stabilization funds were abolished in 1988 for coffee and clove and in 1993 for vanilla. After the measurements, open trade was implemented for these export products. The monetary authorities have achieved progressive devaluations of the national currency (23% in 1982 to 58% in 1987). The openness coefficient has not changed much until 1989 (around 40%) and the trade balance is almost in equilibrium (around 5% of GDP).

In 1990, the situation changed significantly with the degree of openness of nearly 49% with the sharp upturn in imports, which increased 45% year on year and reached 31% of GDP in 1990. The trade deficit s 'widened considerably and more than tripled from 30 billion in 1989 to over Ar to Ar 105 billion in 1990.

In 1991, during the political crisis, the degree of openness has not changed significantly (48% of GDP). For cons, the effects are not the same between import and export. On the one hand, export has low impacted by the political crisis with an increase rate 2% in real term between 1990 and 1991. On the other hand, import is much affected by the crisis with a decline of 20% in terms real: the rate of penetration has lost 2 percentage points to GDP which fall -6% him. The situation has stagnated until 1993.

In 1994, the most important measure taken by the government was the transition to a floating exchange rate in 1994 with the establishment of an interbank foreign exchange market. This floating rate measure improved the competitiveness of tradable sectors and boosted exports. The openness coefficient exceeded 55% in 1994 to 64% in 1999. The trade deficit has stabilized at around 8% of GDP. The parts of non-traditionnal exports, especially garments and fishery produced by Export Processing Zone (EPZ) became more and more important. While the export of traditional agricultural products (vanilla, coffee,) represented 38% of total exports in 1990, by 1996 the share had fallen to 19%.

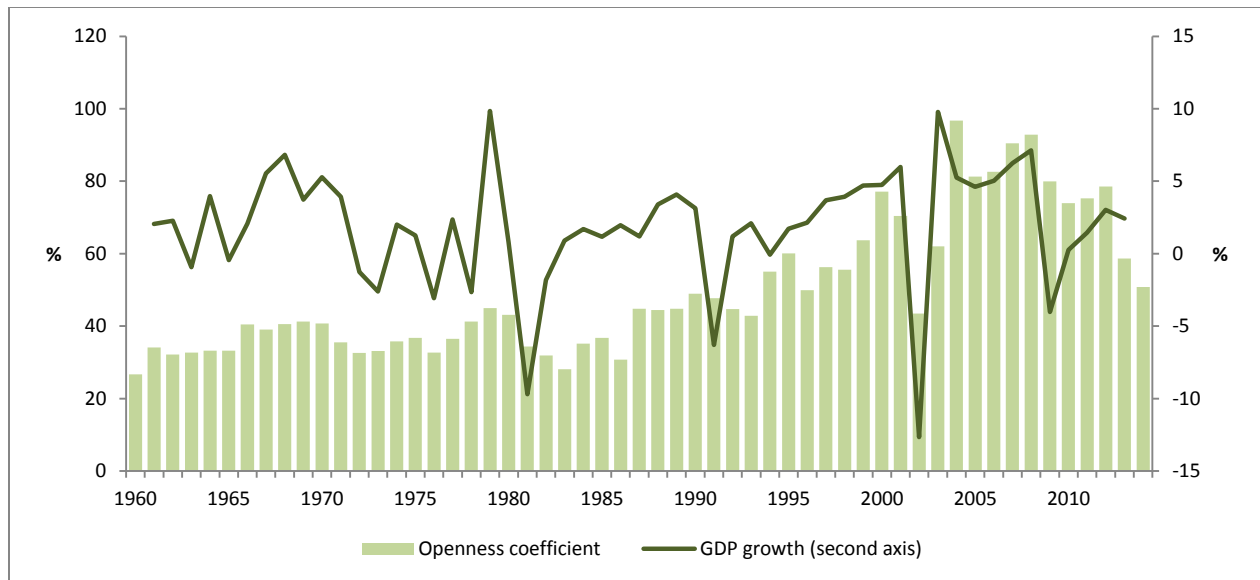
After all the reforms undertaken since the 90s, economic openness has a positive effect on economic growth. Between 1996-2000, the degree of openness of the economy increased by more than 14 percentage points to economic growth increased from 2.1% to nearly 6%. The export ratio increased from 28% to 35% of GDP. Major events marked the period 1996-2001. The changeover to the Euro in January 1999 led the Madagascar's central bank to change in the central parity by substituting the Euro to French Franc. In October 2000, the eligibility of Madagascar for African Growth Opportunity Act (AGOA) was granted by US Govenment. This programm provides specific benefits to African countries, including the elimination of quotas of exports to USA regarding products using local inputs. These situations boosted exports, which rose by more than 40% only between 1999 and 2000. Regarding EPZ, their exports have

doubled during 1997-2001 and accounted for 40% of total exports in 2001 (just over 2% in 1990). Traders continued to make efforts to increase and diversify exports, despite unfavorable economic conditions especially reducing the prices of some strategic export products (Coffee, prawns, cotton). Traditional export products contributed only 13% of total exports in 2000, if it was more than 38% in 1990. However, the high rise of petroleum products (from 12 US\$ per barrel in October 1999 to 25 US\$ per barrel in September 2000) inflated the imports value since 1999.

In 2002, due to political crisis in 2001, the economic growth decreased sharply -12% and the openness coefficient fell to 43% and the exports which were cut in half in one year and represented only 17% of GDP. The fall in exports growth concerned especially the EPZ products which have lost 70% of their value over the past year. Due to their geographical location (almost located in the capital Antananarivo), and many of them were prompted to stop production due to lack of raw materials, energy and consumables products. Moreover, because of the roadblocks, they were unable to carry even their own production stocks to ports of embarkation and obliged chartering special aircraft. For non-agricultural export products, the decline was about 60% compared to last year.

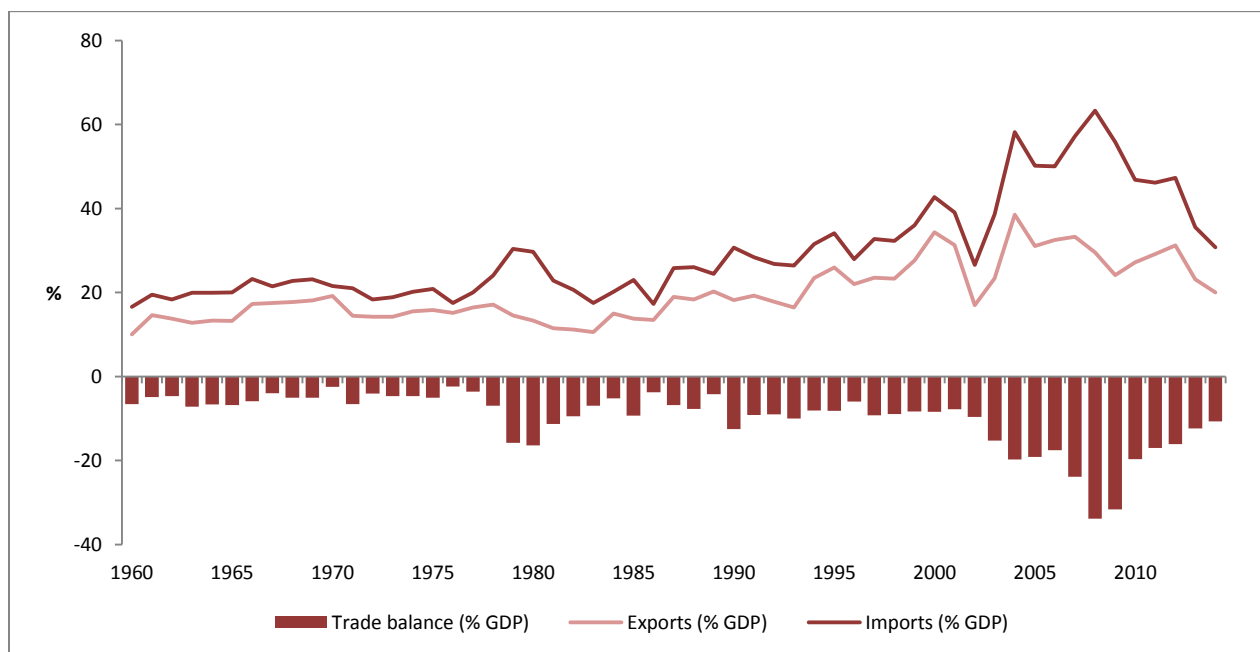
During the period 2003-2008, the openness coefficient is found at high unprecedented levels exceeding 97% in 2004 and 93% in 2008 and economic growth was increased from 5% to 7%. In value, exports increased significantly by 39% in 2003, after being slowing down between 2004–2006, before a new important rise 33% in 2007. The EPZ exports contributed the most to this increase: less than 40% of exports before 2001, more than 50% in 2004 and more than 56% in 2006 and 2007. A significant decrease of EPZ production was observed in 2005 due to invasion of Chinese products (garment) into international markets after dismantling of multifibre arrangement.

Figure 10: Openness coefficient and GDP growth between 1960-2014



Sources : INSTAT/DSY : National Account. Our own calculations.

Figure 11: Import penetration, export ratio and trade balance between 1960-2014



Sources : INSTAT/DSY : National Account. Our own calculations.

Trade competitiveness and opportunity

During the last two decades Madagascar becomes a member of three Regional Economic Communities (REC): the Indian Ocean Commission (IOC), the Common Market of East and Southern Africa (COMESA) and the Southern Africa Development Community (SADC), furthermore the big island is also negotiating a free trade agreement with the European Union (EU) through the East and Southern Africa group.

Despite the regional integration opportunity, the most favored trade partners of Madagascar are the EU and Asia while commercial transactions with the regional groups represents less than ten % of total exchanges values of Madagascar.

In fact, in the world market, Madagascar seems to have relative and/or revealed comparative advantages on about ten groups and forty sub-groups of commodities, but a little less to the SADC market. Nevertheless, complementary index of Malagasy exportation with the importation of COMESA and SADC members reveal that Malagasy share of market within these RECs can be expanded. But that means increasing of volume of commodities traditionally produced and embarking in producing with the respect of the regional demand.

Indeed, Madagascar exploits only just more than half (52.8%) of its export potentiality to east and southern of Africa. In other word, niches for regional exportation exist that Madagascar should take in account in order to enhance its exportation and production.

I.4 Exchange rate, terms of trade and trade balance

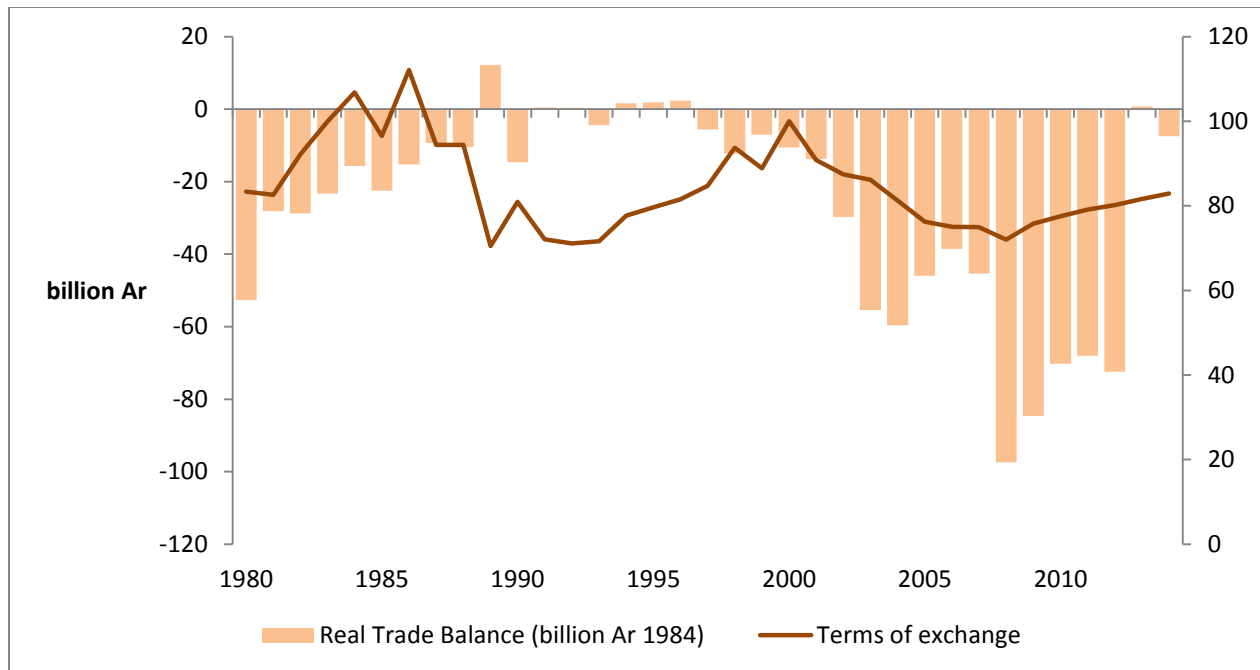
The exchange rate can affect growth mainly through the terms of trade and balance of trade, production costs, inflation and the redistribution of income. According to the traditional theory (Marshall-Lerner condition) devaluation or depreciation of the domestic currency improves the trade balance. They promote competitiveness vis-à-vis the rest of the world economy by reducing export prices and increasing export demand. The fall in export prices was offset by higher volumes exported conditions as exports are sufficiently elastic in relation to price. Moreover, local industries become more competitive in the domestic market with rise of imports prices. The volume of imports decreases with the level of price-elasticity and capacity of reaction of local production to meet the needs of the domestic market. Thus, the devaluation positively affects growth if the amount absolute value of the elasticities of applications for export and import is greater than one (Marshall-Lerner condition). Otherwise, the impact of exchange rates on growth is not significant even negative. In other literatures devaluation or depreciation of the

domestic currency reduces growth. From the supply side, the devaluation could lower the level of local production because of rising production costs. It pushed prices of imported inputs, most of which can not be substituted by local products, and wages are often indexed to inflation and interest payments via rising interest rates due to the increase the demand for money (Van Wijnbergen, 1986; Gylfason, Radetzki 1991). From the demand side, the devaluation or depreciation of the domestic currency reduces aggregate demand due to increased debt service (so more budget constraints) and to the decline in real income if the trade balance is in deficit before the devaluation (Cooper, 1971; Krugman, Taylor, 1978).

In what follows, the trade balance is defined in real terms by export minus import both in constant currency in 1984. The terms of trade are the ratio between the export price and import price multiplied by 100.

In the case of Madagascar, if we analyze the relationship between trade balance and the exchange rate through the terms of trade, we can consider three different periods. Between 1980-1994, during the fixed exchange rate regime, deterioration of terms of trade due to devaluations have improved the situation of the trade balance. The successive devaluations since 1986 made balance payment of the balance or a small surplus in 1989. Then, between 1994-2001, at the beginning of switching to the flexible exchange rate regime, the change in the exchange rate and terms of the exchange did only slightly influenced the trade balance stagnating around its equilibrium level. Finally, since 2001, after the political crisis of 2001, the depreciation of the terms of trade rather reflect the increased demands of the national currency on the foreign exchange market for imports and the deterioration in the trade balance. In this period, imports were induced by large mining investments and realized infrastructures, while exports are low price elastic constrained by lower demand in the international market due to successive crises and weak growth World. These investments have paid off when entering the operational phase until about 2013. From 2013, the export was greatly boosted by exports of mining products (nickel, cobalt) and the trade balance has become balanced.

Figure 12: Real trade balance and terms of exchange 2000-2014



Sources : INSTAT/DSY, national accounts. Our own calculations.

I.5 Firm landscape

The analysis of the number of newly created companies allows us to understand the efficiency of policies to promote private sector implemented either in investment, taxation and improving the climate for business. Through this analysis, changing jobs can be reflected. The analysis focuses on the sector, legal status, nationality of the owner, and the number of employees to hire according to the statement of the entrepreneur. It is based on the file of business creation recorded statements that do not cover unregistered production units.

The number of newly created and registered businesses (possessing a statistical number) has fluctuated in the period 2000-2013. However, if there are large enterprises type Limited Company (SA) or Limited Liability (SARL) and individual establishment, clearer patterns emerge. Regarding large companies, there are three different periods. Between 2000-2005, after falling for creating corporate enterprises until 2002 due to the crisis, the situation has stabilized between 2002 and 2005. Between 2006 and 2008, the situation has improved with a better climate business and the large influx of FDI particularly in mining. During this period, the number of large enterprises newly created annually tripled: 455 companies in 2005 to more than 1,250 companies in 2008. Then, during the crisis period between 2009 and 2012, the creation of large companies has decreasing been discontinued and is no more than 681 companies in 2012. The situation improved in 2013.

Regarding individual type of activities, if we look at medium-term trends, they operate in the same way as those of large enterprises, except during the period 2009 and 2012: a decline between 2000 and 2002, net increases between 2002 and 2004, some stability between 2005 and 2008. For the period 2009 to 2012: the creation of individual types of businesses grew significantly, an opposite trend to that of large companies. This can be explained by the gradual adjustment in the labor market: many employees who lost their jobs in large companies because of the persistence of the crisis have decided to create small production units to meet their daily needs.

Figure 13: Evolution of the number of newly established companies and registered by type of business

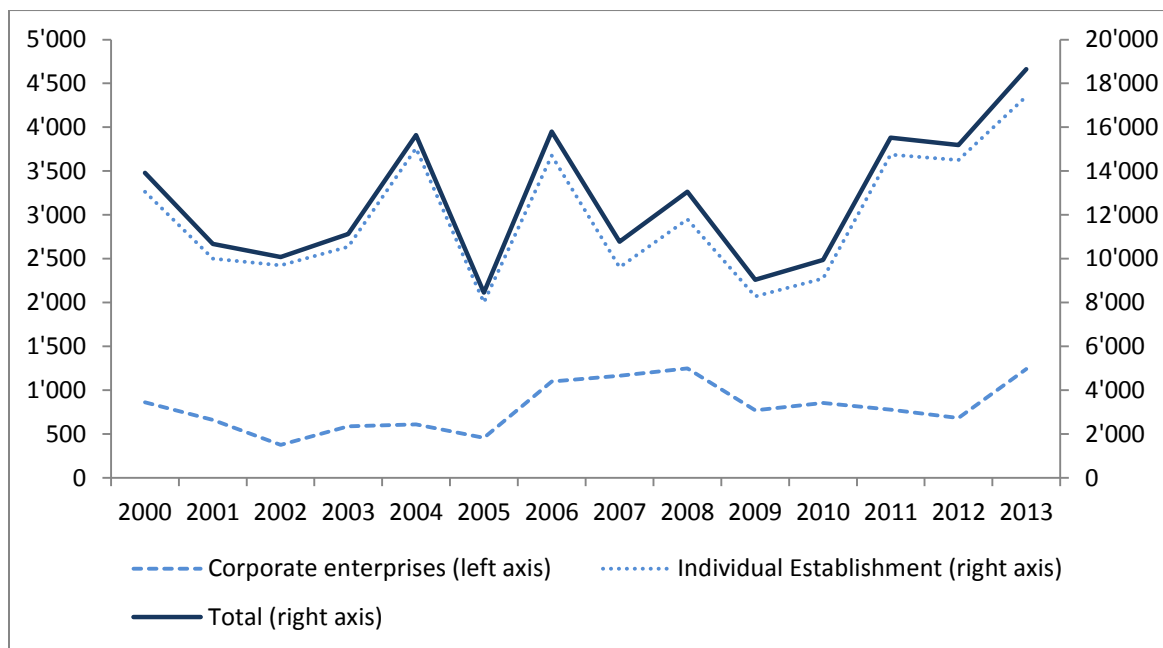
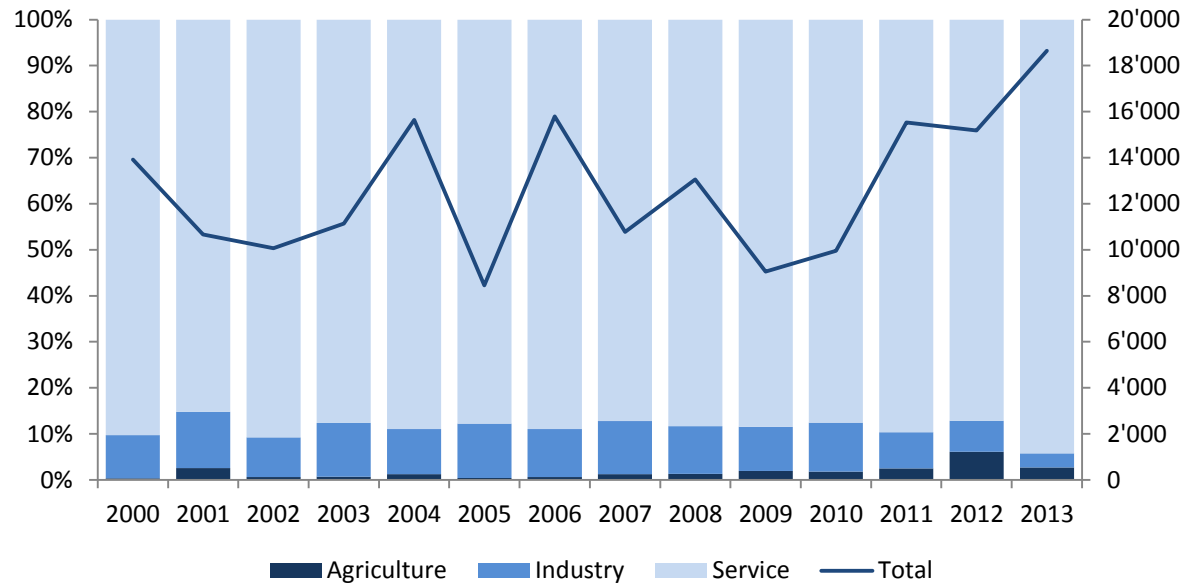
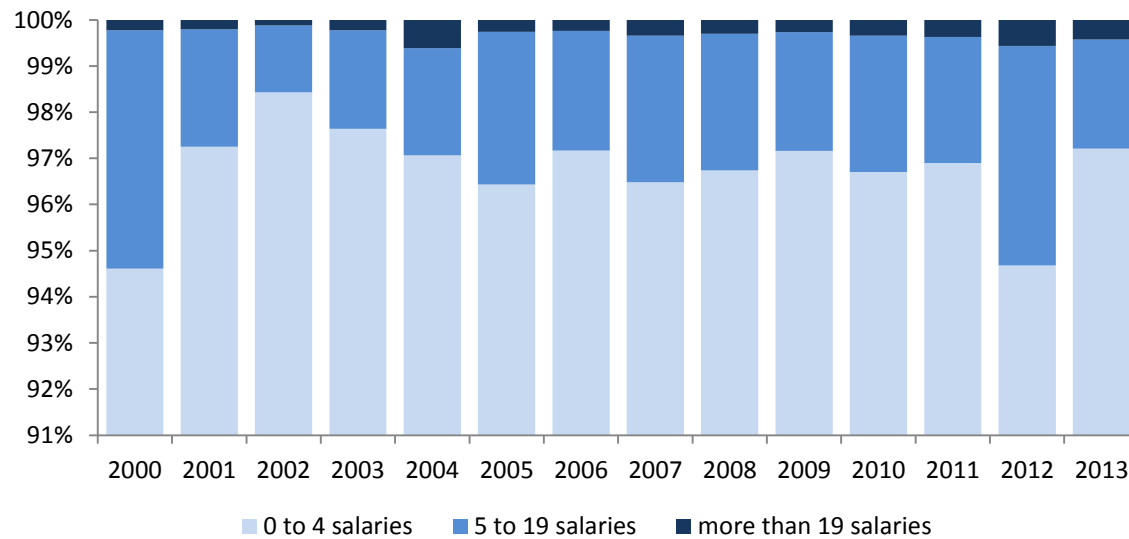


