

INTERNATIONAL MONETARY FUND
INTERNATIONAL DEVELOPMENT ASSOCIATION

MADAGASCAR

Enhanced Heavily Indebted Poor Countries (HIPC) Initiative—Preliminary Document

Prepared by the Staffs of the IMF and the World Bank¹

October 24, 2000

	Contents	Page
I.	Introduction	3
II.	Eligibility For HIPC Initiative Assistance	3
	PRGF and IDA Status.....	3
	Poverty and Social Development.....	3
	Track Record	4
III.	Summary Debt Sustainability Analysis and Possible HIPC Assistance.....	5
	Procedures and Reconciliation Status.....	5
	Structure of External Debt.....	6
	Debt Sustainability.....	6
	Possible HIPC Assistance	7
	Impact of HIPC Assistance	7
IV.	Decision and Floating Completion Points	7
	PRSP Process	7
	Possible Decision Point Timing.....	7
	Floating Completion Point	8
	Monitoring the Use of HIPC Resources.....	10
V.	Issues for Discussion.....	10

¹ Approved by Anupam Basu and Jesús Seade (IMF) and Callisto Madavo and Kemal Dervis (IDA).

Box

Box 1: Possible Triggers for Floating Completion Point.....9

Text Tables:

Table 1: Summary Poverty Rates 1993-994
Table 2: Key Macroeconomic Indicators, 1995-995

Tables:

Table 1: Selected Economic and Financial Indicators, 1996-2003 11
Table 2: Nominal and Net Present Value of External Debt Outstanding
at end-1999, by Creditor Group 13
Table 3: Estimated HIPC Initiative Assistance..... 14
Table 4: Discount Rate and Exchange Rate Assumptions 15
Table 5: Net Present Value of External Debt After Full Use of Traditional
Debt Relief Mechanisms, 1999-2019 16
Table 6: External Debt Service After Full Use of Traditional Debt
Relief Mechanism, 2000-19 17

Annexes

Annex 1: Main Assumptions for the Debt Sustainability Analysis (DSA) 18
Annex 2: Selected Poverty and Living Standard Indicators 19
Annex 3: Proposed Mechanism for Monitoring Resources Freed
by the Enhanced HIPC Initiative 20

I. INTRODUCTION

1. This paper presents a preliminary assessment of Madagascar's eligibility for assistance under the enhanced Initiative for Heavily Indebted Countries. The findings are based on a September 2000 joint mission of IDA and IMF staff with involvement of African Development Bank (AfDB) staff. Together with the authorities, the mission conducted the debt sustainability analysis (DSA). The preliminary results show that Madagascar's external debt situation would remain unsustainable even after application of traditional debt relief mechanisms. The NPV of debt-to-exports ratio would remain above 150 percent until 2009. Section II provides background information on eligibility, poverty, and the policy track record to date. Section III presents the preliminary debt sustainability analysis, including possible assistance under the enhanced HIPC Initiative. Section IV outlines the proposed timeline for preparation of the decision point paper, linking it to advances in developing the interim Poverty Reduction Strategy Paper. The section also includes proposed key reforms to be achieved by the completion point and a preliminary assessment how the use of debt service savings after the decision point will be tracked. Section V includes issues for discussion by the Boards of Executive Directors.

II. ELIGIBILITY FOR HIPC INITIATIVE ASSISTANCE

2. **PRGF and IDA Status.** Madagascar is currently a Poverty Reduction and Growth Facility (PRGF)-eligible and IDA-only country, with a per capita GDP of about US\$250 in 1999.

3. **Poverty and Social Development.** Poverty in Madagascar is widespread and has almost doubled in the last 3 decades largely due to a two percent average annual decline in per capita GDP. As a result, about 71 percent of the population is poor today (see Text Table 1). Poverty trends over the past years have followed overall economic development. While the swings in poverty were largely driven by changes in the urban poverty rate, the vast majority of the poor (nearly 80 percent) continue to live in rural areas. A reduction in such pervasive poverty requires substantial growth in real per capita GDP, especially in rural areas. In Madagascar, poverty reduction also requires access to essential infrastructure and social services as well as improved governance. The quality of governance and institutions contributes both to growth, through a more transparent business environment, and the provision of basic needs, through more accountable and responsive public institutions. Governance and institutional development is high on the government's agenda, as mirrored in the key policy measures the government intends to take before reaching the completion point under the HIPC initiative.

Text Table 1: Madagascar: Summary Poverty Rates, 1993-99

	<i>Poverty Rate</i>		
	<i>National</i>	<i>Urban</i>	<i>Rural</i>
1993	70.0	50.1	74.5
1997	73.3	63.2	76.0
1999	71.3	52.1	76.7

Source: INSTAT, Cornell University and World Bank staff estimates.

4. The pervasiveness of poverty is also reflected in other indicators of living standards (Annex 2). In 1993, the stunting rate among children under five, an indicator of chronic malnutrition, stood at 51.1 percent, dropping slightly to 48.3 percent in 1997. The majority of the population obtains drinking water from sources that can be easily contaminated. Sanitation conditions, while having improved somewhat, remain inadequate with 53 percent of the population not having access even to latrines. Only about 10 percent had access to electricity in 1997, up from 7 percent in 1993.

5. **Track Record.** Madagascar embarked on a first major and largely successful reform effort from 1987 to 1991, focussing on price and trade liberalization and public enterprise restructuring. The reforms were supported by two annual SAF arrangements (1987-88) and two annual ESAF arrangements (1989-90) from the IMF and a structural adjustment credit by IDA. The period from mid-1991 to 1993 was marked by a general strike, civil unrest and political instability that crippled government and commercial activity. Meanwhile, it also led to a new multi-party constitution and a new government that launched a program of economic liberalization and privatization. Implementation of this program was weak on the fiscal and monetary side in 1994-1995 as a sharp exchange rate depreciation resulted in political pressures to reduce taxes and resort to monetary financing, which led to high inflation and deteriorated performance in health and education sectors.

