

Content

| | |
|---|-----------|
| Introduction | 1 |
| 1. Retrospective Overview of Economic and Technological Situation in the Federation of Bosnia and Herzegovina | 3 |
| 1.1 State of the Industry before the War | 3 |
| 1.2 War Damages | 4 |
| 1.3 Reconstruction of Industry after the War | 6 |
| 1.4 State of Industry of FBiH through Statistics | 9 |
| Bibliography | 15 |
| 2. The Impact of Scientific, Technical and Technological Progress in Globalized World on Industrial Production Development in FBiH | 19 |
| 2.1 State of Science, Technological Development and Environment in FBiH | 19 |
| 2.2 Technology, Competitiveness and Export Potential | 21 |
| 2.3 Change of Ownership and Revitalization of Industry | 22 |
| 2.4 Development of Information Society in the EU (Western Balkans Region) | 23 |
| 2.5 Development of Information Society and Education for the Purpose of Industry Progress | 24 |
| 2.6 Europeization of the Federation of BiH | 25 |
| 2.7 Globalization in the Context of Developing Countries | 26 |
| Bibliography | 30 |
| 3. Analysis of Industry and Industrial Production Structure in FBiH for Metal and Electro Sector | 33 |
| 3.0 Introduction | 33 |
| 3.0.1 Overview of Previous Research on the State of the Metal and Electro Industry | 34 |
| 3.0.2 Global Development Trend of the Metal and Electro Industry | 35 |

| | | |
|-----------|---|-----------|
| 3.0.3 | Analysis of Business Performance of Surveyed Companies in 2006 and 2007 | 36 |
| 3.1 | Overview of the State of Production Programs | 48 |
| 3.2 | State of Technologies and Technological Systems | 51 |
| 3.3 | Possibilities of Revitalization and Modernization of Technology | 53 |
| 3.4 | SWOT Analysis | 57 |
| 3.5 | Possible Strategic and Development Goals | 59 |
| | Bibliography | 63 |
| 4. | Analysis of Industry and Structure of Industrial Production for Wood Processing and Pulp and Paper Industry in the Federation of BiH | 65 |
| 4.1 | Wood Processing | 65 |
| 4.1.1 | Overview of the Situation in Production Programs | 65 |
| 4.1.1.1 | Situation in the Wood Industry of BiH until 1992 | 65 |
| 4.1.1.2 | Wood Industry in FBiH Today | 66 |
| 4.1.1.2.1 | Raw Materials | 68 |
| 4.1.1.2.2 | Basic Statistical Indicators | 72 |
| 4.1.1.2.3 | Survey Data | |
| 4.1.2 | State of Technologies and Technological Systems | 77 |
| 4.1.2.1 | State of Technology until 1992 | 77 |
| 4.1.2.2 | State of Technology Today | 77 |
| 4.2.2.1 | Financial Indicators | 78 |
| 4.2.2.2 | Basic characteristics of the state of wood industry in the FBiH | 80 |
| 4.1.3 | Possibilities of Revitalization and Modernization of Technology | 82 |
| 4.1.3.1 | Analysis of the Current Capacities and Structure of Production Technology | 83 |
| 4.1.3.2 | Analysis of Current Needs for New Technologies in the Wood Processing Sector in FBiH | 86 |
| 4.1.4 | Internal and External Constraints (SWOT Analysis) | 87 |
| 4.1.5 | Possible Strategic and Developmental Goals | 95 |