Figure 14: Evolution of the number of newly established companies and registered by sector



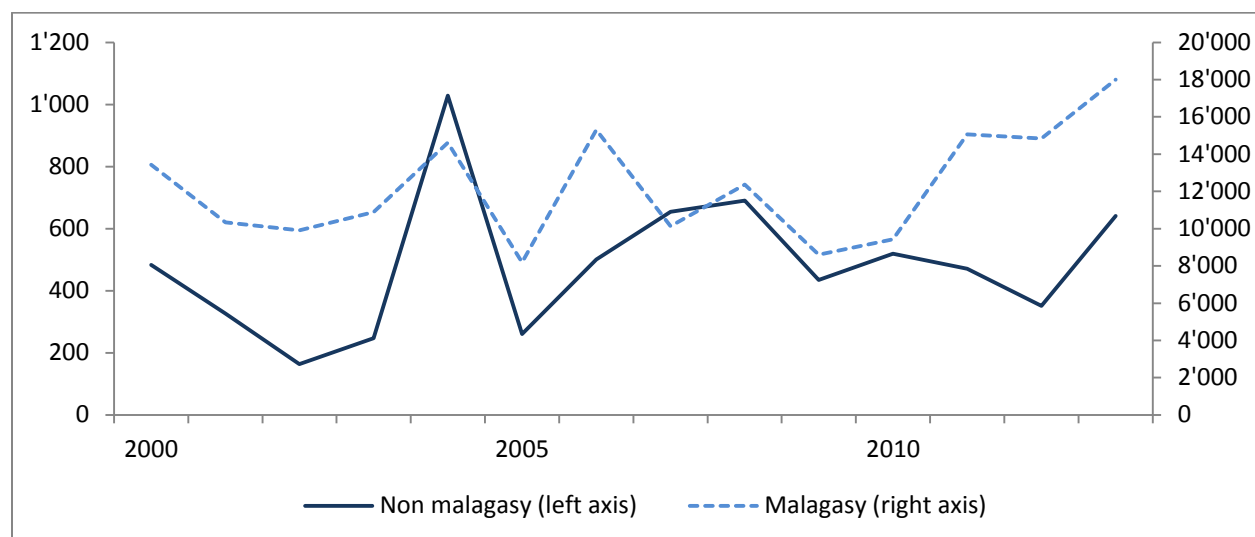
Source: INSTAT/DSE

Figure 15: Evolution of the number of newly established companies and registered by number of employees



Source: INSTAT/DSE

Figure 16: Evolution of the number of newly established companies and registered by owners' nationality

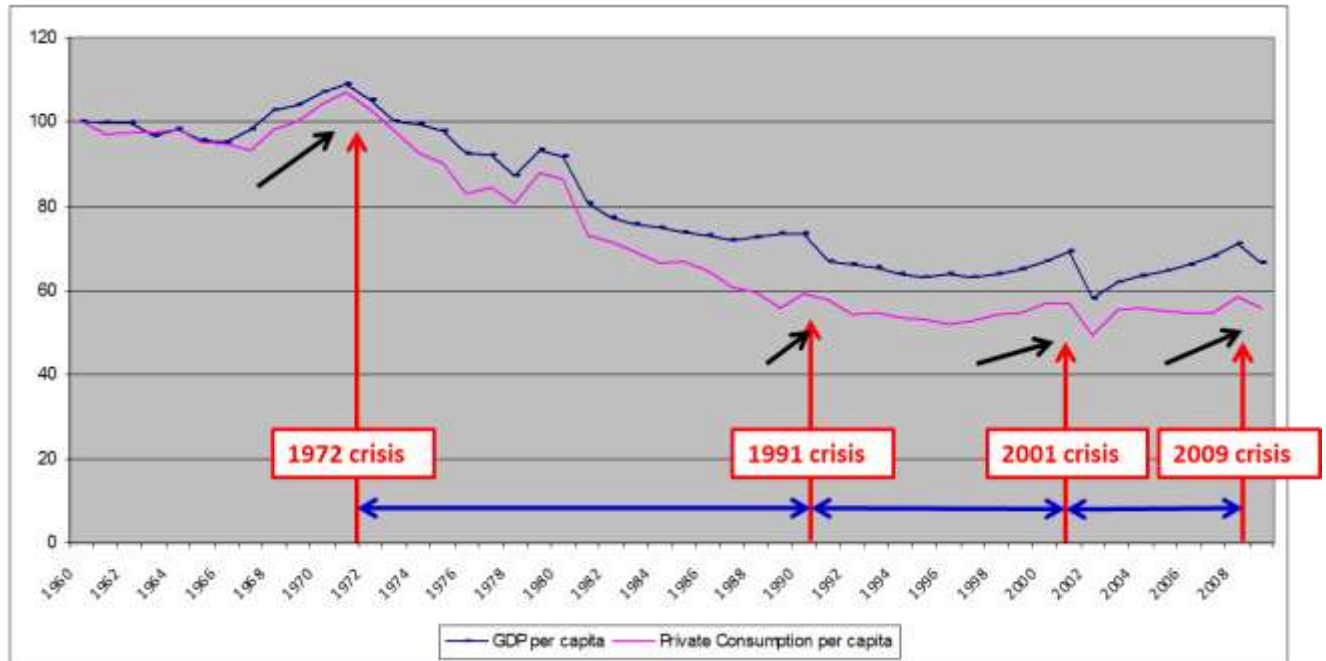


Source: INSTAT/DSE

I.6 Conditions of life, Poverty, inequality

With an HDI of 0.480, Madagascar is ranked 151 th out of 187 countries on the HDI (UNDP, 2011) in 2011. Despite improvements in economic conditions over certain periods, the overall situation of the country can be summarized in a declining standard of living of the population since independence. In fact, income has steadily deteriorated over the past four decades so that the level of real per capita GNP in 2008 stood at -30% below that of 1960, that of private consumption -42% below the 1960 level.

Figure 17: Change in consumption and GDP per capita since the independence



Sources : INSTAT/DSY : National Account 1960-2012. Our own calculations.

Majority of the population, 71.5% lives below the national poverty line in 2012. Even outside periods of crisis, the incidence of poverty at the national level remains high between 70% and 80%. The incidence of rural poverty is very high and is around 77%. In urban areas, the poverty incidence is much lower than average albeit in the order of 48% in 2012.

With the national threshold, the poverty rate varies widely according to the occupational category of the household leader. In 2012, it is estimated to 14.1% when the household leader is a senior manager and 18.0% when the household leader is a middle manager, and increases to 50.2% for the unskilled worker. It rises also from 78.9% for people whose household leader is a great agricultural farmer (using up to 4 hectare) to 85.7% when the household leader is a small agricultural farmer (using less than 1.5 hectare).

The poverty has the same trend whatever the threshold used: a high increasing of the poverty ratio between 2001 and 2002, followed by a drastic decreasing between 2002 and 2005, then another increasing between 2005 and 2010, and finally a low decreasing between 2010 and 2012. Such results are largely correlated with the macroeconomic indicators trends and underlined the bad effect of repetitive crisis on household welfare.

The changes are for lower magnitude in respect of the 2 \$PPP threshold, as consumption per capita distribution is more smoothie to the poor level and reveals the disappearance of the middle class in the Malagasy population.

Between 2002 and 2010, the economic and social impacts of the 2002 and 2010 crisis were expressly high at national level. The negative effects of the crisis, which severely contracted the economy, were observed in the population welfare with deepening of poverty in urban area and rural area alike. The poor household had partly benefited from the real GDP sustained

increasing between 2002 and 2008. The improvement is noticeable especially in the urban area. In the rural area, the household welfare is tied to the farming activities, which are rather dependants to weather than to shock on non farming income.

Between 2010 and 2012, after the brutal shock of 2009 and 2010, an adjustment or adaptive phenomena stabilize the household situation. It is worth noting here the 5 points of %age of declining of the 1.25 \$ international actualized PPP extreme poverty rate between 2010 and 2012 which is also observed with the national threshold poverty rate (from 76.5% in 2010 to 71.5% 2012). The measurement of the poverty with the 2 \$ PPP poverty rate reveals also the improvement in the poverty situation between 2010 and 2012 but with a less magnitude (2 points from 93.2% to 91.0%). Such declining of the poverty prevalence within 2 years while the politic crisis is still going on may interpret a capacity of resilience of the population.

The significant drop down of 5.8% of the consumption price between 2010 and 2012 and especially in 2012 was profitable to poor employees whose nominal wage increased by 10% per year. The boom of activities in specific regions alleviated the poverty in these regions and made of the beneficiaries new riches.

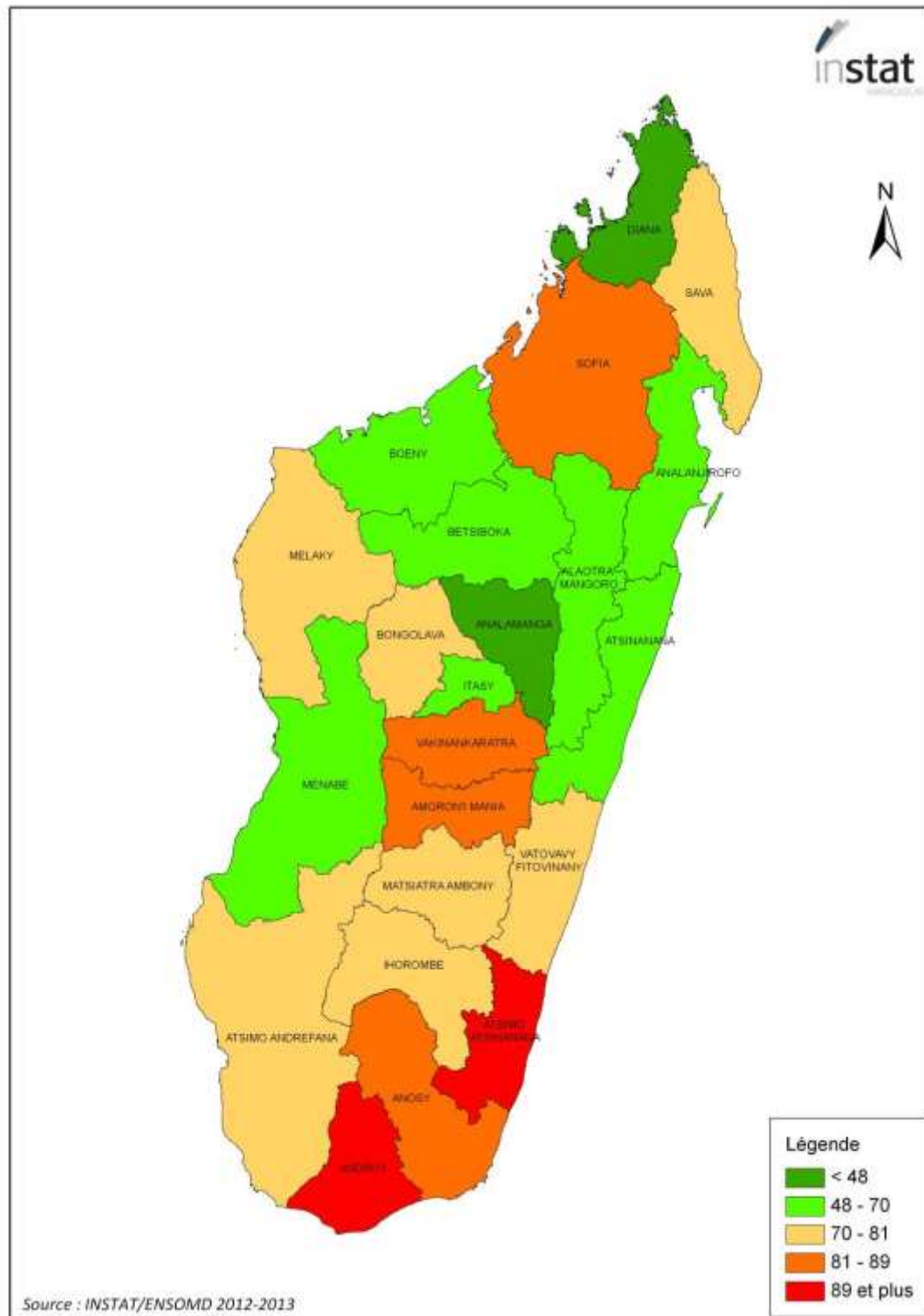
Table 4 : Trends in the incidence of poverty by geographic area and poverty line (%)

Geographic area	1993	1997	1999	2001	2002	2005	2010	2012
Urban								
National Poverty line	50.1	63.2	52.1	43.9	61.6	52.0	54.2	48.5
1.25\$PPP				51.8	73.6	60.0	60.7	55.8
2\$PPP				73.5	87.1	80.9	81.9	80.0
Rural								
National Poverty line	74.5	76.0	76.7	77.2	86.4	73.5	82.2	77.3
1.25\$PPP				82.6	92.3	80.8	87.4	82.5
2\$PPP				92.1	95.5	94.0	96.0	93.7
Madagascar								
National Poverty line	70.0	73.3	71.3	69.7	80.7	68.7	76.5	71.5
1.25\$PPP				75.6	88.1	76.3	82.0	77.1
2\$PPP				87.8	93.9	91.1	93.2	91.0

Sources : INSTAT/DSM: EPM 1993. 1997.1999. 2001. 2002. 2004. 2005. 2010-ENSOMD2012.

The life conditions discrepancies among regions of Madagascar are very important. In the south and east and south, the poverty rate is relatively high and exceeding the national average level. In the highland where is located the capital, and in the western and eastern regions, the situation is relatively better, even if more than half the population live under the poverty line.

Figure 18: Poverty ration by region in 2012



The inequality deepened more and more after each crisis. Indeed, the Gini index grows up from 0.436 in 2001 (before the 2002 crisis) to up to 0.52 in 2002. In the same word, between 2005 and 2010 the Gini index increased from 0.365 to 0.403. As an evidence of the importance of Rent-seeking instead of profit-seeking when the state weakened, the “private power” substituted the state in seeking for the own rent. The inequality measurements show a high concentration of the consumption. In 2012, the 10% richest (in term of consumption per capita) have an average consumption 6.1 times higher of the 10% poorest’s consumption. The Gini index was relatively high: 0.413 in 2012. In term of consumption, this inequality is more accurate in urban area than in rural area.

Table 5 : Evolution of Gini Index by area of residence

Geographic area	1993	1997	1999	2001	2002	2005	2010	2012
Urban	0.415	0.421	0.384	0.419	0.501	0.405	0.418	0.410
Rural	0.449	0.378	0.361	0.417	0.503	0.335	0.370	0.391
Madagascar	0.451	0.392	0.382	0.436	0.527	0.365	0.403	0.413

Sources : INSTAT/DSM : EPM 1993,1997, 1999, 2001, 2002, 2005, 2010 ; ENSOMD2012..

Table 6 : Ratio of average consumption levels between percentiles of households (%)

%iles of households	P75/p50	P25/p50	p10/p50	p90/p50	p75/p25	p90/p10
Ratio	1.6	0.6	0.4	2.6	2.5	6.1

Sources : INSTAT ; ENSOMD2012

II Situation in the Labor market

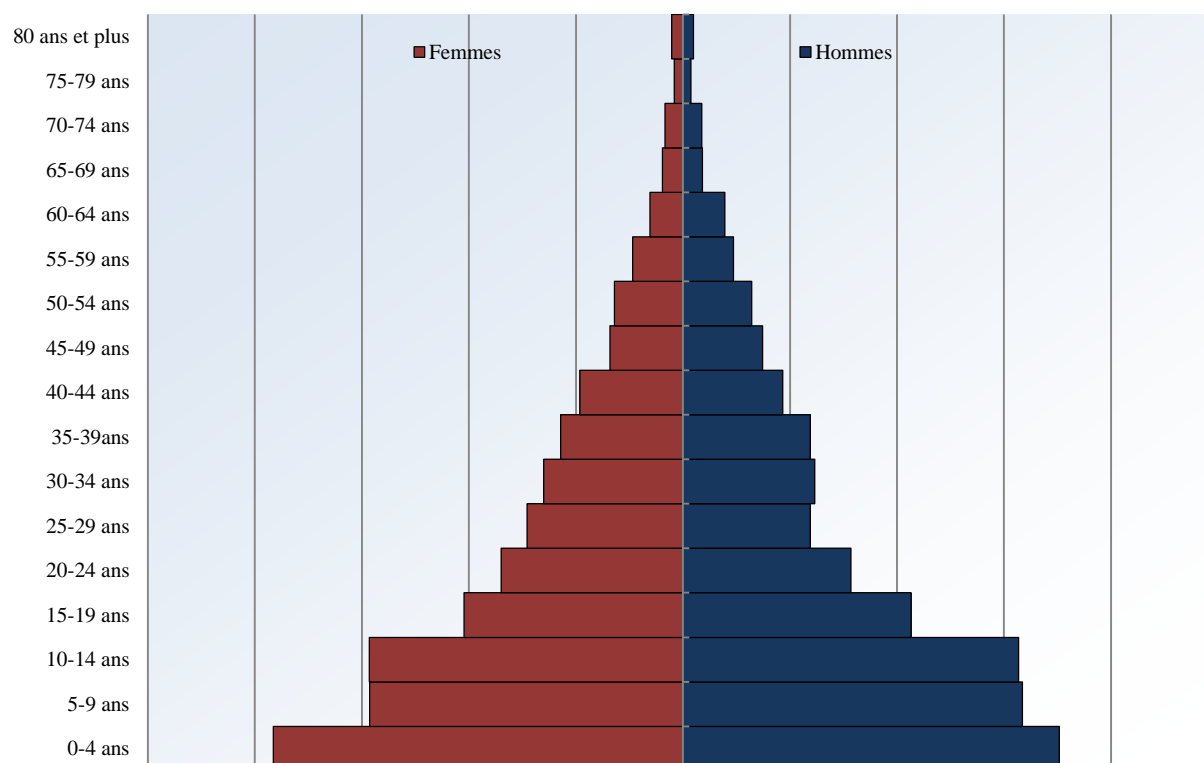
In terms of quality of work, human capital is supposed to have positive impact on growth. Human capital can be approached in two different ways: in terms of "capital accumulation" capital-based (Romer, 1986; Lucas 1988) or in terms of "research and development" idea-based (Grossman Helpman, 1991; Aghion, Howitt, 1992). In a sense, the high level of education increases labor productivity through personal discovery or adoption of new production technologies or organizational (via communication, media and other structures such as relays or extension agricultural workers). Indeed, productivity largely depends on the level of compatibility between the level of competence required of new technologies and the level of competence of employees (Acemoglu and Zilibotti, 2001). In the other direction, new technologies from research activities give rise to new demand for education (Parente, 1994; Eichler, 1996).

II.1 Demographic situation and laborforce

Fourth Island in the world with an area of 592,800 sq km, located in the southern hemisphere at 400 km east of the Mozambican coast, Madagascar is located in the heart of the Indian Ocean.

Its population is young, as children below 18 represent 53 % of the population, nearly 11 million persons. It is characterized by 80 % living in rural. For an estimated population of nearly 20 million people in 2011, this big island is among the poorest countries of the world. The population of Madagascar was estimated to 22.92 millions in 2013. Its distribution according to age shows the standard characteristic of developing countries. With 21.4 years old of average age and half of them below 20 years old, the Malagasy population is young. Almost two third are under 25 years old (64 %) and about half are below 15 years old (47 %). Only 3% are above 60 years. In 2012, the majority of the population lives in the rural area: 78%. Women represent half of the total population with masculinity ratio 100.

Figure 19: Ages pyramid of the population



Sources : INSTAT/DSM : ENEMPSI 2012.

Generally, a Malagasy household is led by a man, only 22% of household have a woman as a leader. The average size of a household is 4.5 (4.6 in rural area and 4.0 in urban area), and 75% of household contain 2 to 6 members. The big size household (more than 9 members) are relatively two time more numerous in rural area than in urban area (6% versus 3%).

Migration is very low in Madagascar. In 2012 only 15% are migrants. This mainly explained by bad roads infrastructures, poverty and land of origin attachment. Even if 59% of migrants have moved for joining their family, it is worth noting that 21% migrated for seeking job.

CARACTERISTICS OF THE ACTIVE POPULATION

The analysis of the active population has for objective to evaluate its endowment and in this way its work quality. The first quality of the active population should be the human capital endowment. The school grade achievement is the best proxy of the human capital. This school grade attainment is however very low: out of four, only one has the primary level. For the rural area, about 20% of the active population is in this situation.

The quality of work varies also with age, according to physic capacity of the manpower, the acquired experiences and the maturity at work. The active population is relatively young in Madagascar as those who are below 25 years old represented 34% of the total population, while

the average age is 33.3 years old. Within the active population, the share of those below 25 years weights for 49% while the average age is about 29 years.

CARACTERISTICS OF INACTIVE POPULATION

In 2012, 87% of the inactive population is under 20 years old. Thus the majority of the inactive is young enrolled to school (67.9%) then the handicapped (5.1%) and the women at home (4.8%). The share of the retirees is very low (1.8%). The young still at school are slightly relatively more numerous in urban area than in the rural area (75% versus 65.5%). Women at home are also relatively more numerous in urban area than in rural area (8.2% versus 3.2%).

In 96% of the case, the inactive are taken in charge by other person, in general by relatives, because of the low level of other income (saving, social scheme, credits). The major characteristic of the inactive population in Madagascar (78% of inactive choose deliberately this status) is the belief to be not at the age of working or not needing to work for living or not wishing to work. For the 22% remaining, the absence of work is related to a disguised unemployment due to involuntary reason linked to the deregulation of labor market. Those inactive populations are dropped out the labor market as they don't believe to get a job because of the deteriorating economic situation or their belief not to be skilled enough or because they do not know how to look for job.