6. Since 1996, Madagascar has made major reform advances. Tight monetary policy and improved revenue collection resulted in macroeconomic stabilization in 1996, paving the way for the finalization of a medium-term macroeconomic structural adjustment program, supported by a new three-year ESAF arrangement (approved in November 1996) and a structural adjustment credit of IDA (approved early 1997). Under the first annual ESAF arrangement, virtually all macroeconomic targets were reached and an ambitious public enterprise divestiture program as well as improvements in the tax and customs administration were initiated. A second annual ESAF arrangement could not be finalized in 1998 as significant institutional reforms were delayed due to intense political activity associated with a constitutional referendum and parliamentary elections. Macroeconomic performance nevertheless remained satisfactory during this period. In July 1999, the second annual PRGF arrangement was approved by the IMF Board while IDA approved a new structural adjustment credit in March of that year. Under the 1999-2000 program supported by the PRGF

arrangement, there was significant progress on structural reforms in the banking, fishing and petroleum sectors, in government administration and in improving the business environment. After overcoming initial difficulties in the privatization of the state petroleum company SOLIMA, IDA's second structural adjustment credit became effective in June 2000 and the first tranche was disbursed in July. By December 2000, provided that the program remains on track, the period of uninterrupted track record under the current PRGF-supported program will have been one and a half years. Since reforms started in 1996, Madagascar has achieved substantial progress in reducing financial imbalances and promoting real growth. These positive developments were maintained in 2000—despite three major cyclones hitting the island, causing severe human suffering and damages amounting to US\$137 million (or 4 per cent of GDP). Key economic indicators since 1995 are detailed in Text Table 2.

Text Table 2. Madagascar: Key Macroeconomic Indicators, 1995–99						
	1995	1996	1997	1998	1999	2000
	(Annual percentage change)					
Real GDP at market prices	1.7	2.1	3.7	3.9	4.7	4.8
Consumer price index (annual average)	49.0	19.8	4.5	6.2	9.9	10.9
Consumer price index (end of period)	...	8.3	4.8	6.4	14.4	5.6
	(In percent of GDP, unless otherwise indicated)					
Tax revenue	8.3	8.5	9.4	9.8	11.0	12.2
Overall fiscal balance (excluding grants)	-9.1	-9.1	-7.7	-8.1	-4.8	-5.5
Overall fiscal balance (including grants)	-6.2	-4.9	-3.2	-5.2	-0.9	-0.8
External current account (excluding official transfers)	-10.2	-7.1	-7.8	-7.9	-6.5	-9.0
External current account (including official transfers)	-7.0	-3.7	-2.4	-4.8	-2.7	-4.0
Gross official reserves (weeks imports of goods and services)	5.4	12.3	14.0	7.8	9.6	11.5
Source: Malagasy authorities; and staff estimates and projections						

III. SUMMARY DEBT SUSTAINABILITY ANALYSIS AND POSSIBLE HIPC ASSISTANCE

7. **Procedures and Reconciliation Status.** The debt sustainability analysis (DSA) presented below was prepared jointly by the authorities and the staffs of the IMF and the World Bank, based on macroeconomic projections up to 2019 and on the basis of loan-by-loan data provided by the authorities and creditors for debt outstanding at end-1999. The debt estimates and the net present value (NPV) calculations are preliminary, pending complete reconciliation with all multilateral and bilateral creditors.² The baseline projections for end-1999 and beyond simulate the hypothetical impact of a stock-of-debt operation from Paris

² Reconciliation of multilateral and bilateral debt data is well advanced, though data on debt owed to some non-Paris Club and commercial creditors require further clarification.

Club creditors on Naples terms as of end-1999, and comparable treatment from all other bilateral and commercial creditors (see Attachment Tables 1 to 6).

8. **Structure of External Debt.** Prior to the assumption of a Naples stock-of-debt reduction operation, Madagascar's public and publicly guaranteed external debt was estimated at US\$ 4.4 billion at end-1999. In NPV terms and after assumed full use of traditional debt relief mechanisms, the debt was estimated at US\$2.1 billion, equivalent to 57 percent of GDP, or 256 percent of exports of goods and services.³ Of the total nominal debt, US\$1.8 billion or 42 percent was owed to multilateral creditors, and US\$2.5 billion or 58 percent to bilateral creditors.⁴ Major multilateral creditors include the World Bank (US\$1,360 million), the AfDB (US\$311 million), and the IMF (US\$63 million). Arrears at end-1999 stood at US\$486 million, mostly on bilateral debts for which the authorities have been seeking debt relief on terms comparable to those granted by the Paris Club.⁵

9. **Debt Sustainability.** The macroeconomic projections used in this analysis and agreed upon with the authorities are based on continued sound macroeconomic policies, further structural reforms, and the improvement of key social indicators, through the implementation of a poverty reduction strategy. Real GDP is assumed to grow at 6 percent per year during the projection period (2001-19), with export volume growing at 6.5 percent per year and import volume at 6 percent per year in line with the GDP (see Annex I for the main assumptions). On the basis of these assumptions, Madagascar's external debt situation would remain unsustainable even after application of traditional debt relief mechanisms. The NPV of debt-to-exports ratio is at 256 percent in the base year (1999) and would remain above 150 percent until 2009.

³ The NPV of debt-to-export ratio is measured using the backward looking three- year average of exports of goods and services (including the current year), whereas the debt service ratio is calculated on the basis of current year exports. Discounting is based on currency specific CIRR (commercial interest reference rate) for the six month period ending December 1999.

⁴ Madagascar has benefited from eight rescheduling operations from Paris Club creditors since 1981. The eighth Paris Club agreement was concluded in March 1997, and provides a rescheduling of obligations falling due from January 1997 to end-November 2000 on Naples terms (67 percent reduction in NPV terms). All Paris Club creditors have granted Madagascar the flow relief on Naples terms, including the Russian Federation with whom a bilateral agreement has been signed in early October. Comparable actions from Madagascar's other bilateral creditors have been requested with virtually no positive response. Madagascar also secured rescheduling, including debt swaps, on commercial debt through the London Club in the 1980s, and currently has only very small amount of commercial debt remaining on the books. The staff is in the process of confirming the actual amount of commercial debt still being claimed by commercial creditors.

⁵ The figure for arrears is awaiting further reconciliation. These debts are owed to Algeria, Angola, China, Iraq, Kuwait, Libya, Saudi Arabia, the United Arab Emirates, and the Russian Federation, as well as some commercial creditors.

