Revitalizing the Rural Economy: An assessment of the investment climate faced by non-farm enterprises at the District level
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# Table Of Contents

Acknowledgements ............................................................................................................... ii
Table Of Contents .................................................................................................................. iii
Abbreviations and Acronyms ............................................................................................... vi
Executive Summary ............................................................................................................... X

## Chapter 1. What Do We Care About the Rural Investment Climate?

- Why Do We Care About the Rural Investment Climate? .................................................. 3
- Agriculture, RNFEs and Poverty Reduction ................................................................. 7
- What Do We Know About RNFEs? .............................................................................. 9
- What Constrains RNFEs in Indonesia? ...................................................................... 13
- This Rural Investment Climate Assessment Report ....................................................... 16

## Chapter 2. The Impact of Labor Markets on Rural Non-Farm Enterprises

- Introduction .................................................................................................................... 21
- Labor Market Trends ...................................................................................................... 22
- What are the Key Labor Concerns of Rural Non-Farm Enterprises? .................... 26
- Factors affecting Employment in Rural Non-Farm Enterprises in Indonesia ........ 30
- The Impact of Labor Regulations on Rural Non-Farm Employment ....................... 34
- Implications for Labor Policy ....................................................................................... 37

## Chapter 3. The Constraints in Accessing Credit faced by Rural Non-Farm Enterprises

- Introduction: the importance of credit ......................................................................... 43
- An Overview of Financial Services available to RNFEs ............................................. 44
- How Many Firms are Credit Constrained? .................................................................. 45
- The Nature of Credit Constraints ................................................................................ 48
- Policy Conclusions ....................................................................................................... 55

## Chapter 4. Infrastructure and the Climate for Rural Investment in Indonesia

- The Importance of Access to and Quality of Infrastructure for the Growth of Non-Farm Enterprises ............................................................................................................. 63
- The Current Status of Indonesia’s Rural Infrastructure: ............................................. 66
- Expenditure on Infrastructure: Who is Responsible and How are Resources Allocated? ...... 69
- The Political Economy of Rural Infrastructure and an Agenda for Reform ................ 72
- Conclusions and Summary of Policy Recommendations: ......................................... 78

## Chapter 5. The Diffusion of Technical Knowledge to Small Enterprises

- The Technological Capacity and Productivity of Enterprises in Indonesia ............... 86
- Channels of Technology Transfer and Diffusion .......................................................... 88
- The Effectiveness of Government and Governmental Funded Programs to Build Technological Capacity ............................................................... 93
- Policy Recommendations ............................................................................................. 99

## Chapter 6. Marketing and Competition Constraints to Rural Growth

- Non-Farm Enterprises: What is the Driver of Growth? ................................................ 112
- Agricultural Marketing: A Quiet Revolution ................................................................ 114
- Broadening Markets for Non-Farm Products .............................................................. 120
- Spurring Competition .................................................................................................. 126
- Summary and Implications for Policy ........................................................................... 130
Chapter 7. Local Governance: The Impact of Taxation, Licensing, and Regulation ................. 137
  Introduction .......................................................................................................................... 139
  Sources and Composition of Local Revenues: Changes since the Mid-1990’s. .................. 140
  The Tax Burden on Local Enterprises: A Light Load ....................................................... 142
  The Licensing and Regulatory Regime: Wasting Time and Resources ............................ 143
  Political Economy of Local Business Regulations and Tax Policies ............................... 148
  Concluding observations and policy Recommendations: .................................................. 155

Chapter 8. Summary of Recommendations ............................................................................ 161
  Introduction .......................................................................................................................... 163
  Labor .................................................................................................................................. 163
  Credit ................................................................................................................................. 164
  Infrastructure ..................................................................................................................... 166
  The Diffusion of Technical Knowledge .............................................................................. 167
  Marketing and Competition ............................................................................................... 169
  Local Governance ............................................................................................................. 170

References .............................................................................................................................

List of Tables
  Table 1.1: Employment by Sector in Rural and Urban Areas .............................................. 5
  Table 1.2: Distribution of the Poor in Indonesia by Sector and Location ............................ 8
  Table 2.1: Employment by Major Sector, Urban and Rural Areas ..................................... 23
  Table 2.2: Firms’ Labor Related Obstacles by Type of Enterprise .................................... 27
  Table 3.1: Source of credit for non-farm enterprises, by business sector ......................... 45
  Table 3.2: Rural Non-Farm Enterprises Facing Financial Obstacles ................................. 46
  Table 3.3: Possibility to Borrow from Formal Financial Institution ................................. 47
  Table 3.4: Household Businesses’ & Small Enterprises’....................................................... 48
  Table 3.5: Enterprises’ Willingness to Borrow from a Formal Financial Institution .......... 49
  Table 3.6: Business Requirements and Types of Collateral ............................................. 51
  Table 4.1: Access to Infrastructure (Listed by Average Access) ......................................... 67
  Table 4.2: Repairing and Maintaining the Kabupaten Road Network: Estimated Costs ...... 72
  Table 5.1: Differences in Labor Productivity in Indonesian Manufacturing Industry ......... 87
  Table 5.2: Types of strategic alliances by the surveyed firms, 1997 .................................. 92
  Table 5.3: Number of institutions and assistance programs to strengthen MIEs and SEs ...... 94
  Table 5.4: The proportion of assistance programs to strengthen MIEs and SEs ................. 95
  Table 6.1: Contrasting characteristics between traditional and modern market systems .... 116
  Table 6.2: Cost and profitability indicators of vegetable and fruit farming ....................... 117
  Table 6.3: Procurement Area by Type of Trading Firm in 2005 ........................................ 125
  Table 6.4: Sales Area by Type of Trading Firm in 2005 ...................................................... 125
  Table 7.1: Kabupaten/Kota, by Type 1994/95-2003 ............................................................ 113
  Table 7.2: Problems Related to Official and Unofficial Taxes and Compliance Costs ....... 142
  Table 7.3: Tax Rates on Enterprises in the RICS Sample ............................................... 142
  Table 7.4: Median time needed to get licenses (work days) ............................................. 144
  Table 7.5: Ranking of perceived business problems ......................................................... 144
  Table 7.6: List of challenged perda by sector ................................................................... 147
  Table 7.7: Governmental leadership indicators ................................................................. 151
  Table 7.8: Overview of business conditions in relation to political economy indicators .... 152
  Table 7.9: Scoring board for one-stop license services ...................................................... 153
List of Figures

Figure 1.1: Distribution of Employment by size of firm in Six Kabupatens ........................................... 5
Figure 1.2: Income by source in 2002........................................................................................................ 6
Figure 1.3: Sectoral Distribution of Enterprises in RICS Kabupatens ......................................................... 9
Figure 1.4: Location of Final Consumption of Goods Produced by RNFEs................................................. 11
Figure 1.5: The distribution of firms, employment and value-added......................................................... 12
Figure 1.6: Factors affecting demand for supply of output from rural non-farm enterprises .... 14
Figure 1.7: Most Important Constraint faced by Firms (Urban and Rural) ............................................. 15
Figure 2.1: Formal and Informal Employment in Rural and Urban Areas, 1996-2004....................... 25
Figure 2.2: Formal and Informal Employment in Farm and Non-Farm Sectors, 1996-2004........ 25
Figure 2.3: Status of Non-farm Employment, Indonesia 1996-2003......................................................... 26
Figure 2.5: Composition of Workers by Education Level....................................................................... 29
Figure 2.6: Composition of Workers by Type of Training................................................................. 30
Figure 2.4: Minimum Wage 1991-2005................................................................................................. 34
Figure 3.1: Credit Problems faced by Informal Micro and Small Enterprises ..................................... 45
Figure 3.2: Potential for Expansion of Micro-Credit ............................................................................ 47
Figure 3.3: Reasons Businesses Choose not to Borrow from Formal Financial Institutions .... 50
Figure 4.1: Infrastructure and the Extent of NFE Activities in Indonesia........................................... 65
Figure 4.2: Constraints to Enterprise Operation and Growth............................................................... 66
Figure 4.3: Road Quality by Island: Percentage of Roads in Good/Fair Condition ....................... 69
Figure 4.4: Length and Status of the Kabupaten Road Network......................................................... 69
Figure 4.5: All-Level Government Expenditure on Roads (2003)....................................................... 71
Figure 5.1: Proportion of SEs and MIEs receiving assistances from government by region...... 95
Figure 6.1: Location of final consumption........................................................................................... 124
Figure 7.1: Perception of local business policies during subsequent governance periods .... 149
Figure 7.2: Institutional deficiencies on national and district levels .................................................. 150
Figure 7.3: Governmental Leadership Indicators in Case Districts .................................................... 152

List of Boxes

Box 1.1: Why this Report is about Rural, Non-Farm Enterprises (RNFEs)........................................... 4
Box 1.2: The Structural Transformation of the Rural Economy.......................................................... 7
Box 1.3: The Indonesian Rural Investment Climate Survey (RICS)................................................... 10
Box 2.1: Premanism and Labor Recruitment......................................................................................... 28
Box 2.2: Unqualified Locals Demand Jobs............................................................................................ 28
Box 4.1: Output-Based Aid.................................................................................................................... 74
Box 5.2: Foster Failure?......................................................................................................................... 97
Box 7.1: Government reforms in Solok during the term of Bupati Fauzi Gamawan.................. 154
### Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>AMT</td>
<td>Achievement Motivation Training</td>
</tr>
<tr>
<td>APBD</td>
<td>Anggaran Pendapatan dan Belanja Daerah (Regional Budget)</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>BAT</td>
<td>British American Tobacco</td>
</tr>
<tr>
<td>BBM</td>
<td>Bahan Bakar Minyak (Fuel)</td>
</tr>
<tr>
<td>BKD</td>
<td>Badan Kredit Desa (Village Credit Institutions)</td>
</tr>
<tr>
<td>BKK</td>
<td>Badan Kredit Kecamatan (Sub District Credit Institutions)</td>
</tr>
<tr>
<td>BKPM</td>
<td>Badan Koordinasi Penanaman Modal (Investment Coordinating Board)</td>
</tr>
<tr>
<td>BPD</td>
<td>Bank Pembangunan Daerah (Regional Development Bank)</td>
</tr>
<tr>
<td>BPN</td>
<td>Badan Pertanahan Nasional (National Land Agency)</td>
</tr>
<tr>
<td>BPPT</td>
<td>Badan Pengkajian dan Penerapan Teknologi (Agency for the Assessment and Application of Technology)</td>
</tr>
<tr>
<td>BPPI</td>
<td>Badan Penelitian dan Pengembangan Industry (Industrial Research and Development Laboratory)</td>
</tr>
<tr>
<td>BPR</td>
<td>Bank Perkreditan Rakyat (People’s Credit Bank)</td>
</tr>
<tr>
<td>BPS</td>
<td>Badan Pusat Statistik (Central Statistic Agency)</td>
</tr>
<tr>
<td>BRI</td>
<td>Bank Rakyat Indonesia (People’s Bank of Indonesia)</td>
</tr>
<tr>
<td>BRTI</td>
<td>Badan Regulasi Telekomunikasi Indonesia (Indonesian Telecommunications Regulatory Body)</td>
</tr>
<tr>
<td>BULOG</td>
<td>Badan Urusan Logistik (the Bureau of Logistic)</td>
</tr>
<tr>
<td>BUMN</td>
<td>Badan Usaha Milik Negara (State-Owned Enterprises/SOE)</td>
</tr>
<tr>
<td>CCP</td>
<td>Captive Power Plant</td>
</tr>
<tr>
<td>CEFE</td>
<td>Creation of Entrepreneur for Formation Enterprises</td>
</tr>
<tr>
<td>CESS</td>
<td>Centre for Economic and Social Study</td>
</tr>
<tr>
<td>CU</td>
<td>Credit Union</td>
</tr>
<tr>
<td>CU CO</td>
<td>Indonesian Credit Union Federation</td>
</tr>
<tr>
<td>DAI</td>
<td>Development Alternatives, Inc</td>
</tr>
<tr>
<td>DAK</td>
<td>Dana Alokasi Khusus (Special Allocation Fund)</td>
</tr>
<tr>
<td>DAU</td>
<td>Dana Alokasi Umum (General Allocation Fund)</td>
</tr>
<tr>
<td>DIS</td>
<td>Debtor Information System</td>
</tr>
<tr>
<td>DPE</td>
<td>Dewan Penunjang Ekspor (Export Support Board)</td>
</tr>
<tr>
<td>DPRD</td>
<td>Dewan Perwakilan Rakyat Daerah (Local Parliaments)</td>
</tr>
<tr>
<td>DSP</td>
<td>Danamon Simpan Pinjam (Danamon Savings and Loans)</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FP</td>
<td>Foster Parent</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GDS</td>
<td>Government and Decentralization Survey</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
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<tr>
<td>GIAT</td>
<td>Growth through Investment, Agriculture and Trade</td>
</tr>
<tr>
<td>GTZ</td>
<td>German Development Agency</td>
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<tr>
<td>HVC</td>
<td>High Valued Commodities</td>
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<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
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<tr>
<td>IFC PENSA</td>
<td>Program for Eastern Indonesian Small Medium Enterprise Assistance</td>
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<td>IFLS</td>
<td>Indonesia Family Life Survey</td>
</tr>
<tr>
<td>INKOPDIT</td>
<td>Induk Koperasi Kredit (Credit Union Central of Indonesia)</td>
</tr>
<tr>
<td>Inpres</td>
<td>Instruksi Presiden (Presidential Instruction)</td>
</tr>
<tr>
<td>IPP</td>
<td>Independent Power Plants</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>JBIC</td>
<td>Japan Bank for International Cooperation</td>
</tr>
<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
</tr>
<tr>
<td>KDP</td>
<td>Kecamatan (Sub-District) Development Program</td>
</tr>
<tr>
<td>KHM</td>
<td>Kebutuhan Hidup Minimum (Minimum Basic Subsistence Needs)</td>
</tr>
<tr>
<td>KKB</td>
<td>Klinik Konsultasi Bisnis (Business Consultancy Clinic)</td>
</tr>
<tr>
<td>KOPINKRA</td>
<td>Koperasi Industri Kerajinan Rakyat (Small-Scale Handicraft Industry Cooperatives)</td>
</tr>
<tr>
<td>KPPOD</td>
<td>Komite Pemantauan Pelaksanaan Otonomi Daerah (Committee Monitoring the Implementation of Regional Autonomy)</td>
</tr>
<tr>
<td>KPPU</td>
<td>Komisi Pengawas Persaingan Usaha (the Supervisory Commission on Business Competition)</td>
</tr>
<tr>
<td>KSP</td>
<td>Koperasi Simpan Pinjam (Savings and Loans Cooperatives)</td>
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<td>KUD</td>
<td>Koperasi Unit Desa (Village Cooperatives)</td>
</tr>
<tr>
<td>KUK</td>
<td>Kredit Usaha Kecil (Small Scale Credit)</td>
</tr>
<tr>
<td>KUPEDES</td>
<td>Kredit Umum Pedesaan (General Rural Credit)</td>
</tr>
<tr>
<td>kWh</td>
<td>Kilo Watt-hours</td>
</tr>
<tr>
<td>LDKP</td>
<td>Lembaga Dana Kredit Pedesaan (Rural Fund and Credit Institutions)</td>
</tr>
<tr>
<td>LE</td>
<td>Large Enterprise</td>
</tr>
<tr>
<td>LIK</td>
<td>Lingkungan Industri Kecil (Estates for Small-Scale Industry)</td>
</tr>
<tr>
<td>LIPI</td>
<td>Lembaga Ilmu Pengetahuan Indonesia (Indonesian Institute of Science)</td>
</tr>
<tr>
<td>LKD</td>
<td>Lembaga Keuangan Desa (Village Finance Institutions)</td>
</tr>
<tr>
<td>LKM</td>
<td>Lembaga Kredit Micro (Micro Credit Institutions)</td>
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<td>LKURK</td>
<td>Lembaga Kredit Usaha Rakyat Kecil (People’s Small Business Credit Institutions)</td>
</tr>
<tr>
<td>LKP</td>
<td>Lumbung Kredit Pedesaan (Rural Credit Storehouse)</td>
</tr>
<tr>
<td>LP3E FE</td>
<td>Laboratorium Penelitian, Pengabdian pada Masyarakat dan Unpad Pengkajian Ekonomi Fakultas Ekonomi Universitas Padjadjaran</td>
</tr>
<tr>
<td>LPEM-FEUI</td>
<td>Lembaga Penelitian Ekonomi dan Masyarakat – Fakultas Ekonomi Universitas Indonesia (University of Indonesia’s Institute for Economic and Social Research)</td>
</tr>
<tr>
<td>ME</td>
<td>Medium Enterprise</td>
</tr>
</tbody>
</table>
MEMR  Ministry of Energy and Mineral Resources  
MNC  Multi National Cooperation  
MNE  Multi National Enterprise  
Mobnas  Mobil Nasional (National Car)  
MoI  Ministry of Industry  
NFE  Non-Farm Enterprise  
NFRE  Non-Farm Rural Enterprise  
NGO  Non Government Organization  
NIE  Newly Industrialized Economies  
NPWP  Nomor Pokok Wajib Pajak (Taxpayer Registration Number)  
NRI  Natural Resource Institute  
OBA  Output-Based Aid  
OECD  Organization for Economic Co-operation and Development  
OSR  Own-Source Revenues  
OSS  One-Stop Service  
P4K  Pembinaan Peningkatan Pendapatan Petani-Nelayan Kecil (Assistance in Income Generation for Marginal Farmers and Fishermen)  
PAD  Pendapatan Asli Daerah (Locally Raised Revenue)  
Perda  Peraturan Daerah (Regional Regulations)  
PDRB  Produk Domestik Regional Bruto (Gross Regional Domestic Product)  
PKWT  Perjanjian Kerja Waktu Tertentu (Temporary Working Agreement)  
PKPS BBM  Program Kompensasi Pengurangan Subsidi Bahan Bakar Minyak (Compensation Reduction Program Implementation of Refined Fuel Oil Subsidy)  
PKK  Pendidikan Kesejahteraan Keluarga (Women Welfare Activities)  
PLN  Perusahaan Listrik Negara (State-owned Electricity Company)  
PNM  Permodalan Nasional Madani (National Fund for Social Investment)  
PNS  Pegawai Negeri Sipil (Civil Servant)  
PODES  Potensi Desa (Village Potential Statistics)  
PT  Perseroan Terbatas (Limited Company)  
R&D  Research and Development  
REDI  Rural Economic Development Initiative  
RGDP  Regional Gross Domestic Product  
RICA  Rural Investment Climate Assessment  
RICS  Rural Investment Climate Survey  
RNFE  Rural Non-Farm Enterprise  
SA  Strategic Alliances  
Sakernas  Survei Tenaga Kerja Nasional (Labor Force Survey)  
SE  Small Enterprise  
SIUP  Surat Ijin Usaha Perdagangan (Trade Business Permit)  
SOE  State-Owned Enterprise
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>Susenas</td>
<td><em>Survei Sosial Ekonomi Nasional</em> (National Socio-Economic Survey)</td>
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<tr>
<td>SUSI</td>
<td><em>Survei Usaha Terintegrasi</em> (Integrated Business Survey)</td>
</tr>
<tr>
<td>SME</td>
<td>Small Medium Enterprise</td>
</tr>
<tr>
<td>TAF</td>
<td>The Asia Foundation</td>
</tr>
<tr>
<td>TFP</td>
<td>Total Factor Productivity</td>
</tr>
<tr>
<td>TI</td>
<td>Transparency International</td>
</tr>
<tr>
<td>UED-SP</td>
<td><em>Unit Ekonomi Desa – Simpan Pinjam</em> (Village Economic Units – Savings and Credit)</td>
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<td>UKM</td>
<td><em>Usaha Kecil Menengah</em> (Small Medium Enterprise/SME)</td>
</tr>
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<td>UPKD</td>
<td><em>Unit Pengelola Keuangan Desa</em> (Village Financial Management Units)</td>
</tr>
<tr>
<td>UPT</td>
<td><em>Unit Pelayanan Teknis</em> (Technical Service Unit)</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>USO</td>
<td>Universal Service Obligation</td>
</tr>
<tr>
<td>USP</td>
<td><em>Unit Simpan Pinjam</em> (Saving and Credit Units)</td>
</tr>
<tr>
<td>WARSi</td>
<td><em>Warung Informasi Konservasi</em> (Conservation Information Kiosk)</td>
</tr>
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<td>Wartel</td>
<td><em>Warung Telekomunikasi</em> (Telecommunication Kiosk)</td>
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Executive Summary

The Government of Indonesia is making strenuous efforts to improve the Investment Climate as part of its plan to boost growth, create jobs and reduce poverty. To date this has rightly focused on the major constraints faced by businesses at the national level. Actions have included drafting a new investment law, reforms in taxation and customs, reforms to licensing procedures, and a wide ranging public debate about potential reforms to the national manpower law.

But growth needs to be spread more broadly if Indonesia is to be successful in creating jobs and reducing poverty across the archipelago. Doing this will require improving the investment climate for the vast majority of enterprises that are not large formal enterprises based in the major metropolitan centers. But the investment climate issues faced by the 15.7 million micro and small enterprises that employ more than half of all the non-farm workers in the country are very different from those that face large formal enterprises.

Demand constraints, access to credit, poor roads and unreliable electricity top the list of concerns faced by micro and small enterprises at the Kabupaten level. This is in marked contrast to macroeconomic instability, policy uncertainty, corruption, the legal system and taxation issues, which are the main concerns of large formal firms. Thus a different emphasis is needed both at the national and the regional level to stimulate the growth of micro and small non-farm enterprises in the regions.

Most Important Constraint

![Bar chart showing the most important constraints faced by micro and small enterprises in the six Kabupatens surveyed.]

Source: Rural Investment Climate Survey (2006). Horizontal axis is the population estimate of the number of firms that put the constraint as the most important in the six Kabupatens surveyed.
Improving the Investment Climate at the Kabupaten level is pro-poor... There are only a relatively small number of large firms. For example, in manufacturing there are around 21,000 medium and large firms compared to 2.7 million micro and small firms. Of course larger firms provide a significant share of overall employment – 40 percent in the case of manufacturing – and so stimulating the growth of larger firms will continue to crucial for job creation at the national level. But it is only one part of the solution. A recent Rural Investment Climate Survey (RICS) conducted in six Kabupatens showed that 86 percent of workers are in micro or small enterprises. Moreover micro and small enterprises tend to employ poorer people so stimulating growth in such firms tends to boost the incomes of the poor directly. And large firms are heavily concentrated in the major metropolitan areas and their surroundings. By contrast micro and small enterprises are dispersed throughout the country, so promoting the growth of these firms can also help to reduce inequality between regions.