| | | |
|-----------|--|------------|
| | 4.1.5.1 Improvement of Business Relations Between the Forestry and Wood Processing Companies | 97 |
| | 4.5.2 Defining Target Products and Support to the Export of Higher Phases of Processing | 98 |
| | 4.1.5.3 Promotion of Companies and Joint Appearance in the Market – Export Strategy | 98 |
| | 4.15.4 Quality of Product and Production Process | 100 |
| | 4.15.5 Staff and Education | 100 |
| 4.2 | Pulp and Paper Industry | 101 |
| 4.2.1 | Overviews of the Situation in Pulp and Paper Industry | 101 |
| | 4.2.1.1 Situation in Pulp and Paper Industry in BiH until 1992 | 101 |
| | 4.2.1.2 Pulp and Paper Industry in the FBiH Today | 101 |
| | 4.2.1.2.1 Raw Materials | 102 |
| | 4.2.1.2.2 Basic Statistical Indicators | 102 |
| | 4.2.1.2.3 Survey Data | 105 |
| | 4.2.1.2.4 Basic Characteristic of the Situation of Pulp and Paper Industry | 109 |
| 4.2.2 | Internal and External Constrains (SWOT Analysis) | 110 |
| 4.2.3 | Possible Strategic and Development Goals | 111 |
| | Bibliography | 113 |
| 5. | Analysis of the Industry and the Structure of Industrial Production in FBiH for the Construction Materials Industry | 115 |
| 5.1 | Cross-section Data of the State of Production Programs | 115 |
| 5.1.1 | State of the Construction Materials Industry | 115 |
| 5.1.2 | Survey Data | 118 |
| 5.2 | State of Technology and Technological Systems | 120 |
| 5.2.1 | State of Technology until 1992 | 120 |
| 5.2.2 | State of Technology Today | 120 |
| 5.2.3 | Status of exploitation of architectural-construction stone | 121 |
| 5.2.4 | Financial Indicators | 122 |

| | | |
|-----------|---|------------|
| 5.2.5 | Staff Indicators | 122 |
| 5.2.6 | Basic Characteristics of the State of the Construction Materials Industry in FBiH | 123 |
| 5.3 | Possibility of Revitalization and Modernization of Technology | 124 |
| 5.3.1 | Analysis of the Current Capacities and Structure of Production Technology | 125 |
| 5.3.2 | Analysis of Current Needs for New Technologies in the Sector of the Construction Materials Industry in FBiH | 125 |
| 5.4 | Internal and External Constraints (SWOT Analysis) | 125 |
| 5.5 | Possible Strategic and Development Goals | 127 |
| | Bibliography | 129 |
| 6. | Analysis of Industry and Structure of Industry Production in FBiH for the Graphics Industry | 131 |
| 6.0 | Introduction | 131 |
| 6.1 | Cross-Section Data of Production Programs | 131 |
| 6.1.1 | Statistical Indicators of Production | 132 |
| 6.1.2 | Statistical Indicators of Import and Export | 132 |
| 6.1.3 | Employment | 134 |
| 6.2 | State of Technology and Technological Systems | 135 |
| 6.3 | Possibilities for Revitalization and Modernization of Facilities | 137 |
| 6.4 | Internal and External Constraints (SWOT Analysis) | 137 |
| 6.5 | Possible Strategic and Development Goals | 138 |
| | Bibliography | 140 |
| 7. | Analysis of Industry and Structure of Industrial Production in FBiH for Non-Metals | 141 |
| 7.1 | Cross-Section Data of the State | 141 |
| 7.1.1 | The State of Non-Metals and Construction Materials until 1992 | 142 |
| 7.1.2 | Annual Production per Amounts and Supplies of Non-Metals and Construction Materials | 142 |