10. **Possible HIPC Assistance.** Madagascar would require debt relief of about US\$880 million in NPV terms to reduce its debt burden to 150 percent of exports at the decision point. Possible assistance from bilateral creditors is estimated to be about US\$502 million. Possible assistance from multilaterals is estimated to be about US\$378 million, including US\$23 million from the IMF and US\$264 million from IDA. The IMF is expected to provide about US\$3 million in interim assistance and IDA to provide about US\$ 23 million (representing 50 percent of IDA debt service). The implied *common reduction factor* for all creditors would be around 41 percent of their exposure in NPV terms remaining at the decision point (end 1999 data) after full use of traditional debt relief mechanisms.

11. **Impact of HIPC Assistance.** Madagascar's external debt would be reduced significantly with the delivery of assistance under the enhanced HIPC Initiative. The NPV of debt-to-exports ratio would decline to 136 percent by 2003, 104 percent by 2009, and remain below 100 percent after 2010. The debt service to exports ratio would decline from 11.5 percent in 1999 to 5.3 percent in 2003, and remain at around 5 percent throughout the projection period; the debt service to revenue ratio would fall from 25 percent in 1999 to 9 in 2003 percent and average about 6 percent during 2010-19. Debt service savings would amount to US\$59 million per year on average (1.2 percent of GDP on annual average) during the projection period.

IV. DECISION AND FLOATING COMPLETION POINTS

12. **PRSP Process.** A joint Bank/Fund and AfDB mission visited Madagascar in September 2000. During the mission, the PRSP process was officially launched with a large workshop held in Antananarivo that brought together around 500 participants from the government, nongovernmental organizations, donors and the private sector. Major steps toward the development of the Poverty Reduction Strategy Paper were discussed in six thematic working groups, and the government is about to finish a draft of the interim paper which builds extensively on a number of other poverty- and sector-strategies which were developed over the past year. After the launching, eleven of Madagascar's bilateral and multilateral partners issued a joint aide-mémoire commenting on the PRSP process and offering support to the government in the preparation of the PRSP.

13. The government plans to finalize a draft of the I-PRSP by end October 2000 and discuss it in the working groups, composed of civil society, private sector representatives, donors and government officials at the beginning of November. The I-PRSP will include key indicators for 2001-02, and a tentative proposal concerning the use of interim relief. This tentative proposal will have to be approved by the National Assembly, to which a supplementary budget will have to be submitted by the government, after attainment of the decision point. The government plans to transmit the I-PRSP to the Executive Boards of the IMF and IDA by end-November. A full PRSP is planned to be ready by mid-2001.

14. **Possible Decision Point Timing.** In the staff view, based on Madagascar's track record of macroeconomic stabilization and reforms since 1996 (notwithstanding some slippage in specific program implementation), the advanced stage of preparation of an interim

Poverty Reduction Strategy Paper (I-PRSP) as well as current status of data reconciliation and the debt sustainability analysis would allow the decision point for debt reduction to be reached soon, most likely before the end of calendar year 2000.

- *Use of HIPC Interim Relief:* Discussions with the authorities on the use of HIPC interim debt relief are well advanced and an inter-ministerial committee is discussing the possible allocation to be included in the interim-PRSP. Use of the funds will likely support primary education and health activities at decentralized levels, direct community support programs in nutrition and basic infrastructure, as well as the establishment of a monitoring system for the PRSP;
- *PRGF Status.* Madagascar is on-track under its current PRGF-supported program. A recent IMF mission carried out discussions for the second review under the second annual arrangement under the PRGF, and the IMF Board meeting to consider the review is scheduled in early November. A Malagasy delegation has just carried out discussions at the IMF headquarters with the Fund staff on the budget for 2001. A Fund mission is scheduled to visit Antananarivo in early December 2000 to conduct the discussions for a new three-year PRGF arrangement that could be presented to the Fund Board in early 2001.

15. **Floating Completion Point.** IDA and IMF staff have in principle reached understandings with the government on triggers for the floating completion point. Items 1–3 in Box 1 below would be standard general triggers, to be complemented by satisfactory performance on a few specific and easily monitorable policy measures in areas with growth and poverty implications, which form part of the ongoing dialogue with the Malagasy authorities (Item 4 in Box 1). These policy measures place special emphasis on pro-poor policy reform and expenditure policy in the education and health sector and on improved transparency and accountability in financial management in the public sector. Such public sector reforms are necessary to foster a friendly investment climate as well as to improve the efficiency in the allocation and use of scarce resources directly benefiting the poor. High on the government priority list are also the establishment of a monitoring system for the PRSP (including a new household survey), possibly including the development of a generalized poverty map.

Box 1. Possible Triggers for Floating Completion Point

- 1 A full PRSP has been prepared through a participatory process and satisfactorily implemented for at least one year as evidenced by the Joint Staff Assessment of the country's annual progress report;
 - 2 Continued maintenance of macroeconomic stability as evidenced by satisfactory implementation of the PRGF-supported program;
 - 3 Budgetary savings from interim debt service relief have been used in accordance with the criteria set forth at the decision point. The use of interim debt relief has been reported and discussed by a national consultative group on debt relief on a semi-annual basis;
 - 4 Satisfactory progress on key policy measures and targets drawn from those outlined below, and to be refined during further discussion with the government:
- *Governance measures:* These may include: (a) strengthening the controller and audit offices; (b) conducting regular external audits; (c) production of semi-annual reports on budget allocation, execution and output at the decentralized level in the education and health sectors; and (d) establishment of monitoring system in the allocation of fishing, logging, and mining licenses. *Monitoring indicators* may include: (a) the share of the current budget and domestically financed investment budget allocated to the Ministries of Health and Primary Education; (b) the budget execution rates for the non-salary operating budgets of the Ministries of Health and Primary Education; (c) the budget execution rate, both at the central level and broken down by district, for the non-salary operating budgets of primary schools (EPP) and community health centers (CSB).
 - *Structural Measures:* Possible measures to be discussed will cover growth-promoting reforms in such areas as restructuring public enterprises, privatization, further civil service reform, and trade liberalization.
 - *Social and Poverty Measures/Indicators:* (i) *Education.* Measures may include (a) implementation of an incentive system to attract teachers to rural areas; (b) hiring of specific numbers of teachers in rural primary schools; and (c) development and implementation of a strategy to reduce the very high repetition rate in primary schools. *Monitoring indicators* could be (a) the allocation of teachers as measured by the fraction of schools with ratios of pupils to publicly paid teachers in excess of 65; (b) the primary school repetition rate; (c) the primary school pseudo cohort survival rate; and (d) the total number of students in primary schools. (ii) *Health:* Possible measures and targets could include: (a) render the generic essential drug supply system of district pharmacies by the central drug procurement agency fully operational; (b) plan and start *national AIDS awareness campaign*; (c) increase by completion point the immunization coverage of DPT from 50 percent (2000) to 60 percent (rural area: 55 %); (d) increase budget allocation to decentralized primary health and education entities. Possible *monitoring indicators* could include (a) the budgetary allocation to community health centers (CSB); (b) vaccination rates for the DTP; (c) utilization rates of medicines in community health centers; and (d) utilization rates of primary health services.