...and can be very cost effective. Often the argument is made that micro and small enterprises have very poor prospects for productivity and employment growth and that investing in them is therefore a waste of resources. Certainly, there is very little evidence to show whether the numerous government support programs for SMEs have been successful or not. But in many cases the costs imposed by a poor investment climate are so high that tackling these constraints can yield very large returns. Enterprises interviewed in the Rural Investment Climate Survey estimated that relieving credit constraints would boost their income by 40-50 percent. Another study found that improving Kabupaten roads could dramatically reduce journey times. For example in Kabupaten Manggarai road conditions are so bad between the town of Pota and its Kecamatan capital Lengko Elar 40km away that traders are forced to take a 14 hour round about route to reach it; a reasonable Telford road between the two towns would reduce this to 3 hours.

Governors and Bupatis are looking for solutions... Since decentralization, significant economic policy decision making has been devolved to the provincial and district levels. There is therefore a constituency of Governors and Bupatis who are keen to take steps to boost growth in their own regions and who are seeking the best ways to improve their investment climate.

...and solutions exist. Several local governments have shown the way forward through innovative schemes for improving their local investment climate. These range from the successful introduction of One Stop Shops in Sidoearjo, and the implementation of Regulatory Impact Assessments in Pare-Pare, to pro-active support for local technological capacity building in Tegal, and new ways of getting credit to small traders in Pekalongan.

Support from national level policy is critical to success. This includes trade policies to ensure the free movement of goods across the country; labor policies to strike a fair balance between the interests of workers and the unemployed; infrastructure policies to encourage a greater focus on road maintenance and extension of the electricity grid; competition policies to prevent local growth from being stifled by anti-competitive behavior; technology policy to support greater diffusion of knowledge; educational policy to improve the quality of the workforce; supervisory policies to strengthen and extend the reach of commercial credit; and fiscal policies to ensure that the necessary resources are available where they are needed.

This Rural Investment Climate Assessment (RICA) provides a comprehensive assessment of the Investment Climate at the Kabupaten level. Using data from the recently completed RIC Survey, the RICA identifies the key constraints faced by non-farm enterprises at the Kabupaten level and shows how national and local government policy can help to alleviate these constraints and boost local growth. The report provides the following key messages for national and regional policymakers.

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1 Much of the analysis will be relevant for Kota too, but the emphasis is on Kabupatens since these constitute the majority of regencies and face particular issues associated with the link between their predominately agricultural economies and the growing non-farm economy.
Key Messages for National Policymakers

Although regional policymakers shoulder the principle responsibility for improvements in the local investment climate, national policy must provide a framework which encourages local level growth and investment. Actions are needed in several policy areas:

Infrastructure Policy

Provide incentives for better maintenance of Kabupaten roads. The most important infrastructure constraint faced by firms at the Kabupaten level is the poor quality of local roads. Of the 290,000km of Kabupaten roads (about four fifths of the national total), around 37 percent are damaged or severely damaged. Building, maintaining and upgrading Kabupaten roads is a district responsibility. But districts spend far too little money on the maintenance of their roads – Chapter 4 on Infrastructure estimates that annual expenditure on Kabupaten road maintenance may be around Rp 1 trillion – but estimates of the cost of full routine and period maintenance of the Kabupaten road network suggest that expenditures should be around 17 times that figure. Moreover, national policies inhibit local governments from implementing performance-based contracts which might improve the quality of maintenance and construction.

Shift the structure of subsidies in electricity and telecoms towards extending access rather than subsidizing existing users. For example, current annual consumer subsidies for electricity are Rp 13 trillion, whilst a recent World Bank estimate suggests that reaching a 100 percent electrification rate for households (involving the connection of 7.2 million households) might cost in the region of Rp 16.5 trillion. It is clear that a re-prioritization of expenditure priorities away from consumer subsidies towards connection subsidies could have a dramatic impact. Similarly the 0.75 percent tax on telecommunications operators brings in approximately $50m per year to support a universal service program. To date, the fund has been used to provide satellite phones to villages with mixed success. Recent estimates show that a redesigned access program could achieve the goal of a public telephone in every village at the cost of only $62 million, suggesting (as with electricity) that an absolute lack of resources is not the issue. Moreover, for both electricity and telecommunications, the current tariff structure does not assist the viability of greater rural access, with universal rates providing a strong disincentive for broader rural coverage.

Credit Policy

Don’t subsidize credit ... but provide incentives to extend the reach of financial services. Perhaps 25% of existing enterprises would like to borrow; meet lenders’ criteria; are prepared to pay the costs; but are still failing to gain access to financing. But access to financial services for micro and small enterprises has been hindered rather than helped by years of subsidized credit programs. Rather than making borrowing cheaper, subsidies should provide incentives for extending the reach of financial services for example through extending the successful P4K program which connects rural households enterprises to the formal commercial banking system.

Improve the Debtor Information System so that repayment history can become an asset. Bank Indonesia’s current Debtor Information System only records outstanding debts. This system needs to be developed to include repayment records both for loans and ultimately other forms of regular payments too. In addition records of repayment to non-bank financial institutions should be included too. In the longer term the government should move towards the creation of private credit bureaus with Bank Indonesia acting as a credit data wholesaler (see Chapter 3 on Credit).

Labor and Educational Policy

Ensuring the free movement of labor throughout the country is key to improving the local investment climate. The Rural Investment Climate Case Study on labor regulations found that many larger businesses say that they face difficulties in hiring labor from outside the region. In addition many businesses identified the lack of skilled labor as a significant problem (see
Chapter 2 on Labor). But the last few years have seen a proliferation of local labor regulations some of which are designed to exclude or tax workers from outside the region. Such regulations are not only contrary to national principles, they also damage the local investment climate, not least of the regions imposing such regulations as they make it more difficult for workers from those regions to work in other locations in the country. Since decentralized politics naturally encourages a preference for “putra daerah” it is essential that the national government socializes the concept of the free movement of labor and enforces its application. At the same time it will be important for investment promotion authorities, both national and regional, to help investors from outside the region understand local sensitivities and to invest in capacity building for local workers to enable them to participate in such investments.

The single most important factor determining the ability of the poor to obtain decent jobs is the level and quality of their education. More broadly the quality of education is a key factor in determining the productivity of local enterprises and the attractiveness of a region to larger investors. The delivery of education is a local government responsibility – but national policies on funding determine access, whilst national curriculum development could do more to emphasize the skills needed for entrepreneurship. Similarly, the quality of vocational education needs to be improved and made more relevant to the needs of employers. This could be done by separating the provision and funding of such training in order to make it more demand driven.

Trade Policy

Re-iterate and enforce the right to the free movement of goods across the country. Given the enormous differences between different regions of the country there are substantial gains from domestic trade. But several Kabupatens impose charges and taxes on vehicles entering or leaving the district. Such charges are not only against national law, they also damage both the local and the national investment climate by restricting trade. The national government needs to socialize the importance of the free movements of goods within the country, put in place an effective mechanism for monitoring such charges, and enforce sanctions against Kabupatens that repeatedly refuse to comply with national law.

Competition Policy

Broaden the remit of KPPU to investigate anti-competitive behavior by local governments. Currently KPPU has focused its attention on large scale competition issues at the national level. However, local economic growth is sometimes stifled by anti-competitive behavior at the local level – for example, transportation services dominated by a single firm, or barriers to entry in particular sectors or locations. Sometimes these barriers are imposed by local governments favoring local economic interests, but government-imposed barriers are not under the purview of KPPU. National competition policy needs to be deepened to allow anti-competitive behavior at the district level to be challenged; and broadened to enable it to investigate the consistency of local government policies with national competition principles (see Chapter 6 on Marketing and Competition).

Technology Policy

Evaluate the performance of government funded SME support programs, cancel ineffective programs and expand successful ones. At the last count there are 127 separate government-funded SME support programs, many focused on trying to improve the technical capacity of the recipients. The few evaluations which have been done suggest that most have achieved very little. A comprehensive scientific evaluation of existing programs is needed to determine which are actually beneficial and which are not. What is clear is that existing programs need to be more demand-driven and that the private sector must be involved in determining the content (see Chapter 5 on Knowledge Diffusion).
Agricultural Policy

Address inconsistencies between agricultural policies and the development of non-farm enterprises in rural areas. 64 percent of rural workers are in agriculture – the bulk of the workforce in most Kabupatens. The demand for most of the goods and services produced by non-farm enterprises at the Kabupaten level is still driven by agricultural incomes. National policies to revitalize agriculture through diversification, improved infrastructure and better agricultural research and extension are key to promoting local level growth. But in the longer run moving out of agriculture will be key to local growth in many Kabupatens. Policies which artificially raise agricultural prices, subsidize inputs, or restrict the use of land for non-agricultural purposes will inhibit rather than promote growth.

Fiscal and Governance Policy

Ensure that districts have the necessary resources to improve their investment climate. Ultimately the ability of Kabupatens to improve certain aspects of their investment climate depends on the resources at their disposal. These resources have expanded dramatically in recent years, but their distribution is still very uneven. In some cases resources are not the problem; in others, districts have far too few resources to tackle serious shortcoming in the investment climate, most notably in infrastructure. National government needs to ensure that allocations to districts are sufficient to create incentives for growth-inducing reforms at the local level (see Chapter 7 on Local Governance).

Build the capacity of local governments in economic management. Visionary local leadership is critical to success in improving the investment climate. But some Bupatis, and many local government officials, and DPRD members have little background or experience in economic policy making. The national government could support the development of training programs for local Executives and Legislatures that would include technical training (management, communicaaton, anti-corruption strategies, the design of regulatory impact assessments) as well as specific case studies on best practice from across the country.

Ensure transparency and public debate about the local investment climate. National government determines the standards of public disclosure required by local governments. Ensuring transparency and protecting the freedom of the press allows examples of good practice and success to be widely disseminated whilst ensuring that inefficient or inappropriate actions are brought to light. Implementing high standards of public disclosure nationally and requiring them locally will help to create the right incentives for policies that benefit everyone.

Improve monitoring of perdas and encourage (and enforce) compliance with national policies. National government has a responsibility to ensure that local government policies comply with national principles. To date this effort has focused on the review of local Perdas, but even here progress is limited – national government has managed to review less than half of the Perdas sent in for review since 2000. Even when Perdas are rejected there is no penalty for non-compliance. National government needs to implement more effective sanctions on local governments who repeatedly fail to comply with national policies. At the same time it needs a more effective mechanism for monitoring and rewarding good performance by local governments.

Key Messages for Regional Policymakers

There are many examples where strong local leadership has given rise to important improvements in the local investment climate. Whether it is Kabupaten Solok’s drive to eliminate corruption in the issuing of licenses, or Kabupaten Manggarai’s experiments with labor-based road construction, or Kabupaten Pare-Pare’s use of Regulatory Impact Assessments, innovations and improvements are possible.
The priorities for different district governments will vary from region to region. However, the experience to-date gives some important general lessons about the areas where leadership from the Kabupaten government can assist local economic development and poverty reduction.

**Public Goods & Services:** First and foremost, the responsibility of local governments is the delivery of public goods and services. The two services of most vital importance to the local business community and to long-term economic growth are maintaining the road network and improving the quality of education. Yet Kabupaten roads in particular are failing – transportation-related constraints appear 4 times in the top 7 constraints mentioned by businesses. Improving performance in road maintenance and equipping a future generation with the education needed to undertake entrepreneurial activities should be high on every Kabupaten’s priorities.

**Facilitating business:** Speeding up the issuance of key licenses, simplifying procedures and reducing costs can help business people focus on creating value and jobs rather than wrestling with bureaucracy. Excellent examples of how to do this exist (see Chapter 7) – Provincial and Kabupaten leaders should learn from other regions how to implement best practice approaches to supporting and facilitating local businesses.

**Marketing your region:** Growth requires investment. Much of this investment may come from within the region, spurred by better public goods and services and an improved business climate. But investment from outside, whether domestic or foreign, can also help. Some regions have been very successful in marketing themselves, ensuring a steady flow of inward investment. Others are barely known, even within the country. Identifying and broadcasting the key assets and opportunities of each region is a key responsibility for regional leaders. Equally, local leaders have an important role in helping local businesses establish linkages with key domestic and foreign customers.

**Solving Coordination Problems:** Regional governments are also ideally placed to solve local coordination problems. By absorbing the relatively small costs of getting key actors together to discuss common problems (e.g. over uncoordinated natural resource use) regional governments can greatly assist local business communities. Regional government can also help to ensure that coordination issues are tackled at an appropriate level. Often it makes more sense for such issues to be handled by private sector associations rather than by government, but government engagement can help to unlock problems which the private sector cannot tackle on their own.

**Promoting Competition:** In many regions there are a limited number of large actors in any given sector. This can result in collusion and anti-competitive behavior (e.g. high transportation charges because of limited competition in transport services, monopolistic provision of key inputs) damaging the business climate for smaller firms. Promoting competition, in particular by encouraging rather than discouraging the presence of enterprises from outside the region, can greatly reduce the costs of such behavior. National policy must support local governments to ensure local level competition.

**Setting Targets and Monitoring Progress:** Improving the local investment climate requires careful and continuous management. In order to know whether progress is being made, regional governments need to set realistic targets for key improvements, provide the necessary resources to support the necessary reforms, monitor progress, and, crucially, reward success and penalize failure.

...but there are things that regional governments should not do.

Unfortunately some regional governments take steps which damage the local investment climate. Three types of action in particular damage the prospects of most local businesses:

**Giving preferences to particular groups:** Local governments sometimes distort the local investment climate to give preference to particular groups or individuals. For example, particular contractors are chosen to build local roads regardless of whether they are the best qualified or the most cost effective; rights over land or other natural resources are often allocated in a non-
transparent way; permissions to undertake developments favor certain parties. Sometimes such favoritism results from inefficient procedures, other times from outright corruption. In either case the outcome is not only unfair, it stifles local economic growth and job creation.

**Contravening the principles of national policy:** There have been many well publicized cases of local administrations passing legislation which is inconsistent with national legislation. Often this has involved imposing inappropriate taxes and charges. Indeed the central government cancelled 448 of 6,456 tax and charge perda it evaluated between 2000 and mid-2005. Most worrying have been attempts by local governments to tax or in other ways hinder the free movement of goods and labor across the country. Such measures, even when well intentioned, are extremely damaging to the local investment climate: given the diversity of different regions within Indonesia, there are large gains from trade within the country; similarly giving workers from outside the local area exactly the same rights as local workers ensures that local businesses can access the skills they need, and that local workers are afforded the same rights elsewhere in the country.

**Maximizing own-source revenue:** Since decentralization almost all districts have adopted measures to increase their own-source revenue. This has resulted in an explosion of new taxes and charges at the local level – around 6000 since 2000; own-source revenue from such charges has more than doubled since 1999/2000. Such taxes and charges are a nuisance for local businesses, yet the revenue that they generate is trivial. Own-source revenue accounts for a mere 7 percent of local government revenue. And the efficiency of collection is dismal – indeed in one out of 10 local governments the cost of collection actually exceeds the value of the revenue generated! (see Chapter 7 on Local Governance). Local governments should focus less on local revenue generation and much more on efficient delivery of public goods and services.

**Conclusion**

The local investment climate matters because it provides the foundation for local job creation and economic growth. Success in improving the local investment climate relies on leadership at the local level. Experience from several areas has shown that much can be achieved if local leaders are focused – concentrating on the key problems facing businesses locally; honest – cracking down on corruption and anti-competitive behavior; and persistent – pushing through reforms but monitoring and adapting approaches based on actual performance. Their efforts need the support of national government, both financially and in the form of national policies that provide the framework and incentives for best practice locally. Working together, national and regional governments can create an investment climate for all.
CHAPTER 1.

WHY DO WE CARE ABOUT THE RURAL INVESTMENT CLIMATE?
Abstract

Improving the rural investment climate holds the potential to stimulate broad-based growth and job creation and to reduce poverty throughout Indonesia. Around 60 percent of all employed Indonesians work in rural areas, with two-thirds of this figure working in agriculture. But the agricultural sector has been stagnating, with a steadily declining contribution to GDP. Achieving a higher level of poverty reduction will require both a revitalization of agriculture and the facilitation of a more dynamic rural non-farm sector.

However, Rural Non-Farm Enterprises (RNFEs) are stifled by many constraints. They face substantial costs associated with poor and unreliable infrastructure; difficulties in accessing credit; a complex and costly regulatory environment; poor technology; and limited access to information. As a consequence, their output tends to be marketed locally. Thus, demand constraints limit the size of their market.

The investment climate concerns of RNFEs vary markedly from those of larger urban based firms. Surveys of large urban firms tend to emphasize concerns regarding macro-economic instability; policy uncertainty; and corruption, amongst others. By contrast, RNFEs are concerned by the lack of demand in rural areas (itself a function of high costs, poor quality, and thin markets); the high costs imposed by poor infrastructure, particularly roads; and their limited access to formal business credit. Tackling these concerns will require a new set of policy initiatives.

Why Do We Care About the Rural Investment Climate?

This report focuses on the investment climate faced by Rural Non-Farm Enterprises (RNFEs). By this we refer to enterprises which are not in the major metropolitan centres, but we include non-farm enterprises in both rural and smaller urban and peri-urban environments (see Box 1.1). We also include all sizes of enterprises, including medium and large, although our emphasis is on micro and small enterprises; and both registered and non-registered enterprises.

The majority of employment in Indonesia is in non-farm enterprises. Non-farm enterprises employ 53 million people in Indonesia – 57% of the working population. Of these around 20 million are employed in rural areas. Non-farm employment, including manufacturing, trade and services, constitutes well over a third of all employment in rural areas and 88 percent in urban areas (see Table 1.1).

Most of this non-farm employment is in micro and small enterprises. Evidence from the recently completed Indonesia Rural Investment Climate Survey (RICS – see Box 1.3) shows that 63 percent of non-farm workers in the six Kabupaten surveyed worked in micro enterprises, with a further 23 percent working in small enterprises. Only 13 percent of employment was in medium and large enterprises (see Figure 1.1). The RICS Kabupaten are predominantly rural (with the exception of Badung) – but a similar picture is apparent at the national level. For example, around 60 percent of manufacturing employment nationally is in cottage or small businesses.

The vast majority of enterprises are micro or small firms. The RICS data show that more than 90 percent of enterprises were micro enterprises in all the surveyed Kabupaten except Badung. Even in Badung, which lies near the major urban centre of Denpassar, 80 percent of enterprises were micro enterprises. Given the small size of most enterprises, it is not surprising that the

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2 We define micro as 0-4 employees; small as 5-19 employees; medium as 20-99 employees; and large as 100+ employees.
3 The Kabupaten were: Labuhan Batu, Malang, Badung, Manggarai, Barru, Sumbawa.
overwhelming majority of enterprises are household enterprises\(^4\) (as opposed to standalone enterprises). On average 94 percent of rural enterprises in the RICS sample were household enterprises; even in urban areas 82 percent were household enterprises.

**Box 1.1: Why this Report is about Rural, Non-Farm Enterprises (RNFEs)**

This report is about the investment climate facing Rural Non-Farm Enterprises (RNFEs). This box defines what we mean by RNFEs and why we chose to focus on this category of firms.

**Rural versus Urban**

BPS defines villages as ‘urban’ based on a set of characteristics that include the share of income from agriculture; population density; and the availability of a list of amenities and services that are associated with urban living. ‘Rural’ villages are simply villages that are sufficiently agricultural, sparse, or lacking in amenities that they fail to be classified as ‘urban’.

For the purposes of this report, there is an important problem with the BPS definition. Because the definition of ‘urban’ is functional, some areas classified as ‘rural’ at one period in the analysis become ‘urban’ in a later period. These reclassifications generally take place after each decadal census, with as many as 10-15 percent of villages being reclassified at this point. However, it is precisely the dynamic rural economies that are so successful in growing that they are reclassified as urban that we seek to understand. Therefore, although we use the term ‘rural’ to emphasize that we are interested primarily in non-metropolitan areas, much of our analysis applies to firms in peri-urban and smaller urban centers too.

**Farm versus Non-Farm**

We focus on the investment climate facing the ‘non-farm’ economy because the technological and policy environments facing crop and livestock production – the farm economy – have their own distinctive characteristics that have been much studied. Relatively little is known about the constraints facing non-farm enterprises. The activities of such enterprises may be associated with the farm economy – indeed, may be carried out on a farm by the same households – but are distinct from farming per se. ‘Non-farm’ also includes typical manufacturing and services activities not associated with farming at all.

**Household versus Enterprise**

Our study focuses on enterprises. The large majority of RNFEs are household enterprises, often operated from the household premises. However, we also include in our definition of enterprises standalone enterprises (both formal and informal), including medium and large enterprises.

**National versus Local**

Most of the RNFEs to which we refer are based in Kabupaten. The statistical data gathered for this project are from six Kabupatens, and most of the chapters report on constraints facing firms operating at this local level. However, there are many Kota that have enterprises which we would call RNFEs, whilst some Kabupatens have large urban enterprises that we would not include. Therefore, we prefer the term ‘rural’ to indicate the typical location of the firm. Also, to use the term Kabupaten might imply that it is only Kabupaten level policies that we are interested in. Certainly the study provides useful advice for Bupatis on how to improve the investment climate in their regions – but it also emphasises the importance of national level policies to improve the investment climate at the local level.

In the face of all these complexities, we choose ‘Rural Non-Farm Enterprises’ (RNFEs) as the shorthand name for the enterprises at the heart of our analysis. Why? Because it is widely used in the development literature and is not likely to be confused with alternatives also in use, such as SMEs (small and medium enterprises) or ‘informal’ enterprises. SMEs fails to capture the rural emphasis we want, and although many of the enterprises we will be studying are indeed informal, much of the analysis is devoted to understanding the constraints on their transition to formal status. Thus, RNFE is the term of choice. Where required, exceptions will be noted.

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\(^4\) Household enterprises are defined as those which take place in the household residence or which are mobile and operated by household members.
Table 1.1: Employment by Sector in Rural and Urban Areas

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total (000)</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATIONAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, Forestry and Fishery</td>
<td>40,608</td>
<td>43.30%</td>
</tr>
<tr>
<td>Manufacturing Industry</td>
<td>11,070</td>
<td>11.80%</td>
</tr>
<tr>
<td>Wholesale/Retail Trade, Restaurants, Hotels</td>
<td>19,119</td>
<td>20.40%</td>
</tr>
<tr>
<td>Public Services</td>
<td>10,512</td>
<td>11.20%</td>
</tr>
<tr>
<td>Others</td>
<td>12,413</td>
<td>13.20%</td>
</tr>
<tr>
<td>ALL NON-FARM</td>
<td>53,114</td>
<td>56.70%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>93,722</td>
<td>100.00%</td>
</tr>
<tr>
<td>RURAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, Forestry and Fishery</td>
<td>36,088</td>
<td>63.90%</td>
</tr>
<tr>
<td>Manufacturing Industry</td>
<td>4,549</td>
<td>8.10%</td>
</tr>
<tr>
<td>Wholesale/Retail Trade, Restaurants, Hotels</td>
<td>7,345</td>
<td>13.00%</td>
</tr>
<tr>
<td>Public Services</td>
<td>3,159</td>
<td>5.60%</td>
</tr>
<tr>
<td>Others</td>
<td>5,322</td>
<td>9.40%</td>
</tr>
<tr>
<td>ALL NON-FARM</td>
<td>20,375</td>
<td>36.10%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>56,464</td>
<td>100.00%</td>
</tr>
<tr>
<td>URBAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, Forestry and Fishery</td>
<td>4,520</td>
<td>12.10%</td>
</tr>
<tr>
<td>Manufacturing Industry</td>
<td>6,521</td>
<td>17.50%</td>
</tr>
<tr>
<td>Wholesale/Retail Trade, Restaurants, Hotels</td>
<td>11,774</td>
<td>31.60%</td>
</tr>
<tr>
<td>Public Services</td>
<td>7,353</td>
<td>19.70%</td>
</tr>
<tr>
<td>Others</td>
<td>7,091</td>
<td>19.00%</td>
</tr>
<tr>
<td>ALL NON-FARM</td>
<td>32,739</td>
<td>87.90%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37,259</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: Calculated from Sakernas 2004

Figure 1.1: Distribution of Employment by size of firm in Six Kabupatens

A quarter of rural households and almost a third of urban households run household enterprises in the RICS Kabupatens. Given that the RICS Kabupatens were quite rural this suggests that running a household enterprise is quite common. Furthermore, households that run non-farm enterprises tend to have much higher incomes (almost 19 million per year) than those that do not (on average Rp 11 million).