The boarder is very fuzzy between those kinds of inactive, which are qualified to discouraged worker, and the unemployed which are accounted among the active population. But both the discourage worker and the unemployed have a school grade attainment higher than the voluntarily inactive.

II.2 Labor market situation

Labor market dominated by high underemployment phenomena

As a developing country, Madagascar has similar employment characteristics observed elsewhere in sub Saharan Africa with a low level of unemployment rate, a dominance of agriculture activity in employment, a relevance of informal employment, and a poor quality of work.

There are great concerns in labor market for the occupied as well as for the unemployed. For the occupied people, the concern is more related to working hour underemployment and inadequate employment.

The unemployment issue is more related to the unemployment duration which pinpoints the difficulty of insertion, and by this way is discouraging in the job seeking. The average duration of unemployment in 2012 is 12.2 month, or one year. However, 33.8% of the unemployed are without job since more than one year. The phenomena concern more the first-time job seekers (42.1% for the men versus 38.9% for the women) than the previously occupied.

As unemployment compensation does not exist, unemployment can be regarded as a luxury. That is why the ILO defined unemployment affects only 1.3% of the active population (above 10 years old). Nevertheless, the unemployment is a greater concern for young people and those who have performed a long study: the unemployment rate is 3.1% for those who are 20 to 24 years old, and 4.9% who attended a university level. The ILO defined unemployed are in average 25.6 years old and had completed 7.4 school grades.

The unemployment is more an urban concern (with a rate of 3.4% versus 0.7% in the rural area). For the majority of unemployed, seeking job is done through relative solidarity network (57% of the case), in the individual basis by approaching directly the employer (24.8% of the case) and finally through the formal meaning such as private or public employment agencies (2.5% for the public agencies and 5.9% private agency). This weak rate of registration of unemployed in the employment agencies is to be explained mainly by the fact that they are unaware of these institutions.

The discouraged workers, who are such defined as they ceased to seek for a job by discouragement or because they do not know how to do for seeking job, represent 20% of inactive population. They are less qualified than ILO defined unemployed with an average of 2 less school grades completed. This population is dominated by young with a medium age of 29 years. If added to the ILO defined unemployed, then one obtains an enlarged unemployment rate of 8% at national level (14% in urban area versus 6% in rural area).

Table 7 : Characteristics of the unemployed by gender and duration of unemployment in 2012

	Gender	Distribution (%)	Average age (years)	Education level (years)	Duration of unemployment (months)	Long-term unemployed (%)
First-time job seekers	Male	25.8	21.7	7.7	14.9	42,1
	Female	36.1	23.4	6.9	13.5	38,9
Former employee	Male	15.6	31.1	8.4	8.6	24,9
	Female	22.4	29.7	7.0	9.2	22,2
Total		100.0	25.6	7.4	12.2	33.8

Sources : INSTAT/DSM : ENEMPSI 2012.

For the employment and the earning security, paid employment in the big enterprise are more wanted compare to employment for own account. Such preference reflects the youth difficulty in job insertion. That is way the informal sector becomes a substitution for day by day surviving. Face to the inability of the formal sector to absorb the labor force influx, one notices the expansion of the informal sector which by this way makes the employment more instable and more precarious.

In 2012, 93.1% of jobs created belonged to the informal sector among which 75.3% were observed by informal farming. Most of these enterprise were set up by own account workers and whose job is precarious. But some gender specialization exists. Indeed, there are relatively more men than women working for the informal farming (77.1% versus 73.1%) while in the non farming informal enterprise, men are relatively fewer than women (14.6% versus 21.4%).

Table 8 Structure of employment by gender (%) and by institutional sector in 2012 (%)

Gender	Public Administration	Formal Enterprises	Non agricultural informal Enterprises	Agricultural informal Enterprises	Associative Enterprises
Male	3.4	4.2	14.6	77.1	0.8
Female	1.6	3.5	21.4	73.1	0.4
Together	2.5	3.8	17.9	75.2	0.6

Source : INSTAT/DSM : ENEMPSI 2012.

The prominence of the informal sector is no doubt the main reason of the underemployment worsening which generally occur through working hour underemployment or inadequate employment.

The working hour underemployment is a concern for those who involuntarily work less than 35 hours weekly. 10% of occupied populations are in this situation. According to gender, there are relatively more women than men in working hour underemployment (11.3% for women versus 9.9% for men). It is in the public administration that the phenomena reach its highest rate: 30%, in other word, public servants are the most affected by working hour underemployment.

The inadequate employment is a situation observed by workers which earn less than the minimum wage per hour guaranteed by the law. This kind of underemployment affects more than 80% of workers. Women are more affected than men by the phenomena: 87.1% of them versus 75.8% for men. According to institutional sector, its highest rate is observed in the informal farming: 87.9% while it is 46.3% in the private formal sector and 17% in the public sector. The rural occupied people are more concerned by the situation than those working in urban area (84.6% in rural area versus 67.9% in urban area).

Table 9 Situation of inadequate employment rate by institutionnal sector in 2012

Institutionnal Sectorl	Situation of inadequate employment rate (%)
Public Administration	17.0
Formal Enterprises	46.3
Non agricultural informal Enterprises	70.4
Non agricultural informal Enterprises	87.9
Associative Enterprises	51.9
Together	81.2

Source : INSTAT/DSM : ENEMPSI 2012.

Low level of youth satisfaction on employment

For those who are occupied, 44.6% are satisfied of their current job and are not seeking another in the future. But in the counterpart, about 56% wish to get another job by changing the enterprise. Only a minority of 11.3% expected to be promoted within the enterprise for which they work.

The young working for public administration are relatively the most numerous to look for another job. 47% of them wish to stay in their enterprise but change a post through a promotion. In the contrary, almost half of the young working for private formal sector expects to keep their current job; meanwhile 30% wish to change their employer. 44% of young occupied in the informal sector are satisfied of their job and thus wish to keep it, in the same time another 36% want to move for another enterprise.

An inquiring of the young professional project reveals a great mismatch between their wish and the real job opportunity. The public sector (comprising administration and public enterprise alike), which generated only 3% of new employment, still drives 27.6% of young vow.

Nevertheless, the informal sector in which 58.2% of young work, draws 50.2% of them. The intergenerational mobility mechanism is working for occupational category or institutional sector. Thus, 20% of senior manager children above 30 years old are themselves senior managers, while the willingness of a child of unskilled worker to be a senior manager is only 7.4%. In the opposite, 19.6% of the children of the Dockers are in the same category, but only 4.8% of the children of senior managers become Dockers.

The underemployment situation result in low level of productivity and low level of income. As the occupied population underemployed is not entirely satisfied by their job; they cannot optimize their productivity.

Employment to population ratio is 83.3%. But such high level may indicate a poor quality of employment in Madagascar. The share of wage employment in total employment is only 10.9%, which means also that out of nine out of ten occupied persons are in vulnerable situation as they have their own account or contributing to the family. According to the 1.25 \$ PPP international extreme poverty threshold, 68% of employed people lived in 2012 in poverty. In 2012, the monthly average activity income is 28 US \$. A great discrepancy is noticed about earning according to the institutional sector. The public employees are the best paid (129 US \$ per month). This superiority of public sector in term of wage is partly explained by the weight of senior and middle managers and the length of service. Formal enterprises give an average wage of 92 US \$. Finally, workers in informal farms reveal to be the least remunerated with only an average earning of 17 US \$ per month.

The income level varies in respect of occupational category. It increases with school grade, the skill level and the occupation. The wage of senior and middle managers is six time higher than the unskilled workers 2.5 times higher than the skilled workers. Occupied in urban area are well remunerated than those in rural area with a monthly average activity income of 51 US \$ versus 21 US \$. With an amount of 37 US\$ per month, men earn two times more than women (18 US \$).

Prominence of family farming employment

The distribution of employment is dominated by the primary sector where work 75.7% of occupied population. The share of tertiary sector is 16.6%, thus the 7.7% remaining represent those working in secondary sector. The majority of working people are involved in informal farming: 83.0%, while 13.1% of occupied people are members of non farming informal enterprises. In other word, only 3.9% of occupied population work for the formal sector.

Table 10 : Employment structure by branch of activity in 2012

branch of activity	Area of residence		Together (%)
	Urban (%)	Rural (%)	
Primary Sector	45.3	83.5	75.7
Trade	15.1	4.9	7.0
Others services	8.9	1.2	2.8
Garment	3.7	2.5	2.7
Others industries	3.5	2.3	2.5
Household services	6.1	1.2	2.2
Education	3.9	1.2	1.8
Construction	3.0	0.9	1.3
Transport	4.0	0.7	1.3
Food Industry	2.2	0.9	1.2
Public Administration	3.1	0.5	1.0
Santé	1.2	0.2	0.5
Together	100.0	100.0	100.0

Sources : INSTAT/DSM : ENEMPSI 2012.

II.3 Impact of crisis on labor market

This part describes the effects of crises or shocks on the labor market in Madagascar between 2001 and 2010, period during which two socio-political crises occurred in Madagascar. Our main contribution is the comparison of the effects of the two crises on the labor market as well as the comparison of the labor market behavior outside and during periods of crisis.

In addition to the international crises (finance, energy, etc.), internal crises (institutional, coup, inter-ethnic conflict, etc.) affecting Africa and Madagascar in particular are not negligible. We are not concerned here with the causes of conflicts and crises in Africa (see for example Koulibaly (1999) and Hugon (2001)), but with their economic consequences, especially those on the labor market. The socio-economic impacts of crises and conflicts in Africa are not negligible. Hugon (2001) addresses this issue by distinguishing the macro-economic and micro-economic impacts of wars and conflicts in Africa. He illustrated these effects among others with the degradation of economic growth, high increase of the burden of the debt or the increase of food insecurity. M. Trabelsi and J-L. Dubois (2006) emphasize the effects of crises and conflicts on human development and, in particular on education. In contrast, the literature on the analysis,

especially in a quantitative approach, of the impact of the crises (political, economic, social, etc.) and / or conflicts on the labor market in Africa is poorer (eg, Zerbo (2009)) It is the same in the case of Madagascar. Among the few analyzes of the impact of the crisis on the labor market, one may mention Instat-DIAL (2010) and Ramilison (2003). Researches conducted under this REALM project is therefore an important contribution in this area. Gaps in databases are probably the main reasons for this deficiency.

Because of this deficiency, researches on the impact on the labor market of shocks induced by the financial crisis or the economic liberalization can serve as a reference. These researches suggest a more or less significant impact, depending on the case, of crises on the labor market. There are two distinct approaches in measuring these impacts. The first is the macro-economic approach, based essentially on conjunctural data and macro-economic models, and the second one using micro-economic approach based on the analysis of individual cross-sectional data. Given the data we have, we are interested here in the microeconomic approach.

Ramilison (2003) studied the case of the city of Antananarivo after the crisis of 2002 using data from the 2001 and 2002 Labor Force Surveys. Based on indicators of the labor market, the author shows that the socio-political crisis of 2002 had a negative impact on the labor market of Antananarivo. In fact, the activity rate of individuals aged 10 and over is clearly declining between 2001 and 2002, while unemployment is on the rise. The massive increase of the number of unemployed is due to the influx of formerly workers having lost their jobs essentially because of the closure of firms. Moreover, they constitute two-thirds of unemployed of 2002 and come generally from EPZ. Following the decline in the level of employment of formal enterprises, employment in the informal sector has increased by 12% and its weight in total employment increased from 53% to 60%. The 2002 crisis has also led to an increase of under-employment from 53% to 63% between 2001 and 2002. We note as well a reduction of social advantages. As an illustration, the proportion of workers and employees in the formal sector benefiting from support of medical care (total or partial) decreased from 61% to 32%. Finally, faced inflationary pressures, the total income of household activity decreased by 21% in real terms.

Betcherman and Islam (2001) adopt more or less the same approach to give an overview of the impact of the financial crisis of 1997 in five Asian countries: Korea, Indonesia, Malaysia, Philippines and Thailand. Given that the five countries are at different stages of development and with different work policies, the impacts induced by the financial crisis are not the same. From empirical studies, they show that the consequences focus on the adjustment of labor demand and real wage, adjustment in labor supply, among others migration, the development of the informal sector and embrittlement of vulnerable groups. Thus, according to Betcherman and Islam, there is everywhere a adjustment of labor demand especially in Korea and Thailand, where the unemployment rate has doubled. The crisis has also led to a reduction in real wages, more or less important depending on the country. The largest decrease (-41%) was found in Indonesia, but this country has especially made an adjustment in the price rather than in work quantity. On labor supply, it appears that the crisis has led to a decline in the activity rate in three countries (Korea, Malaysia, Thailand) which suggests the existence of a category of discouraged people that have stopped looking for job. In the other two countries (Indonesia and Philippines) the activity rate has increased slightly but mainly due to greater integration of

women into the labor market. Migration, internal and / or external, is one of the responses to the crisis in the five countries studied. Finally, the development of the informal sector after the crisis occurs mainly by an increase in self-employment and / or a reduction in waged employment. Indeed, the crisis has led to a decline in waged employment in Korea, Thailand and Malaysia and an increase in self-employment in Indonesia, Malaysia, Philippines and Thailand.

In the same vein, we can cite the work of Amar, and Debauche Dalibard (2010) or OFCE (2010) which show the effects of the 2008-2009 slump on the labor market in some developed countries.

Freije, Lopez-Acevedo and Rodriguez-Oreggia (2011), analyze the effects of the 2008-2009 crisis on the Mexican labor market based on panel data on employment between 2007 and 2010. Their investigation goes deeper than Ramilison (2003) or Betcherman and Islam (2001). Indeed, from some indicators, the authors first show the negative effects of the crisis on the Mexican economy, then continue their research by examining the (monthly or quarterly) evolution of the level of total employment, unemployment and informal employment between 2007 and 2010. They show that the labor market has reacted negatively to the crisis with the decline in total employment in 2008, a rise of unemployment and a large informal sector. Detailing the creation and job destruction at the global level and by sector of activity, the authors show that the crisis may affect differently the various sectors of the Mexican economy. Some sectors such as agriculture or manufacturing reacted quickly to the crisis with a steady decline over several quarters of employment. In contrast, the response time is longer for building and trade, while the service sector continued to create jobs during the crisis. The response to the crisis is not the same for different categories of population. For example, women, people with low levels of education (primary or less), the young and the elderly, have suffered most from the crisis. To better appreciate the movement on the labor market, the authors considered three transition matrices in three activity statuses (employed, inactive, unemployed): in 2007-2008, which is the situation before the recession, in 2008-2009 during the recession and after the 2009-2010 recession. Analysis of these transition matrices is supplemented by those of transition probabilities. Using a multinomial logit model, we estimate the probabilities of moving from one state to another activity. They show that before-during and after the crisis, the probability of losing a job or finding employment is lower for men (compared to women), for people with high level of education (compared to at the primary level) for those between 26 and 65 years (compared with less than 26 years), heads of household and some parts of Mexico. Levels of marginal effects vary with the time but the difference is relatively small the authors conclude that a small difference between the recession and the post-crisis period. Finally, the authors conclude their analysis by examining the impact of the crisis, the evolution of real wages has declined due to the recession sparing on socio-demographic group and affecting almost all sectors.

Dostie and Sahn (2008) analyze the impact of liberalization on the labor market in Romania based on panel data collected between 1994 and 1996, periods after the first stages of economic liberalization in Romania. Their goal is to determine the mobility of the labor force during this time and the role of unemployment benefit in this movement. The analysis focuses on individuals between 15 and 65 who are on the labor market. The authors begin by examining the

transitions between four situations in relation to employment: employees, self-employed, unemployed who receive unemployment benefits and unemployed who do not receive. They show an increase in self-employment and a decrease in unemployment during this period following the beginning of the liberalization for both men and women, both in urban and rural areas. They then consider transition matrices to analyze the evolution of input and output movements in employment and give a more complete picture of the mobility process. Finally, Dostie and Sahn analyze models of transitions using a dynamic mixed multinomial logit model, taking into account the specific characteristics of the Romanian labor market as the role of unemployment benefits and other individual characteristics. Their analysis suggests that the labor market in Rumania is relatively stable during the period following the economic liberalization (1994-1996). This is the case, especially among wage earners, who are generally older, better educated and are more likely to live in urban areas. Among employees who lose their jobs, the transition to unemployment is largely with unemployment benefits. Those who do not receive unemployment benefits are more likely to be young, male, and living in urban areas. For the unemployed, age, gender and education are determinants of the probability of transition out of unemployment, especially in terms of mobility to self-employment. Older women and more educated, for example, are much more likely to leave unemployment status for self-employment. The results show that the unemployed receiving and not receiving benefits have a similar probability of becoming self-employed. Finally, individuals with less education are more likely to be self-employed than employees. Self-employment is also higher in rural areas, especially among women. Education and age are particularly important in explaining transitions to employment.

Despite similarities, the reactions of the labor market during crisis are not always identical in 2002 and in 2009. However, the overall results are in the same direction as the impact of financial crises: employment adjustment through reduction of working time and labor costs (see for example Cochard and al (2010)).

Indeed, working duration was one of the instruments used by firms to cope with economic slowdowns. In 2010, working hours were reduced from 3 hours per week on average, twice more than in 2002. The informal sector has most reduced its number of hours in 2010 while in 2002 the EPZ did it.

The average income of workers decreased after each crisis. At an aggregate level, it was reduced from 13.8% in real terms between 2006 and 2010 and -5.6% between 2001 and 2002. The largest decreases involve workers in the informal sector: -10.4% between 2001 and 2002 and -14.5% for 2006-2010. The reductions in average income are more moderate in the public sector in both 2002 and 2010. But the average monthly wage increased in the free zone companies: 1.2% in 2002 and 5.8% in 2010.

Table 11 : Summary of main impacts of crisis on labor market

	Impact of 2002 crisis	Impact of 2009 crisis
Data used (labor survey)	2001 2002	2006 2010
Reduction of working time	1,5 hours/week	2,9 hours/week
Monthly real income reduction	-5,6%	-13,8%
Unit cost labor reduction	-2,2%	-7,9%

Annual change in total employment	-0,5%		+4,1%
Unemployment rate	+ 3 points of %age		+ 1,4 points of %age

Source : INSTAT DSM, MADIO, IRD DIAL. Labor surveys : EE2001 EE2002 EE2006 EE2010. Our own calculations.

Following the decline in average income, labor unit cost (hourly wage) declined after the crisis of 2009 (-7.9% on average over the period 2006-2010) and after the crisis of 2002 (-2.2 % on average over the period 2001-2002). However, as average income, hourly wages rose in EPZ firms after the crisis, an increase that has mostly benefited employees and workers.

The adjustment of the labor market continued in 2002 with the reduction in overall employment. The trend is not the same in 2010 where there was an increase of the employed labor force. Despite this inconsistency, the situation of employment has two things in common: Employment in the public sector and in the informal sector increased after the 2002 and 2009 crises. However, there is a significant contraction in employment in EPZ after each crisis. In short, the EPZ firms have slightly improved the unit cost of their work but while greatly reducing their staff to increase productivity.

These job losses lead to a rise in unemployment after each crisis. Because of the influx of newly unemployed-mainly due to a layoff or business closure - the average duration of unemployment has fallen significantly after each crisis. The newly unemployed are mostly young people aged 18-24 or 25-34. The unemployed under 12 months is well over half of this category of population.

II.3.1 The reduction of working time

Working time and labor costs are often the main adjustment variables used by firms to deal immediately with the reduction of activity and to maintain or improve their productivity. The reduction in employment is general when the slowdown is confirmed. The employment survey data from 2001 to 2010 show that, after each crisis, the volume of weekly hours declined in all industries but in different proportions.

In 2010, we observed the greatest reduction in working time in industry (chemical, textile, food industry) from 5 to 6 hours per week per employee decline (a reduction of 10 to 11%). In the service sector, the adjustment is certainly weaker than in the industrial sector but the fact remains that it is important since for example the working time is reduced from 4 hours per week in the transportation industry.

By aggregating the data by institutional sector, in 2010, it is the informal sector workers who are most adjusted their working hours (3h). According to occupational category, the discount is valid for the employees and workers (1 hour per week) and the self (3 hours per week). However, the work schedule has not changed for executives.

In 2002, there was also a reduction in the number of hours at the city of Antananarivo, but to a lesser extent (-1.5 h / week in 2002 and -2.9 h / week in 2010). It's always in the industrial sector that the reduction is the most important time: 6 hours a week down in the food industry and 7 hours in the garment. However, in the service sector to reduce the volume of work is much lower compared to that of 2010. Transport which undergoes a decrease of 4 hours per week in 2010 was spared in 2002.

By institutional sector, the 2002 situation is quite different from that of 2010. First, in 2002, it is EPZ that experienced the greatest decline in hourly volume (-3h per week) while the fit is estimated at only 1 hour a week for the informal sector, if it reaches 3 hours in 2010. On the other hand, the work schedule has not moved in the formal private sector outside the EPZ and increased in the public sector (5 hrs per week). Finally, by occupational group, the effects of the crisis are more homogeneous in 2002 than 2010 because the volume reduction schedule revolves around 1am all week at 1:30.

Table 12 : The reduction of working time after each crisis according to industry group

Branch of activity	2001 (hours/week)	2002 (hours/week)	Variation	2006 (hours/week)	2010 (hours/week)	Variation
Agriculture	35.0	30.4	-4.6	32.2	28.7	-3.5
Food Industry	46.4	40.3	-6.1	41.3	36.7	-4.6
Other industry	41.1	40.7	-0.4	44.3	41.2	-3.1
Other service	39.9	39.2	-0.7	44.2	41.4	-2.8
Construction and public work	45.8	45.2	-0.6	45.8	44.9	-0.9
Chemical	44.0	43.0	-1.0	43.6	37.7	-5.9
Trade	44.8	46.0	1.2	48.2	46.4	-1.8
Clothing, textile	45.4	38.1	-7.2	47.3	42.4	-4.9
Public Administration	42.9	43.7	0.8	46.3	44.6	-1.7
Transportation	52.6	52.7	0.1	54.6	50.3	-4.3
Total	43.3	41.8	-1.5	45.6	42.7	-2.9

Sources : INSTAT DSM, MADIO, IRD DIAL. Labor survey : EE2001 EE2002 EE2006 EE2010. Our own calculations.