16. **Monitoring the Use of HIPC Resources.** Discussions are underway with the government on how best to track expenditures financed by the HIPC initiative. Initially, once the decision point has been reached, a supplementary budget will be prepared by the government and submitted for approval by the National Assembly. This will indicate as resources the savings on the debt service, and open a number of supplementary credit lines for the different Ministries and sub-services that will benefit from these resources. These credit lines will be monitored (including transfer of resources to decentralized levels). Further, the changing composition of overall public expenditures between the 2000 and 2001 budget will be assessed. Annex 3 provides additional detail.

V. ISSUES FOR DISCUSSION

17. This paper presents a preliminary assessment of Madagascar's eligibility for assistance under the enhanced HIPC Initiative. Executive Director's views and guidance are sought on the following issues:

- **Eligibility:** Do Directors consider Madagascar to be eligible for assistance under the enhanced HIPC Initiative?
- **Timing of the Decision Point.** Do Directors agree that Madagascar could reach its decision point in year 2000, provided that (a) it presents an I-PRSP to the Boards of the Fund and the Bank, and (b) remains on-track with its macro-economic program under the PRGF arrangement?
- **Floating Completion Point.** What are Directors' views on the possible triggers and key policy measures (for which satisfactory performance has to be achieved) linked to the floating completion point?

Table 1. Madagascar: Selected Economic and Financial Indicators, 1996-2003

	1996	1997	1998	1999 Est.	2000 Proj.	2001 Proj.	2002 Proj.	2003 Proj.
(Annual percentage change, unless otherwise indicated)								
National accounts and prices								
Real GDP at market prices	2.1	3.7	3.9	4.7	4.8	6.0	6.3	6.3
GDP deflator	17.8	7.3	8.4	9.8	7.5	5.8	4.8	4.1
Traditional consumer price index								
Average	19.8	4.5	6.2	9.9	10.9	5.4	3.0	3.0
End of period	8.3	4.8	6.4	14.4	5.6	5.0	3.0	3.0
Overall consumer price index (average)	20.0	5.4	7.8	9.7	11.0	5.4	3.0	3.0
Money and credit								
Net foreign assets, excluding long-term external liabilities	20.6	18.6	-15.6	12.2	5.0	...	...	...
Net domestic assets	-1.6	1.9	24.1	8.5	-0.3	...	...	...
<i>Of which: net domestic credit</i>								
government	-1.0	-3.3	4.9	2.8	-3.2	...	...	...
economy	1.3	6.7	7.4	8.4	5.5	...	...	...
Broad money (M3)	18.1	19.8	8.4	19.5	4.8	...	...	...
Velocity of money (GDP/end-of-period M3)	5.1	4.7	4.9	4.7	4.8	...	...	...
External sector (in terms of SDRs)								
Exports, f.o.b.	4.6	1.7	4.3	11.3	8.5	9.6	8.9	10.3
Imports, c.i.f.	7.2	11.6	0.0	9.7	22.0	6.1	5.1	7.2
Terms of trade (deterioration -)	-17.3	-2.7	5.9	-7.9	-11.6	2.1	5.6	1.9
Nominal effective exchange rate	-4.2	-8.8	-6.9	-4.5	...	...	...	...
Real effective exchange rate	1.2	-6.0	-1.9	5.9	...	...	...	...
(In percent of GDP)								
National accounts								
Gross domestic investment	11.6	11.9	12.5	12.9	16.2	17.9	18.1	18.2
Private sector (including public enterprises)								
Private sector	4.9	5.6	4.8	6.5	8.0	8.0	8.1	8.2
Public sector	6.8	6.3	7.7	6.4	8.2	9.9	10.0	10.0
Gross national savings	5.4	6.3	5.0	7.4	8.7	9.7	10.7	10.9
Private sector								
Private sector	6.5	5.3	4.6	2.2	2.8	4.3	5.3	5.5
Public sector	-1.1	1.0	0.4	5.2	5.9	5.4	5.4	5.4
Central government financial operations								
Total revenue	8.7	9.7	10.6	11.4	12.6	12.7	...	...
<i>Of which: tax revenue</i>								
Tax revenue	8.5	9.4	9.8	11.0	12.2	12.4	...	...
Total expenditure	17.8	17.4	18.8	16.2	18.1	20.3	...	...
Interest obligations								
Interest obligations	4.7	3.0	2.7	2.1	2.0	1.9	...	...
Noninterest current expenditures								
Noninterest current expenditures	5.7	6.9	7.4	7.2	7.4	7.7	...	...
Capital expenditure								
Capital expenditure	7.3	6.5	8.2	6.9	8.7	10.4	...	...
Primary balance	-0.2	0.6	-1.9	0.9	1.2	-1.6	...	...
Overall balance (commitment basis; excl. restructuring operations)								
Excluding grants								
Excluding grants	-9.1	-7.7	-8.1	-4.8	-5.5	-7.5	...	...
Including grants								
Including grants	-4.9	-2.4	-4.7	-1.2	-0.8	-3.5	...	...
Overall balance (cash basis)	-4.9	-3.2	-5.2	-0.9	-1.2	-3.9	...	...
Net balance of structural reforms	0.0	0.0	-1.2	-1.6	-2.1	-2.1	...	...
Total balance (cash basis; including restructuring operations)	-4.9	-3.2	-6.3	-2.5	-3.3	-5.9	...	...