Most non-farm enterprises in the RICS Kabupatens are in rural areas. In the six Kabupatens chosen, 60 percent of the non-farm enterprises are in rural areas. To some extent this reflects the predominantly rural Kabupatens chosen (with the exception of Badung) and there is some
variability between the Kabupatens. Nonetheless it is important to recognize that it is not the case that most non-farm enterprises are in urban areas, even though at a national level most non-farm employment is in urban areas.

*Nationally, non-farm income constitutes half of all income* (or 70 percent if one includes income from transfers, investments, ownership and other receipts) – see Figure 1.2. As incomes have grown over time, the relative importance of agricultural income has fallen, whilst that of non-farm income has risen. This reflects longer-term process of structure transformation of the economy (see Box 1.2).

But perhaps the most important reason why we care about the investment climate faced by Rural Non-Farm Enterprises (RNFEs) is because the growth of this sector has the potential to be an important route out of poverty which we explore further in the next section.

**Figure 1.2: Income by source in 2002**

![Income by source in 2002](image)

*Source: Calculated from Susenas 2002*
Agriculture, RNFEs and Poverty Reduction

Most of the poor still live in rural areas. Table 1.2 shows the distribution of the poor population in Indonesia by sector and location. In 2002, 61 percent of the poor earned their livelihood in the agricultural sector while 63 percent of Indonesia’s poor population resided in rural areas.

What has been the most effective way of reducing rural poverty? In the past, much poverty reduction has come from the growth of agriculture (Timmer, 1988).

Box 1.2: The Structural Transformation of the Rural Economy

The Indonesian rural economy has undergone a structural transformation over the last 20 years. Since 1990 the contribution of the agricultural sector to Gross Domestic Product (GDP) has declined from 20 percent in 1990 to just 16 percent by 2003.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Share of GDP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>20</td>
<td>16</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Industry</td>
<td>38</td>
<td>42</td>
<td>44</td>
<td>43</td>
</tr>
<tr>
<td>Services</td>
<td>42</td>
<td>42</td>
<td>40</td>
<td>41</td>
</tr>
</tbody>
</table>

From agriculture to non-farm activities... Agriculture still represents more than two-thirds of rural employment. This average masks large difference between Java and off-Java. In 2002, 36 percent of workers in Java (both rural and urban) were employed in agriculture, compared to 57 percent of workers off-Java. Employment in agriculture declined rapidly prior to the crisis so that, by 1995, the proportion of the rural workforce in this sector fell to 60 percent.

...and back again. However, the economic crisis in 1997-98 pushed many of those who lost their livelihoods in urban areas back into rural agricultural activities reversing the secular decline in agricultural employment, and slow growth in the early years of the recovery has maintained a high level of agricultural employment while the proportion of the rural workforce working in the industrial and services sectors has declined during the post-crisis period.

From rural to urban... Indonesia has also seen a dramatic reduction in the share of employment in rural areas, from 75 percent in 1990 to only 60 percent in 2003. Some of this is as a result of rural-urban migration. Data from the inter-censal survey suggests that 1.85 percent of the rural population physically moved from a rural to an urban area between 1990 and 1995.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>75</td>
<td>67</td>
<td>62</td>
<td>60</td>
</tr>
<tr>
<td>Urban</td>
<td>25</td>
<td>33</td>
<td>38</td>
<td>40</td>
</tr>
</tbody>
</table>

...but without moving. Most of the “shift” from rural to urban is as a result of the reclassification of rural areas as urban. Thus declining non-farm employment in rural areas shown by official figures is actually an indication of the success rather than the failure of the sector. As rural areas have shifted into more non-farm activities and developed better facilities they have become re-classified as urban areas.

Agricultural growth has been very pro-poor in Indonesia because of the strong linkages between agriculture and non-farm activities. Precisely because they are rural, much of the market for RNFEs is based on demand from rural households, with growth of the agricultural sector inducing growth in the non-agricultural sector (White, 1991).
Table 1.2: Distribution of the Poor in Indonesia by Sector and Location, 1996-2002 (%)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1996</th>
<th>1999</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>63.2</td>
<td>59.3</td>
<td>61.1</td>
</tr>
<tr>
<td>Industry</td>
<td>15.5</td>
<td>15.8</td>
<td>16.1</td>
</tr>
<tr>
<td>Services</td>
<td>21.3</td>
<td>25</td>
<td>22.8</td>
</tr>
<tr>
<td>Rural</td>
<td>72</td>
<td>67</td>
<td>63</td>
</tr>
<tr>
<td>Urban</td>
<td>28</td>
<td>33</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: Calculated from Susenas

Empirically, the strength of this linkage has been declining over time, but it is still extremely important. On average, one percent growth in the agricultural sector induces 1.2 percent growth in the non-agricultural sector in rural areas (Suryahadi, et al, 2006). A comprehensive study by Timmer (2005) has shown that the strength of these linkages was one of the reasons that the introduction of new ‘green revolution’ agricultural techniques in the 1970s and 1980s had such a dramatic pro-poor effect.

The growth of agriculture is still an important route out of poverty. Recent evidence shows that most of those exited poverty between 1993 and 2000 and who were working in rural agriculture in 1993, did so whilst staying working in rural agriculture (McCulloch, Timmer and Weisbrod, 2006). Within sector productivity growth and price changes are still the most important way of escaping poverty.

But productivity growth in the agricultural sector has been stagnant since the early 1990s, dropping from 2.5% per year from 1968 to 1992, to -0.1 percent per year from 1993 to 2000 (Fuglie, 2004). There are several reasons for this. Investments in irrigation stalled after the crisis, with the result that much of the current irrigation infrastructure is in poor condition. In addition, agricultural extension services have suffered serious decline, particularly since decentralization, with the result that fewer farmers are actually able to receive such services. Finally, the technical options for improving agriculture are currently limited, and have been since the early 1990s, especially for rice. There are few immediately applicable new technologies likely to provide a significant boost to yields, although GM technologies hold hope for the future.

However, a more integrated domestic and international economy is now creating opportunities, both in agriculture and in other sectors. In the past, the strength of local linkages between the farm and the non-farm economy helped to transmit income gains in agriculture to the whole rural economy (Mellor, 1976 & 2000). However, the local nature of many of these linkages is now a constraint rather than a vehicle for growth. Both in agriculture and in the rural non-farm economy, the opportunities for growth are likely to lie through greater linkages with the domestic urban economy and international markets. For example, the dramatic expansion of supermarket chains in Indonesia in recent years has created opportunities for growing high-value fruits and vegetables (see Reardon et al., 2005; and World Bank, 2006). Similarly, urban growth is creating strong demand for non-farm goods and services creating opportunities for firms in peri-urban and rural areas.
What Do We Know About RNFEs?

The Rural Investment Climate Survey (RICS) conducted in early 2006 gives a large amount of useful information about the characteristics and constraints faced by RNFEs in the six Kabupatens surveyed (see Box 1.3). The key characteristics that emerge from this survey are outlined below.

As noted above, most RNFEs are very small. The median number of employees in firms in the RIC Survey was 2 – even the mean, which is raised by a small number of large firms, is only 2.6. Total sales is also small: the median sales of micro enterprises in the RICS survey was only Rp 11.7 million per year compared to Rp 60 million for small enterprises and Rp 867 billion for medium-sized enterprises.

Most RNFEs are focused in trade and services. Figure 1.3 shows the share of enterprises in production, trade and services in the six RICS Kabupatens. Around 45 percent of RNFEs are trading enterprises, a further 35 percent provide services, whilst only 20 percent are involved in production of goods.

Figure 1.3: Sectoral Distribution of Enterprises in RICS Kabupatens

Source: Calculated from RICS (2006)
Box 1.3: The Indonesian Rural Investment Climate Survey (RICS)

Overview
The Indonesian Rural Investment Climate Survey (RICS) is an in-depth, quantitative survey of 2549 non-farm enterprises, 2782 households and 149 communities in 6 rural Kabupaten. Conducted in January/February 2006, the data from this survey is a valuable data resource for researchers, students, and academics interested in understanding how the investment climate affects the rural economy.

Who was surveyed?
The RICS is a linked survey of non-farm enterprises and households. It excludes enterprises undertaking agriculture, forestry and fishery activities, although the processing and trading of these commodities is included. The sample consists of:

- 1755 Enterprise Households (i.e. with non-farm enterprises)
- 1027 Non-Enterprise Households (without non-farm enterprises)
- 619 Standalone enterprises
- 144 Directory enterprises
- 149 Communities

The survey includes both formal and informal businesses and examines both rural and urban areas of Kabupatens to generate comparative data.

Where was the RIC Survey done?
The RIC Survey was conducted in six geographically distinct districts:

- Labuhan Batu, North Sumatra – a plantation area
- Kutai, East Kalimantan – an areas rich in mineral resources
- Barru, South Sulawesi – a forest fringe area
- Malang, East Java – a rich agricultural area
- Badung, Bali – a peri-urban agglomeration area
- Sumbawa, NTB – a dryland area

The survey was deliberately “narrow but deep” i.e. although it was only done in 6 Kabupatens, the sample size in each Kabupaten is large enough to ensure statistical representation at the Kabupaten level.

What was asked?
Three questionnaire modules were used:

- Household Questionnaire: which includes questions about household demographic and economic characteristics
- Enterprise Questionnaire: which asks detailed information about revenues, costs, and constraints faced by non-farm enterprises
- Community Questionnaire: which details characteristics of local infrastructure and governance.

Data Access and User Support
To access the public access dataset go to www.worldbank.org/id/rica and click on the Survey link. Copies of all questionnaires in English and Indonesian, interviewer manuals, and annotated questionnaires are available at the site. Data are in STATA and SPSS formats.

Most RNFEs are quite young. The median age of a RNFE is 6 years, with almost a third of firms are three years old or less. But the age distribution is quite wide with 15 percent of firms between 15 and 49 years old. Furthermore there appears to be a great deal of turn over. Looking just at household enterprises, perhaps 12 percent of households started up a non-farm
household enterprises in the last three years, whilst as many as a third of those households running an enterprise three years ago may have closed it down.5

_Very few RNFEs are registered._ Only 2.1 percent of the RICS enterprises have a Tanda Daftar Perusahaan; 4.4 percent have a trading license (SIUP); and 3.4 percent have a building license (IMB). Taking all of these licenses together (plus application for electricity connection and worker safety permit), a mere 8.6 percent of businesses in these six Kabupatenes had any of these licenses.

_RNFEs serve very local markets._ Figure 1.4 shows the point of final consumption of the goods and services produced by the enterprises in the RICS. More than half of all trade and almost half of all services are supplied in the same village, and close to 80 percent are supplied in the same Kecamatan. Even for enterprises involved in production, more than a third of goods are consumed in the same Kecamatan and 75 percent are consumed in the same Kabupaten.

Figure 1.4: Location of Final Consumption of Goods Produced by RNFEs

Labor productivity is very low, particularly in micro enterprises. There is a dramatic difference in the labor productivity of micro, small and medium/large enterprises. Figure 1.5 shows the proportion of manufacturing enterprises at the national level in each size category, as well as the share of employment and the share of value-added in each category. The results are dramatic. Although more than 90 percent of these enterprises are micro/cottage enterprises, and around 60 percent of manufacturing employment is in micro or small enterprises, more than 90 percent of manufacturing value-added is generated by medium/large enterprises. This implies very large differences in labor-productivity between micro, small and medium/large enterprises.

5 The figure for firm exit ranges from only 10 percent to 32 percent depending on one’s assumption about the population of firms three years ago.
Why bother with RNFEs?

Figure 1.5 poses a challenge. If almost all value-added is being created by medium and large firms, why should policy be concerned with RNFEs that are predominantly micro and small firms?

One answer is because policy is designed to promote broad-based growth. Medium and large firms are heavily concentrated in the major cities and their immediate surroundings. Growth among medium and large enterprises can have a strong positive impact, but the impact tends to be localized to the areas in which these firms are located. By contrast RNFEs are spread throughout the country. If policy can improve the performance of such firms then the gains will be much more widely spread.

Secondly, many RNFEs are small and unproductive because they are constrained by high costs – in getting credit, in accessing markets and technology, in obtaining infrastructure services, and in dealing with government bureaucracy. Many of these costs are directly amenable to public policy – through broadening access to the banking system, building better roads, extending electricity provision, and reducing the time and cost of licensing procedures, amongst others. Of course such actions entail costs on the part of the government. The real question therefore is what sort of actions to improve the rural investment climate are likely to have benefits in terms of growth and job creation which outweigh the costs of implementation. To be able to answer this it is necessary to have an understanding of the constraints facing RNFEs.
What Constrains RNFEs in Indonesia?

A Framework for Understanding the Constraints on RNFEs

Figure 1.6 summarizes the framework used in this report for the analysis of constraints on kabupaten-level enterprises. The core of the framework is the equilibrium between supply and demand for the goods and services produced by the rural non-farm enterprise sector. It is critical to consider both sides of this equation.

**Demand side:** The top section of Figure 1.6 shows the various sources of demand for the output of rural non-farm enterprises. Profits from agricultural production; incomes earned in these non-farm enterprises; and demand generated outside the rural economy, either domestic or foreign, can all contribute to effective demand for the goods and services produced by RNFEs. Which of these sources of demand is the most important depends on the locale and the degree of development in the environment in which the RNFEs operate.

**Supply side:** The bottom section of Figure 1.6 shows the various sources of supply of goods and services from RNFEs. A wide variety of factors determines the ability of RNFEs to produce these goods and services and the costs which they incur in doing so. These include: issues associated with rights of access to natural resources including land; the ability to access capital and the cost of doing so; the cost and quality of labor; the quality of the local regulatory environment; the state of local infrastructure; the extent of competition; knowledge of market opportunities; and the stability and security of the area.

Typically, RNFEs are micro- or small-enterprises that use rather old and highly labor-intensive technologies to deliver goods and services on a very small scale. As a result, unit costs can be high and productivity low. In these circumstances, it is only profitable for RNFEs to serve a local clientele, since high transportation costs or other constraints create a degree of natural local protection.

The Critical Importance of Demand Factors: Local or External Demand?

The wide variety of factors determining the investment climate suggests that lowering costs holds the potential for profitably expanding non-farm enterprises. However, this depends critically on the extent to which demand for the output of the non-farm sector is local or external.

If demand is very localized, additional output resulting from lower production costs will merely lower prices locally, undermining the profitability of the expansion. If such a situation, measures to improve the local investment climate may have a very limited impact upon output and incomes.

On the other hand, if demand is completely external to the local area, local firms can expand production without any impact on local prices (so long as their costs are below their competitors). Thus, the ‘domain of trade,’ or the extent to which goods are traded locally or more widely, is a key determinant of the success of measures to improve the local economy. But of course, some interventions change the domain of trade. In particular, improvements in infrastructure – roads, electricity, communications, market facilities, etc. – tend to broaden the domain of trade and

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6 More precisely, we are referring to the price elasticity of demand for the output of RNFEs. If it is low, as is the case with very localized economies, prices will fall substantially when output expands; if it is high, as is typical of more widely integrated economies, prices only fall slightly if at all. In the extreme, exports to the world market are usually at a constant “border price.” In such cases, the cost structure of supplying firms determines the scale of output and demand is not a constraint.
increase the size of the market, thus helping to alleviate constraints on both the demand and supply side.

**Figure 1.6: Factors affecting demand for and supply of output from rural non-farm enterprises**
What are the most important constraints faced by Indonesian RNFEs?

The RICS asked firms about the principle constraints that they faced. Figure 1.7 shows the ranking of the most important constraint mentioned by the RICS enterprises.

**Figure 1.7: Most Important Constraint faced by Firms (Urban and Rural)**

- Demand for goods and services
- Access to formal credit
- Road access
- Cost of transportation
- Interest rates
- Access to market
- Quality of roads
- Quality of electricity
- Uncertain economic policy
- Access to credit from family
- Complicated loan procedures
- Fear of repayments
- Cost of electricity
- Corruption
- Information about the market

![Bar Chart](chart.png)

*Source: Calculated from RICS (2006)*

Demand, access to format credit, and the costs associated with road transportation are the principle concerns of RNFEs.

The dominant position of “demand” in the list of constraints confirms the importance given to demand constraints in the framework of Figure 1.7. But the result must also be interpreted with some caution. Most firms prefer more orders to fewer. A lack of demand may indicate that firms face very localized markets, as shown in Figure 1.4. The policy response to this is to broaden the reach of their markets by reducing the costs (both physical and information related) needed to reach markets. But it can also be an indication that the quality of the goods and services produced is low and that these firms are therefore losing customers to more modern firms producing higher quality products. Indeed the gradual reduction over time of the “natural protection” provided to rural firms by high costs of transportation may be the reason why firms are complaining about problems of lack of demand. But this is not a reason for slowing down the process of connecting the rural economy – quite the reverse – the competition provided by more productive enterprises has been shown internationally to be one of the main factors driving productivity growth (World Bank, 2005).

Access to formal credit is the second most cited constraint for RNFEs. The key here is that it is formal credit that is constrained, rather than informal sources of credit. Although Indonesia is justifiably proud of its international reputation for rural banking, there is still some way to go, with a substantial minority of viable micro and small firms still unable to access the formal banking system. Chapter 3 on Credit addresses this issue in more detail.

Thirdly, access to roads and the cost of transportation weigh heavily on RNFEs. Road access, the costs of transportation and road quality all appear among the seven most common concerns of RNFEs. This reflects the poor quality particularly of Kabupaten level roads. Chapter 4 on Infrastructure addresses this issue in more detail.
The top concerns of RNFEs are quite different from those of larger urban based enterprises. Although direct comparisons are difficult, the investment climate assessments of larger urban firms tend to highlight problems of macroeconomic instability, policy uncertainty, corruption, the legal system and taxation issues (World Bank, 2004). Whilst some of these feature amongst the concerns of RNFEs, it is clear that they are not the principle concerns.

In one sense this is a problem since it indicates that most RNFEs simply do not participate in the formal economy. Policies applied to formal firms are not applied to them, most have few dealings with the bureaucracy and are therefore less concerned with corruption, the legal system or taxation. As the productivity of such enterprises increases it is likely that the advantages of participating in the formal economy will increase and so such issues will rise in the rankings of importance. But, at least for now, it is clear that the actions needed to stimulate growth among RNFEs are likely to be rather different than those needed to improve the performance of larger urban enterprises.

This Rural Investment Climate Assessment Report

The ranking in Figure 1.7 identifies the priorities of RNFEs. But clearly actions are needed in many different areas to improve the rural investment climate. This report explores five different aspects or themes of the rural investment climate: labor; credit; infrastructure; competition and marketing; and local governance. In each chapter the report asks the same four questions:

1. What is the size and nature of the key constraint associated with the topic that RNFEs face?
2. What is the impact of the constraints on RNFE performance?
3. What is the policy and institutional environment and how does it give rise to the constraint? and
4. What policy reforms at both the national and local level can lead to a better investment climate?

Chapter 2 analyzes the impact of labor market regulations and informal labor market practices on the performance of RNFEs. The report finds that national labor regulations do appear to be stifling employment growth in the formal sector. Moreover, local labor regulations appear to be used as a means of boosting local government revenues, providing little practical additional protection to workers. Informal labor practices, notably discrimination against non-local workers and payments to obtain jobs, also appear to be commonplace.

Chapter 3 looks at financial services and the constraints that small businesses face in obtaining credit. The report finds that the majority of RNFEs do not use credit from either formal or informal uses. However, perhaps a quarter of existing enterprises would like to borrow; meet lenders’ criteria; are prepared to pay the costs; but are still failing to gain access to financing.

Chapter 4 examines infrastructure, including roads, electric power and telecommunications. Kabupaten roads, in particular, are found to be in very poor shape. Investing substantially more in maintaining and rehabilitating rural roads will be essential to removing constraints on expansion of Indonesia’s rural non-farm enterprises. In power and telecommunications, reforms in current subsidy policies will be needed to provide incentives for the expansion of coverage.

Chapter 5 discusses the diffusion of technical knowledge to small enterprises (both rural and urban). The report finds that the most effective forms of knowledge diffusion tend to come through profit-driven private collaboration between larger and smaller firms. Significant reforms are needed to make government facilitated technology services more demand driven.
Chapter 6, on **marketing and competition**, explores the marketing of both agricultural and non-agricultural goods. The report finds that the ‘supermarket revolution’ and the associated modernization of agricultural marketing are playing an increasing role in extending the market for rural agricultural goods. As with knowledge diffusion, marketing is most effective when it is conducted by the private sector, rather than through government intervention, but national and local governments do have an important role to play in facilitating linkages and promoting, rather than inhibiting, stronger competition.

Chapter 7 examines the impact of **local government** on the investment climate. The report finds that local taxation has very little impact on RNFES since most do not pay taxes. However, the plethora of regulations and user charges introduced by some local governments since decentralization create a significant nuisance to local business, and inhibit the transition from informal to formal enterprise. On the other hand, other local governments are showing how improving their regulatory, licensing, and taxation regimes can create significant improvements in their investment climate.

Chapter 8 concludes with a **summary of recommendations for actions**.
CHAPTER 2.
THE IMPACT OF LABOR MARKETS
ON RURAL NON-FARM ENTERPRISES: TRENDS AND CONSTRAINTS
Abstract

Non-farm employment has stagnated since the economic crisis, with declining employment in rural areas and in the formal sector compensated by slight rises in employment in urban areas and in the informal sector. One of the factors discouraging employment growth in the formal sector is the impact of labor regulations (particularly relating to minimum wages and severance pay) which are restricting the employment of younger and less skilled workers. Such regulations are slowing the growth of the formal sector pushing workers into the informal sector, lowering wages and productivity. Case Study evidence at the Kabupaten level supports the view that national labor regulations are stifling employment growth in the formal sector. Moreover, a plethora of local labor regulations are arising - these appear to be primarily a means of boosting local government revenues since they provide little practical additional protection to workers.