II.3.2 The reduction of wages

As the risk of unemployment weakens the bargaining power of workers, the context of the labor market also reacts on wages. Due to the crises of 2002 and 2009, the average monthly income was down 6% in real terms between 2001 and 2002 and by -14% between 2006 and 2010 while the minimum wage rose annually by about 10%. These declines have affected all industries except a few. In 2002, the chemistry (22%) and transport (5%) branches were spared, while in 2010, that concerns the construction (9%) and public administration (2%).

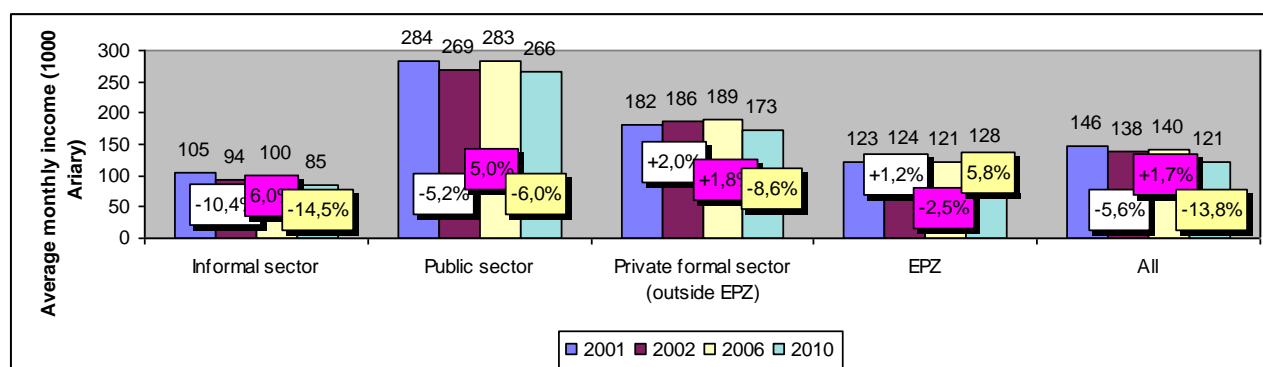
In 2002, agriculture stands out with a significant decrease of -32% of its average income. Declines are also important in the construction industry (-18%) and clothing and textiles (-16%). They are more moderate in commerce (-7%), food (-6%) and for civil servants (-3%).

In 2010, lower average incomes also varies across industries: agriculture still comes first with -43% followed distantly by transport (-23%) and the food industry (-20%). The decrease is -15% in trade and only -4% in clothing and textiles.

This disparity in the response of companies is seen again when one aggregates according to their institutional sector, which suggests, by the way, coping strategies for different classes of companies. In both 2002 and 2010, the largest decrease is observed from informal sector enterprises (-10% in 2002 and -15% in 2010) while the slowdown in real income is more moderate in the public sector (-5% in 2002 and -6% in 2010). For formal private enterprises outside the EPZ is more mixed. These companies suffered a decline in their average income in 2010 (-9%), whereas there was an increase (2%) in 2002.

Finally, the average income has increased in both EPZ in 2002 (1%) and 2010 (6%), perhaps out of respect of the minimum wage increase. For 2002, the increase mainly favored executives whose monthly income rose 10%. That of employees and workers was virtually flat (+1%). In 2010, the situation has reversed since the monthly salary of corporate executives in EPZ declined by 23% while employees and workers have benefited from a rise in real terms by 9%.

Figure 20 : Evolution of average monthly income (MGA 1000, at 2010 price) by sector between 2001 and 2010



Sources : INSTAT DSM, MADIO, IRD DIAL. Labor survey : EE2001 EE2002 EE2006 EE2010. Our own calculations.

Since working time has changed simultaneously, to be precise, it is more accurate to analyze the evolution of hourly labor cost which again confirms the impact of the crisis on the labor market. The hourly labor cost declined an average of -8% in 2010 against -2.2% in 2002. Unsurprisingly, this adjustment by unit labor cost has been applied in almost all industries.

But the average per hour income still grew in some sectors. In 2002, unit labor costs rose in the chemical industry (25%), in the food industry (9%) and transport (5%). In 2010, growth was observed in construction (11%), in making and textiles (7%) and for civil servants (6%).

Note that these few branches that have experienced increases in their unit labor costs are often industries where there was an increase in real average income. This is the case in 2010, construction and civil servants. It is the same in EPZ firms strongly dominated by the textile sector.

For the case of EPZ, although unit labor costs rose in both 2002 and 2010, the situations appear differently depending on the socio-professional category. In 2002, the increase of cost per unit is observed at the same time among executives (14.8%) and among employees and workers (12.9%). However, in 2010, only employees and workers have benefited from the increase (11.2%) since the unit cost of executives shrank by -21.3% in 2010. One has to see the evolution of employment and illustrates the strategies of these firms.

Table 13 : The reduction in unit costs (hourly wage in 2010 prices) in response to crisis

Branch of activity	2001 (Ariary)	2002 (Ariary)	Variation 2002-2001 (%)		2006 (Ariary)	2010 (Ariary)	Variation 2010-2006 (%)
Agriculture	435	339	-22%		602	382	-37%
Food Industry	580	630	+9%		574	515	-10%
Other industry	922	834	-10%		761	716	-6%
Other service	865	845	-2%		725	642	-11%
Construction and public work	881	731	-17%		820	910	+11%
Chemical	945	1,182	+25%		1,395	878	-37%
Trade	685	619	-10%		610	537	-12%
Clothing, textile	558	556	-0%		531	569	+7%
Public administration	1,443	1,369	-5%		1,328	1,402	+6%
Transportation	972	1,015	+4%		922	775	-16%
Ensemble	784	767	-2%		715	659	-8%

Sources : INSTAT DSM, MADIO, IRD DIAL. Labor survey : EE2001 EE2002 EE2006 EE2010. Our own calculations.

II.3.3 The adjustment by employment

We observe a slight decline in overall employment in the agglomeration of Antananarivo in 2002 as the number of employed people aged 10 and over decreased from 540,200 to 537,700 individuals, a decrease of -0.5% per year. The 2002 crisis has affected the evolution of employment. At an aggregate level, this decline affects women, not men, for which the evolution of the employed population is estimated respectively at -3% and +1%. This decline in overall employment is also evident in some age groups, children and adults 18 to 34 years.

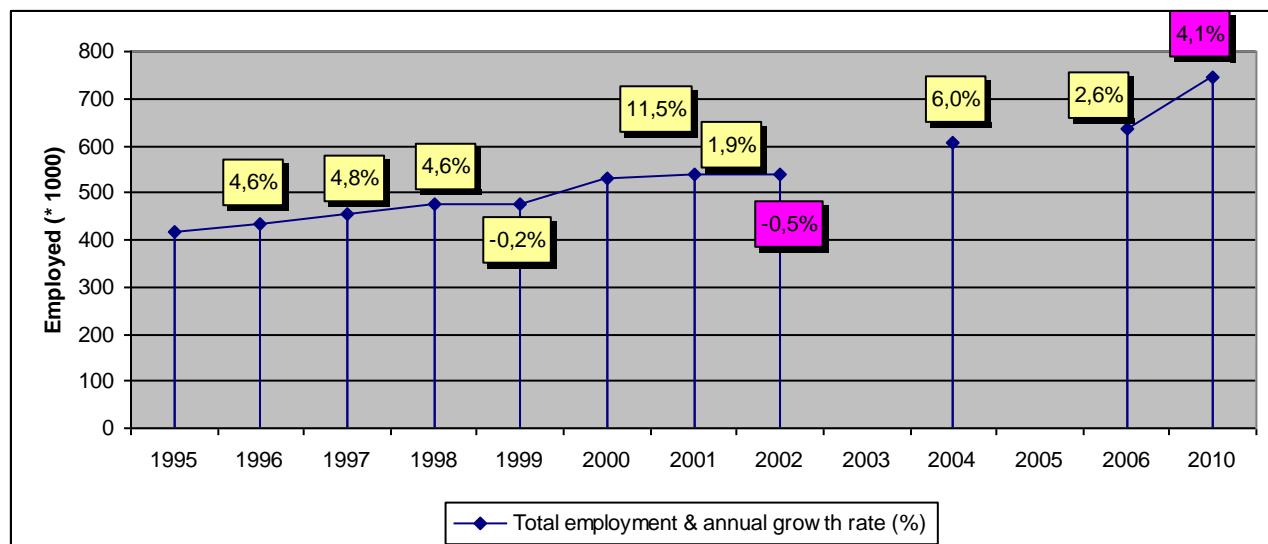
This slight decline in 2002 is not noted in all types of activity. The public sector and the informal sector have not suffered from the crisis. Employment in these sectors grew respectively by 5.0% and 12% in 2002. By cons, employment in private firms outside and inside EPZ have declined by -5% and -61%, or 33,300 jobs lost.

We find this significant decrease in EPZ jobs again in textiles and clothing branch. Proportionally, this reduction in employment in EPZ has affected both men (-64%) and women (-59%). In terms of numbers, women have lost twice as many jobs (22,300) than men (11 000) in EPZ. Compared to the socio-professional categories, it turns out that executives are not spared as their employment fell by -64% (against -60% for employees and workers). However, executives have lost 3400 jobs in 2002 while the employees and workers have lost 29,800 or 9

times more. It seems that EPZ firms have not applied any selection in their decisions. Apparently, these reductions come more from closure rather than a simple adjustment. Moreover, according to the UNDP (2002), some EPZ firms have relocated in 2002 face to the challenges brought by the crisis: work stoppage, anti-economic barrings impeding expedition by sea shipment, respect of order deadlines, etc.

Finally, this negative trend in employment in 2002 did not change the structure of activities by industry. Certainly, the weight of the garment industry, textiles fell (16.8% in 2001 to 11.1% in 2002) over the period in favor of certain activities such as trade or other services. But these changes have not disrupted the distribution of activities in 2002. In other words, there is no reallocation of activities, probably because the companies see the downturn caused by the 2002 crisis as temporary.

Figure 21 : Evolution of the employed population between 1995 and 2010



Sources : INSTAT DSM, MADIO, IRD DIAL. Labor survey : EE2001 EE2002 EE2006 EE2010. Our own calculations.

Despite the 2009 crisis, it seems that there is no decline in overall employment in the agglomeration of Antananarivo in 2010 as the number of employed people aged 10 and over increased from 636,100 to 746,400 individuals, an increase of 17.3% in 4 years (or 4.1% per year). This evolution of the employed labor force is not far from that of the 1995-2001 period (4.5%) where we had annual data (see figure). In other words, the crisis of 2009 does not seem to have reduced or at least affected the evolution of employment. This lack of decline is checked for both men and women including the evolution of the employed labor force reached respectively 14.0% and 21.1%. This increase in overall employment is also evident in all age groups, children, adults 18 to 65 and seniors.

By institutional sector, we see that the public sector and the informal sector have been spared if we base on the number of jobs. Indeed, employment in these sectors grew by 3% and 32% in

2010. It is the same concerning employment in private firms outside the EPZ. By cons, that in the EPZ fell in 2010. It fell by -30.5% over the period, equivalent to 15,600 jobs.

Thus, if we reason by industry, the primary sector and the tertiary sector have seen their numbers grow unlike the industrial sector. By industry, there are mainly the decline in manufacturing activities, which is the textile sector of choice for firms in EPZ (-17,300 jobs lost).

In this reduction in employment in the EPZ, men are not spared but women bear the brunt. They lost 38.0% of their jobs (or 13,700) against 12.6% for men (1,900 jobs). Finally, by socio-professional, executives have lost 5.0% of their jobs while employees and workers have lost 32.3%. Firm behavior in EPZ in 2010 is quite distinct from that of 2002 because the situations are different: no work stoppage, no blocking of the administrative system or economic system, but suspension of AGOA. If there has been closure, there were also creation: 9 in 2009 and 13 in 2010 (MEEI, 2011). It seems that in 2010 the goal is to keep running the business: layoffs are conducted primarily at the expense of the less skilled to increase productivity.

Table 14 : Evolution of employment by institutional sector

Sector	2001 (a)	2002 (b)	Variation (b-a)		2006 (a)	2010 (b)	Variation (b-a)
Public sector	57 600	60 600	3 000		56400	58100	1 700
Private formal sector (outside EPZ)	140 400	133 800	-6 600		159700	167200	7 500
EPZ	54 900	21 600	-33 300		51200	35600	- 15 600
Informal sector	287 300	321 700	34 400		368800	485500	116 700
Total	540 200	537 700	-2 500		636 100	746 400	110 300

Sources : INSTAT DSM, MADIO, IRD DIAL. Labor survey : EE2001 EE2002 EE2006 EE2010. Our own calculations.

Finally, as in 2002, the crisis of 2009 did not change the structure of activities by industry. The weight of the garment industry, textiles also declined in 2010 (12.8% in 2009 to 8.6% in 2010) in favor of certain activities such as trade (24.7% to 26.9%) for example. But the crisis of 2009 did not induce a reallocation of activities in 2010.

At this stage of the analysis, we can say that facing to political crises that have slowed economic activity, firms have responded differently. Some have adjusted both salary and working hours, as other firms in EPZ have not decreased the level of their salary but have adjusted their workforce. These behaviors can be explained among others by the intensity of the effect of the crisis on firms (work stoppages, reduced demand, stop orders, etc..).

The total income distributed by each sector to all of these employees (that is to say payroll) gives another indication of the effect of these crises. In 2002, the overall income distribution in the agglomeration of Antananarivo fell 6% in real terms. By sector of activity, income distributed by firms of the EPZ fell sharply (-60%). Those in formal private companies outside the EPZ and public sector declined but very slightly (-3% and -1%). However, income distributed by the informal sector has stagnated in 2002.

Between 2006 and 2010, global income distributed in the agglomeration of Antananarivo grew by 21% in real terms. This increase in income is explained by the increase of income distributed by the public sector (34%) and especially that of the informal (56%). As in 2002, the income

distributed by firms in EPZ has fallen in real terms (-26%), it is the same of that of the formal private enterprises outside the EPZ (-4%).

These figures appear to reinforce the idea that jobs in EPZ firms have mostly suffered from the effects of the 2002 crisis and the crisis of 2009. We know that many orders of these firms have been canceled. In 2010 several EPZ firms were affected by the suspension of Madagascar in the AGOA. Figures on exports reflect this reduced activity: a -70% decline in 2002, -22% in 2009 and -11% in 2010 (Central Bank, 2011).

Higher unemployment in 2002 and 2010.

While overall employment has not declined in 2010, some industries have made job cuts. Thus, on the one hand, the unemployment rate rose 1.4 %age points between 2006 and 2010 rising the number of unemployed from 34,800 to 54,000 or 19,200 more unemployed. On the other hand, the average duration of unemployment was shortened (from 23.1 months and 11.4 months) a similar phenomenonas in 2002. From 4.5% to 7.5%, the unemployment rate increased by 3 %age points between 2001 and 2002. The number of unemployed rose from 25,300 to 43,300 or 18,000 individuals and more. The average duration of unemployment is shorter in 2002: 13.9 months if it was 16 months in 2001.

Therefore,crisis induce an increase of unemployment and a reduction in employment duration. This means that the newly unemployed are more numerous after crises leading to a change in the structure of this category of population. The proportion of unemployed under 12 months increased from 49.4% in 2001 to 62.1% in 2002. Similarly, in 2010, this proportion rises to 54.3% against 39.7% in 2006. According to the employment survey, the majority of these newly unemployed have lost their jobs because of a layoff or firm closure in the private sector in 2002 and 2010, which was not the case in periods (see Table below).

Table 15 : Rise of the importance of the unemployed under 12 months after shocks

	2001	2002		2006	2010
Proportion of unemployed under 12 months	49,4%	62,1%		39,7%	54,3%
Proportion of unemployed under 12 months who lost their jobs because of a layoff or enterprise closure in the private sector	27,2%	67,9%		35,3%	69,2%

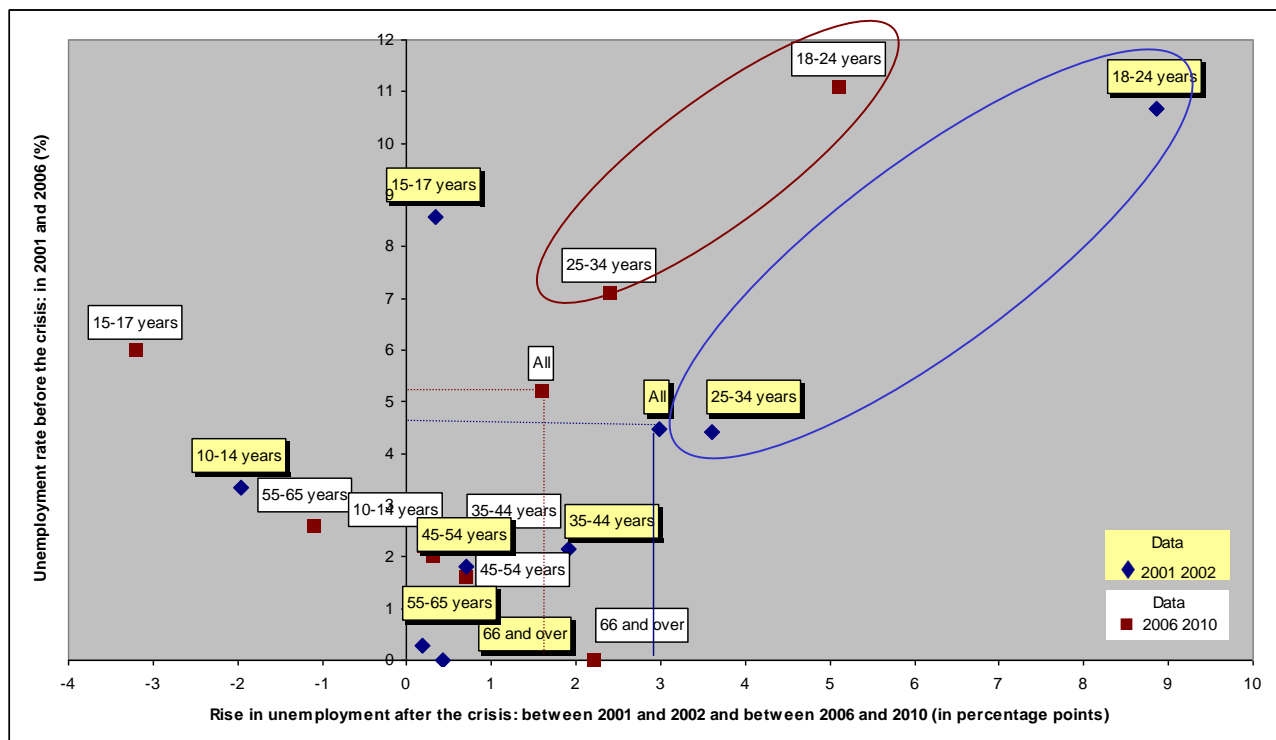
Sources : INSTAT DSM, MADIO, IRD DIAL. Labor survey : EE2001 EE2002 EE2006 EE2010. Our own calculations.

Young, victims of crisis

Unemployed in Antananarivo consists primarily of young people aged 18-24 and 25-34. Their unemployment rates are respectively 11.1% and 7.1% in 2006, and respectively 10.7% and 4% in 2001. These two age groups make up the bulk of the newly unemployed in both 2002 and 2010. They represent respectively 60.7% and 29.8% (90.6% overall) of 19,200 newly unemployed in 2010. In 2002, there were 18,000 newly unemployed with 51.2% and 29.4% respectively of those 18 to 24 and 25 to 34 years.

These two groups of young people, especially those aged 18-24, are among the main victims of crises. Consequently, they require special assistance and appropriate in times of crisis and post crisis. Their unemployment rate rose significantly in 2002 and 2010. They went respectively to 16.2% and 9.5% in 2010, an increase of 5.1 points and 2.4 points. In 2002, the increases were 19.5% and 8.0% is a variation of 8.9 points and 3.6 points.

Figure 22 : Unemployment rate in 2001 (resp. in 2006) and increase of unemployment rate (in %age points) between 2001 and 2002 (resp. between 2006 and 2010), par age group



Source : INSTAT DSM, MADIO, IRD DIAL. Labor surveys : EE2001 EE2002 EE2006 EE2010. Our own calculations.

Notes : the unemployment rate for 18-24 year olds stands at 11.1% in 2006 and increased by 5.1 %age points between 2006 and 2010. But, the unemployment rate for 55-65 years is 2.6% and decreased by -1.1 %age points between 2006 and 2010.

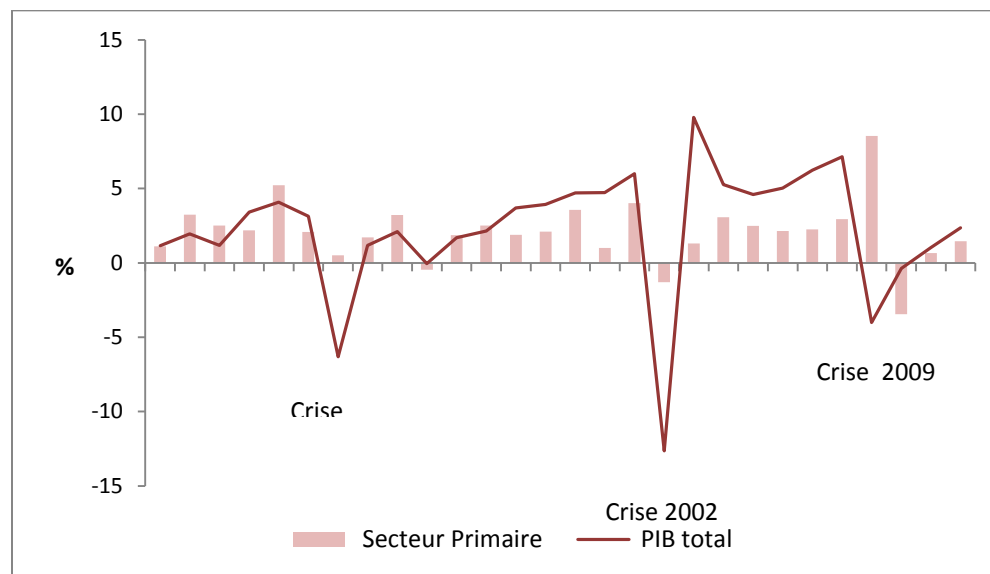
II.4 Agriculture employment

Low labour productivity

Looking at the production trends, it seems at first sight that agriculture was not too much affected by crisis. Production level is correlated with climate change. In contrast to overall sector, the real GDP for primary sector increased during crisis period except in 2002. But a more detailed analysis provides other interpretations. Agricultural activities are burdened by

deep structural problems and agricultural employment is always in crisis. Overall, the agricultural production growth is relatively low: in volume, the average annual growth rate was about 1% for each period from 1984 to 1991 crisis, from 1992 to 2002 crisis, from 2003 to 2009 crisis, and from 2010 to 2012. Related to average annual employment growth in agriculture about 1% per year¹, for decades the apparent labour productivity in this sector didn't improve and remained relatively low. In fact, agricultural employments representing 80% of total workers produce only one third of GDP, while employments in secondary sector and in tertiary sector representing respectively 5% and 15% produce 12% and 54% of GDP. As illustration, the rice yields increased have oscillated between 1.4 tons/hectare to 2.4 tons/hectare since 1960.