Table 1 (concluded). Madagascar: Selected Economic and Financial Indicators, 1996-2003

	1996	1997 [*]	1998	1999 Est.	2000 Proj.	2001 Proj.	2002 Proj.	2003 Proj.
	(In percent of GDP)							
External current account								
Excluding official transfers	-7.1	-7.8	-7.9	-6.6	-9.0	-9.2	-8.7	-8.3
Including current official transfers	-6.2	-5.6	-7.5	-5.5	-7.5	-8.2	-7.4	-7.3
Including current and capital transfers	-3.7	-2.4	-4.8	-2.8	-4.0	-4.9	-4.2	-4.0
External capital account	1.0	3.2	0.2	2.6	3.6	4.0	0.1	1.0
Public domestic debt	9.7	9.6	12.0	11.7	8.2	...	...	...
Net present value (NPV) of external debt	...	...	...	57.7	55.5	54.1	47.3	43.8
External debt (after debt relief)	...	...	...	101.2	101.5	...	...	...
	(In percent of exports of goods and services)							
Scheduled external debt service								
Before debt relief	41.3	29.7	29.2	18.1	17.1	17.3	19.4	14.8
After debt relief	11.3	21.8	22.8	12.0	10.8	17.3	19.4	14.8
NPV of external debt	...	...	...	255.9	251.9	239.8	228.6	213.6
	(In units indicated)							
Gross official reserves (in millions of SDRs)	167.6	207.8	121.5	165.2	228.3	299.7	305.5	323.8
In weeks of imports of goods and nonfactor services	12.3	14.0	7.8	9.8	11.5	13.9	13.5	13.4
Exchange rates (period average)								
Malagasy francs per SDR	5,882.4	7,016.1	7,381.7	8,585.8	...	...	...	...
Malagasy francs per French franc	792.5	874.3	922.9	1,020.4	...	...	...	...
Nominal GDP at market prices (in billions of Malagasy francs)	16,224	18,051	20,343	23,379	26,324	29,629	34,679	38,272
GDP per capita (U.S. dollars)	291	251	258	255	258	268	305	326

Sources: Malagasy authorities; and staff estimates and projections.

Table 2. Madagascar: Nominal and Net Present Value of External Debt Outstanding at End-1999, by Creditor Group

	Nominal Debt 1/			NPV of Debt 1/			NPV of Debt After Traditional Debt Relief Mechanisms 2/		
	US\$	Percent of	Percent of	US\$	Percent of	Percent of	US\$	Percent of	Percent of
	millions	total debt	category	millions	total debt	category	millions	total debt	category
Total	4,354.0	100.0		2,953.7	100.0		2,127.8	100.0	
Multilateral creditors	1,827.9	42.0	100.0	913.4	30.9	100.0	913.4	42.9	100.0
World Bank	1,359.8	31.2	74.4	637.6	21.6	69.8	637.6	30.0	69.8
IMF	62.9	1.4	3.4	55.5	1.9	6.1	55.5	2.6	6.1
African Development Bank	310.5	7.1	17.0	161.1	5.5	17.6	161.1	7.6	17.6
<i>of which: African Development Fund</i>	286.3	6.6	15.7	135.1	4.6	14.8	135.1	6.4	14.8
EU/EIB	37.2	0.9	2.0	23.9	0.8	2.6	23.9	1.1	2.6
BADEA	7.1	0.2	0.4	6.4	0.2	0.7	6.4	0.3	0.7
IFAD	40.0	0.9	2.2	20.5	0.7	2.2	20.5	1.0	2.2
OPEC Fund	10.4	0.2	0.6	8.4	0.3	0.9	8.4	0.4	0.9
Bilateral creditors	2,526.2	58.0	100.0	2,040.2	69.1	100.0	1,214.3	57.1	100.0
Paris Club	2,003.3	46.0	79.3	1,526.5	51.7	74.8	1,006.7	47.3	82.9
Austria	51.9	1.2	2.1	25.8	0.9	1.3	18.7	0.9	1.5
Belgium	43.3	1.0	1.7	27.7	0.9	1.4	20.8	1.0	1.7
Canada	22.1	0.5	0.9	20.6	0.7	1.0	15.2	0.7	1.3
France	462.2	10.6	18.3	252.2	8.5	12.4	232.6	10.9	19.2
Germany	58.6	1.3	2.3	52.9	1.8	2.6	42.9	2.0	3.5
Israel	2.1	0.0	0.1	0.8	0.0	0.0	0.8	0.0	0.1
Italy	190.6	4.4	7.5	95.0	3.2	4.7	73.1	3.4	6.0
Japan	364.1	8.4	14.4	362.4	12.3	17.8	347.1	16.3	28.6
Russia	544.4	12.5	21.5	543.4	18.4	26.6	150.4	7.1	12.4
Spain	166.8	3.8	6.6	97.4	3.3	4.8	68.2	3.2	5.6
Sweden	8.5	0.2	0.3	8.6	0.3	0.4	6.4	0.3	0.5
Switzerland	7.0	0.2	0.3	3.6	0.1	0.2	2.9	0.1	0.2
United Kingdom	43.2	1.0	1.7	19.0	0.6	0.9	14.6	0.7	1.2
United States	38.4	0.9	1.5	17.2	0.6	0.8	13.1	0.6	1.1
Non-Paris Club	476.9	11.0	18.9	467.8	15.8	22.9	192.4	9.0	15.8
Algeria	95.9	2.2	3.8	95.9	3.2	4.7	31.7	1.5	2.6
Angola	3.7	0.1	0.1	3.7	0.1	0.2	1.2	0.1	0.1
China	46.6	1.1	1.8	40.3	1.4	2.0	15.6	0.7	1.3
Iraq	138.0	3.2	5.5	138.0	4.7	6.8	71.9	3.4	5.9
Kuwait	13.6	0.3	0.5	12.3	0.4	0.6	9.4	0.4	0.8
Libya	167.4	3.8	6.6	167.4	5.7	8.2	55.4	2.6	4.6
Saudi Arabia	9.2	0.2	0.4	7.7	0.3	0.4	5.5	0.3	0.5
United Arab Emirates	2.5	0.1	0.1	2.5	0.1	0.1	1.7	0.1	0.1
Commercial debt	46.0	1.1	1.8	46.0	1.6	2.3	15.2	0.7	1.3

Sources: Malagasy authorities; and staff estimates.

1/ Before full use of traditional debt-relief mechanisms. Data for Russia do not reflect the 70 percent up-front discount agreed in the context of the Paris Club. This discount is taken into account in the column of debt after application of traditional debt-relief mechanisms.