Outside the formal sector, labor regulations are not a major constraint for the vast majority of micro and small scale businesses simply because they cannot and do not comply with minimum wage or severance pay laws. Recent evidence suggests that the most important labor constraints facing smaller businesses at the Kabupaten level are restrictions on the hire of “out of area” workers (and other informal restrictions) and the lack of adequate skills in the labor force. This suggests two areas in which the government could help to boost the productivity of Rural Non-Farm Enterprises (RNFES): enforcing the principle of the free movement of labor within the country and; improving the quality of entrepreneurial education and vocational training. These measures would complement regulatory reforms designed to boost growth and job creation at the national level.

introduction

Low labor productivity in rural non-farm enterprises (RNFES) is often thought of as the central cause of low real wages and incomes in these enterprises. There is both a supply side and a demand side to the low level of productivity of RNFES:

1. **Supply side:** Most workers have low levels of education and other important skills;
2. **Demand side:** The demand for unskilled labor is determined to a large extent by the costs of employing workers. Labor market legislation and regulations have added significantly to the costs of hiring unskilled labor in the formal sector in recent years, pushing workers into informal sector slowing the growth of wages and productivity.

This chapter addresses the issue of low labor productivity in RNFES from both sides of the labor market and seeks to understand to what extent education and labor market policies act as a constraint on raising the productivity of RNFES. The map for this chapter is as follows:

**Labor Market Trends:** This section looks at labor market trends before, during and after the crisis to examine the negative correlation between employment growth in agriculture and in non-farm employment; the apparent contrast between employment growth in rural and urban areas (perhaps the result of the reclassification of certain ‘rural’ areas as urban); and the slow growth of formal sector employment relative to informal sector employment.

**What are the Key Labor Concerns of Rural Non-Farm Enterprises?** This section examines the data from the Indonesian Rural Investment Climate Survey (RICS) 2006 to show that smaller businesses at the Kabupaten level identify i) restrictions on the hire of ‘out of area’ workers (and other informal restrictions); and ii) the lack of adequate skills in the labor force as their most significant labor concern.
Factors affecting Employment in Rural Non-Farm Enterprises in Indonesia: This section examines the factors affecting the ability to participate in non-farm economic activities, particularly the individual human capital of the worker (education and training, health, age, and gender), the characteristics of their household (including household size, land ownership, and whether they cultivate land), the social networks of which they may be part, and the characteristics of the community and location in which they live.

The Impact of Labor Regulations on Rural Non-Farm Employment: This section examines the impact of labor legislation and other regulations on the formal sector and the repercussions these have on employment uptake and productivity in the informal sector, paying particular attention to national and provincial labor legislation on: minimum wages; severance pay; and contract workers and outsourcing.

Implications for Labor Policy: This section outlines a set of policy recommendations designed to reduce the impact of labor market constraints and to raise productivity and output in RNFEs. In particular, it proposes i) removing barriers to the free movement of labor within the country, and ii) improving the quality of entrepreneurial education and vocational training to complement regulatory reforms designed to boost growth and job creation at the national level.

Labor Market Trends

Rapid economic growth rates before the crisis created opportunities for households from a range of classes to become involved in a range of service and sales activities invigorated by the new prosperity, particularly in rural Java (Effendi and Manning, 1994: 233-236).7

However, during the crisis and recovery in Indonesia 1997-2000, the rural non-farm sector experienced a major downturn. The Indonesian Family Life Surveys conducted in the pre-crisis period (1997) and in the post-crisis period (2000) show how people responded to the crisis: labor force participation rates rose; more women became involved in non-farm employment; and in many areas both women and men diversified their earnings activities (Strauss, et al., 2004). The main transition was from wage employment to self-employed and family work, especially among women.

Since 2000, non-farm employment has been recovering but overall employment growth has been lackluster in part due to weaker economic growth of 4-5 per cent during the period 2000 – 2003. Moreover, formal sector employment growth has been lagging, especially in rural areas.8 This section examines three important trends in employment growth since the crisis:

- The negative correlation between employment growth in agriculture and in non-farm employment;
- The apparent contrast between employment growth in rural and urban areas (perhaps the result of the reclassification of certain ‘rural’ areas as urban); and
- The slow growth of formal sector employment relative to informal sector employment.

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7 These included activities such as selling snacks and gasoline, working as minibus and truck drivers and kenek (assistants), and engaging in TV/radio and motorcycle repair activities. It is noteworthy, with regard to human capital, that this study found those involved in the ‘new’ service activities tended to be better educated than those engaged in traditional areas of non-farm work, such as traditional healers and masseurs (dukun and tukang pijit), tailors and trishaw drivers.

8 Non-farm employment often includes agricultural wage labor in addition to all other non-agricultural employment in rural areas. In this chapter, we confine the term to describing only non-agricultural employment in rural areas.
The Negative Correlation between Employment Growth in Agriculture and Non-Farm Employment:

There appears to be a negative correlation between employment growth in agriculture and in non-farm sectors (see Table 2.1). Employment growth in the agricultural sector in the ten years prior to the crisis was negative, reflecting a secular decline in the importance of agriculture in the economy. However, agriculture acted as a buffer during the crisis and its immediate aftermath, absorbing large numbers of workers displaced from non-farm jobs. As a result, employment in this sector grew by 4.2 percent between 1997 and 2000. However, this growth was short-lived. Since 2000, the rate of employment growth in the agricultural sector has again declined.

By contrast, non-farm employment grew strongly prior to the crisis, particularly in urban areas and in manufacturing. With the crisis, employment in this sector declined dramatically, with annual declines of 1.4 percent from 1997 to 2000. Employment in trade and services was particularly hard hit, as apparently was rural non-farm employment (although see the notes regarding the reclassification of rural areas below). However, since 2000 non-farm employment in both rural and urban areas has recovered, growing at almost 2 percent a year. This has been driven by growth in the trade and service sectors, while employment in manufacturing has continued to decline.

Table 2.1: Employment by Major Sector, Urban and Rural Areas, Formal and Informal Sectors, 1986-2004

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<tbody>
<tr>
<td>All Sector</td>
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<td>2.12%</td>
<td>1.05%</td>
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<td>13</td>
<td>12</td>
<td>6.56%</td>
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<td>4.80%</td>
<td>-1.36%</td>
<td>1.94%</td>
</tr>
</tbody>
</table>

Total Employment (000) 70,402 87,050 89,838 93,722


The Contrast between Non-Farm Employment Growth in Rural and Urban Areas: A Question of Definitions?

The official data show a marked contrast between the growth of non-farm employment in urban and rural areas (see Table 2.1). Prior to the crisis, the data show that the rate of urban employment growth was more than double that in rural areas. Moreover, the data suggest that rural non-farm employment suffered a severe decline of almost 8 percent per year during and immediately after the crisis, whilst non-farm employment continued to grow in urban areas. Since 2000, the contrast between the rate of employment in the rural and urban areas appears to have been less marked, although at much lower overall rates of growth.

However, the official picture of urban dynamism and rural decline should be treated with some caution. The distinction between “rural” and ‘urban’ is not a clear cut binary opposition, nor is it fixed and immutable (please refer to Annex 1.1 for rural/urban definition). The manner in which areas are classified—and reclassified—as either urban or rural has a dramatic impact on the
conclusions drawn. The villages in which the labor force survey (Sakernas) is undertaken are classified by BPS as either rural or urban based upon criteria including: the share of agricultural households; the presence of various urban facilities; and the population density. Thus, precisely when a rural area experiences economic growth, it becomes more likely that it will be classified as an urban area. Consequently, the apparently much more impressive rate of non-farm employment growth in urban areas may arise precisely because dynamic growth in the rural non-farm sector has meant that rural areas have been reclassified as urban ones. A large number of areas were reclassified in 1990 and in 2000, after the population censuses. Recent work by McCulloch, Weisbrod and Timmer (2006) suggests that these affects on apparent employment growth trends may be very significant.

The Slow Growth of Formal Sector Employment Relative to Informal Sector Employment

Growth in employment—in both rural and urban areas and in farm and non-farm sectors—has been especially slow in the formal sector. Figure 2.1 shows that formal sector employment in urban areas has been stagnant since 2001, whilst that in rural areas has experienced a steady decline since 1999. Again, the reclassification of rural villages may exaggerate the rural decline, but the overall picture of formal sector stagnation is clear.

As employment growth in the formal sector has slowed, the informal sector has expanded to absorb the large numbers of new entrants into the labor force. The rates of both rural and urban informal employment have been growing steadily at least since the crisis. This is a worrying trend, since many informal sector jobs are low wage and low productivity jobs with few prospects for long-term income growth.

Figure 2.2 shows formal and informal employment broken down by sector. Again, the stagnation of the formal non-farm sector since 2000 is apparent, with formal employment in agriculture actually declining. By contrast, informal employment in both agriculture and non-farm jobs has been rising steadily.
Figure 2.1: Formal and Informal Employment in Rural and Urban Areas, 1996-2004

Source: World Bank’s calculation based on Sakernas 1996-2003

Figure 2.2: Formal and Informal Employment in Farm and Non-Farm Sectors, 1996-2004

Source: World Bank’s calculation based on Sakernas 1996-2003
Looking at the type of employment, Figure 2.3 shows that it is regular wage employment, in particular, that has faltered in rural Indonesia since the crisis. In contrast, self-employment has grown markedly since 2000, reflecting the expanding informal sector.

Figure 2.3: Status of Non-farm Employment, Indonesia 1996-2003

The growing presence of informal self-employment, often in micro and small enterprises and low productivity occupations, shows that Indonesia is facing a major employment problem. Boosting growth in the formal sector will require a greater understanding of the links between labor market regulations and the demand for labor, discussed in Section IV. However, boosting growth in the rural economy more broadly will require a continuation of the structural shift towards greater non-farm employment. This implies that it is important to understand the factors that determine participation in rural non-farm employment to which we now turn.

What are the Key Labor Concerns of Rural Non-Farm Enterprises?

The Indonesian Rural Investment Climate Survey (RICS) 2006, which surveyed 2,500 mostly micro and small-scale firms in six Kabupatens, shows that there are some significant differences between the labor concerns of larger formal sector firms and those of smaller informal firms (Table 2.2). In particular, a considerably higher proportion of the former stated that inflexible hiring and firing regulations, high costs due to government regulations, or difficulties in obtaining work permits for foreigners. While the impact of labor regulations in the formal sector on employment uptake and productivity in the informal sector will be discussed at length in a later section, it is likely that national level labor regulations are not a major constraint for the vast majority of micro- and small-scale businesses, simply because these enterprises cannot and do not comply with minimum wage or severance pay laws.

However, while the difference in the perception of the importance of these issues is significant, it is noteworthy that the majority of even larger enterprises tend to regard these as not a problem or only a minor problem.

However, the Rural Investment Climate Case Study on labor regulations found that many larger businesses say that they face difficulties in hiring labor from outside the region. In addition many
businesses identified the lack of skilled labor as a significant problem. The following section looks at each of these issues in turn.

### Table 2.2: Firms’ Labor Related Obstacles by Type of Enterprise

<table>
<thead>
<tr>
<th>Type of obstacle</th>
<th>Degree of problem (%)</th>
<th>Household Enterprise</th>
<th>Enterprise</th>
<th>Large Enterprise</th>
<th>All firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflexible hiring and firing regulations</td>
<td>Not a problem</td>
<td>86.5</td>
<td>87.1</td>
<td>70.2</td>
<td>86.1</td>
</tr>
<tr>
<td></td>
<td>Minor problem</td>
<td>5.2</td>
<td>4.1</td>
<td>14</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td>Moderate problem</td>
<td>4.3</td>
<td>5.3</td>
<td>7</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Big problem</td>
<td>4.1</td>
<td>3.5</td>
<td>8.8</td>
<td>4.1</td>
</tr>
<tr>
<td>High labor cost due to government</td>
<td>Not a problem</td>
<td>85.6</td>
<td>85.1</td>
<td>67.9</td>
<td>84.9</td>
</tr>
<tr>
<td>regulations</td>
<td>Minor problem</td>
<td>5.3</td>
<td>4.8</td>
<td>14.3</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>Moderate problem</td>
<td>4.5</td>
<td>6.6</td>
<td>8.9</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>Big problem</td>
<td>4.6</td>
<td>3.6</td>
<td>8.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Obtaining work permits for foreigners</td>
<td>Not a problem</td>
<td>86.6</td>
<td>86.7</td>
<td>71.4</td>
<td>86.1</td>
</tr>
<tr>
<td></td>
<td>Minor problem</td>
<td>4.8</td>
<td>4.8</td>
<td>10.7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Moderate problem</td>
<td>4.2</td>
<td>4.8</td>
<td>10.7</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td>Big problem</td>
<td>4.5</td>
<td>3.7</td>
<td>7.1</td>
<td>4.3</td>
</tr>
</tbody>
</table>

*Source: Alisjahbana and Manning (forthcoming) based on Indonesian RICS 2006*

### Obstacles to Hiring Labor from Outside the Region

Since decentralization, there has been a steady increase in the number of local labor regulations issued by regional governments. These typically require companies to pay for permits or licenses to obtain permission for overtime work, workers welfare, workers safety, etc. In many cases, there are no clear services provided in return for the fees. Rather, the intention (sometimes explicitly stated by the local government) is to raise more of their own-source revenues (PAD). Thus many of these regulations are best categorized as ‘nuisance’ taxes.

However, another trend in local labor practices that is perhaps even more disturbing has been the restrictions imposed in certain regions on the employment of workers from outside the region. The practice of restricting employment of workers from outside the region usually takes the form of a letter issued by the district head (Surat Edaran Bupati) requiring firms to employ a certain percentage of the workforce from the local population.

For example, in Kabupaten Bekasi the issue a letter by the district head (Surat Edaran Bupati No.560/334) required any firms located in Kabupaten Bekasi to employ 50 per cent of its workforce from among local citizens. Also located in Kabupaten Bekasi, the Sukadana village sets a worker quota based on worker’s place of origin, viz 50 per cent to be recruited from village inhabitants, 29 per cent from Kabupaten Bekasi inhabitants, 20 per cent Indonesian citizens, and 1 per cent expatriates.

Another example is the case of Kota Pekanbaru Regional Regulation (Perda) No.4/2000 on Local Worker Placement, intended to overcome potential social problems caused by the domination of employment by workers from outside the region. The regulation requires:

1. Firms or employers to give local workers priority;
2. Firms must appoint local workers for the HRD manager position;
3. A worker must pay an amount of Rp 10,000 for a membership card annually; and
4. A worker’s agent pays Rp 500,000 per hired worker for the purpose of a skill improvement program, in cases where the worker comes from outside Pekanbaru.

Regulations that restrict employment from outside region are found in many other regions, such as Kabupaten Musi Banyu Asin, South Sumatra, which sets an employment charge of Rp...
1,000,000 for each worker from outside the region. Kabupaten Maluku Tenggara sets more specific charges based on job qualifications: every worker from outside the region at manager and researcher level are charged Rp 250,000 per month; sailors, teachers, and other similar types of worker are charged Rp 200,000 per month; actors/actresses are charged Rp 5,000,000 per month; and general workers are charged Rp 150,000 per month.

Measures such as these are often strongly supported by members of local communities, who may tacitly or explicitly support additional informal pressures on enterprises, sometimes creating an environment that allows for strong-arm tactics and extortion through the activities of preman (organized semi-criminal gangs, often operating with tacit official support). Indeed, the RICA Case Study in Kabupaten Serang (World Bank, 2006a) shows that premanism is widespread. Such premanism does not always interfere in firms’ recruitment procedures, but it constitutes a financial burden to firms as well as creating an insecure business environment (see Box 2.1).

Box 2.1: Premanism and Labor Recruitment

Preman or jawara are small-time gangsters who make their living extorting money from businesses in a number of ways. These include direct demands for money accompanied with the threat of violence to individuals or damage to property, as well as demanding that an enterprise use certain services, such as waste disposal, from suppliers connected to the preman. A respondent from a large foreign-owned manufacturing firm stated that he received demands for payment when the firm hired additional workers. The preman hang around outside firms and note any new employees arriving for work and then “charge” the firm for hiring new workers. In this case, the firm has hired military personnel as well as civilian security to secure the premises although this adds to its operational costs. However, several respondents noted that since April 2005 the district police have launched an operation to combat premanism by rounding up suspects, which seems to have reduced the problem, at least temporarily.

Source: World Bank (2006a)

Kabupaten Serang’s large number of unemployed and low skilled workers has put considerable pressure on firms to provide employment opportunities for them. The pressure is felt especially by large firms requiring skilled workers. Local residents appear to have a strong sense of entitlement to jobs in these firms, even though their educational levels are often insufficient for the jobs being advertised. Most surveyed firms have expressed a preference to employ workers who meet their skill and educational level requirements, even if it means hiring workers from outside the region. To cope with this problem, many large firms have opted to develop a mechanism to ensure that certain menial level jobs are given to the local community to maintain good relations. These attempts are not always successful, as the case of PT JRD shows (see Box 2.2). The case study also showed that there is a widespread practice of paying third-parties, sometimes someone from within the firm or a local community leader, to secure a job. This practice affects both locals and migrants seeking work at foreign and domestic owned firms. The size of these payments can be very large given the low salaries offered for unskilled workers. One new employee at a large employer in Kabupaten Serang stated she paid well over a month’s salary to get her job.

Box 2.2: Unqualified Locals Demand Jobs
When PT JRD first started operating it needed many workers who were graduates at the senior high school level. The firm is located in a community where most workers are primary school graduates. The local community demanded a share of the job openings, but PT JRD only recruited those that met the requirement. A crowd from the local community protested and the protest became violent. Some of the recruited workers were barred from going to work at PT JRD and the personnel manager was punched. The local community felt that they were entitled to a share of the jobs in part because their land had been converted to an industrial area.

Source: World Bank (2006a)

**The Shortage of Skills**

The other major concern articulated by local businesses is the lack of appropriate skills in the labor force. As Table 2.2 indicates, this is identified as a ‘moderate problem’ or as a ‘big problem’ by 86.1 percent of all enterprises surveyed, with only minor variations in the proportion of household, standalone and registered enterprises identifying this as a problem.

Figure 2.5 shows that in the six rural Kabupaten surveyed in the Rural Investment Climate Survey sample show that educational levels are low across the board, although higher in standalone enterprises and highest in large enterprises. A quarter of workers in household enterprises are illiterate and another quarter have not finished primary school. In standalone enterprises and registered enterprises, more than three quarters of their workers have finished primary schooling or higher. Even so, with such low levels of education it is not surprising that all enterprises identify lack of skilled labor as a major problem.

**Figure 2.5: Composition of Workers by Education Level**

Moreover, the low productivity and incomes of these enterprises means that few funds are available for training. Figure 2.6 shows that household enterprises in the RICS provide virtually no training for their workers, either prior or during employment. Skills acquisition through training seems to be much higher for standalone enterprises and large enterprises, accounting for 30 per cent and 40 per cent of their workers respectively.
Factors affecting Employment in Rural Non-Farm Enterprises in Indonesia

The participation of individuals in rural non-farm economic activities is determined by two major factors: their motivation or incentive to participate; and their ability to participate, which is related to the capacity of individuals to engage in the sector. The motivation to participate can be driven by demand-pull factors, or by distress-push factors (Davis, 2003).

Demand-pull motivation is dominant when the returns to non-farm economic activities are perceived as being higher and/or less risky than farming. Ellis (2000) notes, for example, that a rise in non-farm wages, or greater opportunities to undertake remunerative non-farm employment, increases the motivation to diversify. Alternatively, an increase in the price of farm outputs would tend to reduce the motivation to diversify.

Distress-push motivation refers to situations where individuals attempt to diversify out of agriculture because of inadequate income or because of the lack of opportunities for consumption smoothing, such as credit and crop insurance.

Ability to Participate

The ability to participate in non-farm economic activities is not uniform and involves a more varied set of factors than the motivation to participate in such activities. In particular the ability to participate depends on the individual human capital of the worker (education and training, health, age, and gender), the characteristics of their household (including household size, land ownership, and whether they cultivate land), the social networks of which they may be part, and the characteristics of the community and location in which they live.
Human Capital

Numerous studies on rural non-farm economic activities emphasize the importance of human capital in influencing the household’s ability to engage in non-farm economic activities (Gordon and Craig, 2001, Lanjouw and Shariff, 2002 and Davis, 2003). Four aspects in particular of a household’s human capital have an important role in determining participation in non-farm activities:

- Education and Training;
- Health;
- Age;
- Gender.

Education and Training

There appears to be a strong correlation between the levels of education of workers and their participation in regular wage non-farm activities. Conversely, lower levels of education tend to be associated with participation in the casual non-agricultural sector (Lanjouw and Lanjouw, 1995).

Using data from Bangladesh, Islam (1997) shows that a disproportionately large number of members of households with higher levels of education are engaged in rural industry work, compared to the rural population as a whole. Furthermore, Islam (1997) reports that education, particularly primary and secondary education, contributes to the growth of the non-farm sector in villages and small rural towns. Primary education appears to enhance work force productivity, while secondary education stimulates entrepreneurial capacity. Better-educated members of the rural population have better access to non-farm employment, and are also more likely to establish their own non-farm business. Other studies by Lanjouw and Sharif (2002) show that those with no education are more likely to be employed in the agricultural wage sector than in non-farm work.

In Indonesia, analysis of the Indonesia Family Life Survey (IFLS 2000) data shows that higher levels of educational attainment are strongly associated with an increased level of employment outside farm activities (Alisjahbana and Manning, forthcoming). This effect is even stronger for those with secondary school education. The head of the household having secondary education (or higher) is the most significant factor positively influencing the likelihood of a farm household being engaged in non-farm activities as a supplementary source of income.

In addition to education, work skills acquired through vocational training or other means can also be important. The skills required to engage in many rural non-farm economic activities are either very simple or acquired outside the formal school system, through relatives, friends and on-the-job training (Wandschneider, 2003.) For example, the positive impact of training and extension services for Tanzanian women has been documented by Gordon and Craig (2001). This showed that women involved in extension services tend to be more dynamic and entrepreneurial individuals who made contacts during the training that contributed to the success of their businesses.

Health

Health plays a significant role in the ability to engage in income generating activities through its effect on workers’ productivity. Islam (1997) discusses the importance of investment in health more broadly, which results in morbidity reduction and improved nutrition, and thereby increases labor productivity, in both the farm and the non-farm sector.

Age

Age also affects an individual’s ability and motivation to participate in non-farm economic activity. Smith (2001) notes that younger household members are more likely to migrate in search of non-
farm employment opportunities than elder members. Mature women, on the other hand, are more likely to take up a business at home.