Figure 23: Evolution of GDP for primary sector in Madagascar (in constant 1984 price)



Sources : INSTAT/DSY : National Account 1984-2012. Our own calculations.

Many factors influence this low productivity or production level in agriculture sector. In supply side, production level is limited by lack of human capital, low profitability due to not improvement or even decreasing of agricultural yields, not attractive or incitative price and no modernization of technical production. In demand side, farmers limit their production level due to monopoly situation of agricultural products collectors, the enclosure of producing regions following the deterioration of the infrastructures and the insecurity, inaccessibility on market informations, low development food processing industry, inaccessibility or absence of export firms.

The lack of humain capital and the bad quality of labour are clearly obvious and the gap with others sectors is enormous. The average level of education for farmers is relatively low: only 3.1 years. Whereas, in other sectors, the average education level exceeds 5 years even for non agricultural informal sector and reached 9 years for formal sector and 10 years for public sector. The quarter of farmers had never been to school and over half of farmers have only primary

¹ Taking account population projection, the activity rate by gender and employment structure based on labour survey results in 1997, 2001, 2005, 2010 and 2012

education level. For other sectors, these proportions are relatively low: respectively less than 6% and 10% of uneducated workers in formal sector and non agricultural informal sector. The access to vocational training is practically nonexistent: affecting less than 0.5% of all agricultural workers against more than 13% for non agricultural employment.

Table 16 : Education level of workers

	Public Administration	Formal firms	Non agricultural Informal firms	Agricultural Informal firms
Non educated workers (% of total)	0.3	6.1	10.5	23.9
Primary education workers (% of total)	5.4	12.5	35.4	48.9
Average education level (years)	10.9	8.9	5.3	3.1
With vocational training (% of total)	41.3	13.3	1.4	0.5

Sources : INSTAT/DSM : ENEMPSI 2012. Our own calculations.

Recurrent problems related to land ownership limit the expansion of agricultural holdings despite the substantial underused land suitable for farming and grazing. On 36 million hectares of arable land, only 2 million hectares are depleted. Moreover, more than 71% of households farm less than 1.5 hectares. No improvement in terms of farm size is observed: the proportion was 73% in 2005. For nearly half a century of independence and until 2005, no significant reform has substantially revise land tenure. Madagascar remained strongly attached to the Torrens act, a centralized system of public domain designed by the colonial system more than a century. The system is based on principle that land is considered as belonging to the State the only one that can grant property right for those who used the land.

Cultural and social aspects must be taken into account. The anchoring in land is still important. More recently, the international impact of the proposed allocation of 1.3 million hectares of land to South Korean consortium named "Daewoo" is an illustration on how the land issue is central to Madagascar. It opposed supporters of compliance for "tanindrazana" (ancestral land) and the movement of human rights of rural populations to supporters of a liberal option to increase the inflow of foreign capital for developing industries. This case which so far has not resulted in any transaction, and was one of the main arguments of political protest in 2002 and has actively contributed to the overthrow of the incumbent regime.

The respect for parents' wishes and for the elderly in rural area the important pressure of tradition heritage and intergeneration mobility of economic activities limits the development of real labor market. Instead of optimal demand for labor according to market needs, the evolution of labor supply follows as the same trend as the population growth and operates with the principle of job sharing.

II.5 Informal sector

II.5.1 Economic characteristics business-related conditions

In 2012, half of households derive all or part of their income from an Informal Production Unit (IPU). The value added of the informal sector accounts for 24% of the official total GDP and 36% of non-agricultural market GDP. Sector of trade contribute most to the activity of the informal sector: 69% of total sales, 45% of total production and 45% of the total sector value added. Then the industry and service sector contribute respectively 12% and 14% in total turnover for 24% and 23% of total production, and finally to 23% and 22% of the total value added of the informal sector.

The average values of turnover, production or value added by production unit are low compared to those of formal sector enterprises. However, the performance of informal sector as a whole is very heterogeneous, although some institutions realize very good performance, the majority of production unit are close to the level of activity subsistence. Production level fluctuate over time: slows in the third quarter, then progress from February to reach their maximum level in April. Thus, 44% of IPU claim that their production reaches the maximum threshold for the month of April. However, between August and September, more than 16% of the IPU do nothing.

The precarious conditions of activities characterized the informal sector. Thus, 8 of 10 IPU working in makeshift settlement and do not have access to key public services (water, electricity, telephone).

Nine out of ten IPU are completely unknown by Administration: have no statistical number, no business card, not registered in the Register of Commerce and Services of social benefits, do not pay license. However, IPU appear more as an area of spontaneous development of economic activities of households as a strategy to circumvent the law. While informal IPU are not registered, 8.5% of them are enrolled in the license and comply with their tax obligations. But the share of taxes paid to the state tax remains low: 1.9% of the total value added of the sector.

The informal sector consists of micro-units with an average size of 1.5 jobs per unit. Self-employment is the most common form: seven of ten IPU have only one employee, himself head of unit. Salaried Employees are a very small minority: salaried employee rate of 10%. Jobs performed in the informal sector are characterized by a general lack of social protection.

More than 52% of informal sector jobs are held by women. However, women mainly work on their own (58.1%), as caregivers (53.1%). Finally, women are the lowest paid and most vulnerable situations. More than 28% of the workforce are young below 26 years. Most of the time, they have employees or unpaid positions.

Young entrants to the labor market have a similar level of education to adults (4.6 years of successful studies for young and 4.8 years for adult). More than seven out of ten employees are

on-the-job training. Only 2.4% of assets acknowledge having developed their skills in a vocational institute. Only 0.4% of workers declare they have learned their job in a big company. The dichotomy between large and small businesses is both the technology used and the organization of the institution but also the job opportunity for first insertion on labor market.

Excluded in banking system, individual savings finance the capital of IPU to 95% of its value. Financing systems (like microfinance) are unable to take over and participate marginally in financing investment in the informal sector. The investment is low and does not exceed 8%. The low investment reflects the low capital accumulation capacity of the sector.

Exclusively turned to the domestic market, the informal sector is the main outlet for the needs of households. More than 70% of the demand for informal sector products is for final consumption of households. In this context, the informal sector has few direct links with the formal sector, subcontracting is scarce. More than 58% of inputs is upstream from the informal private sector itself and only 29% are provided by the formal sector. If the informal businesses are a way for the dissemination of foreign goods, they sell the large majority of domestic products.

The activity of the informal sector operates in a highly competitive area: only 2% said they did not know direct competitors. This competition is primarily internal to the informal sector and commercial activities are most affected. Marketing of products at low prices (as these products come from national formal sector or outside) is a blocking factor in the development of informal industries. And the sale of thrift puts severe test artisans making.

Only 3% of informal sector face competition mainly by large enterprises in the formal sector (commercial or not). When there is competition formal / informal, prices in informal sector appear less than or equal to large companies prices. The low purchasing power of customers is the first reason given for the difference in price compared to competitors in the formal sector.

The difficulties faced by the informal sector are primarily related to sales resulting from weak markets for demand side and too much competition for supply side. Thus, 57% of informal units declared have problems outlets, 52% suffer from excessive competition and 36% of one another cause. The degradation of the macro-economic environment and the decline in the purchasing power of the population, rather than localized dysfunction in some markets (shortages, inadequate institutional framework, etc.) is the main blocking factor the informal sector.

Among the difficulties that affect informal producers, the recurring problem of credit comes in fifth position. But more than its cost, it is access to credit which seems to limit the development of IPU. A more active and specific policy of credit to the informal sector would be more efficient to the extent that the IPU could solve the constraint of sales.

Access to large demand appears as the first aid applied by informal IPU: 53% of small informal operators. Support for supplies is the second area where 43% of IPU calling support. Access to credit is requested by 22% of IPU. Thus, informal financing systems are largely inadequate to meet the needs of informal activities. Second, it is unlikely that more fluid access to credit solves all the problems of the informal sector are mainly macro-economic order. In contrast, excess public regulation is not a major impediment to the development of informal activities. A modus vivendi based on mutual ignorance exists between the administration and the informal sector. If

informal do not go to the administration to register their activities because they do not know the law, the administration is not interested in either the informal sector, or to give him opportunities.

Only 3% of IPU report having had problems with administration officials. Disputes relate to 30% of the cases of failure on the regulation and 28% of workplace problems. In case of dispute, the payment of a "gift" or a fine "not received" (symptom of the phenomenon of corruption) is the most payment method for 38% of IPU leaders arrested by administration agents.

An active policy based on cooperation is not only necessary but also possible, since only 4% of IPU reported not wanting to work with the administration. Thus, 41% of IPU leaders are willing to register their business with the government and 61% are willing to pay the tax. Finally, 27% of IPU leaders support the principle of "single window" to simplify registration procedures. If we add the IPU leaders who do not know what it is and who might be persuaded by an active policy of communication, there are only 10% IPU refuse legalization (or a fraction in the informal sector can be assumed resistant to any form of cooperation with the public authorities).

Two-thirds of informal operators want taxes back to local authorities. In 2012, 43% of leaders IPU reported that revenue should be invested in infrastructure (roads, market supply, etc.). Then, 30% of leaders IPU reported that revenues should be invested in basic social expenditures in health and education and 18% in support of microenterprise programs. In contrast, only 4% said it would be desirable to use the revenue to pay the salaries of civil servants and 2% for operating costs of the administration.

Despite the difficulties, informal producers remain optimistic: 70% believe that there is a future for their own production. The positive future of the institution intuition is that the informal sector will play an economic role in the coming years, particularly in the area of production. In fact, over 51% of IPU leaders desire that their children continue the same activities.

II.5.2 Working in the Informal Sector: a deliberate choice or a last resort act?

Analyzing the typology of informal production units according to the points of view of the head of unit at the implantation pattern in the informal sector, the logic of production are essential for two main reasons.

First, the choice of interventions for a promotion or a slowdown in the growth of the informal sector should be subjugated by individual perceptions of Heads of Informal Production Unit on their business conditions. Especially, perceptions founded by their views on the advantages versus disadvantages of carrying out the activities in the informal sector must be deeply understood. Through dissecting opinions pros and cons of working in the informal sector, there was a panorama of varied aspirations of informal operators. These variants aspirations guide policy makers to formulate and convey different messages targeted at awareness campaigns to promote or registration of informal activities.

Second, a policy of support to the informal sector can not embrace a integral and simultaneous development of all the activities of this sector. The heterogeneity of informal sector activities requires specific policy for its efficient development of each type of activity. The differentiation is not just about the type of activity or level of current economic performance. It also occurs in the implantation location (urban-rural province), in the age of the IPU head, in multiple reasons (family inheritance, lack of formal employment opportunities for independent, others).

Answering these questions will require a return to the very origin of the informal sector. On the theoretical side, four major trends provide an explanation of the causes of informality. The classical theory of "modernization" or dualism that consider the informal sector as residual activities to disappear with the Development Sector "modern" or formal (Lewis 1959 Geertz 1963 Packard 2007). This theory has received several critical due to the persistence and proliferation of the informal sector in several countries or regions regardless of the economic and social development levels. The "structuralist" claim that the informal sector as the result of widespread exploitation of formal sector companies, which in order to minimize production costs are launching outsourcing or sub-contracts production units unregistered, low remuneration, conditions precarious work, producing rudimentary technique (Castels and Portes 1989 ILO 2002, Amin and allii 2002). Thus, according to this theory, the size of the informal sector increases with the development of the formal sector. For "neo-liberal" theory, the installation in the informal sector is a desired position by traders to escape the burden of administration control and the constraints imposed by the regulatory system (de Soto 1994 Maloney 2004). Informal activities and result of productive strategies of operators to achieve the optimal level of production and to maximize profit. In recent years, a new "post-structuralist" view emerges. Instead of economic rationality and monetary aspects, this new theory rather focuses on social aspects such as consolidation and redistribution within family networks, neighbors or friends (Williams 2004).

To further analyze the causes of informality in Madagascar, the text mining method is adopted to study the responses to open questions for self-employed in the informal sector for their views on the benefits and disadvantages of operating in this sector. This is an original method that is used for the first time in Madagascar to address this topic.

The results highlight three major categories of informal production units according to reasons to operate in the informal sector.

The first category includes "IPU for last resort in short term". Indeed, among the heads of IPU, the third (against 28% on all IPU) inadvertently takes refuge as a last resort in the Informal Sector for not finding jobs in the Formal Sector. The large majority of them (72%) of urban migrants especially in the capital. They work alone and are moving relatively to service sector. These informal leaders have a revenue maximization behaviour. They often report benefits as their informal activities monetary gains in everyday life, despite the fact that these gains are low. This category often mentioned disadvantages of their economic activities such as the problems of market instability and the low level of production and income procured. These situations do not allow them to meet their tax obligations.

The second category includes “survival IPU without perspective”. These leaders UPI operate their activities in the informal sector to survive and to finance consumer spending. Of these, nearly three out of ten IPU (against 20% on all IPU) are classified in the less efficient units in terms of production levels. The majority work in the activities of transformations (secondary branch). In terms of human capital, the IPU heads in this category are the worst off. Over 60% of them did not exceed the level of primary education. A relatively large proportion (18%) of these leaders UPI declared that the main reason for the performance of their current job only by family inheritance. The majority of them are in rural areas and native to their current residence (non-migrants). They declare the advantage the income to cover the vital needs for goods and services. One of the most benefits is that the activities of their UPI leaders help to reduce the difficulties faced by their families. Regarding the disadvantages of their informal activities, they care more about their health and the strain at work due to lack of adequate materials. Indeed, this category of leaders UPI frequently cites inconvenience for diseases such as injuries, fatigue, which result from their activities.

The third and final category consists of “liberal operators”. Indeed, the proportion of managers who have voluntarily chosen to operate in the informal sector is the highest (23%) in this category. A relatively large share of IPU is one of the most efficient production units in terms of scale of activity. They are largely compounds (62%) of young people. These IPU leaders behave like operators who want to maximize profits and / or minimize costs. They base their reasoning on their freedom from overly burdensome administrative procedures and charges. In fact, they think that their activities generate income to ensure the lives of their families, without the register with the state, or pay him a sum of money as taxes or taxes. Similarly, the level of convenience, the administrative aspects have focused on this category of IPU heads. Indeed, they mention in their responses fear and worry about persecution and sanctions from the state because of the informality. They also care about the disadvantages of their non-registration which does not allow them to receive aid or support of the state or other formal structures.

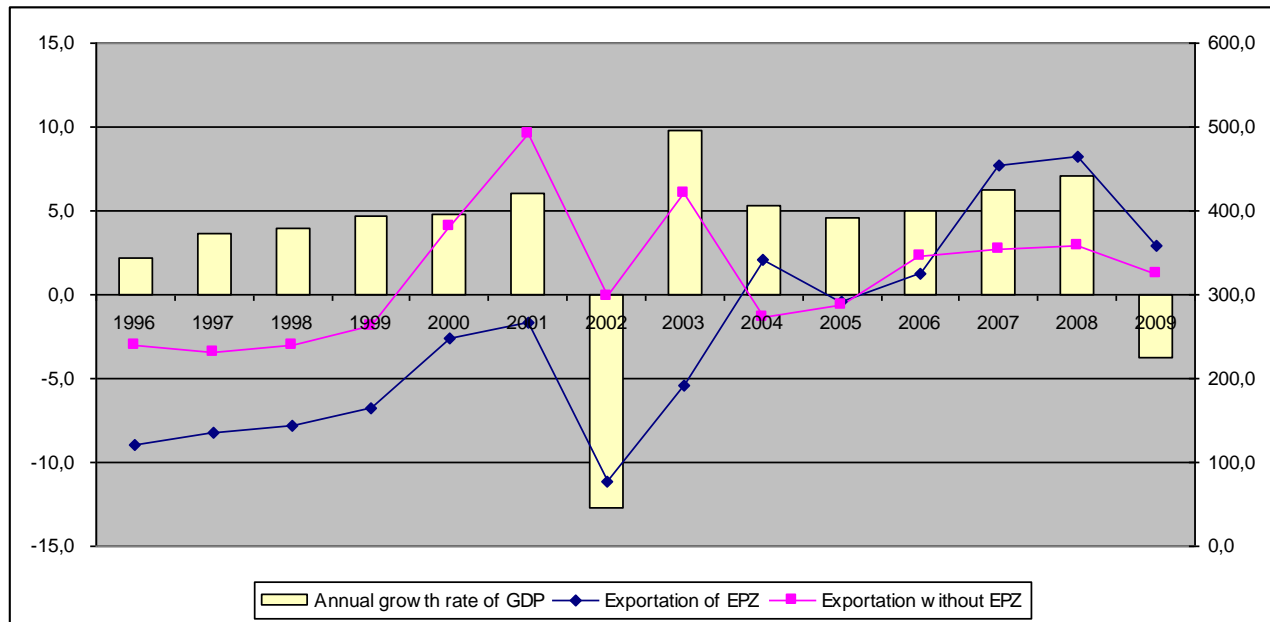
II.6 The EPZ² firms

Some clarification have to be mentioned concerning the EPZ firms. From 29 companies in 1996, they increased to 283 in 2000. Their activities are related to export but they are not among the branches that have contributed most to economic growth in Madagascar in recent years. Indeed, from the EPZ in the GDP does not exceed 2% although it has increased since their introduction in 1989. The importance of the EPZ is its ability to create jobs and lead the activities of other economic sectors in the country (freight, transit, telecommunications, trade, indirect taxes) at the same time creating indirect employment. Thus, they are among the firms with a high capacity for employment because of less than 20,000 direct jobs created in 1994, it rose to 74,000 direct jobs in 2000 and 115,000 in 2006 (ILO, 2006). Firms in EPZ located mostly in the agglomeration of Antananarivo, thus they occupy almost 10% of employed of this city. That

² The EPZ was first established in Madagascar in 1989 where the EPZ is not a geographical but a legal concept. So, enterprises under the EPZ regime can be everywhere in Madagascar but most of them are located in the agglomeration of Antananarivo.

is why they are the focus of this analysis of the impact of crises on the labor market. In terms of exports, the share of the EPZ increased by 20% of the total export of Madagascar in 1995 to 56% in 2008. The export statistics illustrate the sensitivity of the EPZ to socio-political crises in Madagascar (see figure 2 below). During the 2002 crisis, some of these companies have relocated to Mauritius and Kenya. Others have made redundancies (UNDP, 2002). Nearly 20,000 jobs were lost in 2002 only in the agglomeration of Antananarivo.

Figure 24 : Export free zone and socio-political crisis in Madagascar



Sources : BCM-INSTAT

III Support sectors to development of Labor market

III.1 Education and vocational training situation and crisis

On 2004, Madagascar embarked on promoting primary education for all. As it is underlined in the second MDG goal, that means ensuring by 2015 that boys and girls alike will be able to complete a full course of primary schooling. One year before the ending period of the MDG plan, it is hard thinking that educational goals will be achieved. Indeed, instead of rising, and due to the five years politic crisis between 2009-2014, the net primary enrolment rate declined from 96.8% in 2005 to 69.4% in 2012, while the primary grade repetition rate is estimated to 16.6%. In 2010, about 700,000 children who represented 16.7% of the enrolled in primary school were dropped out.

The majority of those who have been at school studied in a public establishment: 87% for those living in rural area and 74% for those living in urban area. This high demand for public school underlines how much educational policy is dependant into the government support.

Apart from the politic crisis the country has encountered, the weakness of the Malagasy educational system is due to different facts among which one can cites in the supply side:

- The massive recruitment of non qualified teacher for the universal primary education plan;
- The lack of educational tool, especially after the repetitive change of the main teaching language;
- The estrangement of school in rural area;
- The post primary school and especially vocational training do not respond to the needs of labor market (especially enterprise);

In the demand side, financial situation and poverty of household hamper schooling of children, even if public primary school is officially free of charge. Indeed in the rural area, due to lack of public hired teacher, households have to contribute into the remuneration of local community paid teachers. Meanwhile participation of children in rural labor force may drop them out of school: the transition rate from primary to secondary school whose average value is 70.7% in 2012 rises from 62.3% for the poorest households (first quintile) to 80.2% for the richest (fifth quintile). By the way, regardless of the school grade, lack of money is the main reason of giving up study (54%).

The Malagasy education system is less performing compared to average sub Saharan Africa countries. In 2008, the completion rate and the repetition rate in primary school are respectively less and more relevant compared in all sub Saharan Africa (SSA): 60% versus 65% for the completion rate and 19% versus 11% for the repetition rate.

In other hand, in 2006 the gross tertiary school enrolment is estimated to 3% for the 18-24 years while the average equivalent rate is 8% for SSA and 15% for Asia and Mauritius. Meanwhile for the working age population (above 15 years old), only 9.3% had attended 2nd cycle of secondary school and 1.7% reached the tertiary level.

Literacy remains to be a great concern in Madagascar as 23.7% (28% in rural area versus 11% in urban area) of people above 14 years old declare not able to write or to read Malagasy. Population living in urban area has achieved 6 years studies while those in rural area have only completed 4 years.

The majority of Malagasy people does not speak French nor know how to use computer: the two indispensables meaning for accessing to advanced technology or technical management of production unit. Indeed, only 16.2% of urban people speak fluently French (versus 3.5% in rural area), 31.9% of urban population (versus 16.9% in the rural area) speaks moderately French. A minority of 7.8% of the Malagasy population above 15 years old are aware users of computer.

III.2 FDI situation

Economic literature justifies the interest of foreign direct investment in developing countries by improving the productivity of capital and labor in the recipient countries. In supply-side, the benefits are not limited only on the contribution of new financial or physical capital in the economy and the creation of skilled employment and decent work but also the transfer of technology and know-how, the training of workers (Barro, Sala-i-Martin, 1995; Grossman, Helpman, 1995). In demand-side, Foreign Direct Investment facilitates access to international markets and large production networks (Caves, 1996).