| | | |
|-----------|---|------------|
| 7.1.3 | Non-Metallic Mineral Raw Materials Today | 143 |
| 7.2 | Final Considerations | 150 |
| 8. | Analysis of Industry and Structure of Industrial Production in FBiH for the Textile, Leather and Footwear Sector | 151 |
| 8.0 | Introduction - Definition of the Sector and Methodical Basics | 151 |
| 8.0.1 | Foreign Trends in the Textile and Garment Industry | 152 |
| 8.0.2 | Foreign Trends in the Leather and Footwear Industry | 155 |
| 8.0.3 | Value Chain | 157 |
| 8.1 | Cross-Section Data of the State of Production Programs | 159 |
| 8.1.1 | Basic Information | 159 |
| 8.1.2 | Industrial Products | 160 |
| 8.2 | State of Technology and Technological Systems | 162 |
| 8.2.0 | General State of Technology | 162 |
| 8.2.1 | Textile Subsector | 163 |
| | 8.2.1.1 State and Aggravating Circumstances for the Implementation of Modern Technologies | 163 |
| | 8.2.1.2 Implementation of Modern and New Technologies | 163 |
| 8.2.2 | The Leather and Footwear Subsector | 165 |
| | 8.2.2.1 State and Aggravating Circumstances for the Implementation of Modern Technologies | 165 |
| | 8.2.2.2 The Technology and Technical State of Leather and Footwear | 166 |
| | 8.2.2.3 Implementation of Modern and New Technologies | 169 |
| 8.3 | Possibilities for the Revitalization and Modernization of Technologies | 170 |
| 8.3.1 | Basic Foundations for the Development of Industrial Production | 170 |
| 8.3.2 | Basics for the Revitalization and Reengineering of Technologies | 170 |

| | | |
|-----------|---|------------|
| 8.3.3 | Revitalization/Reengineering of Production and Competitiveness | 171 |
| 8.3.4 | Algorithm for Revitalization/Reengineering | 172 |
| 8.3.5 | Revitalization and Modernization of Technologies and the Implementation of Knowledge | 173 |
| 8.3.6 | Specialization and Rationalization in the Footwear Industry | 174 |
| 8.4 | Internal and External Constraints (SWOT Analysis) | 177 |
| 8.4.1 | Assessment of the Textile and Garment Subsector | 178 |
| 8.4.2 | Assessment of the Leather and Footwear Subsector | 179 |
| 8.4.3 | Conclusions on Future Opportunities and Threats | 181 |
| 8.5 | Possible Strategic Development Goals and Measures for the Consolidation of the Industry | 187 |
| 8.5.1 | Strategic Development Goals and Presumptions Which Should be Resolved in Order to Achieve the Conditions and Create Foundations for Comprehensive Development | 187 |
| 8.5.2 | Strategic Measures for the Consolidation of the Industry and Programs for the Recovery of Production and Export | 192 |
| | Bibliography | 200 |
| 9. | Analysis of Industry and Structure of Industrial Production in FBiH for the Chemical and Pharmaceutical Industry Sector | 201 |
| 9.0 | Achieved Level of Development of Chemical and Pharmaceutical Industry in BiH and FBiH Until 1992 | 201 |
| 9.0.1 | Production and Consumption of Chemical Products in BiH and FBiH until 1992 | 202 |
| 9.0.2 | Foreign Trade of Chemical Industry Until 1992 | 204 |
| 9.0.3 | The Achieved Level of Development of the Pharmaceutical Industry in BiH and FBiH until 1992 | 205 |
| 9.1 | Cross-Section of the State of Production | 206 |
| 9.1.1 | Production Programs of Companies in the Chemical Industry | 207 |
| 9.1.2 | Production Programs of Companies in the Pharmaceutical Industry | 209 |