The evidence for Indonesia shows a nuanced pattern: the older an individual, the more likely he or she is to be engaged in non-farm self-employment (relative to farm employment as the main occupation). However, the young are relatively more likely to be engaged in both farm and non-farm activities (rather than just farming on its own).

**Gender**

Many studies report that women have less access to productive employment in rural non-farm economic activities than men, particularly in the formal sector. The higher level of involvement of women in the non-formal sector compared to the formal sector may occur because of childcare responsibilities, a relatively low level of education, and social expectations.

For example, in India, women are rarely involved in enterprise management and in higher-level positions in the public sector (Lanjouw and Sharif, 2002). Women have also been constrained in the activities in which they are permitted or able to participate, by tradition, religion, or other social constraints.

A similar pattern appears to hold in Indonesia. The evidence shows that men are significantly more likely to be involved in any category of non-farm employment than women (Alisjahbana and Manning, forthcoming). In addition, households headed by men are more likely to derive incomes from both farm and non-farm activities than those headed by women. Marital status also matters - married individuals (male or female) are more likely than single individuals to be employed in non-farm formal jobs or as a family workers in the non-farm sector.

**Household Characteristics**

**Family size and structure**

Reviewing data collected from 33,000 households in rural India in 1993-1994, Lanjouw and Sharif (2002) show that household size is positively and significantly related to own-enterprise and regular non-farm employment, but not to casual non-farm employment. Further, they indicate that individuals from large households are particularly likely to be engaged in own-enterprise and regular non-farm employment, relative to agricultural labor.

The same appears to hold true in Indonesia, with individuals from large households more likely to be engaged in non-farm formal activities relative to farm employment (Alisjahbana and Manning, forthcoming). To the extent that non-farm formal economic activities are more productive, these findings lend support to the notion that larger households may not necessarily be poorer households. Unsurprisingly, household size is also positively associated with the likelihood of a farm household being engaged in non-farm activities as a supplementary source of income.

**Land ownership and cultivation**

The relationship between land ownership and participation in non-farm activities is ambiguous; it could be the case that land holdings indicate a household’s ability to better engage in farm activities, or, alternatively, it may proxy household wealth and the ability to take advantage of non-farm economic activities. Similar reasoning may be applied to household cultivation: if a large percentage of household members engage in cultivation activities, this may indicate that the household is efficient at and therefore specialized in agriculture; or that it needs to diversify out of agriculture.

In fact, in Indonesia, there is no statistically significant relationship between per capita landholdings and participation in non-farm activities, although there is evidence that, as
landholdings become larger their impact on the chances of an individual participating in formal non-farm employment diminishes (Alisjahbana and Manning, forthcoming). Thus as the size of landholdings increase, this may encourage households to specialize in farm activities.

**Social Networks**

Some observers have noted that individuals and households with more extensive social networks have greater opportunities to be engaged in the non-farm sector (e.g. Smith, 2001; Fafchamps and Minten, 1998). The extent of supplier and customer networks influences the returns to such networks (Gordon and Craig, 2001).

To capture the impact of social networks in Indonesia on non-farm employment, Alisjahbana and Manning (forthcoming) use three variables to describe whether a household is involved in social networks: whether the household is active in any rotating saving scheme (arisan); whether the household participates in women’s welfare activities (PKK); and whether the household participates as a member of a cooperative.

Household participation in any of these social network activities is expected to yield benefits in terms of contacts and access to useful business knowledge. Alisjahbana and Manning show that social networks do have a positive effect on all categories of non-farm employment, with higher levels of social involvement associated with higher levels of employment in non-farm activities. This is particularly true for those households actively involved in arisan (since, as well known, arisan do not merely operate as rotating saving schemes, but also as forums for individuals to expand social and business contacts). Involvement in koperasi had a positive impact only on those households primarily identified as self-employed or as family workers in non farm activities.

**Community and Locational Characteristics**

**Community Characteristics**

Community characteristics, such as the access to local institutions or infrastructure, may also influence the ability of households to participate in non-farm activities. Alisjahbana and Manning’s (forthcoming) analysis for Indonesia shows that the availability of a transport terminal and bank or other financial institutions appears to facilitate a household’s engagement in either self-employment or in formal non-farm activities. By contrast, the availability of a local market in a village is only associated with a higher chance of working as a family worker in non-farm activities, relative to employment in the farm sector.

In addition, the availability of a transportation terminal in a village appears to increase the chances of a farm household being engaged in non-farm activities as a supplementary source of income, probably because it enables greater market access for non-farm products.

**Geographical location**

One would also expect the likelihood of participation in non-farm activities to be driven by geography, with more remote locations less likely to participate in non-farm activities. This is borne out by the data. Individuals on Java are more likely to be engaged in non-farm activities of all kinds than those living off Java. They are also more likely to be diversified, gaining income from both farm and non-farm sources, relative to those living on other islands.
The Impact of Labor Regulations on Rural Non-Farm Employment

The rising costs of labor market legislation and regulations in the post-crisis period, ranging from a strengthening of minimum wage legislation to highly onerous terms and conditions for hiring and firing, has had a significant impact on employment prospects and productivity. This section looks at the impact of labor regulations on non-farm employment in Indonesia.

In an integrated labor market such as Indonesia’s, regulations in the formal sector can have immediate repercussions on employment uptake and productivity in the informal sector. For example, restrictive labor regulations that decrease employment in the formal sector will cause an increase in levels of employment in the informal sector, as displaced workers move from one sector to the other. To absorb this increase in the supply of workers in the informal sector, marginal productivity and wages will fall.

There are three aspects of national and provincial labor legislation that have an important impact on employment growth, particularly in the formal sector. Legislation and regulations on minimum wages, severance pay, and contract workers and outsourcing.

Minimum wage regulations

The Indonesian labor market has experienced a significant change since the early 1990s, with the implementation of regional minimum wage regulations, which have been updated annually. SMERU (2001) reports that the government tripled the minimum wage in the first half of the 1990s, and the nominal wage continued to increase during the latter half of the 1990s. The real value of minimum wages began to taper off after 1996 and fell significantly in 1998. Since 2000, the economy recovered and the government vigorously pursued minimum wage increases (Figure 2.4).

Figure 2.4: Minimum Wage 1991-2005

Source: World Bank office Jakarta database
Since the implementation of decentralization in 2001, power to determine minimum wages was transferred to the head of regional governments, i.e. governors, mayors, and regents (Bupati). The framework for setting the minimum wage was established by the national government and is implemented by provinces and districts. A provincial minimum wage is set on which each district's minimum wage is based. Minimum wages increase each year in line with minimum basic subsistence needs (KHM).

Minimum wages have been widely, although not uniformly, adopted by businesses in the modern formal sector. Large foreign owned businesses usually do not see the minimum wage as an important cost burden, and it is not among the most important factors for potential investors in choosing a location for their investment. It is a problem, however, for labor-intensive industries facing stiff competition from similar producers elsewhere in the region, notably Vietnam and China.

Evidence about the impact of minimum wages on formal employment in Indonesia is mixed. SMERU (2001) suggested that increases in the minimum wages had a negative effect on urban formal sector employment after the crisis. This negative effect was greatest for those groups that are most vulnerable to change in labor market conditions, such as females, young workers and less educated workers. However, Alatas and Cameron (2003) found different results from a study of the impact of minimum wages under more favorable labor market conditions prior to the crisis. Their study looked at the impact of minimum wages on employment in the clothing, textiles, footwear and leather industries. Their results suggest that the increase in minimum wage had no significant employment effect for large firms, both domestic as well foreign. In contrast, the increase of minimum wages had a significant negative impact on employment in small domestic firms. An earlier study by Rama (1996) also found similar results.

The different results from studies on the labor market before and after the crisis suggest that minimum wages may be a more important constraint upon employment in the formal sector now than in the more favorable labor market conditions prior to the crisis. But it should be noted that the vast majority of micro and small businesses at the Kabupaten level do not conform to the minimum wage legislation at all. For example a case study conducted in Kabupaten Serang (World Bank, 2006a) showed that large and foreign-owned firms claim to pay their workers at or above the minimum wage, but many small, medium-sized and some larger Indonesian firms still pay their workers below the minimum wage. Such broad non-compliance implies that minimum wages are unlikely to be a major constraint to the growth of most rural non-farm enterprises.

**Severance pay**

Severance pay regulations may also restrict mobility in the formal sector labor market. Dismissal regulations in Indonesia that include provisions governing severance pay have seen significant changes since 1996, both in terms of rates and coverage to various groups of workers. While several countries are reforming their severance pay systems to reduce dismissal costs, Indonesia appears to be moving in the opposite direction, with measures that appear to increase dismissal costs.

With the implementation of the Law No. 13/2003 on Labor, rates of severance pay for workers with longer years of service were increased. The regulations define the rights, rates of severance pay and long service payment depending on the cause of separation. Three broad categories of reasons for separation include:

- Voluntary quits;
- Dismissal for economic reasons (i.e. downsizing and bankruptcy); and
- Violations (minor and major violations or offences).

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9 The survey involved twenty-nine semi-structured interviews with representatives from local government, business associations, trade unions, owners of small and medium enterprises, and representatives of large firms.
For workers dismissed for economic reasons, the Act increased the overall rate of severance pay almost three-fold compared with the 1986 regulations.

Results from the field survey in Kabupaten Serang, however, confirm that most small and medium businesses and even many large labor-intensive firms do not comply with the law. In the event of economic downsizing, many firms claimed that they could not afford to pay according to the law, and that they therefore opt for a compromise settlement through tripartite bargaining. In many cases, the practice was to pay severance payment of about one to two months of salary, regardless of legal entitlement.

Despite substantial non-compliance regarding severance payments, the law still causes concern to businesses, with firms worried about their ability to stay competitive in the face of slow business growth and the threat of competition from similar industries in the East Asia region. There is a tendency for firms to increase the use of short term contract workers and outsource their orders, especially for firms with fluctuating orders, in order to avoid the use of employees who would be entitled to higher severance pay.

**Short term contract worker and outsourcing**

Similarly, regulations governing the employment of contract workers and the outsourcing of labor appear to be becoming more, rather than less, restrictive.

In particular, the Ministerial Decree No.100/2004 on Temporary Working Agreement (or PKWT\(^\text{10}\)) creates a more restrictive regulatory environment. Amongst other provisions, this decree contains the following:

- Contract renewals: While the previous decree permitted a one time renewal of a contract, the new decree remains silent on this possibility;
- Reporting requirements: There are requirements to report the names of all daily and fixed term contact workers to the local manpower office (LP3E FE Unpad-GIAT, 2004);
- Limitations on terms of contracts: Under the new decree, employers can only hire workers on limited term contracts of no more than two years with a one year extension allowed for a range of reasons.\(^\text{11}\) Employers can hire workers on contract for seasonal work or daily work lasting no more than three months, otherwise they must become permanent workers;
- Limitation on Activities: The new law also limits labor outsourcing of production and services to ‘non-core’ activities, such as cleaning services, security, and catering.

Restrictions on the choice of employment arrangements, combined with large increases in minimum wages, and **high severance costs for permanent workers have discouraged firms from hiring new permanent workers in the formal sector**. This is especially the case for non-farm employment in the modern sector, in both urban and rural areas. However, these regulations are unlikely to have a direct effect on non-farm employment in informal sectors where the regulations are not binding. The impact on firms in the informal sector is primarily from the increased supply of labor in the informal sector resulting from slower employment growth in the formal sector.

The case study in Kabupaten Serang confirms a trend towards the use of contract workers and outsourcing due to fluctuating orders; excess supply in the labor market; and the impact of the Law No. 13/2003 on Labor, particularly as it regards severance pay. Firms have largely shifted to limiting the number of permanent workers hired or not hiring permanent workers altogether. It is not uncommon to find firms with fluctuating orders to have 20 percent of their workers hired on a

\(^{10}\) Perjanjian kerja Waktu Tertentu

\(^{11}\) These include a one-off activity or temporary job, a specified job to be completed in a maximum of three years, or a job related to the introduction of new products on trial.
daily basis. There are cases where firms employ up to 70 percent of their workers as short-term contract workers, paid on a daily basis.

The case study found little evidence of contract workers being hired on a permanent basis after their 2-3 year contract period expired. Firms often re-contract the workers for another short-term period, without heeding the required maximum contract period of 2-3 years or the 30-day grace period required between completion of one short-term contract and the start of the next.

The discrepancy between the law and actual practice reflects the labor market surplus where many job-seekers are willing to accept temporary employment without demanding legal minimum wages and workers benefits.

**Implications for Labor Policy**

Given a history of repressive policies towards organized labor and worker rights in Indonesia under Soeharto, it is not surprising that a plethora of new regulations have emerged in recent years that seek to protect wage workers, both at the national and district levels. With the reaffirmation of rights to organize, form trade unions and bargain collectively, organized labor now has a significant role in determining labor outcomes in Indonesia.

While these major achievements in the area of labor rights are to be welcomed, the emphasis may have moved too far in the direction of narrowly defined ‘pro-labor’ policies. The result has been an emphasis on labor protection for those already with more stable and higher paying jobs, frequently at the expense of those without jobs. While the impacts have no doubt been greatest in urban areas, they have also flowed through to regional and rural environments, both indirectly (as rural people find it harder to gain modern sector jobs in towns and cities), and directly through the hiring and firing policies of firms operating in regional centres and their environs.

At the same time decentralization has provided the authority to local governments to craft new legislation and regulations on local labor policy. But too often this has regulations whose principle purpose is revenue extraction or discrimination against outsiders. Such regulations are a major hindrance for local firms in part because they make it harder for firms to address chronic skill shortages by hiring people from outside the area.

What then should be done to improve the productivity of NFRE through reforms in the labor market? Three actions are needed:

**Reviewing and revising national labor laws**

There is currently a heated public debate about the proposed revisions to the National Manpower Law, Law No. 13/2003. This is a good thing. Due to the economy-wide ramifications, a thorough review and revision of Indonesia’s labor laws at both the national and local levels is vital. There is ample evidence that the “jobless” recovery since the financial crisis is largely a product of a worsening investment climate for formal-sector firms. Recent labor regulations are a significant contributing factor to this. Existing labor regulations are inherently “anti-poor,” largely because they are forcing an increasing share of the labor force into the informal, unprotected sector.

A new social contract is needed with respect to minimum wages, severance pay, and methods for settling industrial labor disputes. Indonesia needs to substantially reduce the costs associated with employment, particularly of younger and female workers who face the greatest barriers to obtaining formal sector jobs. At the same time, it must protect and enforce basic labor rights and conditions appropriate to the country’s stage of development.

Moreover, these efforts may need to be accompanied by endeavors to ‘socialize’ the main ideas through media and advocacy campaigns, if they are to be accepted by key political actors, both at
the national, provincial and district level. Social support policies for the working poor (such as the cash compensation program for those most affected by the rise in oil prices) and public works schemes for the poor, can be an important complement to build support for reforms to the regulatory environment for labor.

Remove barriers preventing the free movement of labor throughout Indonesia

More effort should also to be directed towards limiting local government discrimination in employment against outsiders. Anti-discrimination legislation is frequently interpreted as pertaining mainly to equal rights for females or ethnic minorities, rather than inter-regional migrants. At the Central Government level, it seems important to reassert the rights of all Indonesians to work, regardless of their place of residence and birth, and to provide a mechanism whereby discrimination against outsiders can be reviewed on a regular basis (in much the same way as the Government reviews restrictions to trade or new taxes and charges levied at the district and provincial level). The new labor courts, once established, might become an important forum for dealing with complaints from outsiders regarding discrimination in employment. At the same time, special attention could also be given to possible discrimination against locals by firms in their hiring procedures, to ensure a level playing field for all people seeking new jobs.

Improving rural schools to better prepare workers

Rural schools must do a much better job of preparing workers for higher productivity jobs. The demand for higher educational levels and skill training is not yet apparent in rural labor markets. But given the time lag between the implementation of reforms in the educational system and the point where a new generation enters the job market, it is clear that improvements must be implemented now. Otherwise, school leavers of the future will be ill-prepared for the new opportunities. Detailed recommendations for improvements in service delivery, including in education, can be found in the World Bank’s *Making Services Work for the Poor* (2006b).
References


CHAPTER 3.
THE CONSTRAINTS IN ACCESSING CREDIT FACED BY RURAL NON-FARM ENTERPRISES
Abstract

Difficulties in accessing formal credit is one of the most important constraints facing Rural Non-Farm Enterprises (RNFEs) in Indonesia. Lack of access to formal credit is the second most often cited constraint by firms in the Rural Investment Climate Survey (RICS) (see Chapter 1). More than half of the enterprises surveyed mentioned it as a problem with almost a quarter saying that it was the most important problem that they faced. These recent results confirm national level findings from the Integrated Business Survey (SUSI, 2003).

The reasons given by household businesses and small enterprises that claim to need credit, appear to qualify, but who do not apply for loans from banks or other formal sector institutions include: collateral requirements; the perceived complexity and cost of application procedures; and the issue of the legal standing of the enterprise in question (particularly the high costs of formal registration of a business required by formal lending institutions). On the other side, banks are constrained from making loans to small enterprises by the difficulty and cost of accessing information that allows them to identify micro and small enterprises that could potentially become successful borrowers.

The potential benefits of alleviating constraints in access to formal credit on commercial terms would appear to be large. Respondents in the RIC Survey estimated that their incomes could grow by 40-50 percent if these financial constraints could be removed. Of course this is only an estimate from the firms themselves, but comparisons of the desired loan amounts with current levels of working capital suggest that it is not an implausible estimate.

Possible means of reducing the credit restraints faced by small and micro enterprises will involve supporting pro-competition policies and reinforcing competitive behavior at the micro level by i) improving information sharing requirements between financial institutions (in particular by improving Bank Indonesia’s Debtor Information System and moving towards the involvement of private credit bureaus); ii) ending BPD quasi-monopolies on lending to civil servants; iii) developing common on-line savings initiatives involving BPRs and; iv) exploring mechanisms of expanding the reach of commercial financial services to currently underserved RNFEs.

introduction: the importance of credit

International evidence suggests that access to credit is important for firm performance and growth. For example, Vogelgesang’s (2001) study on the impact of micro credit on productivity and growth of borrowers in Bolivia showed that those borrowers with larger numbers of loans and greater average values of loans than in their previous loans had a higher rate of growth than did other borrowers. An analysis of cross section data on sales revenues showed that borrowers who had previously taken loans experienced greater increases in sales revenues than did others with a given level of assets.

Similar results have been found in Indonesia. For example BRI and the Center for Business and Government, JFK School of Government, Harvard University (2001) showed that the businesses of customers of BRI Units’ Rural General Credit (Kredit Umum Pedesaan, KUPEDES) showed better performance over the previous five years than did non-KUPEDES-customer respondents.12

12 Performance of KUPEDES borrowers was far superior that non-KUPEDES borrowers who had businesses which were deemed not to be viable by BRI credit officers. The performance of businesses of KUPEDES customers was also slightly better performance than those of non-KUPEDES customers with viable businesses, although the difference was not statistically significant.
This chapter presents an analysis of the constraints to credit access facing rural non-farm enterprises (RNFEs) in Indonesia and of the extent to which these constraints inhibit enterprise growth. The map for this chapter is as follows:

**An Overview of Financial Services available to RNFEs:** This section provides a brief snapshot of the institutions and financial services available to RNFEs in Indonesia.

**Is Financing a Problem?** This section discusses the extent of credit constraints for households and small businesses.

**The Nature of Credit Constraints:** This section contains a discussion of the factors that constrain non-farm enterprises’ access to credit, from the perspective of both borrowers and lenders.

**Policy Recommendations:** This section presents recommendations for action, prioritizing interventions that are likely to have the greatest impact on enterprise growth.

### An Overview of Financial Services available to RNFEs

**Formal and Informal Sources of Credit**

A number of types of financial institutions provide credit to non-farm enterprises in Indonesia. Several studies have shown that micro, small, and medium-scale enterprises (seen as a proxy for non-farm enterprises) use credit from both formal and informal financial institutions (See for example results of the DAI and REDI study in East Java, October 2004, and the SUSI 2003 survey). These sources of credit for non-farm enterprises include:

<table>
<thead>
<tr>
<th>Informal Loans/Capital:</th>
<th>Friends or family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Money lenders</td>
</tr>
<tr>
<td></td>
<td>Pawn shops</td>
</tr>
<tr>
<td>Business-Linked Credit:</td>
<td>Suppliers</td>
</tr>
<tr>
<td></td>
<td>Buyers</td>
</tr>
<tr>
<td>Non-Bank Microfinance:</td>
<td>Cooperatives</td>
</tr>
<tr>
<td></td>
<td>Microfinance Institutions</td>
</tr>
<tr>
<td></td>
<td>Government &amp; Donor Programs</td>
</tr>
<tr>
<td>Microfinance-Oriented Banks:</td>
<td>Microfinance arms of Commercial banks (conventional and syariah)</td>
</tr>
<tr>
<td></td>
<td>BPRs - Bank Perkreditan Rakyat or People’s Credit Bank (conventional and syariah)</td>
</tr>
<tr>
<td>SME Finance:</td>
<td>Commercial Banks (nearly all compete for SME business) Provincial Venture Capital Companies (conventional and on syariah principles)</td>
</tr>
<tr>
<td></td>
<td>Formal Non-Bank Financial Institutions (vehicle/equipment finance, leasing and factoring)</td>
</tr>
<tr>
<td></td>
<td>True Venture Capital</td>
</tr>
</tbody>
</table>

**Composition and Relative Importance of Sources of Capital and Credit**

BPS data reveal much about the composition and relative importance of the various sources of financing for non-farm enterprises.\(^{13}\) This data shows that of 2.45 million non-farm enterprises that sought and obtained financing, there were four main sources for loans (respondents were allowed to indicate more than one source):

- Individuals other than family members (33 percent);
- Banks (24 percent);

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\(^{13}\) The questions posed by BPS in SUSI 2003 cause significant underreporting of debt from owner-operated enterprises. Nonetheless, the data are still revealing about the composition and relative importance of the various sources of enterprise finance.
• Family (20 percent); and
• Other sources (28 percent).

As Table 3.1 demonstrates, amongst surveyed non-farm enterprises, the relative importance of these different sources of credit varies significantly across different business sectors. Overall, informal sources of finance play a more significant role than formal sources, but banks remain the most common formal source of finance. Furthermore, banks are the most significant single source of finance in the wholesale, retail, restaurant, and accommodation services sector, and the financial institutions, real estate, leasing business, and services sector.

Table 3.1: Source of credit for non-farm enterprises, by business sector

<table>
<thead>
<tr>
<th>Economic Sector</th>
<th>Bank</th>
<th>Cooperative</th>
<th>NBFI</th>
<th>Venture Capital</th>
<th>Individual</th>
<th>Family</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallholder Mining and Quarrying,</td>
<td>18</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>28</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Non-PLN Electricity, and Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing Industries</td>
<td>17</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>44</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>Wholesale Trade, Retail Trade, Restaurants, and</td>
<td>34</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>29</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>Accommodation Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and Communication</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>36</td>
<td>12</td>
<td>45</td>
</tr>
<tr>
<td>Financial institutions, Real Estate, Leasing, and</td>
<td>32</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>20</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>33</td>
<td>20</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: Ikhwan and Johnston (2006)

The large amount of financing for business activities deriving from informal sources such as loans from individuals and family, combined with the evidence of credit constraints presented in the previous section, suggests that many RNFEs in Indonesia still face substantial constraints in their access to credit. The next section explores the evidence that access to credit really is a constraint for RNFEs.