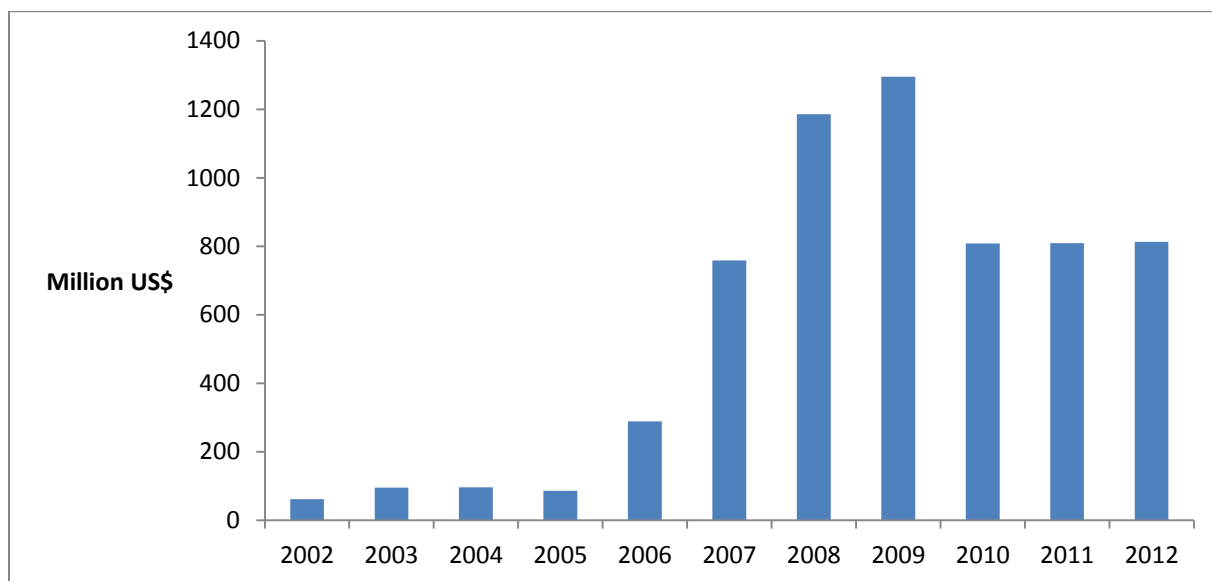
All these benefits are in short-term. The long-term effects and the importance of the impact of these positive externalities on the entire economy is dependent on the financial and technological absorption capacities, on the development level of the financial market and the existence of mechanisms and institutions allowing endogenous changes (Shaw, 1973; Borensztein, De Gregorio, Lee, 1998). Thus, human capital, the education system and training take a very important role in the transmission of the effects of foreign direct investment to economic growth and development.

The lack of qualified personnel in relation to the high demand for skilled labor induced Foreign Direct Investments, inadequate infrastructure and poor development of NICT can limit the effects of foreign direct investment on growth (Caves, 1999). The effects can be harmful for the economy because inequality may widen between skilled and unskilled workers in terms of income levels and proliferation of the informal sector may increase.

The foreign direct investment inflow was evaluated to 812 million US\$ in 2012 and was increasing at a 9.1% rate over a year as it was 809 million US\$ in 2011. The increasing is essentially observed in the post of "other transaction". This post has met an increasing of 17.6% over a year. It is worth noting that this post composed by debt of shareholder. The FDI flow was boosted since 2007 during which it tripled: 759 million US\$ in 2007 versus 289 million US\$ in 2006. The improvement went on until 2009. Because of the crisis, the FDI flux dropped down for more than 37% in 2010: from 1 294 million US\$ in 2009 to 808 million US\$ in 2010. Then the flux stabilized until 2012.

The social capital and the reinvested profit increased by 14.5% in 2012: the social capital was 41 million US\$ in 2012 versus 36 million US\$ in 2011 while the reinvested profit had more than double by rising from 24 million US\$ in 2011 to 56 million US\$ in 2012. The positive change in the social capital is due to the contribution of foreign enterprise created during 2011.

Figure 25: Evolution of FDI flux in Madagascar (in million US\$)



Source : BCM-INSTAT/DSE : IDE 2002 – 2013

According to the UNCTAD 2013 report, the world FDI declined by 18.0% from 2011 to 2012 and was estimated to 1 350 billion US\$ in 2012. The decreasing is essentially due to the economy weakness and uncertainty choice of many countries which result in prudential investment. Despite of the global recession the BRICS group (Brazil, Russia, India, China and South Africa) was the main source of FDI among emerging investors countries.

The flux from these five countries rose from 7 billion US\$ in 2000 to 145 billion US\$ in 2012 and represented 10.0% of the world total. Their transaction becomes more and more active especially in Africa.

It is noticed that African FDI has slightly increased. The case of Madagascar has not followed this trend because of the local currency depreciation. Indeed, the share of Madagascar in the influx FDI to Africa has diminished between 2011 and 2012 from 1.7 to 1.6%.

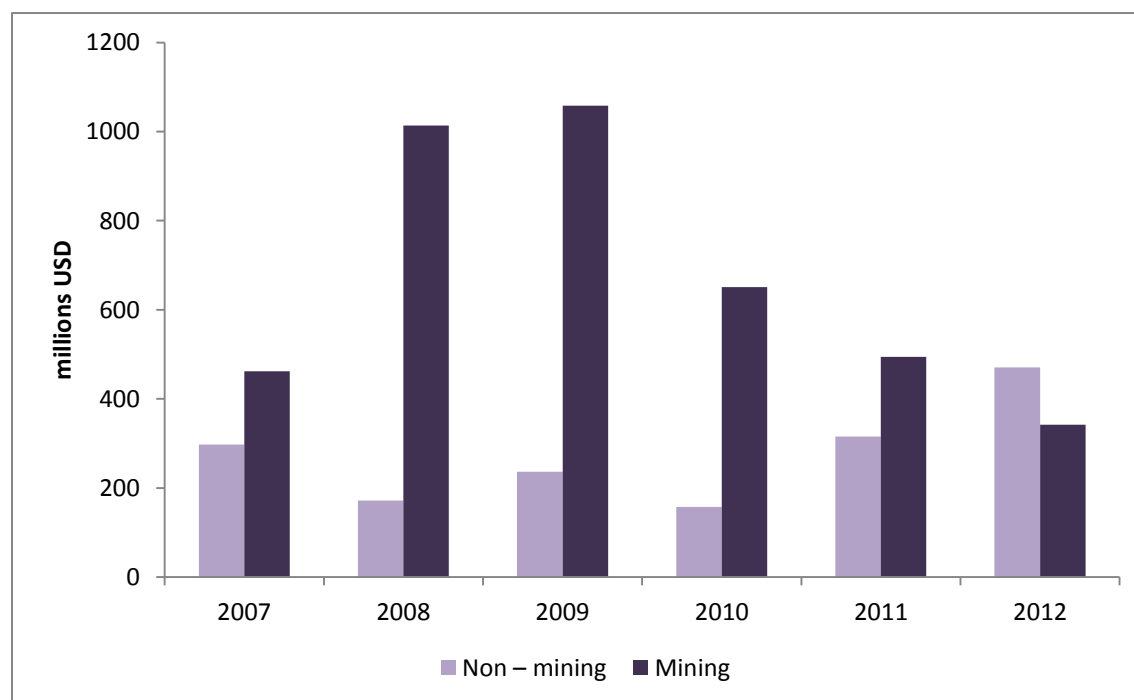
Table 17 : Evolution of share of FDI flows incoming from Madagascar in 2009-2012

	2009	2010	2011	2012
Madagascar (billion US\$)	1.3	0.8	0.8	0.8
World (billion US\$)	1 198.0	1 409	1 652	1 351
Developing Countries (billion US\$)	606.2	637	735	703
Africa (billion US\$)	52.6	44.0	48	50
Share from Madagascar in the world (%)	0.1	0.1	0.0	0.1
Share from Madagascar in developing countries (%)	0.2	0.1	0.1	0.1
Share from Madagascar in Africa (%)	2.5	1.8	1.7	1.6

Sources : BCM-INSTAT/DSE : IDE 2010 – 2013 and CNUCED, World Investment Report 2013.

A part from flux registered in the mining, 2012 highlighted the performance of financial activities, telecommunication, and fisheries & fish farming. Indeed, compare to 2011, financial activities and telecommunication respectively observed an increasing of 116.9% and by triple in 2012 while in fishery and fish farming the capital influx received duplicated by 5.7 time. These high increasing were mainly due to the rising of capital and debt contracted by some enterprise of these sectors.

Figure 26: FDI flows in mining and non-mining sector between 2007 and 2012 (millions US \$)



Source : BCM-INSTAT/DSE : IDE 2008 – 2013

The FDI flux received by the mining never stops to decline since 2010. In 2012, the decline was 24.5%. This is related to the end of the big investment in the mining. However, mining continues to drive FDI and remains in the top of investors (38.2% of total investment). According to the “2012 Economic perspective in Africa”; the mining mainstreams the increasing in 2012 and 2013. This relates to the production phase starting of the country biggest mining project.

It is worth noting that compare to the 2011 situation, a part from the mentioned investing activity; three other activities made a big step: the transportation, fisheries and fish farming, and hotel & restaurant. Their investment fluxes were respectively 8.1; 5.7 and 3.3 times more relevant.

In 2012, the two following activities, telecommunication and financial activity generated 42.4% of the total FDI, while their contribution was only 19.4% in 2011. When the mining is added to this group, their relating investment weighted for 84.3% of the FDI in 2012. It is worth mentioning that in 2012 the share of non mining activities in the total FDI was 57.9% versus 39% in 2011.

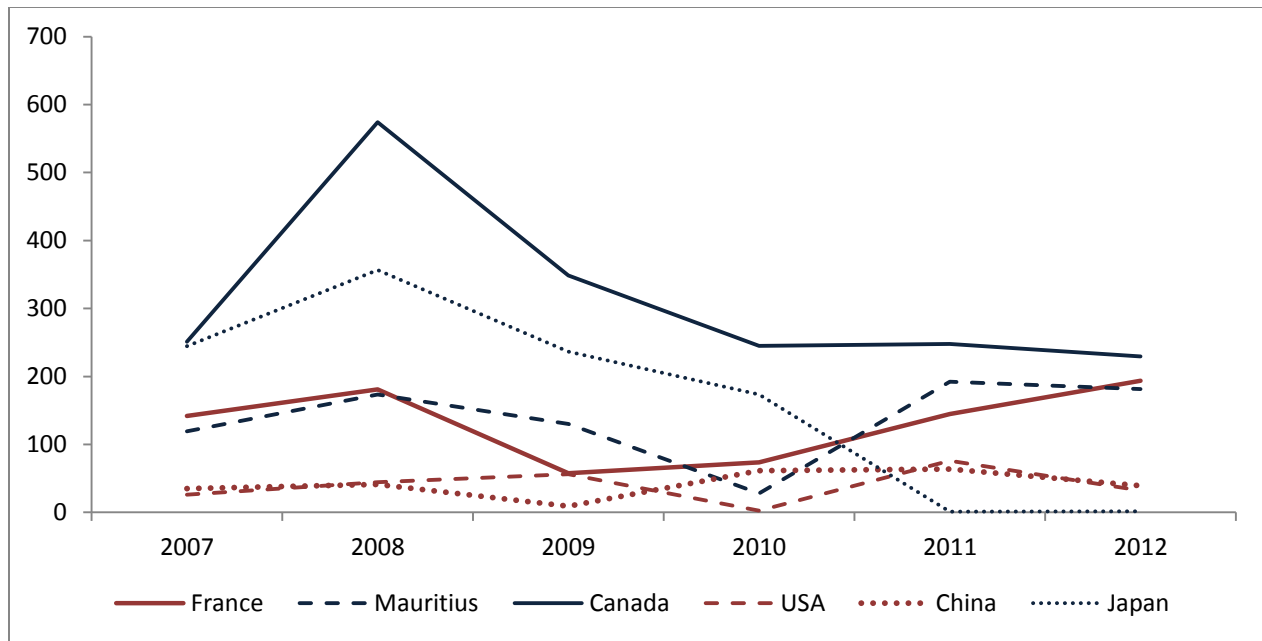
Origin of FDI

In 2012 the five most investing countries in Madagascar were: Canada, Mauritius, France, China and the United States. They operated in the big mining project, the financial activity, the communication and in the processing activities.

France ranked sixth in 2009, then fourth in 2010, in third in 2011 then second in 2012, by registering respectively FDI flux of 293.3 billion ariary and 425 billion ariary during the two last years. The FDI flux from France was raised by 2.7 times compared to its 2010 level.

For FDI flows from the Mauritian investors, a significant increase in flow was recorded in 2012 compared to 2011. The change between the two years was 2.4 %. Comparing with the situation of 2008, the FDI flows from Mauritius remained on a positive trend with an increase of 42.3 %. The "mining" sector is the largest recipient of FDI in Mauritius, with a share of 43 %. The second branch is the beneficiary "telecommunications" with 41.0 % of the flow. Then we have "transport and auxiliary transport" (5.0%), and "real estate, renting and business services" (4.0%).

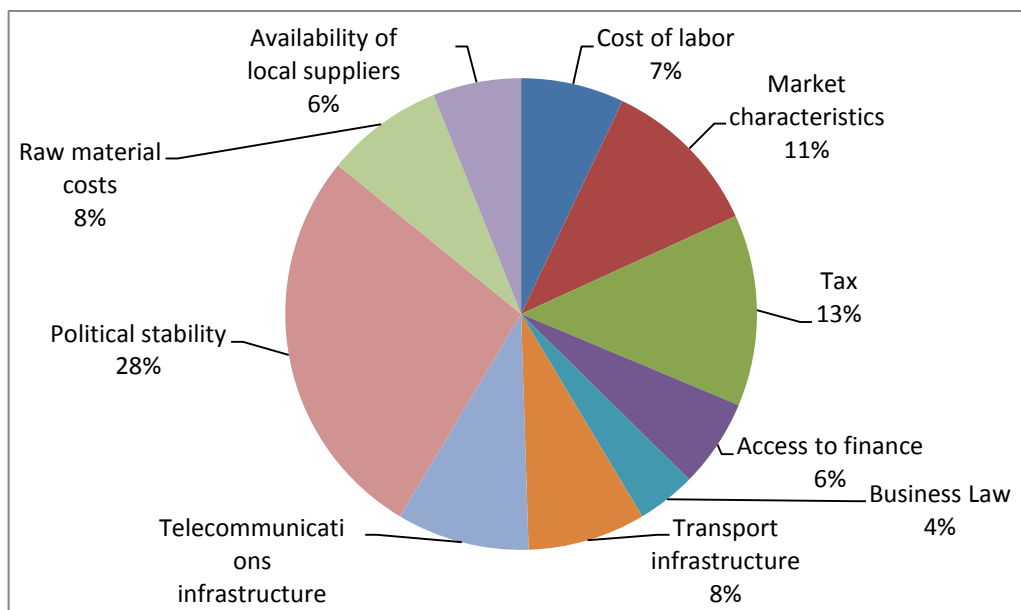
Figure 27: FDI flows by origin Country between 2007 and 2012 (millions US \$)



Source : BCM-INSTAT/DSE : IDE 2008 – 2013

Regarding handicaps, the vast majority of entrepreneurs (62.0%) said that political instability represented the main factor blocking the development of its activities. Followed by the complexity of the "tax" (16% in 2012), a %age almost doubled compared to 2011. This has begun to worry investors in Madagascar. Difficulty "access to finance" (to 6.0%) represented an obstacle to the development of these enterprises with foreign capital.

Figure 28: Main handicaps of Madagascar (% of responses of operators)



Source : BCM-INSTAT/DSE : IDE 2012 – 2013

III.3 Microfinance

Through microcredit, it would be possible to initiate the relationship ranging from increased investment to the income and living standards. The credit can break the vicious circle of poverty: low income, low savings, low investment and therefore low income. Microcredit makes possible productive investment, based on increased income. Microcredit will break this vicious circle in favor of the virtuous circle more credit leads to an increase in income which in turn will increase savings and investment (Gulli, 1998).

Microcredit as a tool that responds to a failure of the financial market to reach a certain category of personnes. Par against, according to the results of various studies, microfinance meets the needs of the upper fringe of poor households and do not touch vulnerable particularly in rural areas due to the inadequacy of financial services offered at high interest rates or collateral required (Littlefield, Rosenberg, 1999).

The microfinance sector has grown in Madagascar since the late 80s, with the support of many donors like the World Bank, the French Development Agency, the German Cooperation, UNDP / UNCDF, the European Union, etc. Initially, the main objective was to fill gaps and failures of banking services in rural areas. Currently, many microfinance institutions operating in urban areas especially in the capital.

The microfinance sector in Madagascar mainly four types of organizations:

- Institutions to "core members" and / or self-managed, mostly mutual, practicing the collection of savings and credit to their members;
- Institutions to "customer base", which are organizations whose main activity in lending and borrowing are not binding to the constitution of prior savings;
- NGOs or associations that are not credit their main activity, credit is often regarded as a component among others.
- Development projects to "credit component"

In 2013, licensed microfinance providers are among 31 institutions, double the number in 2008. They consist largely of Financial Institutions Mutual, Mutual of Financial Institutions not, other Establishments Credit (Banks and Public Institutions). The 820 service points are scattered in all 22 regions of Madagascar. Mutual Institutions are a large majority in terms of numbers of members, with more than 70% of the members, against only 9% for non-mutual institutions and 21% for other credit institutions. By cons, in terms of outstanding credit, mutual institutions and other credit institutions will share equally with 40% each, leaving the remaining 20% to non-mutual institutions. As for savings deposits, mutual institutions account for half, only 38% for other credit institutions and 12% for non-mutual institutions.

Despite the crisis, microfinance activities have developed rapidly in Madagascar. Since 2008, the number of members has more than doubled from 530 as 000 individuals over 1,098,000

individuals in 2013. Among them, women are a minority but their proportion increased by 4 points from 43% in 2008 to more 47% in 2013. Although the penetration rate has also doubled in 5 years, it is still quite low in the order of 25% of households. However, in the period of 2008-2013, outstanding loans more than tripled and savings deposits practically quadrupled.

Table 18 : Evolution of microfinance in Madagascar

Period	Number of MFI	Number of Service Point	Penetration rate	Number of members/clients	Proportion of Women (%)	Saving amounts (million of Ariary)	Credits amounts
2013	31	820	24,6	1 098 075	47,0	309 434	387 682
2012	31	785	22,7	984 683	45,9	233 530	314 791
2011	29	738	19,5	836 375	46,0	193 096	244 576
2010	26	700	17,5	733 864	46,4	136 443	177 868
2009	27	652	15,8	629 302	45,4	91 050	145 174
2008	16	638	13,7	529 774	43,1	72 943	119 871

Source : www.Madamicrofinance.mg

The National Strategy for Microfinance (SNMF) 2008-2012 aims to promote access to diversified microfinance services both in the supply of products and in terms of types of institutions, through viable institutions integrated in the financial sector for the majority of low-income households and micro entrepreneurs across the Malagasy territory by 2012 ".

In 2012, the sector objectives were to (i) continue the effort to densification of microfinance networks and expansion of microfinance services in areas not covered or poorly covered areas, (ii) conduct the final evaluation of the National Strategy Microfinance (2008-2012) and (iii) formulate a new National Microfinance Strategy for the next five years.

The progress of the microfinance sector in Madagascar over the past few years is remarkable. The consistent results achieved in terms of number of users, in deposits and credit volumes are very encouraging face to the fight against poverty. Microfinance Institutions (MFIs) have developed rapidly and the market has seen the introduction of new institutions and the competition is strong in some areas, while national coverage is far from being achieved and has a strong disparity.

Penetration of households in the area reached 21% in 2012 it was 18.9% in 2011. The microfinance sector has 31 licensed MFIs against 29 in late December 2011 and 26 in late

December 2010. In addition, four (04) credit institutions regularly carrying on microfinance activities including 03 regional banks.

MFIs in Madagascar still face problems despite the sector growth. These problems are as follows: Access to refinancing difficulties MFIs, the weak performance of management and information system (GIS) of several MFIs, the opening of some areas and the lack of incentives for the expansion of MFI activities in rural areas, the high concentration developed in the microfinance sector in urban areas at the expense of rural communities activities, the lack of mechanism to strengthen consumer protection.

To solve these problems, recommendations are already reflected in the National Strategy for Inclusive Finance (SNFI 2013-2017). These are:

- Assess the feasibility of a sustainable financial institution refinancing and where necessary by its implementation, considering the involvement of the holders of local capital (institutions and insurance, retirement and savings mobilization)
- Establish and implement plans to support professionalization and professional plans, which must be made by MFIs.
- Extend the services of financial institutions to improve signal coverage and access to financial services.
- A study on the mechanisms to be put in place to protect customers of financial services (law, modification of current legislation, codes of conduct, etc.) al.

Four strategic areas must be implemented according to the guidelines provided by the new National Strategy for Inclusive Finance (SNFI 2013-2017): Support demand for financial products and services, Development of the range of financial products and services, coordination and advocacy of inclusive finance, the legal framework, supervision and the environment of inclusive finance.

III.4 **Energy**

Energy, especially, petroleum products belong not only consumer products but also the means of production used in virtually all sectors of the economy. Access to these products in terms of availability and price determine the level of inclusiveness of growth to the extent that it determines the profit and competitiveness of the supply side of the business, and the demand side of the level of consumption households and business investment.

III.4.1 **Petroleum products sector**

The petroleum products sector is evolving in a context of liberalization in Madagascar and remains open to all natural or legal persons. However, competition is not actually visible on the market because the prices displayed are practically the same in the stations.

Madagascar imports all petroleum products which the country needs. Distribution and sale of these products totaled 792,863 m³ in 2011. Oil Products provide 7.3% of energy deals in Madagascar. The country imports 7 types of petroleum products since 2011: Diesel represents 54% of the volume, Fuel oil with 13% of the volume, Gas, Gasoline 95 super (unleaded), Species aviation.

Petroleum products targeting several categories of consumers in Madagascar and have several uses as fuel for engines, and as fuel for outbreaks of burners for cooking, lighting or boilers. Consumer categories are: households, industries, the transportation industry, building and construction companies, the sector of hotels and restaurants, the fisheries sector, the Energy sector. Electricity production from Madagascar comes from two sources, including hydropower and fossil fuels.

The transport sector and the production of energy are the main consumers of diesel and fuel oil. Diesel is the most consumed product in Madagascar with 430,000 m³ in 2011. One of the largest users consists of the land transport sector, including professional transit and goods. But it also saves the use of diesel fuel in the sector of the production of energy to power the generators to produce electricity. By reasoning according to the users, the production of electric energy represents 13% of the diesel consumption and almost all fuel oil. The share of consumption of the transport sector (private car, public car, freight vehicles) represents on average 75% of the diesel consumption.

The lamp oil demand is represented by consumption at the household level. More than 81.2% of Malagasy households use lamp oil as a light source, and a small portion is used as fuel for cooking, or about 3,391,460 households including 493,835 urban households and 2,897,825 rural households.