2/ After full use of traditional debt relief mechanisms and comparable treatment by non-Paris Club official bilateral and commercial creditors.

Table 3. Madagascar: Estimated HIPC Initiative Assistance Under a Proportional Burden-Sharing Approach 1/
(in millions of U.S. dollars in end-December 1999 NPV terms, unless otherwise indicated) 2/

	Total	Bilateral 3/	Multilateral	Common Reduction Factor point 4/ (Percent)	Memo Item: Required NPV debt Reduction on Comparable Treatment of Bilateral Debt Based on Overall Exposure 5/ (Percent)
NPV of debt-to-exports target (in percent)	150				
Debt relief under baseline scenario	880	502	378	41.4	
NPV of debt 6/	2,128	1,214	913		
Paris Club	1,007				80.8
<i>Of which pre-cutoff date non-ODA debt</i>	474				96.3
Non-Paris Club bilaterals	192				80.8
<i>Of which: pre-cutoff date non-ODA debt</i>	93				95.4
Commercial creditors	15				
Three-year average of exports	832	...	...
Current-year exports	921	...	...
NPV of debt-to-exports ratio 7/	256	...	...

Sources: Malagasy authorities and staff estimates and projections.

1/ The proportional burden-sharing approach is described in "HIPC Initiative--Estimated Costs and Burden Sharing Approaches" (EBS/97/127; 7/7/97 and IDA/SEC M 97-306; 7/7/97).

2/ Using six-month backward-looking discount rates at end-December 1999 and end-December 1999 exchange rates.

3/ Includes official bilateral creditors and commercial debt.

4/ Each multilateral's NPV reduction at the decision point in percent of its exposure at the decision point.

5/ Includes traditional debt relief; a hypothetical stock-of-debt operation on Naples terms at end-December 1999.

6/ Based on latest data available at decision point after full application of traditional debt-relief mechanisms.

7/ Based on the three-year export average (backward-looking average) ending in the year preceding the decision point (i.e., 1997-1999)

Table 4. Discount Rate and Exchange Rate Assumptions 1/

Currency	Discount Rates 1/ 2/ (In percent per annum)	Exchange Rates 2/ (Currency per U.S. dollar)
Austrian schilling	5.47	13.70
Belgian franc	5.47	40.16
Canadian dollar	6.67	1.44
Swiss franc	4.27	1.60
Chinese yuan	5.59	8.28
Deutsche mark	5.47	1.95
Danish kroner	5.32	7.40
Domestic currency: Malagasy franc	5.59	13.00
European currency unit	5.47	1.00
Spanish peseta	5.47	165.62
Finnish markkaa	5.47	5.92
French franc	5.47	6.53
Indian rupee	5.59	43.49
Iraqi dinar	5.59	0.31
Italian lira	5.47	1,927.40
Japanese yen	1.98	102.20
Kuwaiti dinar	5.59	0.30
Netherland guilder	5.47	2.19
Norwegian kroner	6.64	8.04
Portuguese escudo	5.47	199.56
Russian rubble	7.04	0.60
Saudi Arabian rial	5.59	3.75
Special drawing rights	5.59	0.73
Swedish kroner	5.80	8.53
UAEDirhams	5.59	3.67
United Kingdom pound sterling	6.70	0.62
United States dollar	7.04	1.00

Sources: OECD; and IMF, *International Financial Statistics*.

1/ The discount rates used are the average commercial interest reference rates (CIRRs) for the respective currencies over the six-month period ended December 1998.

2/ For all currencies for which the CIRRs are not available, the SDR discount rate is used as the proxy.

Table 5. Madagascar: Net Present Value of External Debt After Full Use of Traditional Debt Relief Mechanisms, 1999-2019 1/
(In millions of U.S. dollars, unless otherwise indicated)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	1999-2009	2010-2019
	Actual	Estimate	Projections										Averages
1. NPV of total debt (2+5) 2/	2,127.8	2,245.7	2,317.1	2,366.6	2,417.1	2,477.0	2,540.7	2,599.0	2,660.6	2,724.1	2,788.4	2,478.6	3,278.9
2. NPV of outstanding debt (3+4)	2,127.8	2,140.9	2,137.7	2,132.7	2,123.1	2,115.8	2,104.3	2,091.8	2,077.8	2,062.4	2,044.0	2,105.3	1,892.2
3. Official bilateral and commercial	1,214.4	1,232.7	1,232.0	1,232.3	1,232.3	1,233.3	1,233.9	1,236.8	1,239.0	1,240.2	1,241.1	1,233.5	1,208.7
3a. Paris Club	1,006.7	1,021.6	1,020.1	1,019.5	1,019.3	1,019.8	1,020.1	1,022.9	1,025.2	1,026.9	1,028.8	1,021.0	1,015.4
Post-cutoff date	237.0	228.4	219.7	211.8	205.1	199.2	193.4	187.8	182.1	176.5	171.8	201.2	159.0
Official Development Assistance	90.7	83.1	75.1	67.7	61.4	55.7	50.0	44.3	38.7	33.1	28.4	57.1	15.6
Pre-cutoff date	769.7	793.1	800.4	807.7	814.3	820.6	826.7	835.1	843.1	850.4	857.0	819.8	856.4
ODA	295.6	299.4	299.0	298.5	298.1	297.7	297.3	297.6	297.9	298.2	298.6	298.0	295.0
Non-ODA	474.1	493.7	501.4	509.2	516.2	522.9	529.4	537.5	545.2	552.2	558.4	521.8	561.4
3b. Other official bilateral	192.4	195.4	196.2	197.2	197.5	198.2	198.6	198.9	198.8	198.5	197.7	197.2	182.2
Post-cutoff date	12.0	12.1	12.2	12.4	11.9	11.7	11.2	10.3	9.4	8.4	7.4	10.8	3.8
ODA	12.0	12.1	12.2	12.4	11.9	11.7	11.2	10.3	9.4	8.4	7.4	10.8	3.8
Pre-cutoff date	180.5	183.3	184.0	184.8	185.6	186.5	187.5	188.6	189.4	190.0	190.3	186.4	178.4
ODA	87.2	88.7	89.8	90.9	92.0	93.2	94.5	96.0	97.6	99.2	100.9	93.6	110.7
Non-ODA	93.3	94.6	94.3	93.9	93.6	93.3	92.9	92.6	91.9	90.8	89.3	92.8	67.7
3c. Commercial	15.2	15.8	15.7	15.6	15.4	15.3	15.2	15.1	15.0	14.8	14.6	15.2	11.1
4. Multilateral	913.4	908.2	905.7	900.5	890.9	882.5	870.4	855.0	838.8	822.2	802.9	871.9	683.6
World Bank Group	637.6	646.9	654.5	661.2	666.6	670.4	672.2	671.3	666.4	658.1	647.5	659.3	552.4
IMF	55.5	52.0	51.9	49.7	43.8	37.6	27.3	16.5	8.9	4.7	0.2	31.6	0.0
African Development Bank	161.1	154.4	147.9	141.4	135.4	131.8	130.2	128.8	127.3	124.9	122.4	136.9	106.8
Others	59.3	54.8	51.5	48.0	45.1	42.8	40.7	38.3	36.2	34.6	32.8	44.0	24.3
5. NPV of new borrowing	...	104.8	179.4	233.9	294.0	361.2	436.4	507.2	582.8	661.7	744.4	410.6	1,386.7
Memorandum items:													
Exports of goods and services 3/	921.4	951.8	1,025.4	1,128.8	1,240.1	1,348.0	1,456.2	1,564.7	1,680.8	1,808.6	1,945.4	1,370.1	2,979.7
Three-year export average 4/	831.6	891.4	966.2	1,035.3	1,131.4	1,239.0	1,348.1	1,456.3	1,567.2	1,684.7	1,811.6	1,269.3	2,772.9
Government revenues 5/	424.3	493.6	563.9	641.4	738.3	830.2	927.2	1,035.1	1,154.5	1,263.8	1,383.2	859.6	2,323.8
GDP	3,722.3	3,887.0	4,271.7	4,648.0	5,057.2	5,498.1	5,981.8	6,469.5	6,997.0	7,567.4	8,184.4	5,662.2	12,916.9
NPV of debt-to-exports ratio 6/	255.9	251.9	239.8	228.6	213.6	199.9	188.5	178.5	169.8	161.7	153.9	203.8	121.4