How Many Firms are Credit Constrained?

The only nationally representative source of data on micro and small non-farm enterprises is the Integrated Business Survey (Survei Usaha Terintegrasi, cited hereinafter as ‘SUSI’), conducted by the Central Statistical Agency (BPS). SUSI 2003 surveyed micro and small non-farm informal enterprises regarding their perceptions of the main problems that they faced. Of the 15.8 million micro and small enterprises in the country, the survey results suggest that more than half currently face business problems of some sort, with a larger proportion of Kabupaten enterprises (54.6 percent) than Kota enterprises (41.7 percent) making this claim.

Of those that said they were facing problems, the most commonly identified major problems were Marketing (with 39 percent of respondents mentioning this); and Financing (37 percent). The proportion of respondents claiming to face credit constraints was higher amongst businesses involved in trading, financial services, and manufacturing, than in mining, and transportation (see Figure 3.1). Among manufacturing enterprises, credit problems are mentioned more often by small enterprises with 5-19 employees (25 percent) than by micro enterprises (19 percent). Overall, including firms that did not register any problems, a little less than a fifth of micro and small enterprises mention credit as a problem.

Figure 3.1: Credit Problems faced by Informal Micro and Small Enterprises
More recent data from the RICS suggests that, in the six Kabupatenes surveyed, access to formal credit was a very significant problem. More than half of the enterprises sampled reported that they faced financial obstacles in continuing to operate their firm or in expanding it (see Table 3.2). Nearly a quarter of the firms listed financial obstacles as the main impediment.

Second, Table 3.3 Shows that micro and small enterprises were much more likely (8-12 percent versus just 2 percent) than medium and large enterprises to report obstacles in borrowing from formal financial institutions as their main constraint.

Table 3.2: Rural Non-Farm Enterprises Facing Financial Obstacles to Continued Operation/Growth

<table>
<thead>
<tr>
<th>Potential Finance-Related Obstacles</th>
<th>Is a Problem (Percent Firms)</th>
<th>Is the Main Problem (Percent Firms)</th>
<th>Median Expected Increase in Income if Obstacle Removed (Percent)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility to Borrow from Family, Friends or Others</td>
<td>33</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>Possibility to Borrow from Formal Financial Institution</td>
<td>46</td>
<td>11</td>
<td>45</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>47</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>Complicated Bank Loan Procedures</td>
<td>45</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Fear of Not Being Able to Pay Installments</td>
<td>45</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>All Financial Obstacles</td>
<td>52</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Calculated from RICS 2006  Note: *Applies to Main Problem
Table 3.3: Possibility to Borrow from Formal Financial Institution

<table>
<thead>
<tr>
<th>Number of Sample</th>
<th>Firms Viewing Lack of Ability to borrow from FFI as an Obstacle to Growth %</th>
<th>Main Obstacle to growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2090</td>
<td>46</td>
<td>12</td>
</tr>
<tr>
<td>226</td>
<td>44</td>
<td>8</td>
</tr>
<tr>
<td>50</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>2443</td>
<td>46</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Calculated from RICS 2006

The evidence cited above only show respondents’ perceptions of credit problems. However, some borrowers may perceive themselves to be “credit constrained” because a lender will not lend to them whereas in fact the refusal to lend is based on a realistic analysis of its business prospects. Conversely, some businesses will not perceive themselves as being credit constrained simply because they do not wish to borrow, even though they might find it difficult to borrow if they wanted to. Others may genuinely not be credit constrained because they can borrow from informal sources (such as friends and family) even though they might not be able to obtain funding from formal financial institutions.

Theoretically, defining a credit constraint is straightforward: a credit constraint exists if a firm is not able to access credit on terms reflecting the cost and risk of providing these funds for purposes which will generate sufficient revenues to successfully repay the loan. Unfortunately, in practice, it is extremely difficult to tell whether or not a loan would have been repaid had it been offered. However, one survey which comes closer to the ideal approach is the MASS Survey conducted in 2002.

The MASS Survey: Moving Beyond Perceptions

The 2002 MASS survey makes it is possible to go beyond perception-based measures of credit constraints. This survey, in addition to asking about credit constraints, also included an assessment by independent BRI credit officers of whether the interviewee was a viable borrower or not (i.e. whether or not the credit officer would have approved a loan if one had been sought). The survey concluded that approximately two-thirds of households would qualify for credit from a commercial microfinance institution (an institution with requirements similar to those of BRI Units), though a large proportion of non-borrowing households were unaware that they met the requirements for a micro-scale loan. Just over a fifth of qualified households (21.6 percent of total households) were actually borrowing. Moreover, 41 percent of qualifying non-borrowers (19 percent of total households) indicated that they would like to borrow, while 53 percent of non-qualifying households (17 percent of total households) would like to do so (see Figure 3.2).

Figure 3.2: Potential for Expansion of Micro-Credit

Source: MASS (2002)
This study suggests that the potential exists to almost double microfinance lending if ways can be found to address the constraints faced by households and firms that would qualify for loans and wish to borrow, but do not currently do so. Many, but not all, of the qualified non-borrowers appeared to lack information on whether and from where they could successfully obtain a loan.

For SMEs, rather than micro-enterprises, there is less information available. Judging the effective level of access to SME credit is much more difficult given the greater complexity of the application process. The available data suggest a more nuanced picture: the large majority of SMEs have access to and knowledge regarding credit sources for micro level loans. However, constraints often relate to the size of available loans, rather than access to a loan of any size.

The Nature of Credit Constraints

The Reasons for Not-Borrowing from Formal Financial Institutions

The evidence presented above suggests that systemic barriers to lending remain for many enterprises. For large enterprises and conglomerates, the main systemic hindrances to lending tend to be related to failures in the legal system. For small and medium enterprises that want to borrow much of the systemic problem is caused by more tractable policy issues.

The SUSI survey asks household and small informal enterprises that obtained credit but who did not apply for a loan from a bank, why they did not apply for a loan from a bank. The results in 1999 and 2003 by business sector, are shown in Table 3.4.

Table 3.4: Household Businesses’ & Small Enterprises’ Reasons which Received Credit but did not Apply for Loans from Banks

<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Don’t Know Procedure</th>
<th>Complex Procedure</th>
<th>No Collateral</th>
<th>High Interest Rates</th>
<th>Not Interested</th>
<th>Proposal Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallholder Mining and Quarrying, Non-PLN Electricity, and Construction</td>
<td>20.30</td>
<td>18.00</td>
<td>14.60</td>
<td>16.90</td>
<td>20.70</td>
<td>20.10</td>
</tr>
<tr>
<td>Manufacturing Industries</td>
<td>15.30</td>
<td>16.10</td>
<td>11.30</td>
<td>10.00</td>
<td>25.80</td>
<td>29.20</td>
</tr>
<tr>
<td>Wholesale Trading, Retail Trading, Restaurants, and Accommodation Services</td>
<td>17.60</td>
<td>16.90</td>
<td>12.50</td>
<td>13.30</td>
<td>27.30</td>
<td>29.10</td>
</tr>
<tr>
<td>Transportation &amp; Communication</td>
<td>15.40</td>
<td>17.50</td>
<td>7.70</td>
<td>6.60</td>
<td>32.20</td>
<td>36.90</td>
</tr>
<tr>
<td>Financial institutions, Real Estate, Leasing, and other Services</td>
<td>10.50</td>
<td>13.50</td>
<td>10.60</td>
<td>14.90</td>
<td>22.60</td>
<td>27.30</td>
</tr>
<tr>
<td>Total</td>
<td>16.40</td>
<td>16.70</td>
<td>11.10</td>
<td>10.80</td>
<td>27.90</td>
<td>31.10</td>
</tr>
</tbody>
</table>

Source: SUSI 1999 and 2003, BPS

14 The definition of this sum depends on the institution. For example, BRI defines ‘micro-credit’ in terms of loans under the value of Rp 25 million. According to Bank Indonesia’s definition, the ceiling is up to Rp 50 million.
Leaving aside the third of respondents who were simply not interested in applying for a loan, Table 3.4 suggests that the principal reasons for not applying for a bank loan were: lack of collateral (31 percent); ignorance of the procedures for application (16.7 percent); and the complexity of loan procedures (10.8 percent). Interestingly, interest rates in 2003 did not represent a major reason for not applying for a bank loan.

More recent evidence from the RIC Survey (2006) also shows that many micro and small firms who say that they need finance do not wish to approach a formal financial institution. Table 3.5 shows that 58 percent of surveyed firms reported that they needed additional funding, but only 24 percent of the micro enterprises were planning to apply to a formal financial institution.

Table 3.5: Enterprises' Willingness to Borrow from a Formal Financial Institution

<table>
<thead>
<tr>
<th>Enterprise Size</th>
<th>Enterprises Needing Additional Funding</th>
<th>Of Firms Needing Additional Funding, Percent Planning to Apply for a Loan from a FFI</th>
<th>Median Amount Willing Firms would borrow (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>1954</td>
<td>272</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Small</td>
<td>220</td>
<td>43</td>
<td>50,000,000</td>
</tr>
<tr>
<td>Medium / Large</td>
<td>49</td>
<td>9</td>
<td>500,000,000</td>
</tr>
<tr>
<td>All Enterprises</td>
<td>2223</td>
<td>322</td>
<td>10,000,000</td>
</tr>
</tbody>
</table>

Source: Calculated from RICS 2006

The reasons varied widely (see Figure 3.3), the most common being concerns over ability to repay and associated concerns over high interest rates and fear of debt. This undoubtedly reflects the large increase in interest rates during 2005 resulting in part from the rising oil prices and the reductions in the fuel subsidy which occurred in the months prior to the survey.

However, insufficient collateral and complicated procedures again feature strongly among the reasons for not borrowing from a formal financial institution. Interestingly, in the six Kabupatens surveyed lack of knowledge of the procedures did not appear to be as important a constraint on borrowing.
Overall it is clear that there is no single dominant reason why firms do not borrow from formal financial institutions. Interest rates, collateral, complex procedures, and lack of information all matter to greater or lesser degrees depending on the particular enterprise. We therefore explore the constraints facing borrowers, including issues of collateral, business registration, and transaction costs (cost of information, complexity of procedures, and the cost of finance) in more detail below.

The Constraints Facing Borrowers

The Issue of Collateral

The surveys conducted by DAI and REDI in East Java (2004); ADB TA 3417-IN0 in the cities of Medan and Semarang (2001); and ADB TA 3829-IN0 in four districts/cities in the provinces of Central Java and South Sulawesi (2003), confirm that collateral issues are still an important constraint for non-farm enterprises in obtaining credit from commercial banks. Furthermore, the RIC Survey (2006) shows that, of those enterprises listing collateral as a problem, about half reported inadequate assets for the size of loan desired. For all rural non-farm enterprises, 10-20 percent may have problems of inadequate collateral to meet current banking standards.

There are at least three issues related to collateral issues in the allocation of credit from commercial banks to non-farm enterprises:

1. Non-farm enterprises do not have the types of assets required to apply for loans from commercial banks;
2. Non-farm enterprises do have the types of assets required by commercial banks, but to use these assets as collateral entails additional efforts and therefore additional costs; and
3. Non-farm enterprises have to put up collateral with a value higher than that of the loan that is received.
The results of the CESS and IFC PENSA study (2005), showing the business requirements and the types of collateral required to obtain credit from the Microbanking Units of Commercial Banks and BPRs, are shown in Table 3.6.

The requirement of commercial banks that collateral be provided in the form of fixed assets, such as land and building certificates, is mandated by Bank Indonesia Regulations. Until the end of 2004\(^{15}\), commercial banks could not accept movable assets as deductions in determining loan loss reserve when allocating credit to micro, small, and medium-scale enterprises. Consequently, many micro, small, and medium-scale enterprises could not apply for credit because they could not provide the types of collateral required by commercial banks.

### Table 3.6: Business Requirements and Types of Collateral

<table>
<thead>
<tr>
<th>Item</th>
<th>Mandiri Micro Banking</th>
<th>Danamon Savings and Loan</th>
<th>BRI Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Requirement</td>
<td>Have own business for at least 2 years (proven with SIUP or TDP)</td>
<td>Have own business</td>
<td>Have own business for one year</td>
</tr>
<tr>
<td>Type of Collateral</td>
<td>Collateral in form of land certificate, house, car or motorcycle, or time deposit for loan of over Rp 10 million (US$1,053)</td>
<td>Collateral in form of land and building certificate, motorcycle, or car, for loan of over Rp 10 million (US$1,053)</td>
<td>Collateral in form of house and land ownership certificate, provisional ownership deed (girik) or sale deed, certificate, certificate that collateral is not in dispute, most recent PBB receipt</td>
</tr>
</tbody>
</table>

### Business Registration Issues

According to Bank Indonesia Regulations, applying for credit from commercial banks requires that the prospective loan recipient have legal business status, whether in the form of a Company Registration Certificate or of a special permit, such as a Trading Business Permit or Industry Registration Certificate. To obtain a loan greater than Rp 50 million (US$ 5,000), the prospective borrower must also have a Taxpayer Number (NPWP).

The ADB TA study 3829-IN0, conducted in the cities of Pare-Pare and Sragen, showed that 12.5 percent and 27 percent, respectively, of the sample of household, small and medium-scale industries did not apply for loans from commercial banks even though they needed credit because of the issue of legal business status. These data confirm that although this problem is not as serious as the issue of collateral, household, small, and medium-scale industries mentioned legal status as one of the three main problems that usually prevent them from obtaining credit from commercial banks.

The DAI and REDI study (2004) showed that 70 percent of small business respondents have one or more permits for their businesses’ operations. Around 61 percent of respondents stated that they have trading business permits (SIUP), and around 58 percent stated they have taxpayer registration numbers (NPWP). Of the small businesses that have both SIUP and NPWP, around 66 percent said that by having SIUP and NPWP, they were free to do business and did not fear intervention by government officials. Only around 21 percent stated that they would also obtain a further benefit in the form of access to credit from commercial banks. On the other hand, this study also found that by having SIUP and NPWP, their businesses were often subject to inspections by government officials. Around 20 percent of these businesses stated that they gave bribes to the government officials who conducted these inspections.

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\(^{15}\) With the issuance of Bank Indonesia Regulation No. 7/2005 concerning the Evaluation of Quality of Assets of Commercial Banks, which has only been in force since January 2005, the types of collateral that can be used as deductions in loan loss reserve now include not only fixed assets, time deposits, savings, and government bonds, but also movable assets and inventory.
Thus, when non-farm enterprises have SIUP and NPWP, they meet the requirements to apply for loans from commercial banks, but they also bear additional costs because they become the object of inspections by government officials. Thus, even though the DAI and REDI study (2004) found that a majority of respondents said they would like to acquire SIUP and NPWP to ensure the legal status of their businesses, the majority of micro and small enterprises preferred not to obtain formal business status.\footnote{The reasons for not obtaining formal business status are not only the costs that must be borne after the business becomes formal, but also the complexity and uncertainty of the formalization process.}

**Transaction Costs**

There are three major types of transaction costs faced by firms in applying for a loan:

- The cost of obtaining the necessary information;
- The complexity and cost of the procedures; and
- The cost of finance itself.

Evidence from a number of studies suggests that the first two are significant disincentives for firms to apply for credit. A few years ago the cost of finance itself was not a major disincentive, although, as noted above, current high interest rates have made this a greater concern now than before.

For example, the two main reasons why small and medium-scale enterprises in the cities of Medan and Semarang that need credit do not apply for credit from commercial banks are: (i) fear that the company will not meet the requirements set by the banks, and (ii) lack of knowledge regarding the procedures (Ikhwan and Hiemann, 2001). Similar reasons were expressed by small businesses in East Java (DAI and REDI, 2004).

Non-farm enterprises’ lack of knowledge about the procedure for applying for loans from formal financial institutions (especially commercial banks); their feeling that the procedures are too difficult; and their fears about being unable to meet the requirements set by the banks are all a reflection of the relative lack of knowledge on the part of non-farm enterprises about the requirements and/or procedures that must be met when applying for credit from formal financial institutions (primarily commercial banks). These reasons continue to resonate: as noted above, the RICS 2006 data for six Kabupaten show that a third to a half of firms who report they need more funds fail to apply for them from formal financial institutions due to lack of knowledge or concerns about the complexity of the process (see Figure 3.3). Still, concerns about taking on debt, ability to repay, or high interest rates dominate these procedural problems.

Because it is far more effective to gather information by meeting directly with a financial institution’s credit officer, non-farm enterprises located in rural areas must spend much more to obtain information about requirements and procedures, even though it is not certain that their credit applications will be approved. Consequently, the shortage of information about requirements and procedures for applying for loans is closely related to the transaction costs faced by non-farm enterprises (especially those located in rural areas) to obtain such information.

**Constraints Facing the Commercial Banks**

**Lack of Information**

The various studies examined in the previous section show that only a small number of micro and small enterprises have obtained credit from commercial banks. Although they need credit, micro and small enterprises do not apply for credit from commercial banks. On the other hand, the
commercial banks would like to grant loans to micro and small enterprises\textsuperscript{17}, but the necessary information is not available. The limited network of branch offices and the limited number of credit officers mean that commercial banks experience constraints in identifying micro and small enterprises that could potentially become borrowers. The lack of adequate information for commercial banks means that they tend to provide credit only to the same sectors or commodities that have obtained financing in the past.

In general, the branch offices of commercial banks are located in urban areas. Thus, they have difficulty in granting loans to micro and small enterprises, which are located mostly in rural areas. The greater the distance between the commercial banks’ branch offices and the location of the micro and small enterprises, the higher the transaction costs that the banks must bear. These high transaction costs result not only from the high transportation costs entailed in evaluating the credit requests of micro and small enterprises, but also the costs of monitoring.

The lack of quick and accurate information for commercial banks in channeling credit to micro and small enterprises, especially those located in rural areas, creates a perception of high risk in allocating credit to micro and small enterprises. In allocating credit to micro and small enterprises, the results of several studies show that the character of the business owner is a key factor. In addition, prior experience in obtaining loans from financial institutions greatly helps commercial banks in assessing character as a part of the overall risk assessment of micro and small business operators who take loans from commercial banks.

Bank Indonesia now has a Debtor Information System (DIS) that can provide information to commercial banks about micro, small, and medium-scale enterprises that have obtained loans from commercial banks. Formerly this information only related to borrowers that obtained loans greater than Rp 50 million. In theory, it now covers all sizes of loans\textsuperscript{18}. However, given the size of the average loans obtained by micro and small enterprises (in East Java, for example, the average size of a loan was around only Rp 17 million), it is clear that the micro and small enterprises that have obtained loans from commercial banks are not yet included in the current database of DIS, let alone those micro enterprises and small enterprises that have no experience in obtaining loans from commercial banks. Moreover, the DIS only has information on outstanding loans from commercial banks. It is therefore lacking information from non-bank financial institutions and utility companies. In addition, it currently only provides the status of such loans – it does not yet have information about the repayment record of borrowers.

Land Certification Issues

Theory suggests that greater security of land ownership will increase the collateral value of land which will in turn increase the land owner’s access to credit. In Indonesia, an initiative was undertaken in 2003 to improve access for micro and small business operators to credit from commercial banks through a land certification program, through a memorandum of understanding between the State Ministry of Cooperatives and SMEs and the National Land Agency (BPN) and a joint agreement among the State Ministry of Cooperatives and SMEs, the BPN, and PT. Bank BRI. Under the terms of this agreement, it was explicitly stated that only micro and small business operators who are applying for credit or who have already taken loans from BRI Units or BRI Branches but do not yet have certificates for the land that is to be used, or has been used, as collateral are entitled to take part in the program. Every micro or small entrepreneur taking part in the program is granted funds for the certification fee from the State

\textsuperscript{17} In Indonesia, for example, the experience of the economic crisis meant that commercial banks changed their lending strategy, which had been oriented toward large businesses, shifting to a focus on micro and small enterprises. One indication of the banks’ granting of credit to small enterprises is that the banks experienced an increase in their outstanding loans during 2003, and in 2004 this figure exceeded the situation before the economic crisis.

\textsuperscript{18} With the issuance of Bank Indonesia Regulation Number 7/8/PBI 2005 on the Borrower Information System, the coverage of information that must be reported by commercial banks is the entire loan portfolio.
Budget of around Rp 175,000 or US$ 17.50 (around 10 percent of the average cost set by BPN)\textsuperscript{19}, with the remainder of the necessary costs borne by the micro and small entrepreneurs.

Interviews with Bank BRI staff show that although the cooperation agreement states that micro and small business operators who are applying for loans from BRI Units or BRI Branches can join the land certification program, in practice the program has focused only on micro and small business operators who have already taken loans from BRI Units and do not have collateral in the form of land certificates. In 2003, out of 3 million borrowers from BRI Units, there were around 900,000 with credit ceilings below Rp 10 million (most of the loans had ceilings of Rp 3 million) who did not have collateral in the form of land certificates. Under BRI’s loan provisions, debtors of BRI Units with loans of up to Rp 10 million do not need to provide land certificates as collateral. On the other hand, even if their businesses are viable but they cannot provide a land certificate as collateral, micro and small business operators are not eligible to take out loans of over Rp 10 million.

From the start of the program in 2003 to 2004, 43,200 land certificates were issued to micro and small business operators who were borrowers from BRI Unit in all provinces in Indonesia, except in regions facing security problems and traditional land right (ulayat) issues. For 2005, it was planned that 40,000 micro and small business operators would receive assistance of Rp 250,000, or roughly US$ 25, for each micro and small business operator who takes part in the land certification program. Thus, it is predicted that by the end of 2005, around 10 percent of the debtors of BRI Units with credit ceilings of Rp 10 million will have obtained land certificates.

This land certification program does not automatically mean that BRI Units will increase the supply of credit to micro and small business operators whose land has undergone the certification program. In principle, the value of the credit that is approved is determined mainly by the nature of the borrower’s business and its prospects, and not by the certified land that is to be put up as collateral. However, the land certification program will indirectly have the positive impact of enabling micro and small business operators whose businesses are viable but who previously had only land without certificates to serve as collateral to obtain loans of over Rp 10 million from BRI Units.

\textbf{Difficulties Resolving Credit Problems through the Courts}

According to commercial banks, the currently existing judicial system provides a strong disincentive for banks to resolve credit problems through the courts. The length of time, uncertainty, high costs, and lack of transparency are the main problems perceived by commercial banks (Ikhwan and Hiemann, July 2001). Although weaknesses in the judicial system are not the main reason for banks’ unwillingness to provide credit to micro and small businesses, banks often impose a number of requirements that were not previously required as a protective measure in case of defaults that cannot be remedied through the judicial system. This situation occurs because even though some debtors with problems with commercial banks have been taken to court, there is a serious lack of transparent information about these defaulting borrowers. As a consequence, it often happens that debtors who have been taken to court are still able to obtain loans from other banks.