The price of petroleum products has increased since 2001. Even the sector operates in a context of liberalization, the pricing of petroleum products is closely monitored by government due to its strategic position, including its impact on society and the economy. The well is noted in 10 years, a price increase of around 113% for premium gasoline, 232% for lamp oil, 363% for diesel. Changes in the price of oil and the deterioration of the term change are the main causes of this variation in the price of petroleum products. The structure of prices shows that the cost of inventory also includes the purchase of petroleum products constitute 43% to 52% of the price of petroleum products. Taxes are 1.07% to 39% of the price of petroleum products.

Madagascar has a strong dependence from outside petroleum products heavily affecting the development, not to mention the flight of foreign currency in the balance of payment. The share of petroleum products in the cost of doing business in the country including the service sector and the manufacturing sector, has become important because of the increasing price of petroleum products. This may reduce their competitiveness and profitability and thus slow economic growth. For example, the purchase cost of petroleum products represents 50% of the

operating expense of the fishing industries. The increase in fuel prices affects the price of transportation, electricity and the price of everyday products in general.

Impact of oil prices on growth: significant impact in the long term

Generally, changes in the prices of petroleum products negatively affect economic growth in net importing countries like Madagascar. Mechanisms relate to both the supply and the demand. At the request of the effects can be seen on consumption and investment. On consumption, taking account of low household purchasing power and disposable income, the higher the prices of petroleum products are, the less the consumption level is high. In addition, the decline is more consistent if households expect long-term inflation. On the corporate side, rising energy costs and inflation is spreading on production costs (including wages by indexing wages to inflation). It impacts negatively on profit, and therefore on the level of investment and the level of future production.

In addition, petroleum price volatility creates a feeling of "uncertainty" among operators, who may decide to limit their investment, so insufficient supply and high prices in the medium term. These aspects are limited given the low saturation of production capacity after the crisis and the importance of "dormant" capacity supposedly not yet obsolete. Indeed, during the long period of crisis, the contraction in demand has weighed on companies were forced to reduce their production and their spare capacity.

According to estimates, a 10% increase in oil prices on the world market would lead to a decrease of 1% of the long-term growth rate.

III.4.2 Electricity sector

In 2011, hydropower secured 52% of electricity production, fossil fuels brought the remaining 48%. Although Madagascar has a strong potential to develop renewable energy, the country has, however, more and more use of fossil fuels to increase its rate of electrification, one of the lowest in Africa (about 15 %, much less in rural areas). The low purchasing power of the population against the exorbitant price of electricity largely blocks the population in urban areas and more in rural areas do not have access to that need. In addition, the production of electricity in thermal power has increased in recent years as renewable energy struggling to develop.

The supply of electric power in Madagascar is ensured by the network of state company JIRAMA founded in 1975 which supplies urban areas, and through the actions of the private company

ADER created in 2002; it is a structure mandated by the Ministry for Energy to promote and develop the rural electrification.

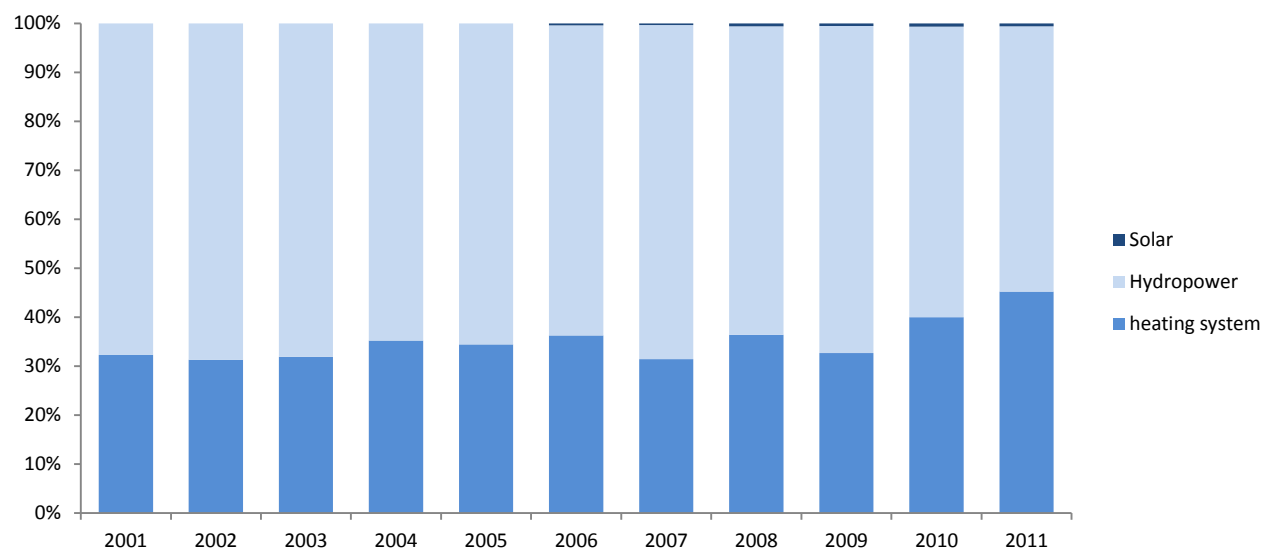
In 2014, an increase in electricity production at the national level was recorded this year compared to 2013, according to the latest figures from the dashboard of the National Institute of Statistics. In total electricity production at the national level has reached 121,725 MWh in January 2014, against 116,710 MWh for the same period in 2013, an increase of 4.3%. An increase of 6.8% was recorded on hydropower generation over the period studied, it increased from 70,695 MWh in January 2013 to 75 503 in 2014. For the production of thermal energy, it was up 0.4% from 46,015 MWh to 46,221 MWh.

Furthermore, an increase of 2.9% was observed on the electricity consumption in the country. It rose from 79,196 MWh in 2013 81,293 MWh this year. An increase of 5.7% was observed for household consumption, down 0.6% for industries and other services, and an increase of 16% for public lighting, the numbers still indicate INSTAT. But remains in Madagascar with electricity. Access to electricity is a major problem which greatly hinders development in the country, as in other African countries.

The impact of changes in fuel prices on changes prices of other energy products is amplified via input costs account keeping the structure of the current energy production in Madagascar. Indeed, in 2011, over 45% of the electricity production from thermal power plants, despite the huge potential of Madagascar in water. Moreover, since 2009, this share is increasing continuously to meet rising demand account held stagnant or declining output from the hydroelectric facilities: only 55% of total production in 2011 against 65% in average between 2001-2009. This weakens more financial condition JIRAMA. In 2011, the production of electricity consumed close to 145 000 m3 of fuel, of which 56 000 m3 of gas oil and 89,000 m3 of fuel oil or 13% and 80% of total consumption in gas oil and fuel oil in Madagascar. This fuel dependence has increased in recent years to the extent that fuel consumption has increased by 54% between 2006-2011, while electricity production increased by only 26% in volume.

Thus, since 2006, JIRAMA is forced to make adjustments of electricity tariffs in line with inflation, exchange rates and fuel prices. This formula leads to a spiral of rising prices doubled between 2006 and 2011 (165 Ar / kwh in 2006 to 330 Ar / kwh in 2011). The cost of energy including electricity is too high in Madagascar compared to other countries in the region. In 2009, Madagascar is ranked fourth among the most expensive countries in East and South Africa's electricity prices for households.

Figure 29: Structure of source of electricity production



Thus, since 2006, the national electricity company (JIRAMA) is forced to make adjustments of electricity tariffs in line with inflation, exchange rates and fuel prices. This formula leads to a spiral of rising prices doubled between 2006 and 2011 (165 Ar / kwh in 2006 to 330 Ar / kwh in 2011). The cost of energy including electricity is too high in Madagascar compared to other countries in the region. In 2009, Madagascar is ranked fourth among the most expensive countries in East and South Africa's electricity prices.

Table 19 : Comparison of electricity prices in the South and East Africa (US cents)

Country	Semi-industrial voltage (2500 Kwh/month)	medium-voltage (35000 kwh/month)
UGANDA	25,5	12,83
MADAGASCAR	22,23	22,55
RWANDA	13,99	13,99
MALAWI	12,44	9,87
SOUDAN	12,25	4,97
BURUNDI	11,79	17,4
NAMIBIA	10,13	9,19
TANZANIA	10	9,91
MOZAMBIQUE	9,28	8,08
KENYA	8,45	7,25
MAURITIUS	8,03	7,05
ETHIOPIA	6,42	4,54
ANGOLA	5,5	2,93
ZAMBIA	4,52	4,72
SOUTH AFRICA	3,38	2,81
ZIMBABWE	1,04	1,45

Sources : UPDEA-2009

iv Development policy in Madagascar

IV.1 Socio-political situation: recurrent crises

Since independence in 1960, Madagascar has experienced four socio-political crises (1972, 1991, 2002 and 2009). For a variety of reasons, the evolution in time of crises is becoming more and more alarming for near future not only the political situation, but also economic, social, cultural and even religious. Firstly, the emergence of political crises becomes more and more frequent: 19 years between crisis in 1972 and in 1991, then 10 years between the 1991 crisis and the 2001 crisis, and finally 8 years between the 2001 crisis to 2009 crisis. Secondly, the duration of the crisis also becomes longer: few months for crises on 1972, 1991 and 2001 and more than 4 years for 2009 crisis. The social divide and the gap are widening between rich and poor, between rural and urban household.

The first crisis occurred in 1972. It began with a strike of medical students in January 1972 and ended by a popular uprising in May 1972 and the transfer of power to a military directorate. The crisis has definitely ceased after actual transfer of power to a new head of state in October of that year. The crisis has mainly affected the administrative system, the economic consequence was limited.

The crisis of 1991 lasted five months. It began in May of the year with popular meetings turning into a general strike leading to a blockage of the administrative system that effected economic activities. People demanded a revision of the Constitution and the the President's resignation. The crisis has continued after the establishment of the transitional government in October 1991.

The 2002 crisis began in December 2001 with the contesting of the results of the presidential election. The crisis lasted seven months. Since the first weeks, daily demonstrations and work stoppages have occurred. In order to isolate Antananarivo, center of the dispute, infrastructure such as bridges, towers, etc., were destroyed, anti economic barrings were set up especially on the RN2 road linking the Capital and the city of Toamasina, the first major port of Madagascar. The traffic of persons, but mainly of goods (fuel, medicines, etc..) was significantly disrupted, penalizing people and firms located in the city of Antananarivo. The crisis has led to a blockage of administrative and economic system. It ended in July 2002 after the exile of former President.

The current crisis began in January 2009 by a popular uprising followed by looting and destruction of economic goods. A change of government took place in March 2009 but the crisis is not over yet after three years. The current crisis was peculiar as it occurred after the 2007-2008 global financial crisis, it is longer and persists until now. Concerns raise about its relatively high duration and intensity. As the change of government was deemed unconstitutional by the international community, foreign aid to Madagascar, with the exception of some social sectors, has been suspended since December 2009. The state is in financial difficulty. There is no

stoppage of work or daily event but the administrative and economic system is idling. A climate of insecurity prevails. The lack of clarity regarding the development weigh on economic activity.

IV.2 Evolution of development policy and role of State in economy

Since independence in 1960 until the early 70s: the option to spatial planning

The first five-year plan began under the first Republic to face the challenges of development after independence in 1960. The plan, implemented between the period 1964-1968, aims to the development of agriculture and promotion farmers by focusing on improving productivity. This initiative was supported by a large project where Malagasy Government and the French Government interfere.

It was designed as the low level of infrastructure development has been regarded as one of the causes of underdevelopment. Planning has focused mainly on land focusing efforts on infrastructure development (including the irrigation infrastructure, extension of rail infrastructure) in targeted areas.

Large public development companies have been present in each of these areas. They were tasked managing projects in the field of planning. In addition, the period was the development of communications infrastructure (mainly road infrastructure) national, interregional and international for which the state has invested heavily.

Although the shares of large public companies have contributed to the strengthening of regional specialization by creating centers of production such as rice in two rice barns, the option for the land was generally less included. Local authorities have been virtually excluded from the process while they supported the recurring expenses related to the development of infrastructure (road maintenance, ...) using a local tax undeveloped (disappearance of certain taxes) and small low income measures tell the 'ground level'. What prevented them from carrying out major actions on infrastructure maintenance.

In the late '70s: state interventionism industrialization

Strategic sectors (industry and service) were nationalized: rice production, trade in petroleum products, distribution network for international and domestic trade, banking system. Industry was considered as engine of economic growth supported by agriculture. After stagnation during 1975-1977, massive public investments were conducted in 1979 to stimulate economic growth. The prices of essential products like rice, oil, soap, fuel were administrated. Madagascar had withdrawn from franc zone and adopted the fixed exchange rate. The low profitability and poor coordination of public investment projects (famous white elephant), inefficiency of state-own companies and the first two oil crises (1973 and 1979) reducing world demand led to macroeconomic imbalances.

Planning has been directed towards reducing regional imbalance in parallel with the activation of the process of decentralization and devolution. Thus, the State has invested heavily in the area of social infrastructure to mention that the case of one university per province, a secondary school per district, a college per commune and Public Primary School in the village. Moreover, the end of the decade (1979) was marked by the desire to spread the confirmed major industrial projects, evidenced by construction companies with strong state participation in regional processes. Program known as "excessive investment period" has generated extensive use of borrowed funds with a significant proportion has been contracted to market conditions. He noted the volume of external debt to an almost unbearable level and questioned the balance of external payments (reduced ability to cope with external commitments expired) when the interest rates on the international market been subject to wide fluctuations. The crowding out the private sector and trade system malfunction and distribution phenomena inherent in state interventionism have plunged the economy into a recession. The profitability of newly built enterprises or those that have been nationalized and the potential implementation of the Regions, however, have not been sufficiently taken into account to the extent that their performance was generally disappointing. The economy faces serious imbalances from its structure and its operation.

In the early 80s: The need for restoration of economic balance; then, in the 90s: the economic and trade liberalization.

Since 1981, in order to recover from the economic failure due to socialism experiences, economic and financial stabilization intending to reduce global demand and increase domestic savings was agreed with IMF. It was not until the second half of the 80s for these interventions Bretton Woods Institutions gradually manage to restore the great economic and financial balances and, with the implementation of the policy known as structural adjustment. These measures have centered around liberalization, reduction of protectionism, opening outward, reducing the weight of the state in the economy through privatization of public enterprises took precedence over other programs and initiatives the Government.

The program included a number measures, among them suppression of subsidies for consumer products, especially the rice, improvement of arrears recovery, freezing or limitation of public sector recruitment and wage austerity, reducing to minimum equipment expenditure and its reallocation to production sectors. The financial stabilization program was accompanied with series of Structural Adjustment Program supported by the Worldbank and others bilateral donors: first step between 1983-1987 and second step (PAS I) between 1988-1990. The measures were focused on economic liberalization and trade openness. The government had taken progressively measures eliminating economic distortions in both internal and external markets. The government has advocated a sectoral approach. Four sectors, such as Industry and trade were involved by the structural adjustment credits: for Industry (CASI), for Agriculture (CASA), for public companies (CASEP) and for Industrial and trade policy (CASPIC).

The policy of openness has enabled the integration of regional organizations in Madagascar. Trade with new partners have developed and external payments problems have been fully resolved by the end of year 90. The private sector has not yet seen significant growth despite the undeniable comparative advantage and the gradual withdrawal of State of the productive

sectors; which illustrates the trend in the secondary value added (12.0% of GDP over a long period). It was until the advent of major mining investments that the trend is reversed.

In 1991, the program was brutally interrupted by the political crisis. A strike lasting for over seven months affected on both public sector and private sectors. Economic and social activities were paralyzed on both supply and demand sides.

Economic liberalization in the 90s to the fight against poverty at the beginning of 2000 before crisis

The post-crisis period 1992-1996 was characterized by political instability. The search for parallel financing and its influx which didn't respect orthodox financial management resulted in suspension of negotiation with traditional donors. The uncertainty on economic policy choices were major obstacle to development. The average annual growth rate was relatively low, about 1.4% much lower than population growth. With the floating exchange rate taken by government in 1994, the central bank was abandoned the instruments for direct interventions but now focused the measures on indirect interventions on monetary policy, such as the minimum reserve system and manipulation of the lending rate.

The structural adjustment program ended in late 2000 where it was gradually established strategy of poverty reduction contained in the Strategy Document for Poverty Reduction (PRSP). The strategy aims: the restoration of the rule of law and the establishment of governance; promoting broad-based growth; improvement of security conditions and the well-being of the individual. The implementation of the strategy was satisfactory to the IMF and the World Bank, despite the political crisis in 2002, which has a negative impact on growth, per capita income and poverty. Which allowed to reach the completion point in October 2004, the final phase of the HIPC process (initiative for Heavily Indebted Poor Countries).

After 2001 crisis until early 2009. Tightening governance and the rule of law, strong and sustainable economic growth supported by an action plan for Madagascar or Madagascar Action Plan (MAP)

The improvement of economic situation started since 1998 ended abruptly again in 2001 due to a new post electoral crisis. Un-economic dams along main roads and arms confrontation between factions blocked all economic activities and has resulted severe shortage of energy and consumption products.

After the effectiveness of political power, the new regime received broad support from inside (fervent popular support) and outside (international private and public donors). Madagascar grew out of crisis relatively fast. On supply side, the reform was focused on boosting private sector including agriculture and EPZ, improvement of business climate (fight against corruption) and attraction of large foreign investors. On demand side, the government's actions were focused on investments in economic and social infrastructure (road, communication, school, health center) and prospection of new external markets, especially integration to regional economic group (Southern Africa Development Community in 2008, Common Market for Eastern and Southern Africa in 2005, Indian Ocean Commission).

The action program for Madagascar or Madagascar Action Plan (MAP) has taken over the PRSP. This program is part of a neoliberal regime that has relied on private investment to make the

strong and sustainable growth, strengthening governance, rule of law, democracy and halve poverty by '2015. The strategy relating thereto has been supported by structural reforms (reform of public finances, ...) to achieve specific objectives.

IV.3 Human Capital development policy

Human capital is beneficial both for the individual and for the economy as a whole by raising productivity, so the remuneration of labor and production. He continues to enjoy sustained on the labor market due to the search for transferable skills (sense of public relations, computer skills, ability to work in a team in addition to the basic training) demand, especially since Information Technology and Telecommunications (ITC).

Human capital is also a social integration factor (greater involvement of educated social work, reduced delinquency risk more) dynamic next generation (higher education of children relative to their parents) and the improvement of sanitary conditions.

Among the objectives for the development of human capital are strong and sustainable economic growth, reducing unemployment and the availability of a workforce with sufficient technical and technological level to face the challenges of globalization.

As the physical and financial capital, human capital factor in improving productivity, accelerating growth and reducing unemployment may acquire, preserve and develop themselves through common tools to map International. However, some conditions must be met: sustaining food security (reducing malnutrition); promote investment in education; increase enrollment;

Development of human capital strategies revolve around the following main points:

Increase employment opportunities for stimulating investment in education and human capital

Like any other investment, one in education, so in human capital is profitable. The low demand for skilled labor in the labor market is an obvious reality. It negates the return on investment that are generally expensive by depriving individuals of future income supplements and discouraging the decision to invest in education. However, investment in education and human capital are not sufficient in themselves, they must be accompanied by investment in physical capital to stimulate growth and create employment opportunities.

Increase enrollment by making primary education accessible to all social classes and reducing child labor

Mechanisms to improve the attractiveness of education is implemented by acting on the direct burden on the parents: free primary education, expansion of school feeding programs and distribution of school kits in all regions, introduction of conditional Cash Transfer mechanism linking allowances to parents is to enroll children in school. Improving the quality of primary

education is fundamental to strengthen the base and the effectiveness of secondary and university education as a source of human capital development deal with technical and technological issues. All these levels with technical and vocational education need to develop and improve to meet the huge deficit that the current youth accused in the acquisition of knowledge and skills.

Establish alignment between supply and demand for labor on the labor market by ensuring the training and employment suitability

Actions is taken to refocus the function of human resource departments of different institutions around the career management, development and the development of individual skills through continuous staff training and acquisition of skills and experiences. In rural areas, efforts are made to facilitate farmers' access to new farming techniques through rehabilitation, strengthening and extension of the technical support function.

IV.4 Industry Private Sector development policy

Remove constraints to the development of industrial / private sector in order to increase the share of industrial value added in GDP and improving the capacity of employment in the sector.

Access to economic development involves a process of industrialization. History attests that the developed or emerging economy has a strong component of industrial added value. However, the industrialization process is dependent on the technical and technological development, the expanded access to raw materials, the availability of skilled hands to work, able to support the industrialization process and the stimulation of the interests of investors is closely related to the business climate and the return on invested capital.

The goal is to increase the contribution of value added generated by the sector in GDP and its contribution to the reduction of unemployment through higher technological level off access to finance, fitness training and employment.

However, major challenges relating to structural problems remain dominant to address: sector governance, support for technological innovation and direct access to the new technology of production (these parameters are key factors decrease costs, improving competitiveness, increasing productivity and rentability of invested capital); access to bank financing; raising the level of knowledge management, standard and quality, external market; strengthening governance in the sector (unfair competition, slow and cumbersome customs procedures).

The strategy for the development of industrial / private sector focuses on:

Sector governance

A Single Window for Investment and Economic Development (GUIDE) was established in September 2003. The GUIDE includes services concerned with the formalities associated with starting a business. These procedures can be performed without charge to the account of the proponent and within a reasonable time by an average of 4 days. The Economic Development Board of Madagascar (EDBM), an entity in charge of the promotion of FDI has been operational since March 2007. Currently, the GUIDE is integrated in EDBM.

One component of the strategy relating to the governance of the sector is to provide the EDBM sufficient for the effective conduct of operational duties resources. These resources have declined significantly following the suspension of foreign aid due to internal political crisis.

The EDBM has three main functions: the promotion or marketing of Madagascar to foreign investors, facilitating support for investors in the process of operationalization of projects, the administration function. The first two functions are closely related and a balance between them is essential in the performance of operational functions given the fact that the promotion is prerequisites to all perspectives to support the expansion of investment. Broadening the scope of competence EDBM to all investments is a major asset to further stimulate local private investment.

Preferred areas of intervention are far reduced to six (agribusiness, tourism, mining, infrastructure, information technology and communication). The expansion of interventions in other areas could contribute to the creation of economies of scale while reducing unemployment in the national perspective of inclusive growth. It is for intensive agriculture (improved productivity) and extensive (agricultural mechanization), fisheries, fisheries, forestry (use of natural resources).

