

Developing the Workforce, Shaping the Future

Transformation of Madagascar's Post-basic Education

Sajitha Bashir

Africa Region Human Development Department



THE WORLD BANK
Washington, D.C.

Contents

Foreword.....	vii
Acknowledgments	ix
Acronyms and Abbreviations	xi
Executive Summary.....	xiii
1. Introduction	1
2. Trends in Enrollment and Completion	7
3. Education–Labor Market Linkages	17
4. Skills for the Labor Market: Improving Relevance and Quality in Post-basic Education and Training	31
5. Access and Equity in Post-basic Education.....	51
6. Partnerships for Growth: Innovation and On-the-Job Training.....	67
7. Adapting to Change: Issues and Reforms in Public Expenditure and Finance Management	79
8. Steering Change: Reforms in Management and Governance.....	93
9. A Strategic Framework for Post-basic Education in Madagascar	101
Appendix: The Reform of Basic Education in Madagascar: Lessons and Implications for Post-basic Education	109
Statistical Annex	115
Table 1. Public and Private Enrollment by Educational Sub-Sector, 1997–2006.	116
Table 2. Schools and Teachers by Cycle	117
Table 3. Average Years of Education of the Employed Labor Force by Age Group....	118
Table 4. Earnings Regression: Salary/Wage Earners, All Sectors, 2001 and 2005	119
Table 5. Earnings Regression: Salary/Wage Earners, Industrial Sector, 2005.....	121
Table 6. Estimated Stochastic Production Frontier Models, 2004	123
Table 7. Public Expenditures on Education by Sub-Sector (Ariary)	124
Table 8. Public Expenditures on Education by Sub-Sector (US\$)	125
References	127

LIST OF TABLES, FIGURES, AND BOXES

TABLES

1. Madagascar: Net Enrollment Rates per Income Level in 2001 and 2005 (%)	15
2. Growth Sector Skill Needs and Labor Supply	33
3. Types of Public Financing for Private Schools	63
4. Madagascar's Global Competitiveness Index Rankings, 2007–08	68
5. Madagascar's GCI Rankings for Higher Education and Training, 2007	69
6. Madagascar's GCI Rankings for Innovation, 2007	69
7. Innovation Indicators for Madagascar's Formal Sector Manufacturing Firms, 2005	71
8. Determinants of the Decision to Train Employees in the Formal Manufacturing Sector, 2004	74
9. Determinants of Training and Impact on Earnings, Formal Industry Sector 2005	75
10. Allocation of Public Education Expenditure by Sub-sector, 2002–07	81
11. Allocation of Public Capital Expenditures in Education by Sub-sector, 2002–07	82
12. Per Student Public Recurrent Expenditure, by Level of Education, Constant 2006 Prices	83
13. Two Scenarios for Government Regulation	99
14. Framework for Strategic Development of Post-basic Education	106

FIGURES

1. Education and the Commitments of the MAP	2
2. Students in Higher Education, 1969–2006	4
3. Planned Reform to Basic Education Curriculum	5
4a. Primary Enrollment, 1997–2007	8
4b. Junior Secondary Enrollment, 1997–2007	8
4c. SSE, TVET, and HE Enrollment, 1997–2007	8
5. International Comparison of Gross Enrollment Rates, Secondary and Higher Education, 2005	9
6. Share of Private Sector in Enrollment by Sub-sector, 1997–2007	9
7. Entry into Higher Education by Baccalauréat Series, 2005–06	10
8. First-year University Dropout Rates by University, 2004–05	11
9. Student Survival, JSE to Higher Education	13
10. Distribution of the Population by Highest Educational Attainment and Income, 2004	14
11. Madagascar: Labor Status of the Population, 2005	18
12. Cross-country Comparison of Adult Educational Attainment, 2001–05	19
13. Average Years of Education by Age Group, Employed Labor Force, 2001 and 2005	20

14. Educational Attainment of Employed Labor Force Participants Under Age 30, 2001 and 2005	21
15. Share of Population That Has Attained at Least Grade 5 by Age Group, 2005	21
16a. Share of Population That Has Attained at Least Grade 9 by Age Group, 2005	22
16b. Share of Population That Has Attained at Least Grade 12 by Age Group, 2005	22
17. Distribution of Employed Labor Force by Highest Qualification Obtained and Annual Education/Training Awards, 2005	23
18. Educational Attainment of Employed Labor Forces by Region, 2005	24
19. Education Levels in MAP Target Regions, 2005	25
20. Return to Education by Educational Level, Wage and Salary Earners, 2005	27
21. Typology of Technological Occupations in the Knowledge Economy	34
22. Madagascar's Senior Secondary Education (SSE) Cycle	36
23. Structure of Madagascar TVET system, 2007 (Pre-reform)	40
24. Graduates of Applied Science, Engineering, and Technology Programs, 2005–06	44
25. NIOS Process for Learning System Development	56
26. Private Education in Madagascar	59
27. Share of Private Sector in Secondary Education Institutions, by Region	60
28. Distribution of Private School Enrollment by Type of Institution, 2005–06	61
29. Madagascar Knowledge Indicators: Innovation Systems	70
30. Select Knowledge Indicators: Madagascar and Middle-income SADC Countries ...	71
31. Total Public Education Expenditure as Percent of GDP, 1996–2006	80
32. Investment Spending in SSE, TVET, and Higher Education, by Source of Financing, 2006	82
33. Composition of Recurrent Public Expenditure by Education Sub-sector, 2007	84
34. Composition of Transfers for Higher Education, by Category of Expenditure, 2006	84
35. Composition of Recurrent Expenditure in Higher Education, 2006	85
36. Supplementary Hours as Percent of Total University Teaching Hours, 2006	86
37. New Structure of Basic Education	110
38. Proposed Curriculum, Grades 1–10	111

BOXES

1. Observations on the Availability of Middle Managers and Skilled Technicians	28
2. Alternative Models for Secondary Education	39
3. Strategies for Shifting to LMD in Selected European Countries	46
4. Main Features of the National Institute of Open School, India	57
5. Ten Characteristics of Successful Open Universities	58
6. Model for a Post-basic Education Reform Commission	94