\textbf{Institutional Problems from Internal Policies}

Micro and small enterprises that intend to apply for credit from commercial banks lack information on the requirements and procedures for obtaining credit. On the other hand, formal credit sources would like to provide credit but lack information on the prospective borrowers’

\textsuperscript{19} The average fee for the certification process set by BPN is Rp 1,750,000, and the process takes around six months. Procedurally, BPN does not make any exceptions for micro and small business operators who take part in the program, but it does provide greater certainty regarding the time required to complete the certificates.
wishes and their ability to repay. The unavailability of the information needed by credit providers creates the perception that granting credit to micro and small enterprises entails high risk.

Most cases of problems of access, especially among formal financial institutions, are caused in part by institutional problems, and especially the formal financial institutions’ internal policies on allocating credit. This situation is indicated by the form of the provisions on minimum value of loans, complicated loan application procedures, and provisions limiting the use of credit to certain purposes. In addition, the terms of the loans, repayment times, collateral that is specified, and provision of additional services are not in line with the needs of the target groups, and so micro and small businesses that could potentially be borrowers do not apply for loans.

The study by DAI and REDI (2004) in East Java confirmed that there is an information gap between banks and small businesses that are their potential borrowers. Small business operators that do not borrow suffer from a shortage of knowledge and information about the borrowing requirements, the process for loan approvals, and strategies for success in obtaining loans.

Policy Conclusions

Many micro and small enterprises need credit for their business operations but do not apply for credit from formal financial institutions, especially commercial banks, either because they lack one of the basic requirements for a loan or because they think they would not qualify. In addition, some micro and small enterprises have applied for credit but have been rejected by the commercial banks. This situation occurs because of a number of constraints, both on the side of the micro and small enterprises and on the side of the formal financial institutions, especially commercial banks.

Rather than attempt to resolve all of these constraints directly, it is useful to keep in mind that several could simply be swept away or at least be relieved by competitive pressure. This is particularly true of information problems: a firm credit offer from a competitive micro lender is by far the best information potential borrowers can receive.

With this in mind, the following recommendations are made for financial-sector reforms:

Support pro-competition policies and reinforce competitive behavior at the micro level:

Key components of this recommendation include:

- **Information sharing requirements:** Until a credit bureau exists that accommodates the credit histories of micro borrowers, regulations should ensure that a standard credit record is available between banks (and, preferably, non-bank SME lenders), with access to this record based on a signed request from the borrower (usually as part of an application to another institution). As micro borrowers begin to be included in the credit bureau, this could be phased out. More broadly, BI should implement a transition towards greater private sector involvement in the provision of credit bureaus with BI acting as a data wholesaler;

- **Ending of BPD quasi-monopolies on lending to civil servants:** At present, virtually all BPDs retain a privileged, protected position, serving the basic credit needs of civil servants, typically based on their role as the region’s paymaster for civil servants. Unfortunately, this has had several anti-competitive effects beyond the maintenance of high margins with little product innovation in lending to civil servants. With only a few exceptions, most BPDs have been very slow to move out of their sheltered markets into the more competitive but still profitable micro and SME lending segments in their respective
provinces, and new micro banking entrants have been unable to tap this market segment as part of an overall rural service strategy. As banks with mandates to serve their respective provinces, BPDs typically have the second-best rural branch networks in their working areas after BRI;

- **Common on-line savings initiative involving BPRs**: Although the large majority of BPRs have done a good job in microfinance outreach (as a whole, trailing only BRI in terms of outreach to micro enterprises), these lower-tier banks are at present uncompetitive in mobilizing funds, placing them at a serious disadvantage relative to the microfinance-oriented commercial banks with whom they compete directly for funds. Essentially, a shared approach to IT development and network participation is needed to ensure that BPRs can offer competitive savings products at an affordable cost to themselves.

**Make commercial banks (and BPRs) more transparent:**

This initiative would require some technical expertise and a willingness to push key financial institutions to be more transparent in their activities. BRI in particular has established itself as perhaps the world’s best micro-enterprise finance institution, currently lending to more than 3 million micro-borrowers nationwide. However, the way in which reporting is done by BRI, most BPDs and some other banks that claim to focus on micro/SME lending, makes it difficult to determine how much lending has actually gone to micro/small enterprises, and how much has been consumer lending to individuals.

For example, these banks are often reluctant to show micro-enterprise lending separate from micro-scale lending to civil servants and employees, and they tend to emphasize cumulative disbursement rather than outstanding loan amounts and number of borrowers. The point here is not to embarrass banks or to add an additional reporting burden. Rather it is to require them to provide a more accurate picture of their current microfinance activities.

In practice, the actual additional information required from banks is fairly modest:

- Greater emphasis on orang (account) figures for reporting micro and SME loans, not just Rupiah values;
- A more honest classification of loans, distinguishing between enterprise and consumption lending; and
- Particularly for state-owned banks, the requirement that the profit and loss of the banks be disaggregated according to business line.

State banks and BPDs should also be required to formulate strategies for increasing micro and SME lending. Beyond this, it may be worthwhile to work with certain SME lenders to ensure that profitability both drives decision-making and leads to incentive payouts to staff.

**Support for one or more outreach initiatives aimed at connecting new micro borrowers to the financial system:**

One approach would be to develop a P4K-style outreach program for financing the household enterprises of rural low-income households. Like the Kredit Mini/Midi program that marked the true beginning of BRI Unit microfinance in the late 1970s, the P4K program is a notable exception to the general rule that credit programs do not work. That this program succeeded as well as it did is largely because so many aspects of the program were already “institutional” from the beginning. Originally funded by IFAD/ADB and implemented jointly by the Department of Agriculture and BRI, agricultural extension workers carried out group formation and maintenance.

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20 Pembinaan Peningkatan Pendapatan Petani Nelayan or Assistance in Income Generation for Marginal Farmers and Fishermen.
while BRI loaned to groups once they were ready. BRI also handled the financial administration. At its peak, the program was successfully lending to more than 200,000 marginal farming and fishing households.

Though the program had a very good repayment record (higher than 95 percent), especially compared to other government/donor credit programs, there is a need for an indirect subsidy to cover some of the cost of group formation; local, regional, and national supervision; and institutionalization, including some technical assistance. In general, loan risk proved to be concentrated in the first loan; if the borrower paid their first loan back on time, the risk on subsequent loans dropped to commercially acceptable levels. A successor to this program could be spread to all rural and semi-urban areas throughout Indonesia, not just in the present provinces. The P4K approach has the great advantage of scaling down in rural areas better than virtually any other program tried in Indonesia; other efforts at reaching the same class of borrowers (including small savings and loan cooperatives) require a critical mass of borrowers (50-100) at the local level in order to support the development of an institution.

In order to be a long-term success, such an initiative would need to have as its objective the bringing of borrowers into the financial system. In the past, this was largely accomplished by institutionalizing the program. A better approach at this point, though, is to provide incentives for commercial micro lenders to begin lending to borrowers before the program ends (rather than attempt end-of-project handovers which often do not work). The key to this is early involvement of interested commercial microfinance institutions.
References


Bank Indonesia Regulation Number 7/2/PBI/2005, on Evaluation of Quality of Assets of Commercial Banks.

Bank Indonesia Regulation Number 7/8/PBI/2005, on Debtor Information System.


Center For Economic and Social Studies (CESS) and IFC PENSA. July, 2005. “Commercial Bank Financing and Other Credit Issues for BPRs.”


CHAPTER 4.
INFRASTRUCTURE AND THE CLIMATE FOR RURAL INVESTMENT IN INDONESIA: A QUESTION OF RESOURCE ALLOCATION
Abstract

Worldwide, the successful development of non-farm activities in rural areas is strongly associated with access to quality infrastructure. The evidence from Indonesia suggests that this is also the case here. In particular, non-farm enterprises rely on access to high-quality electricity supplies to allow the use of productivity-enhancing technologies. They rely on communications networks to extend access to markets both for inputs and sales. And they rely on a road system that facilitates the efficient transportation of both inputs and outputs.

Over the last twenty years, there has been a significant rollout of infrastructure in Indonesia, reaching deep into rural areas and promoting significant growth in non-farm activities. Nonetheless, many villages remain without access to telephones, electricity or a year-round road, particularly in areas outside Java and Bali. Furthermore, the quality of available infrastructure is mixed and, at least in the case of roads, there is evidence that it is declining. This is in part due to a lack of funding. However, even more significantly, the allocation of resources is poor, with funds used to provide usage subsidies rather than to improve the reach and quality of the provision of electricity, or to construct new roads whilst failing to maintain existing ones. This reflects a weak institutional incentive structure, in part the consequence of decentralization.

However, there are workable solutions to these problems. Given available resources, considerably improved access to quality infrastructure could be provided within existing budgets. Vital steps include:

- Encouraging competitive provision of electricity and telecommunications services;
- Increasing “yardstick” competition in the supply and maintenance of rural roads;
- Removing regulations and policies that drive a wedge between the prices and costs of service provision; and
- Targeting subsidies where they will have the most impact.

With the improved access to infrastructure that these measures would facilitate, the potential for considerable growth in rural enterprise could be realized at very low cost to the government.

introduction

This chapter first establishes the strong association between the quality of and access to infrastructure, and improved productivity in rural enterprises by examining the evidence from within Indonesia. It then takes a closer look at the existing state of Indonesia’s infrastructure, before examining current patterns of resource allocation on the development and maintenance of this infrastructure, exploring the political economy of the various infrastructure sectors to understand these patterns. Having investigated these issues, it then presents a set of policy recommendations. The map for this chapter is as follows:

1. **The Importance of Access to and Quality of Infrastructure for the Growth of Non-Farm Enterprises**: This section provides evidence from Indonesian surveys to show that access to good quality infrastructure is strongly associated with the success of non-farm enterprises, as demonstrated by a comparison of the productivity of enterprises in areas with and without access to good infrastructure. That access to good quality infrastructure is an important determinant of the success of non-farm enterprises is indicated by the number of owners and operators of small enterprises identifying the lack of such infrastructure as a major constraint.

2. **The Current Status of Indonesia’s Rural Infrastructure**: This section examines the evidence to determine how well Indonesia is performing in the provision of infrastructure,
looking in particular at the electricity, telecommunications and road sub-sectors. It shows that, overall, at the national level, great advances have been made in improving access to electricity, roads and telecommunications facilities over the past twenty-five years. However, despite strong growth over the long term, there are remaining gaps, and particularly worrying trends involving the quality of access to both electricity and roads. The development of infrastructure has also been uneven with areas outside Java and Bali lagging behind in all areas.

3. **Expenditure on Infrastructure: Who is Responsible and How are Resources Allocated?** This section examines the question of who provides this infrastructure and how it is funded, containing a description of the primary providers of electricity, telecommunications and roads and related services; their responsibilities and their expenditures. It then examines how these factors help or hinder the rollout of services.

4. **The Political Economy of Rural Infrastructure: an Agenda for Reform:** This section seeks to understand the failures of providers to meet the needs of rural enterprises satisfactorily by examining the political economy of the various infrastructure sectors, paying particular attention to issues related to the impact of decentralization; the changing sector policy framework; the role of new technologies; and corruption and the misallocation of resources.

5. **Conclusions and Summary of Policy Recommendations:** This section attempts to demonstrate workable solutions to the problems discussed in previous sections, showing how considerably improved access to quality infrastructure could be provided within existing budgets by encouraging competitive provision of electricity and telecommunications services; increasing yardstick competition in the supply and maintenance of rural roads; removing regulations and policies that drive a wedge between the prices and costs of service provision; and targeting subsidies where they will have the most impact.

### The Importance of Access to and Quality of Infrastructure for the Growth of Non-Farm Enterprises

**Indonesia: The Role of Good Quality Infrastructure**

Unsurprisingly, evidence from Indonesian surveys matches with evidence from the rest of the world, showing that access to good quality infrastructure is at least strongly associated with the success of non-farm enterprises, as can be demonstrated through a comparison of the productivity of enterprises in areas with and without access to good infrastructure (Willoughby, 2004; Escobal and Ponce, 2002; Songco, 2002; Lanjouw, 2001). That access to good quality infrastructure is an important determinant of the success of non-farm enterprises is indicated by the number of owners and operators of small enterprises identifying the lack of such infrastructure as a major constraint.

Estimates from the 1993 and 2000 Indonesia Family Life Survey (Figure 4.1) provide evidence that access to improved infrastructure is strongly associated with non-farm enterprise development:

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21 While the relationship between access to infrastructure and the extent of non-farm enterprises is strong, it should be noted that this does not necessarily imply that improving access to infrastructure alone will bring rapid growth of non-farm enterprises. Richer villages closer to large, existing markets are far more attractive for telecommunications and energy providers and cheaper to connect to quality infrastructure. They are also likely to have more non-farm enterprises. Nonetheless, combined with the significance that non-farm enterprise owners attach to improved infrastructure as reported in the RICS, the data are strongly supportive of the idea that improving the quality and reach of infrastructure would have a considerable impact on the extent of non-farm activities.
Lack of Access and Poor Quality of Infrastructure as a Major Constraint

In addition to the extent of infrastructure, the issue of quality is also a significant determinant of the extent of non-farm activities and of their level of productivity. For example, blackouts occurring at least once a week translate into an 80 percent reduction of non-farm enterprise incomes, which may account for electricity quality being cited as the biggest infrastructure constraint to non-farm growth in the RICS.

As with the case with access to electricity, the case of roads indicates that the quality of infrastructure is a critical factor affecting the extent of non-farm activities and of their level of productivity. Households in villages with predominantly dirt roads earn 39 percent less of their income from non-farm enterprises than the average across all households. Households in villages were the average speed of travel to the district capital is higher also see more non-farm income earning. Villages which saw roads upgraded between 1993 and 2000 saw significantly faster growth in NFE activities than other villages (Gibson, 2006a. See also evidence in Balisacan, Pernia and Asra, 2002).

RICA: Perceptions of Infrastructure Constraints and the Impact of Improvements

As part of the Rural Investment Climate Survey, non-farm enterprises were asked to list constraints to their operation and growth. The survey asked how important a problem access, quality and cost of electricity, telecommunications and transport were as obstacles to non-farm enterprises.

The RICS suggests that these remaining problems relating to the quality of access to both electricity and roads are a significant barrier to further growth. As Figure 4.2 suggests, the constraints most frequently mentioned by non-farm enterprises in terms of the most significant barriers to operation and growth centered around demand and finance. Infrastructure concerns were listed just below these concerns, however, with a significant proportion of respondents

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22 Results are conditional correlations, in the case of telephones on distance and average speed to provincial capital and dirt road, in the case of electricity and blackouts (both in the same regression) also on distance to provincial capital in the case of roads on distance and average speed to provincial capital.
listing each of electricity quality, transport costs, road quality and access to markets as their first or second concern in terms of constraints to growth.

Based on RICS data and according to the author’s calculation, reducing the average response across infrastructure access variables from ‘somewhat of a problem’ to ‘not a problem’ would be associated with a rise in the average proportion of income in a village coming from non-farm enterprise income and non-farm salaries and wages by 33 percentage points.

A wartel, or telecommunication kiosk, in a village, is associated with a ten percent increase in non-farm earnings, while where most roads out of the village are dirt (rather than stone or asphalt) the share of non-farm enterprises drops by 12 percent.

Figure 4.2: Constraints to Enterprise Operation and Growth – Most Frequently Mentioned in RICS (sum of most important and second most important rankings for top seven concerns)

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**The Current Status of Indonesia’s Rural Infrastructure:**

Since access to good quality infrastructure is a key factor in the development of rural non-farm enterprises in Indonesia, how, then, is the country performing in the provision of such infrastructure?

Overall, at the national level, great advances have been made in improving access to electricity, roads and telecommunications facilities over the past twenty-five years. However, despite strong growth over the long term, there are remaining gaps, and particularly worrying trends involving the quality of access to both electricity and roads. In particular, the development of this infrastructure has been uneven and areas outside Java and Bali lag behind in all areas, as Table 4.1 demonstrates:
Table 4.1: Access to Infrastructure (Listed by Average Access)

<table>
<thead>
<tr>
<th>Province</th>
<th>% villages with PLN Electricity</th>
<th>% Villages with Concrete/asphalt Road</th>
<th>% Villages with Telephone</th>
<th>Infrastructure investments per capita 1994-2002 ($)</th>
<th>Population Density (per km2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumatera</td>
<td>90</td>
<td>75</td>
<td>57</td>
<td>128</td>
<td></td>
</tr>
<tr>
<td>North Sumatra</td>
<td>97</td>
<td>66</td>
<td>63</td>
<td>83</td>
<td>158</td>
</tr>
<tr>
<td>West Sumatra</td>
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<td>74</td>
<td>55</td>
<td>89</td>
<td>99</td>
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<tr>
<td>Riau</td>
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<td>91</td>
<td>77</td>
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<td>82</td>
<td>86</td>
<td>66</td>
<td>157</td>
<td>45</td>
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<td>81</td>
<td>51</td>
<td>130</td>
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<td>Bengkulu</td>
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<td>93</td>
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<td>65</td>
<td>50</td>
<td>80</td>
<td>191</td>
</tr>
<tr>
<td>Java/Bali</td>
<td>97</td>
<td>67</td>
<td>65</td>
<td>81</td>
<td></td>
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<td>593</td>
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<td>West Java</td>
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<td>64</td>
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<td>Central Java</td>
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<td>DI Yogyakarta</td>
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<td>80</td>
<td>980</td>
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<td>East Java</td>
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<td>Bali</td>
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<td>Nusa Tenggara</td>
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<td>West Nusa Tenggara</td>
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<td>East Kalimantan</td>
<td>93</td>
<td>88</td>
<td>84</td>
<td>681</td>
<td>11</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>88</td>
<td>70</td>
<td>41</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>North Sulawesi</td>
<td>89</td>
<td>72</td>
<td>34</td>
<td>189</td>
<td>132</td>
</tr>
<tr>
<td>Central Sulawesi</td>
<td>64</td>
<td>82</td>
<td>43</td>
<td>253</td>
<td>35</td>
</tr>
<tr>
<td>South Sulawesi</td>
<td>97</td>
<td>72</td>
<td>55</td>
<td>61</td>
<td>129</td>
</tr>
<tr>
<td>SouthEast Sulawesi</td>
<td>91</td>
<td>55</td>
<td>19</td>
<td>230</td>
<td>48</td>
</tr>
</tbody>
</table>

| Indonesia                 | 96%                             | 74%                                  | 69%                       |                                                    |                             |


Electricity Rollout: Greatly Extended Access, but Major Gaps Remain

Electricity rollout in Indonesia over the past twenty five years has been very rapid, especially in rural areas. The percentage of the rural population using electricity increased from below 10 percent in 1980 to above 82 percent by 2001. PLN Electricity reaches 78 percent of rural households in the Susenas survey, with another four percent served by non-grid sources. Around 82 percent of Indonesia’s villages are electrified, with over 60 percent of the people in those villages legally connected. An additional 34 percent of households appear to have illegal connections in these villages (Calculated from SUSENAS data. Similar numbers are suggested by the 2001 electricity use survey).

However, as Table 4.1 indicates, rates are considerably lower outside of Java/Bali. Demonstrating the gap between different regions, Table 4.1 shows that while in all provinces in Java and Bali, the electrification rate was above 90 percent, in Central Sulawesi only 64 percent of homes are served by PLN. PLN electrification rates are as low as 42 percent on Papua, with an additional six percent served by non-grid sources.

Despite these remaining service gaps, PLN’s expansion program has slowed dramatically. As a result of financial pressures and the uncertainty as to the responsibility for rural electrification created by the annulment of Law No. 20/2002 on Electricity, the number of new rural connections made has fallen from 3.5 million in 1997 to around 125,000 in 2002.
Quality: Again Areas Outside Java/Bali Lag Behind

Furthermore, quality varies considerably even amongst legal consumers. While service reliability has improved considerably in the regions of Java, Madura and Bali, the rest of the country still sees far weaker reliability. In 2003, PLN listed 14 regions where peak loads were considerably above generating capacity, and in much of Sumatra, East and West Kalimantan, North Sulawesi and Gorontalo as well as West Nusa Tenggara there were rolling power cuts (World Bank, 2004a). In a 2001 survey of rural electricity use, 69 percent of respondents complained of frequent blackouts, with a similar number suggesting voltage fluctuations were a problem (this compares strikingly to overall national figures where business surveys suggest outages occur only five days a year). These figures were higher amongst PLN customers, reaching 78 percent (Madon, 2004).

Telecommunications: The Mobile Revolution

There has been an explosive growth in the telecommunications network over the last few years, driven by the mobile revolution. There are now approximately 21 mobile phones and 6 fixed phones per 100 people in the country. As many as 85 percent of Indonesia’s population is under the footprint of the mobile signal. In rural areas, however, access remains relatively poor, with two-thirds of villages lacking a public phone (See Table 4.1). As with other infrastructure, rates varied considerably by region, with a considerable gap between worst-served and best-served areas. For example, only 19 percent of Southeast Sulawesi’s villages have public phone access, compared to figures above 40 percent for all provinces in Java and Bali (See Table 4.1).

Roads: Expanding but Uneven network – but again, areas outside Java and Bali lag behind

Indonesia’s roads system, like its other infrastructure networks, has been rapidly expanding. Local farm to market roads increased from 8,500km in 1977 to 31,900km in 1998 (although this will be in some significant part because of reclassification of roads). The official road network has increased in length by 19.5 percent since 2000 alone, again in part due to reclassification (Parikesit, 2006). In part as a result, over 90 percent of rural people live within 2km of an all-season road (World Bank, 2006a). 74 percent of the Indonesia’s households live in a community with access to an asphalt or concrete road. As with electricity, however, there is considerable variation across regions in both the extent of access and the quality of infrastructure. Furthermore, the state of repair of roads is frequently poor and growing worse, particularly in areas outside Java and Bali.

Table 1 suggests that the percentage of villages connected by a concrete or asphalt road is as low as 46 percent in Central Kalimantan. Furthermore, Kalimantan as a whole sees some of the lowest states of repair, with more than half of the roads in poor or bad condition (Figure 4.3). Around 290,000km of roads (or about four fifths of the national total) now fall under the responsibility of Kabupaten governments. Again, a considerable proportion of these roads are in poor condition (Figure 4.4). Furthermore, the condition of Kabupaten roads seems to be deteriorating rather than improving. For example, the Kapupaten of Manggarai saw over 60 percent of its roads classified in bad or very bad condition, up from 48 percent in 1999 (World Bank, 2006b). And 86 percent of Kabupaten roads in Manggarai were in bad or very bad condition, up from 58 percent in 1999.