Beyond the role of interface EDBM plays between the private sector and the public sector, improving relations between the two entities is required: private sector involvement in the development of the National Development Plan and finance laws; EDBM reform and improvement of texts on the Chambers of Commerce and Industry; revision of regulations governing the Centre for Arbitration and Mediation Madagascar (CMM), a new establishment in the Chamber of Commerce and Industry structure.

Industrial innovation:

Learning and acceleration of technology transfer are essential to gain competitiveness to further penetrate regional and international markets. Accumulated delays arise as regards innovation as it is an undeniable factor for sustainable development through the exploitation and development of existing economic potential. Implying prior studies to assess its scope and effectiveness and guide national policy on industrial innovation. Among other things, this includes: the development of innovative process from the strengthening of existing structures innovation, the strengthening of their relations with the outside specialized institutes; dissemination of results of research undertaken at national, international regional level;

Technological development is associated with better promotion of local products on the foreign market, and compliance with standards and quality enhancement products and enhancing their

competitiveness. A certification body products, called to collaborate with similar organizations regional and international scale is implemented.

Foreign Direct Investment (FDI)

They are one of the channels of transmission of economic progress by their impact on the improvement of the conditions of production and operation, growth, technical and technological development of production. They promote the use and development of human capital through training, capacity building and skills development. Charges related to capacity building would have weighed heavily on the host in the absence of foreign investment.

The Governmentt Negotiate contracts in FDI, technology transfer from the vertical or horizontal integration of investment projects, forms of business organization based on the sharing of risks and benefits (joint ventures) to support local businesses. Technology transfer should be involved more favorable tax provisions to spur investment alternative evidenced by the renewal of existing capital.

Meanwhile, the Government ensures the improvement of the business environment through:

- *Respect for economic partnership agreements* concluded with certain bilateral and multilateral partners, specific provisions relating to Industrial Zones or EPZs and large mining investments, and legal provisions relating to the promotion and protection of investments (treatment non-discriminatory insurance against expropriation or nationalization, except for reasons of public utility, security or the national interest; free transfer of payments related to investment, dispute settlement in case of dispute, national treatment and the most favored nation on a reciprocal basis);
- *Access to information and standardization activities*: establishment of an information on the sources of raw materials quality system; VAT refund, harmonization of fiscal and quasi-fiscal provisions applicable to companies in decentralized environment; facilitation of customs clearance procedures; improve market including the fight against the informal activities and illegal imports.
- *Access to finance*: The access to bank financing difficulty is an obstacle to the development of small and medium enterprises, while their contribution to the creation of value added and employment is obvious. In rare cases, it results from the inability of some operators to submit files that meet the required standards to ensure that their projects are eligible for conventional bank financing. Assistance and counseling services should be developed for a wide range of operators less initiated procedures for conventional bank financing.
- *Financial Inclusiveness*: inclusive finance has been put in place and gradually replaced the microcredit and microfinance in the context of ensuring broad access to financing activities. This program is sustained primarily by targeting projects with great credit at maturity and with a view to ensure continuity of funding and broadening the scope of the contributors in the

prospect of increased resources and finally , involving intensive training to operators (technical installation projects, profitability analysis, ...).

IV.5 Agricultural development policy

Inadequate investment in agriculture is one of the causes of the poor performance of the sector so that it could become a source of inclusive growth. This is the result of lack of savings which penalizes investment. Approximately 80.0% of the population evolves in rural areas where poverty prevails. In general, farms are fragmented while the size of the operator family is constantly increasing. The farmers' access to improved seed is limited and agricultural mechanization is still embryonic.

Agriculture accounts for over three quarters of the workforce. It may generate more value if the producers are part of the process of growth as suppliers of intermediate goods for industrial processing units and users of goods and agricultural inputs.

Production conditions are increasingly influenced by global warming impacts associated with degradation of the physical environment: late arrival of rains and insufficient rainfall, frequency of weather during the hurricane season, prolonged drought.

The main challenges are to increase agricultural production to ensure food security, regain market share for exports, reduce rural unemployment by integrating a system of commodity production on family farms and modern production intensive capital.

The increased productivity and promoting competitive production systems

This is to improve the factors of production (use of quality inputs such as seeds and fertilizer selected, extension of the use of small agricultural machines, mechanization of agriculture, promote investment, taking into account regional specificities (diversification of rural activities and sources of income, integration of the environmental dimension, use of technology and improved practices, harmonization of tools to support services, consultancy and extension, diversification of sources of financing such as financing private within the microfinance and rural financial services, development and dissemination of research findings);

Promoting agricultural investments

The focus is on identifying areas for investment and management. For now, the broad guidelines on this subject appear blurred. It must be coupled with incentives to stimulate the interest of domestic and foreign investors. The average size of farms should be encouraged through the broader bank financing (establishment of guarantee funds) or stimulation of the interests of foreign investors access using incentives and reassuring measures. The initiative is supported by training and development of a device for coaching youth to rural businesses. It is only raise labor productivity, but also reduces the extent of unemployment in rural areas.

The expansion of production areas

The State guarantees tenure security to reassure family farms and new investors; create and develop new areas of investment as a planning and resource management plan. The increase in acreage generates supplementary farm incomes and to rural Madagascar away from food insecurity.

The law on land ownership dated 1960 and seems overwhelmed by the conditions experienced in rural areas (development of public land by farmers, dominated for a long period of non-titled and unbounded private property). Land tenure security can be improved through the continuation and intensification of extension of land certificates and until the advent of the new Land Code, currently under development.

Food and nutrition security, risk reduction for the most vulnerable

It aims to create rural agricultural and non-agricultural jobs; strengthen resilience to shocks by increasing production, fortification storage infrastructure, improving the post-harvest management, the development of specific research for food security; facilitate access to food (single group of small producers, opening up areas, promotion of small units processing products at affordable prices); guard against risk (warning system support information system risk);

Access to the local market and the repositioning of exports

Integration into the market dynamics is essential. Thus, to develop the commercial sectors; develop agribusiness, industrial fishing, ranching system in the livestock sector; become world leader in products for which Madagascar has comparative advantages;

Sector governance, coordination of stakeholders, transparency and Regional Equity:

The state strives to improve the institutional and regulatory framework (Fisheries Act, updating the law on livestock the texts on agriculture); organize and professionalize the actors (renovation of the education system and agricultural training, retraining actors on new technologies); organize consultation platforms at different levels; put in place to support the production, marketing and management center; develop guidance tools and decision-making with the standardization of system statistics Agriculture, Livestock, and Fishing.

Peasant producers are integrated into a system of commodity production when prices are profitable, providing stable sources of revenue. Related strategies are based on:

Strengthening the system of collection and distribution

The reorganization of collection and distribution system is directed towards the development of competition. This measure helps to reduce or eliminate the malfunction of marketing system. The temporary and limited government intervention is needed to break the system. The challenge is to develop and less competition to become a state monopoly.

The relationship between agriculture and industry

The challenge is to create opportunities to agriculture. It is important to ensure the evolution of the relationship between the prices of agricultural products and those of industrial products (terms of internal trade). The permanent balance of the internal terms of trade is ideal insofar as income from agricultural activities allow farmers to meet their needs for industrial products. To do this, action must be taken to develop relations campaign through the city rehabilitation and densification of processing industries of agricultural and rural roads that affect costs and prices.

Improving women's participation in the creation of agricultural value added

The productivity of rural women is relatively low compared to men due to various factors: (i) unequal access to production plots, (ii) weak targeting of women for advice and extension activities, (iii) low yield for equal access to parcels and input, (iv) lack of hands to work inside and outside the home due to the reduced time given to the management of parcels as a reflection of maternal obligations (v) educational underachievement due to unequal access to education, (vi) reduced susceptibility of women with regard to cash crops.

To increase women's productivity, so agricultural production conditions to be met:

- Encourage the use of better fertilizers (funding agreement aligned with the revenue cycle to allow the purchase of fertilizers);
- Increase the use of improved seeds (offer flexible financing for the purchase of improved seeds, help them identify and obtain);
- Provide community care services in village communities;
- Extension services adapt to the needs and leverage existing social networks to disseminate agricultural knowledge

IV.6 Tourism development policy

Tourism is one of the areas that contribute to job creation given the fact that it can generate externality effects in large scale use of local inputs for construction, crafts, food production; direct input on subsistence economies remote regions; diversification of sources of income and employment for the rural poor; resource recovery following the income from ...). It generates foreign exchange earnings as well as the processing companies and fishing activities.

Promoting the destination Madagascar has not yet reached a sufficient level of development. The infrastructure for tourism policy is underdeveloped; which results in the inability of the sector to accommodate and transport a growing number of tourists. The cost of air transport, restrictions on domestic travel (road infrastructure, air shuttles little available and expensive) are obstacles to overcome.

International flights to and from Madagascar only leave in Paris, Milan, Johannesburg and Reunion. Lines from Asia are more concerned businessmen and tourists. The direct line between Madagascar and Germany is not used as this course is ideal for European tourists. Fares are high due to the reduced between some airlines transport competition.

Tourists mostly come from France (58%), Reunion (11%), Italy (9.0%) then, China, Mauritius and South Africa (respectively 4 0%). The predominant activities are as follows: ecotourism (38.4%), visiting close (15.0%), work, exhibitions and fairs (14.6%), recreation, vacation, sports and circuits (13.6%), adventure and discovery (10.8%), others (7.6%).

The ecological richness of the large island of the variety of its ecosystem, almost endemic flora and fauna, and its coastline is enormous tourist potential. But the sustainable management of this potential requires that the benefits of tourism development potential of these do not promote its degradation. Moreover, the lack of tourism and hotel infrastructure in areas with high tourist potential is one of the constraints in the sector. It should be addressed in an integrated development approach to promote sustainable growth. Promoting Madagascar destination on the world market still requires considerable effort to make the big island a tourist hub.

The recent deterioration of the security situation threatens heavily expanding tourism sector already weakened by the latest political crisis by imposing underperformance at tour operators; This requires urgent action in favor of the restoration of security especially in renowned sites in addition to media actions to improve the image of the big island internationally.

The major objectives of the tourism sector can be summarized as follows: a policy on sustainable tourism; make tourism a key sector for economic growth; make competitive the tourism industry; develop domestic and international tourism.

To achieve the goals that we set itself, strategies to be implemented are as follows:

Regarding the demand for tourism services:

Making the Big Island a destination through the promotion of an authentic and reassuring image of the destination Madagascar.

The strategy of promoting the destination Madagascar is supported by some actions including among others,

- Abolition of the right visa for stays of less than a month downward revision of obtaining visa fees by the adoption of flexible visa as tourist seasons, facilitating delivery to the airport;
- Reduction of tariffs on domestic flights including a BOGOF offer (or Buy One Get One Free) for flights in the region of the Indian Ocean, enjoy a discount of 33.0% for children under eleven years ;
- Organization of economic and cultural events (food fairs, roadshows, exhibitions and festivals of international importance);

- Infrastructure development and strengthening airport security, improved reception service at the airport;
- Practice of open sky policy

The side of the tourist offer:

Promote investment

The line ministry expands its scope by creating regional departments in 22 regions. One of their missions is to facilitate access EDBM with tour operators to bank loans and to play a supervisory role in the management of tourist land reserves. Indeed, it is rare that developers get bank loans due to the absence of land titles and high interest rates, while hotels in remote areas must comply with building standards and international operations (regular supply of water and electricity).

Maintain of Tourist land reserve (RFT)

We could rely on local communities become aware of the positive outcome of the conservation of natural resources on their living conditions. The challenge is to support the externality effects induced by the development of tourism and create jobs in rural areas. The evaluation of the capacity of the tourism sector to generate income in rural areas and to increase tax revenues related to tourism is needed. In this regard, the Ministry, in consultation with the Ministry of Finance and Budget and the private sector, should consider and implement an adequate system of taxation on tourism. We lead parallel identification of public spending for its development, including expenses for training and promotion.

Professionnalise the tourism sector

The supervisory Ministry focuses its efforts on the training of staff in tourism businesses and exporters Manufacturers Malagasy art products. The training covers several aspects of tourism, ranging from home marketing techniques and management. The aim is to professionalise the sector and encourage informal operators to declare. The strict control of hotel standards in infrastructure and services continue.

Value of the specific assets

It is to focus on the exploitation of comparative advantages in order to create jobs, develop tourism to the islands of the Indian Ocean and neighboring countries perspective favored by the geographical location of Madagascar

IV.7 Craft Sector Development policy

Making crafts a tool promoting the rich heritage, development of cultural identity and job creation by removing various constraints that hamper its development

The craftsmanship reflects the ancestral cultural wealth and represents an opportunity for economic development: development of natural resources, tourism development, job creation, economic development in general. This sector has become progressively a place on the international market taking into account the appreciation of tourists and various measures initiated by the Government and donors in its favor.

The ingenuity and manual dexterity Malagasy craftsmen are recognized globally. It is famous for handicrafts and the importance of the sale at the various economic events and international fairs. Crafts contribute to foreign exchange earnings to the tune of \$ 15.0 million.

Artisanal technology is rudimentary. The illiteracy there artisanal general population, a situation that is causing the low managerial capacity of artisans (not product competitiveness, lack of innovation and marketing, poor product quality in rural areas). The structure of the sector is low, resulting in inequitable distribution of income at the expense of small farmers.

The National Policy Handicrafts exists. Crafts are increasingly known address national economic and international events, and the existence of potential for tourism at the same time allows the promotion of handicrafts. The diversity of natural products is an asset to the input supply. The endemism of natural resources is the specificity of the products to an international trend marked by a preference for natural products.

The main challenges are to ensure the supply of raw materials face the threat facing the environment; overcome the problems of lack of funding, organization and professionalism; training, compliance with standards and internationally accepted quality standards and compliance with internationally accepted quality. The challenges are to preserve and increase the income level of the craftsmen and the jobs compete increasingly bitter and globalization.

These issues fall within the perspectives of development and inclusive growth, fight against poverty, preservation of the image of the Malagasy identity and preserving the heritage legacy.

The strategies revolve around some guidance including sector governance; the use of crafts as a means of consolidating national unity, preservation of national heritage and cultural identity; support for the craft sector.

Sector governance

- The operationalization in each of the regions, structures of promotion and development of handicrafts (CERAM, Chambers of Trade, training facilities, showrooms, ...);
- Harmonization and synergy strategies and actions, technical and financial partners for crafts;

Support for the craft sector

Capacity building and structuring the artisanal sector. The Ministry for the Promotion of craft is brought to schedule actions that prioritize the strengthening of productive capacity and managerial effort by craftsmen structuring and adapting to market access. Thus, the World Day crafts is an opportunity to give the craft its place in the national and international economic environment and also to mobilize and sensitize partners to support the ministry responsible in this process.

Enhancing professionalism

- Continue training by industry professionals: management, cutting and sewing, embroidery, pottery, jewelry, basketry, weaving, being French and English; creation of regional services required to maintain the culture of standard and quality of products
- To facilitate access artisans market: setting up a website for the benefit of artisans, allowing them to connect to the world of crafts at local and international level; of computer guides accompany artisans interested in research opportunities;
- For the structure of the sector, enter the profession in a competitive value chain by focusing on the interdependence of the skills and expertise of artisans in both rural and urban areas. An analysis of the value chain, combined with the creation of products inspired by the cultural heritage and expertise Malagasy and targeting growth markets is undertaken as part of this project.

Cooperation with external partners

- Meet the needs of developing productive and income-generating activities for the poor, UNIDO, in partnership with UNDP, put in place a pilot project for the development of a craft industry in the program sustainable livelihoods and the fight against poverty. The emphasis is on the combination and harmonization of efforts for the improvement of living conditions of the most vulnerable populations. Other agencies such as UNESCO, FAO, ILO and UNCDF also take part in this dynamic in the areas that concern them respectively.
- Promoting the participation of artisans fairs and international events;
- The extension of AGOA to the craft industry. The advantages offered by the agoA helped push exports from free zones and the textile industry. However, it is advisable to diversify export products, namely those of the craft, to take full advantage of those benefits by leveraging the products conform to required standards.

The preservation of national heritage and cultural identity

- Consolidate national cohesion through an educational campaign on cultural diversity and an appropriation of Malagasy culture by the public campaign;
- Safeguard the national heritage through diversification of sources of income for the population living around historical sites, through diversification of resources used in artisanal transformation by promoting recycling and recovery;

- Promote the return of cultural values across the board in the exercise of arts and crafts, production of commercial crafts, trades services (creative, manuals ...), in the entertainment industry in the production and cultural and media, in order to boost the domestic market and increase foreign consumption;
- Promote cultural and artisanal craft and curators of local heritage for the integration of young people because it is a source of employment sector

IV.8 The National Development Plan 2015-2019

After the crisis period of 2009-2014, during which no clear policy has been drawn, the new democratically elected government is developing a National Development Plan for the period 2015-2019.

This plan is based on the Presidential vision of "Building a new Madagascar, Madagascar and a strong and bequeath to future generations a peaceful, united and prosperous, to be able to become a world leader in the development and preservation of its immense natural capital based on a strong and inclusive in the service of sustainable and equitable development of all areas' growth. This vision is based on the principles of inclusiveness, economic decentralization and equitable and sustainable use of natural capital.

As part of this development plan, the government is committed to establishing a more inclusive and greener economy. Five unifying strategic priorities emerged from linking diagnosis, broad state and national aspirations and affect governance, macroeconomic stability, inclusive growth, social and natural capital.

Axis 1: "Governance, Rule of Law, Security, Decentralization, Democracy, National Solidarity."

Axis 1 is at the center of the whole system of strengthening the authority of the state and the revival of institutions that, through the establishment of a code of ethics and conduct as well as the application of social accountability. Indeed, the current mode of governance, curbed by multiple sets of powers and interests of the elite, is unefficient and carries destabilizing and weakening of institutions, including the judiciary, the security system and the local level . The latter could not meet the expectations of the population and the results have been criticized as being quite insignificant. Almost widespread practice of corruption is not far behind.

Efforts should be concentrated on achieving four specific objectives:

- Reforming public finances and the public;
- To promote accountability and transparency based on access to information;
- Respect the rule of law;

- Strengthen local governance

Axis 2: "Preserving macroeconomic stability and development support."

To avoid poverty traps, Axis 2 will now be a real base that can secure not only strong growth but also and especially make effective the foundation for sustainable development in order to better predictability of context internal support to the investment plans of businesses, the recovery of priority activities and to support the development sectors. Measures will be carried out through support actions essential to the production of wealth and the business climate to raise competitiveness and productivity. Macroeconomic stability should not in fact be a pretext to lose sight of the development strategies themselves. Meanwhile, the focus will be on exploring the "diamond of fiscal space" as well as public policies relating thereto to ensure the sustainability of this growth, through the identification and improvement of the margin of operation of the state in terms of fiscal capacity, fiscal effort, the effectiveness of allocation of expenditure and borrowing capacity.

Thus, Madagascar must have a good independent financial system, allowing it to support the process of a strong and inclusive growth. The great challenge of the national development policy is then to have a developed financial system in favor of a sovereign and inclusive finance. The specific objectives for the financial sector are: (i) the development of a sound financial system, responsive to the different needs of the nation; (ii) the wide access of the population and other economic actors to financial products and services to meet their needs.

Axis 3. "Inclusive Growth and territorial roots development"

Axis 3 calls the different components of the population, the different areas of the country, mobilizing different sectors and different potentials met there, take into account the different perspectives in the short, medium and long term. The focus will be on conditions for optimal exploitation of natural and physical assets of the territories and constraints particularly land resources, the contribution conditions different skills and energies of the country, technical innovation instruments available.

The implementation of this axis should be the privileged opportunity to make best use all the benefits that can be derived for effective decentralization is part of a process of structuring space and result in the appearance of areas of growth, areas solidarity and especially the strengthening of regional and urban development. This, through the optimal use of designed for this purpose and promotion / attraction of public investment and private local and foreign investment by structuring optimal mesh infrastructure planning tools.

Axis 4: "adequate development process Human Capital"

Axis 4 aims to restore the culture of excellence and usefulness of public services and the dignity of man, offering among other health services and quality education, opportunities for knowledge capitalization -how and experience of individuals in line with the training and development needs and especially the establishment of a mechanism to accelerate the achievement of the Millennium development Goals (MDGs) waiting to set force of Sustainable Development Goals (SDGs).

To allow the majority of the workforce to better contribute to economic growth and better enjoy the fruits of this growth, the quantity and productivity of his labor should increase and improve. Indeed, before the massive dropout of Malagasy children, insecurity and health vulnerability of the population, a massive underemployment and creeping and latent dualism between a small formal sector generates jobs and an informal sector that creates many, the system must be readjusted. Education and health system is failing overall effect with inadequate budgetary allocations, reduced number of staff teaching and medical professions and the deterioration of infrastructural conditions associated with lack of maintenance and most importantly, the passage of various natural disasters such as cyclones, floods.

In a triple objective of human development, to develop an effective social sector and a Nation solidarity actions will be oriented on the following aspects: (i) significant improvement in the access of the population to basic social services (education, health, family planning and nutrition, (ii) ensuring fairness in opportunities of economic activity, (iii) alignment and focus of training (instruction, vocational training, training and retraining) development needs their regional and local contextualization / and (iv) establishment and promotion of social protection mechanisms suited to the Malagasy culture and local specificities and fight against all forms of human trafficking and abuse in compliance with human rights.

Area 5: "Valuation of natural capital and building resilience to disaster risks."

Axis 5: on the fact that the country's economic growth is dependent on the state of the environment and natural capital sharply. They begin to experience a process of exhaustion in addition suffered disaster and climate change economic losses. Adaptation actions have indeed financial and economic costs; the highest costs would be in the areas of water supply, communications infrastructure and agriculture. However, health, administrative and social housing infrastructure, will not be outdone. Moreover, the majority of the productive sectors of the economy are highly vulnerable to disasters related to extreme weather events. Axis 5 will focus on the development of a device capable to appropriate and targeted strategies to preserve natural capital and reduce the effect of strengthening the resilience of communities and territories.

One priority is also the integration of Natural Capital in the process of planning for economic and social development and the system of national accounts. Since Rio de Janeiro in 1992, the

world became aware of the interaction between economic, social and environmental development and notes that is to the detriment of the latter.

Leading Sectors

Economic growth will be propelled by stronger industries, more resilient to external shocks, capable of inducing significant spillover effects on the rest of the economic system. Sectors will present comparative advantages socially cohesive effects through the distribution of income they generate. These are: (i) large mining projects, development of tourist reservations, infrastructure including a component of social housing, including extensive and intensive agriculture fisheries and fishing companies and free zones. Parallel action will be developed for SMEs / SMIs and production sectors with high capacity for job creation. Companies will be densified particularly those oriented towards the processing of agricultural products. Access to means of production will be facilitated to promote inclusiveness.

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