| | | |
|------------|---|------------|
| 9.2 | State of Technologies and Technological Systems | 211 |
| 9.2.1 | General State in the Sector of Chemical and Pharmaceutical Industries | 211 |
| 9.2.2 | State of Technology and Technological Equipment in These Companies of the Chemical Industry | 213 |
| 9.2.3 | State of Technology and Technological Equipment in the Aforementioned Companies in the Pharmaceutical Industry | 215 |
| 9.2.4 | Financial Indicators of Surveyed Companies | 215 |
| 9.3 | Possibility of Revitalizing and Modernizing Technologies | 217 |
| 9.3.1 | Overview of the Most Important Investments in Companies from the Sector of Chemical and Pharmaceutical Industry | 219 |
| 9.4 | Internal and External Constraints (SWOT Analysis) | 221 |
| 9.4.1 | SWOT Analysis of the Chemical Industry Sector | 223 |
| 9.4.2 | SWOT Analysis of the Pharmaceutical Industry Sector | 224 |
| 9.5 | Possible Strategic-Development Goals and Strategies | 227 |
| 9.5.1 | Terms and Possibilities of Medium and Long Term Development of Chemical and Pharmaceutical Industry of FBiH in Terms of Resources as Factors of Development | 228 |
| 9.5.2 | External Factors of Development | 234 |
| 9.5.3 | Objectives and Concept of Long-Term Development of Chemical Industry of FBiH | 235 |
| 9.5.4 | Projection and Forecast of the Development of Existing and New Major Products and Technologies of the Chemical Industry of FBiH | 235 |
| 9.5.5 | Concept of Long-Term Development of Pharmaceutical Industry | 237 |
| 9.5.6 | Necessary Documents for the Modern Development of the Sector of Chemical and Pharmaceutical Industry in FBiH | 242 |
| | Bibliography | 243 |
| 10. | Analysis of Industry and Structure of Industrial Production in FBiH - Sector of Military Industry | 245 |

| | | |
|------------|--|------------|
| 10.1 | Cross-Section of Production Programs | 245 |
| 10.1.1 | Introductory Considerations | 245 |
| 10.1.2 | Structure of Military Industry of FBiH | 249 |
| 10.1.3 | Analysis of the Current State of Production in Factories | 255 |
| 10.2 | State of Technology and Technological Systems | 260 |
| 10.3 | Possibilities of Revitalizing and Modernizing of Technologies | 262 |
| 10.4 | Internal and External Constraints (SWOT Analysis) | 263 |
| 10.5 | Possible Strategic Development Goals | 265 |
| | Bibliography | 270 |
| 11. | Identifying Internal and External Constraints to the Functioning and Development of Industrial Production of FBiH | 271 |
| 11.1 | Problem Analysis by the Company | 271 |
| 11.1.1 | General Business Environment | 271 |
| 11.1.2 | Authorities as a Limiting Factor in Doing Business | 274 |
| 11.1.3 | Fiscal System | 277 |
| 11.1.4 | Human Resources | 278 |
| 11.1.5 | Infrastructure | 280 |
| 11.1.6 | Business Support Systems | 280 |
| 11.2 | Problem Analysis Based on Other Sources | 283 |
| 11.3 | Conclusion | 286 |
| | Bibliography | 287 |
| 12. | State on Competitiveness in FBiH | 291 |
| 12.1 | Trilogy Studies on Competitiveness | 291 |
| 12.2 | “ACID TEST” of the General State on Competitiveness in BiH and FBiH | 292 |
| 12.3 | Competitive Advantages and Competitive Disadvantages | 293 |
| 12.3.1 | Competitive Advantages | 293 |
| 12.3.2 | Competitive Disadvantages | 294 |

| | | |
|------------|--|------------|
| 12.4 | The Most Problematic Factors for Doing Business (in the opinion of business community) | 297 |
| 12.5 | A Superficial Look at the Competitiveness from the Perspective of Doing Business Report of the World Bank | 299 |
| 12.6 | Competitiveness and the Global Crisis | 300 |
| | Bibliography | 301 |
| 13. | Analysis of Existing Institutions Responsible for Technological Development of FBiH | 303 |
| 13.1 | Infrastructure in the Federation of BiH | 303 |
| 13.2 | Institutional Infrastructure in the Federation of BiH | 304 |
| 13.3 | Database | 305 |
| 14. | Main scientific research projects for industrial development support | 307 |
| 14.1 | Introduction | 307 |
| 14.2 | Circle of prosperity | 307 |
| 14.3 | Science information - communication technologies | 308 |
| 14.4 | What to develop and in what to invest? | 311 |
| 14.5 | Priorities in scientific – research projects areas | 311 |
| 14.6 | Priorities in research – developing projects | 312 |
| 15. | Institutional development of Federation of Bosnia and Herzegovina is focused on development of industrial production | 313 |
| 15.1 | Guidelines for policy of science and research with the goal of increment of industry concurrency and economy in Federation of Bosnia and Herzegovina | 316 |
| | Bibliography | 320 |
| 16. | Foreign investments and system of incentives for industry | 323 |
| 16.0 | Introduction | 324 |
| 16.1 | Possible ways of incentives for the industrial production in the Federation of Bosnia and Herzegovina | 325 |
| 16.2 | Economic and Legal Framework for Foreign Investments and Promotion of Export Orientation | 334 |
| 16.2.1 | Introduction | 334 |