Sources: Malagasy authorities; and staff estimates and projections.

1/ Refers to public and publicly guaranteed external debt only and assumes a stock-of-debt operation on Naples terms (67 percent NPV reduction) at the end of 1999, and at least comparable action by other official bilateral creditors.

2/ Discounted on the basis of the average commercial interest reference rate for the respective currency, derived over the six-month period prior to the latest date for which actual data are available (base date). The conversion of currency-specific NPVs into U.S. dollars occurs for all years at the base date exchange rate.

3/ As defined in IMF Balance of Payments Manual, 5th edition, 1993.

4/ Backward-looking average (e.g. average over 1997-99 for exports in 1999).

5/ Revenues are defined as central government revenues, excluding grants.

6/ NPV of debt in percent of three-year average of exports of goods and services.

Table 6. Madagascar: External Debt Service After Full Use of Traditional Debt-Relief Mechanisms, 2000-2019

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2000-2009	2010-2019
	Projections										Averages	
	(In millions of US dollars, unless otherwise indicated)											
Total debt service	90.6	110.9	114.0	119.9	118.9	124.6	139.9	145.8	154.7	165.5	128.5	217.6
after traditional debt relief 1/												
Multilateral	57.8	54.7	57.3	61.3	59.5	62.7	65.3	65.1	64.6	66.3	61.5	64.5
<i>Of which</i>												
World Bank Group	27.6	30.0	31.1	32.9	34.8	36.8	39.7	43.6	46.7	48.4	37.2	52.5
IMF	6.6	3.1	5.0	8.7	8.7	12.4	12.3	8.5	4.8	4.8	7.5	0.0
African Development Bank	15.7	15.2	14.7	14.0	11.1	8.9	8.7	8.7	9.5	9.5	11.6	9.1
Others	7.9	6.5	6.5	5.7	4.9	4.6	4.6	4.3	3.6	3.7	5.2	2.8
Official bilateral	30.3	51.1	50.1	50.4	49.5	50.0	47.8	48.8	49.9	50.3	47.8	61.3
Paris Club	21.5	39.8	38.9	38.6	38.0	38.2	35.8	36.5	37.2	37.3	36.2	45.8
<i>Of which</i>												
Official Development Assistance	15.4	19.9	18.8	17.3	16.3	16.0	14.9	14.6	14.2	13.0	16.0	11.6
Non-Paris Club	8.9	11.3	11.2	11.9	11.5	11.8	12.0	12.3	12.6	13.0	11.6	15.5
<i>Of which</i>												
ODA	3.6	3.8	3.8	4.4	4.1	4.4	4.7	4.7	4.7	4.7	4.3	4.8
Commercial	0.3	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.0	1.6
New debt	2.1	4.0	5.5	7.1	8.9	10.9	25.8	30.9	39.2	47.7	18.2	90.3
Total debt service	90.7	69.2	51.4	65.8	66.0	68.8	85.9	92.4	100.3	108.8	79.9	148.3
after enhanced HIPC assistance 2/												
Multilateral	57.6	30.3	27.5	28.9	28.8	29.9	32.7	34.3	34.3	35.1	33.9	32.0
<i>Of which</i>												
World Bank Group	27.6	15.0	15.6	16.4	17.4	18.4	19.8	21.8	23.3	24.2	20.0	26.2
IMF	6.4	1.4	2.0	3.1	3.8	5.1	6.6	6.4	4.7	4.7	4.4	0.6
African Development Bank	15.7	7.4	7.1	6.8	5.4	4.3	4.2	4.2	4.6	4.6	6.4	4.4
Others	7.9	6.5	2.9	2.5	2.2	2.0	2.0	1.9	1.6	1.7	3.1	1.3
Official bilateral	30.6	34.9	18.3	29.2	27.7	27.5	26.8	26.5	26.2	25.3	27.3	25.1
Paris Club	21.8	34.3	17.9	19.7	18.5	18.0	17.0	16.7	16.4	15.3	19.6	14.4
<i>Of which</i>												
ODA	15.4	17.3	16.1	17.2	16.3	15.9	15.0	14.6	14.3	13.1	15.5	11.2
Non-Paris Club	8.9	0.5	0.4	9.5	9.1	9.4	9.8	9.8	9.8	10.0	7.7	10.8
<i>Of which</i>												
ODA	3.7	0.5	0.4	5.1	4.8	5.1	5.4	5.4	5.4	5.4	4.1	4.8
Commercial	0.3	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.5	0.9
New debt	2.1	4.0	5.5	7.1	8.9	10.9	25.8	30.9	39.2	47.7	18.2	90.3
Memorandum items:												
Exports of goods and nonfactor services	891.4	966.2	1,035.3	1,131.4	1,239.0	1,348.1	1,456.3	1,567.2	1,684.7	1,811.6	1,313.1	2,772.9
Debt-service ratio after tradit. debt relief (percent) 3/	9.5	10.8	10.1	9.7	8.8	8.6	8.9	8.7	8.6	8.5	9.2	7.4
Debt-service ratio after HIPC assistance (percent) 3/	9.5	6.8	4.6	5.3	4.9	4.7	5.5	5.5	5.5	5.6	5.8	5.0