| | | |
|------------|--|------------|
| 16.2.2 | Analysis of Foreign Direct Investments in BiH | 335 |
| 16.2.2.1 | Volume and Movement of FDI in BiH | 335 |
| 16.2.2.2 | Structure of FDI in BiH | 337 |
| 16.2.2.3 | Volume and structure of FDI in Federation BiH | 339 |
| 16.2.3 | Investment Climate in BiH | 344 |
| 16.2.3.1 | Political Stability | 344 |
| 16.2.3.2 | Legal and Institutional Framework | 345 |
| 16.2.3.2.1 | Legal framework | 345 |
| 16.2.3.2.2 | Institutions | 349 |
| 16.2.3.3 | Macroeconomic Situation | 350 |
| 16.2.4 | Why (not) invest in Bosnia and Herzegovina: advantages and disadvantages of BiH as investment destination | 351 |
| 16.2.4.1 | Barriers for foreign investment | 351 |
| 16.2.4.2 | Incentives for foreign investments | 353 |
| 16.3 | Possible directions of state actions for removal and mitigation of technological backwardness and restrictions in favour of industrial development and faster access to the European Community funds, and creation of conditions for a modern, profitable, export oriented industrial production | 357 |
| 16.4 | Conclusion | 360 |
| | Bibliography | 361 |
| 17. | Strategic objectives, priorities and measures of revitalization and continuous progress of industry in the Federation of Bosnia and Herzegovina | 363 |
| 17.1 | Horizontal segments (the measures and activities) in the development of industrial policy in the Federation of Bosnia and Herzegovina for the period 2009 to 2018 | 364 |
| 17.1.1 | Institutions, agencies | 365 |
| 17.1.2 | Programs, strategies | 366 |
| 17.1.3 | Laws | 368 |
| 17.1.4 | The role of levels of government | 369 |

| | | |
|--------------|--|------------|
| 17.1.5 | Education | 370 |
| 17.1.6 | Media promotion | 370 |
| 17.1.7 | Control of success | 371 |
| 17.2 | Sector strategic goals, priorities and measures for period 2009-2012 | 371 |
| 17.3 | Influence of global economic crises on industrial policy in Federation of Bosnia and Herzegovina | 378 |
| 17.3.1 | World economic crisis and its implications on developing countries with special reference to Bosnia and Herzegovina and the Federation of Bosnia and Herzegovina | 380 |
| 17.3.2 | Crisis-Causes and Beginnings | 380 |
| 17.3.3 | The problems that Bosnia and Herzegovina and Federation of Bosnia and Herzegovina are faced | 382 |
| 17.3.4 | Implications of the global economic crisis on developing countries, with special emphasis on the Federation of Bosnia and Herzegovina | 384 |
| 17.3.5 | Concluding remarks | 388 |
| | Bibliography | 389 |
| | Appendices | 391 |
| Appendix I | Organizational Structure of Bosnia and Herzegovina | 392 |
| Appendix II | Institute for Accreditation of Bosnia and Herzegovina – BATA | 393 |
| Appendix III | Overview of Universities and Technical and Economic Faculties and Institutes in the Federation of Bosnia and Herzegovina | 394 |
| Appendix IV | List of Accredited Bodies for Compliance Assessment on 10 December 2008 | 399 |
| Appendix V | Questionnaire I | 404 |
| Appendix VI | Questionnaire II | 413 |