Sources: Data provided by the Malagasy authorities; and staff estimates and projections.

1/ Assumes a stock-of-debt operation under Naples terms at end-December 1999.

2/ Completion point is assumed to be reached at end-2002.

3/ Debt service in percent of current-year exports of goods and nonfactor services.

Main Assumptions for the Debt Sustainability Analysis (DSA)

The following macroeconomic assumptions are used for the 20-year baseline DSA Projection:

- Real GDP growth is assumed to be 6.3 percent on average in the period 2001–19.
- The terms of trade, after an average decline of 6.4 percent a year in 1999–2000, are projected to remain stable through the period, after a modest increase in 2001–2003.
- Export volume is projected to increase by 6.5 percent per annum, spurred by rapid growth of free trade zone manufacturing exports, which are projected to increase by 8.5 percent per annum. Traditional exports (coffee, vanilla, cloves) would increase by 6 percent per year, after a decline in 2000–2001 because of the damage of the cyclones in early 2000 .
- Import volume is projected to increase at a rate of about 6 percent per year, in line with real GDP.
- Gross domestic investment would increase from 16 percent in 2000 to about 18 percent by 2008 and 20 percent by 2015. Government investment is projected to remain broadly stable at about 8.5 percent of GDP, with foreign financed investment at 5.5 percent of GDP; the externally financed investment program would be funded 60 percent by grants, and for the remainder by concessional loans, of which two-thirds on IDA terms.
- Foreign direct investment is projected to increase from 2.6 percent of GDP in 1999 to about 3 percent in 2010.
- Official budgetary grants and balance of payments support loans are expected to decline gradually to about US\$20 million per year after 2004.
- The external current account deficit, excluding grants, is projected to decline from 9 percent of GDP in 2000 to 8.1 percent in 2003, and further to 5.8 percent by 2010.
- Gross international reserves would increase gradually to the equivalent of 16 weeks of imports by 2005, up from 9.6 weeks at end 1999.

Madagascar: Selected Poverty and Living Standard Indicators

Indicator	Madagascar	Sub-Saharan Africa
(in percent, unless otherwise specified)	Latest single year (1993-1999)	
Population in millions (1999)	15.1	642
Urban population (1999), percent of total	29	34
Population growth (1999)	3.1	2.4
Fertility rate (1998)	5.7	5.4
GNP Per Capita in US\$	250	500
Stunting among children under five (1997) a/	48.3	38.6
Infant mortality rate (per thousand, 1998)	92	91.8
Child mortality rate (per thousand, 1998)	157	151
Maternal mortality (per 100,000/ live births, 1997)	488	...
Life Expectancy at birth (years, 1998)	58	50.4
HIV/AIDS prevalence (1999) b/	0.15	8
Access to sanitation (1994)	15	35
Access to electricity (1997)	10	...
Access to safe water (1994)	29	43
Literacy rate (1999)	66	61
Male	73	69
Female	59	53
Gross primary school enrollment (1995)	92	78
Male	92	85
Female	91	71

Sources: "Madagascar Poverty Assessment", World Bank, 1996; World Development Indicators (World Bank)

a/ Sub-Saharan data are from 1995

b/ Sub-Saharan data are from 1997-1998

***Proposed Mechanism for Monitoring
Resources Freed by the Enhanced HIPC Initiative***

IDA and IMF staff are planning to monitor the use of resources freed by the enhanced HIPC Initiative in three ways:

- (a) **Changing Composition of Public Expenditures.** Given the new nomenclature in the budget process in Madagascar, staff expect to obtain reliable data on budget execution by function for the year 2000 so that the changing composition of expenditures can be assessed;
- (b) **Incidence of Public Expenditures.** While executed budgets by geographic area is not available from administrative data, household survey data (from the 1999 *Enquête Prioritaire*) will be used to derive allocations of education and health expenditure by region. A new survey is planned for 2001 or 2002 so that staff expect to assess (at least in broad terms) whether the regional distribution of expenditures has improved in a pro-poor way during the interim period of debt relief. Similarly, staff will also use quintile incidence analysis over time to see if a marginal expenditure incidence analyses can be conducted. This will depend on whether household surveys are comparable over time;
- (c) **Expenditure Tagging.** While tagging of poverty-related expenditures does not necessarily give an indication whether the additional resources do not simply substitute for outlays planned anyway, they are of help for linking outlays for poverty programs and indicator development (e.g., in the education and health sectors). Discussions are underway with the government how best to track expenditures financed by the HIPC Initiative resources. A supplementary budget would be prepared by the government and submitted for approval by the National Assembly, after the attainment of the decision point, which would indicate as resources the savings on the debt service. A number of supplementary credit lines for the different ministries and sub-services would be opened. The supplementary budgetary lines would be specifically identified, and would have a special code. The responsibility for expenditure commitment and payment orders should be attributed to specific credit managers (*gestionnaires de crédits*) under the authority of the Minister of Finance; these could be the ministers of the key social sectors, and transportation and rural development for the large centralized expenditures, and the provincial directors (*directeurs provinciaux*) of these ministries for more decentralized expenditures. The monitoring of these expenditures could be carried out in the same way as of other expenditures through the centralized computerized budgetary system. It should be possible to monitor the commitment, liquidation and payment orders carried out on these budgetary lines on a quarterly and even on a monthly basis.