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23 At the same time, total available power does not appear to be a major problem, with only 29 percent of household enterprise operators suggesting they have insufficient power, the great majority of whom were not PLN customers but relied on solar or hybrid systems.
Expenditure on Infrastructure: Who is Responsible and How are Resources Allocated?

In order to understand how to improve access to and the quality of infrastructure in rural areas, it is first necessary to examine the question of who provides this infrastructure and how it is funded. The following section contains a description of the primary providers of electricity, telecommunications and roads and related services; their responsibilities and their expenditures. It then examines how these factors help or hinder the rollout of services.

In the case of electricity and telecommunications, given that provision in both sectors is by enterprises designed to make a profit, the expenditures of interest are implicit or explicit government subsidies and tariff policies. In the case of roads, total expenditures by governments involved in the expansion and maintenance of the road network, particularly at the kabupaten level, are of primary interest.
The Provision and Financing of Electricity: Uniform Pricing a Disincentive to Rollout

The major electricity provider is PLN (Perusahaan Listrik Negara), a state-owned company that provides generation and distribution services. In addition to its own generation facilities, PLN buys electricity from a number of independent (private) power producers. In areas not reached by PLN, a number of community cooperatives and local government-owned companies provide generation and distribution services (albeit to less than five percent of electricity customers). A number of large consumers own their own power plants which, in some cases, also provide power to local communities. PLN receives both indirect and direct subsidies from the central government: the former take the form of fuel subsidies, while the latter take the form of consumption subsidies for residential users and (small) subsidies for the rollout of services. With the consent of provincial governments, PLN is allowed to charge differential prices for electricity, but the tariff is largely uniform across Indonesia.

Government funding for the sector has not been used to extend access to a quality network. In 2005, implicit subsidies to the electricity sector through fuel subsidies were worth Rp 21 trillion, while consumer subsidies were worth an additional Rp 13 trillion. Connection subsidies amounted to a comparatively small Rp 500 billion. The consumption subsidies benefit more than half of all consumers, including many customers who use larger amounts of energy suggesting that they are not well targeted to the poor (Arze, 2006).

A recent World Bank estimate suggests that reaching a 100 percent electrification rate for households (involving the connection of 7.2 million households) might cost in the region of Rp 16.5 trillion (World Bank, 2006c). Compared to the current annual consumer subsidies of Rp 13 trillion, it is clear that a re-prioritization of expenditure priorities away from consumer subsidies towards connection subsidies could have a dramatic impact.

However, increased access is only viable if PLN were allowed to charge prices more closely related to the cost of production and supply. At present, the government effectively discourages rollout by promoting almost uniform pricing, despite the varying costs of provision in different regions of Indonesia and to different categories of users. In a number of regions, revenues are so significantly below costs per kilowatt hour as to act as a significant deterrent to rollout. Thus, in order to minimize losses from providing services, past and future expansion plans have focused on the most efficient markets to serve.

It is also worth noting that in the vital area of quality of access, extending services without increasing production capacity will further increase the already high level of voltage fluctuations and blackouts suffered by rural enterprises, at a significant cost to their revenues. Allowing PLN to earn enough from its historical and new customers to be able to afford to purchase additional power from private producers will be increasingly important as the network expands.

Telecommunications: An Increasingly Competitive and Deregulated Environment

Telecommunications services and infrastructure development are provided by partly-privatized and private players operating in an increasingly competitive and deregulated environment. PT Telkom (in which the government still owns a majority stake) provides services in all segments of the market. It faces competition across market segments from PT Indosat, as well as a number of other players active in mobile and Internet service provision. This replaces a system where PT Telekom had a monopoly on the provision of fixed local and long-distance services, while PT Indosat had a monopoly on international services. The newly created telecommunications regulatory authority (BRTI) sits within the Ministry of Communication and Information. The government’s role in financing infrastructure is limited. It has put in place a universal service fund that will finance rollout of (private) services supported by a 0.75 percent tax on telecommunications operators.

As with electricity, the provision of telecommunications services in isolated rural areas is considerably more expensive. As with electricity, the government’s major influence on the extent
of rollout is through subsidies and the tariff regime. The 0.75 percent tax on operators brings in approximately $50m per year to support a universal service program. To date, the fund has been used to provide satellite phones to villages with mixed success, as discussed in a following section. Recent estimates are that a redesigned access program could achieve the goal of a public telephone in every village at the cost of only $62 million, suggesting (as with electricity) that an absolute lack of resources is not the issue (Van Rees, 2006). Again similar to the case for electricity, the current tariff structure does not assist the viability of greater rural access, with universal rates for both interconnection between operators and for customers, which do not cover the additional cost of providing rural services.

Roads: Rising Expenditure but Inadequate Maintenance

All three levels of government (national, provincial and local) are involved in the provision of roads and related construction and maintenance activities. In addition, private investors may construct and operate toll roads. Kabupaten governments are responsible for all road functions not specifically assigned to central or provincial governments, which includes construction and maintenance of all non-national and all non-provincial roads. Financing, likewise, is provided by all levels of government. However, given overall financing flows from national to provincial and kabupaten government, the most significant source of funding for road construction and maintenance carried out at all levels of government is funding from the central government. In the case of kabupaten roads, funding sources include central government supplied general and specific allocation funds (DAU and DAK), on-grants from aid agencies, central government support to rural infrastructure projects financed by savings from reduced fuel subsidies (PKPS BBM) and kabupaten government own-source revenues.

Expenditure on roads from all levels of government recovered to pre-crisis levels in 2003, as Figure 4.5 indicates:

![Figure 4.5: All-Level Government Expenditure on Roads (2003)](image)

Source: World Bank (forthcoming)
Note: In Billions of Rupiah (Includes 20% of DAK payments, earmarked for roads.)

However, it is clear that for many districts, the total funding available for road maintenance and construction is inadequate. In particular, in the great majority of districts, routine maintenance of roads is under-funded, with the figures indicating a declining portion of available revenues being spent on maintenance.
At the start of the 1990s, road maintenance accounted for about 47 percent of the central government grants to districts for roads. By the end of the decade this had dropped to 15 percent (Parikesit, 2006). In 2001, routine spending accounted for 8 percent of infrastructure spending by government: this dropped to 4.5 percent by 2003 (although total infrastructure spending did rise over that period) (World Bank, 2006a). Estimating that five percent of total roads expenditure goes on maintenance, this suggests that annual government spending on maintenance is approximately Rp 986 billion. Estimates for the cost of full routine and periodic maintenance of just the Kabupaten network suggest that expenditures should be approximately seventeen times that figure (Table 4.2).

Table 4.2: Repairing and Maintaining the Kabupaten Road Network: Estimated Costs (billions of rupiah)

<table>
<thead>
<tr>
<th>Type of Road</th>
<th>Upgrade cost</th>
<th>Maintenance cost per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>9,324</td>
<td>14,801</td>
</tr>
<tr>
<td>Stone/gravel</td>
<td>2,513</td>
<td>1,282</td>
</tr>
<tr>
<td>Earth</td>
<td>4,509</td>
<td>1,447</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16,346</strong></td>
<td><strong>17,530</strong></td>
</tr>
</tbody>
</table>

Based on surface type from Parikesit (2006), condition from World Bank (2004a), upgrade and maintenance cost from World Bank (2006b), and assumption that asphalt is divided equally between 6m hotmix, 3m hotmix and impact.

Overall, then, current total national spending on roads is not much greater than that required to properly maintain the existing road stock, but only five percent is going to such maintenance. The other 95 percent of that expenditure is going on upgrading, complete reconstruction of poorly maintained roads or new road construction. This lies behind the rapid decline of road network quality discussed above.

The Political Economy of Rural Infrastructure and an Agenda for Reform

Currently, the incentives operating in infrastructure sectors do not encourage the provision of quality infrastructure services. In electricity and (to a lesser extent) telecommunications, government regulatory and subsidy policies are largely designed to reduce the cost of infrastructure to existing consumers rather than to improve access and quality. In roads, expenditure priorities are skewed in favor of new construction of over-engineered roads rather than towards maintenance of the existing stock and construction of appropriate new infrastructure.

Electricity

Decentralization and the Changing Sector Policy Framework

At present, the ability to introduce positive reforms that would improve levels of access to and the quality of electricity supplies are hindered by the lack of a conducive sector policy framework. In particular, the annulment of the Law No. 20/2002 on electricity has further delayed progress in areas such as improving tariff structures; updating license procedures; creating a regulatory agency; finding new approaches to the issue of independent power producer contingent liability; and apportioning risk between new private investors, PLN and the government (MEMR, 2004).
The government is in the process of developing a new law that will allow for sector reform whilst remaining constitutionally valid. However, at present, no clear implementing regulations nor a comprehensive rural strategy exist for a power sector that has been considerably affected by decentralization (World Bank, 2004a). Previously, rural rollout was clearly the responsibility of PLN itself. Since decentralization and the passage of the Law No. 20/2002 on electricity, PLN has closed its unit dedicated to rural rollout under the assumption that this is now the responsibility of provinces and districts. Local governments have yet to step into this role, however, creating a vacuum in which the issue of who will be responsible has yet to be resolved.

Preference for PLN Connections: Cost of Access not the Price of Electricity is the Issue

On the distribution side, survey evidence suggests that given the choice, a PLN connection is greatly preferred to other systems. Wherever feasible, rolling out the grid is the most attractive option from the point of view of potential consumers in unserved communities.

One reason for consumer preference for PLN is the considerably lower costs of PLN electricity compared to alternatives. However, even those households relying on expensive alternatives are more concerned by the cost of access than the cost per kilowatt hour. More than 60 percent of PLN customers in the 2001 survey were willing to pay more for electricity. An even higher proportion of hybrid customers (those relying on a mix of diesel and renewable sources for electricity) were willing to pay more, despite the fact that they were already paying about 14 times per kWh the amount paid by PLN customers.

When unelectrified household heads in villages with electricity were asked why they did not have power, only 4 percent mentioned high monthly fees compared to 87 percent mentioning the high cost of connection, with the lack of poles (which would require large payments of around $200 per pole to install) being the chief consideration. All of this suggests that the allocation of government resources between consumption subsidies and access subsidies should be reviewed and probably reversed.

Improving Reliability: Prices Must Reflect Costs

Given the greater electricity use of enterprises, it is likely that they will be more concerned with the per kWh costs than the average consumer. Having said that, larger nonfarm enterprises will not be eligible for consumption subsidies, and the most important consideration for such enterprises appears to be reliability rather than cost. Extending quality access to the PLN network rather than reducing per kWh prices for existing PLN customers is likely to be the most cost-effective method of increasing non-farm enterprise growth in rural areas. Thus, expanding and extending the model currently used in Batam and Tarakan, individual PLN branches should be able to charge tariffs that more accurately reflect costs.

Extending quality access clearly involves increasing generation capacity as well as extending the reach of the grid. As stated in previous sections, the costs of unreliable power supply to non-farm businesses and the lack of generating capacity to meet demand outside of Java, Bali and Madura are high. The outer islands in particular are suffering from PLN’s lack of internal resources to construct new generating capacity, combined with the drop-off in private sector interest in construction. Overcoming this impasse is likely to involve differential and raised pricing – allowing PLN and other potential producers to charge closer to local costs of production for their output.

Encouraging Private Investment: Apportioning Risk and Utilizing Captive Power

It will also involve greater incentives to private investment, while avoiding a repeat of the negative experience with independent power producers. In particular, the issue of risk sharing needs to be

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24 No respondent suggested that they did not need electricity. Villagers are frequently asked to pay for the construction of poles in order to make a connection possible. This cost is typically equal to four or five months income for a poor household.
addressed, with institutions that competitively apportion market risk to private operators and political risk to government or quasi-government agencies a key to attracting private finance. The poor experience with independent power production in Indonesia to date has been in part the result of a misallocation of such risks, with PLN both paying high prices for generated electricity as well as bearing a considerable portion of economic and political risk.

One segment of the electricity sector that may be able to contribute increased capacity is captive power. Captive power plants (CPPs) are owned by private companies largely to supply their own electricity needs. There are perhaps 16-17,000 captive power plants in operation in Indonesia which account for a little less than 40 percent of installed capacity. Although the rate of growth of the captive power sub-sector slowed during the late 1990s as the reliability and extent of the PLN network increased, they will still be a significant source of reliable power, especially in rural areas where PLN’s network has not reached and where its services remain less reliable (World Bank, 2004a). At present, less than one percent of CPP generation is contributed to the grid supply. It is unlikely that for the great majority of captive power plants, contributions to the national or local grids are either attractive to plant owners or economically rational, perhaps only 7-8 percent of total CPP capacity might be sold to the grid even under optimal conditions. Nonetheless, in particular areas, especially in outlying islands, captive power plants may be an attractive source of electricity. Small scale providers along with captive producers should be able to sell electricity to PLN at non-discriminatory prices.

Government Owned and Public Service Enterprises: An Output-Based Approach

Regarding areas not yet served by PLN and unlikely to be served in the near future, Kabupaten governments might set up government owned or public service enterprises to act as an intermediary with competitively selected local providers who could operate under lease, management contract or (preferably) a performance-based contract. Again, these could also allow for the development of realistic tariff policies. District governments might extend access to quality non-grid supplies through an output-based approach (see Box 4.1). This might involve offering a fixed subsidy to the operator that bids the lowest price per kWh for providing electricity services to consumers living in a certain geographic area. This subsidy might be paid in installments based on successfully meeting contract obligations.

Box 4.1: Output-Based Aid

Output-based aid (OBA) is an approach being used to promote the effective use of public funds for the delivery of infrastructure services. Under this approach, governments delegate service delivery to a third-party under contracts that tie disbursement of public funding to the services or outputs actually delivered to targeted groups. Two key features distinguish OBA subsidies from some other forms of publicly funded subsidy: OBA subsidies are explicit, and they are performance based. OBA interventions are explicit because they ensure explicit recognition of why the subsidy is being provided, who is receiving the subsidy and who is providing it, and what is being subsidized—both the activity and the financial sums involved. The OBA approach is performance-based because it strongly links the payment of service providers to their delivery of specified services, or outputs. This payment on outputs transfers performance risk to the service provider. The provider largely self-finances the service, receiving reimbursement mostly after the verification of successful delivery. By contrast, in other approaches donors or governments (or both) pre-fund “inputs,” so there is commensurately less transfer of performance risk to the service provider.


It is worth noting that the output-based approach, which provides public subsidy for private infrastructure, may be at odds with government regulations regarding ownership of assets (Ministerial Decree No. 34/2004), which require government ownership of assets purchased with government funds. A review of this regulation will be necessary if such an approach is to move forward.
The Need for Local Level Coordination

Finally, a lack of local-level coordination also impacts non-grid solutions to electricity. There is a strong need for district government involvement. For example, micro-hydro systems are considerably more expensive than mini-hydro. However, mini-hydro solutions require coordination across many villages in order to ensure demand approaches capacity. There is a significant coordination role here for the Kabupaten government. Decentralization and a changing sector policy framework have moved the locus of responsibility for extending access from the central Ministry and PLN, but this responsibility has not yet been assumed by a regulator or by local governments. If Indonesia is to resume its earlier rapid progress towards universal electrification, this institutional vacuum will have to be filled.

Telecommunications

Improvements in the policy regime governing the telecommunications sector, the growing capacity of the new regulator and broader efforts to improve the investment climate in Indonesia should all spur rural rollout of information infrastructure.

Open Competition and a Strengthened Regulatory Body

The government is working towards a technology neutral licensing system (one based on services provided rather than the technologies used to provide those services). It is also planning to allow for largely open competition as well as the strengthening of a telecommunications regulatory body (BRTI), although a new law will be required to ensure this body’s independence.

The proposed introduction of asymmetric cost-based interconnection, allowing rural operators to recoup their higher long run incremental cost of service provision through charging more to terminate a call from an urban operator than is charged to them by urban operators to complete a call, is likely to provide a significant boost to rural rollout of mobile services in particular.

Efficient Use of the Universal Service Obligation Tax

Given that the universal service obligation tax is already being applied to operators, it is a matter of some urgency that effective institutions are put in place to use the collected funds efficiently. The existing program to provide telecommunications services in villages based on satellite telephones has had mixed success. Only fifty percent of units are still used, and a recent survey found that only .11 calls out of 54 made to USO village phones were answered. Of those eleven villages, less than half had used the phone to make outgoing calls in the month of the survey. This is both because a number of units were placed in villages where mobile service quickly spread (displacing use of the more expensive and less convenient satellite system) and because units were frequently in the house of the Kepala Desa, where they were unavailable to the public.

The government is working towards but has yet to roll out a scheme for more efficiently spending the Universal Service Obligation tax placed on operators. One method would be to competitively award subsidies to extend mobile base station coverage to the lowest bidder at the national level, while output-based subsidies might be awarded to the lowest bidder at the local level willing to offer public telecommunications services of a given quality (including factors such as opening times) and cost over a fixed period.

It appears that at least fifty percent of the villages currently targeted for USO support could be reached using simple techniques to extend mobile coverage from existing base stations including antenna which reach high enough to be within line of site of those stations. In such villages, the cost of a basic fixed mobile solution (including an antenna and solar power) might be around $200, comparing favorably to satellite phone installation and usage subsidy costs estimated at $4,000. In addition, as many as 5,000 villages might be economically reached with only modest subsidies to mobile operators to roll out services, with a combined cost for infrastructure rollout
and the fixed mobile solution of perhaps $800. Adding together the costs of mobile and satellite-based solutions, the target of one phone per village might be estimated to cost $62 million. Given estimated annual USO revenues of approximately $50 million, this suggests the target could be reached using USO funds very rapidly (van Rees, 2006).

**Roads**

Improving the quality of the roads network is perhaps the most complex issue out of the three infrastructure sectors covered by this chapter. This is because the financing involved in improving rural provision is comparatively large and because the institutional environment in which that financing operates is highly complex. With national, provincial and local governments all involved in the provision of roads and related activities, the impact of decentralization on this sector has been particularly dramatic.

**Allocation of Resources under Decentralization: Exacerbating Regional Inequalities**

At the Kabupaten level, the primary sources of revenue for road construction and maintenance are as follows:

- DAU (general purpose grant): For the majority of districts, this is the largest source of revenues. In 2004, on average across all districts, it accounted for around one half of total revenues. In some cases, the proportion was even higher. In the case of Manggarai in 1994, for example, it accounted for 86 percent of government revenues;
- Other central government funds, particularly DAK and the fuel compensation fund: These are also significant sources of funding;
- Government on-lending financed from borrowing from international institutions: In some districts, this forms an additional source of funds.
- Local taxation: In general, this provides a very small source of funds. However, in wealthier regions, especially those with considerable natural resources, shared taxes will form a significant additional source of revenues (World Bank, 2004b).

The current overall allocation of resources under decentralization tends to exacerbate regional inequalities, providing less money for maintenance and investment to the regions that need them the most. In particular, the DAU was designed to provide an equalized amount of funding, but the manner in which it is currently applied exacerbates regional inequalities.

While kabupaten with larger revenues from shared taxes such as property and income taxes receive somewhat lower DAU payments as a result, this is more than made up for by a ‘balancing factor’ which provides more resources to Kabupaten with higher wage bills. Over 60 percent of DAU grants are made on the basis of the salary bill of the civil service at the district level. This leaves many of the poorer regions with little in the way of funds to support investment (in Manggarai, for example, 50 percent of the budget is spent on civil service salaries). They cannot raise funds by cutting staff, because this will merely reduce their DAU allocation in coming years. The DAK and the fuel compensation fund provide some additional assistance, but make up a comparatively small proportion of the budget. In Manggarai, DAK funds earmarked for roads accounted for just two percent of the total budget (World Bank, 2006b).

**Misallocation of Existing Resources**

Low overall financing due to the limited nature of resource equalization between districts and (perhaps) too low prioritization at the district level is only one part of the problem, however - misallocation of existing resources is also a significant issue.
There is little prioritization of projects based on economic analysis at the district level, with final outcomes very much in the hands of the Bupati, whose decisions may be unduly influenced by vested interests. (Particularly, contractors are frequently a major source of campaign contributions at the district level). The popular perception of corruption in Indonesia is that it is considerably less common at the local and district level than at the provincial and national level, with decentralization associated with a net 24 percentage point decline in people making bribe payments (for example, see Peterson and Muzzini, 2005). However, firms in Indonesia have associated decentralization with a significantly worse performance in terms of corruption, with local-level corruption ranked as major obstacle by nearly 50 percent of firms (Campos and Hellman, 2005). Thus, there is considerable scope for corruption in local level decision-making processes, including those in the area of road building.

Corruption may in part account for the choice and type of roads to be constructed or upgraded in the district. Choosing to construct asphalt rather than Telford roads not only increases construction costs by 80 percent, but doubles maintenance costs. Despite this, all recent road upgrading in Manggarai involved asphalt. Local citizen preferences played a part, but an additional factor may have been that the larger quantities and more complex procedures involved in asphalt construction allow for greater opportunities for corruption in construction. Corruption is thus a factor in the preference for expenditure on road construction rather than maintenance.

The focus on expansion and new road-building projects at the cost of maintenance to existing road systems is not necessarily a failure of participation. In the case of Manggarai, the system of expenditure prioritization does involve bottom-up input from the kecamatan but usually ends in project selection based on priorities at the Kabupaten level. Regardless, neither kecamatan nor kabupaten priorities appear to include maintenance, with a strong focus on upgrading and new roads. Instead, misallocation may stem from the lack of a standards setting institutional structure and financing incentives to meet such standards as well as the impact of political forces and corruption at the Kabupaten level. Decentralization led to the abandonment of the Inpres performance-oriented transfer programs which helped achieve national minimum service standards in road infrastructure, with funds granted on the basis of road length, condition, density and cost. Local level equivalents are yet to be enacted and enforced.

Exclusive Focus on District-Level Interests

As well as potentially exacerbating the role of corruption in decisions regarding road type and location, decentralization has created disincentives for the allocation of resources on road investments or maintenance with benefits that go beyond the Kabupaten level. It is clear provincial governments have very little say over the flow of funds regarding the construction or maintenance of roads, and national funds have not been used to ensure investment decisions are optimal not just at the kabupaten but also the regional and national level (in the case of roads near kabupaten borders, for example, where much of the benefit of construction or maintenance may flow to a neighboring authority). While the DAK was in part designed to provide resources exactly to support investments with spillover benefits, it has not been used to encourage such projects (and may, regardless, be too small to achieve this objective).

Reforms to Improve the Quality and Reach of Rural Roads

Reforms to improve the quality and reach of rural roads would center around providing additional funds to poorer district governments. However, just as importantly, better targeting of those funds is required to ensure:

- Increased expenditure on roads rather than other expenditures,
- Increased focus on maintenance rather than construction,
- Increased focus on ‘appropriate quality’ rather than ‘highest quality’.
It would also involve efforts to maximize returns to targeted expenditures through more efficient (and less corrupt) procedures.

Regarding central government support, there is clearly a need to reconsider payments based on civil service salaries. This system acts as a positive disincentive to greater maintenance and investment. DAU funds could also be structured to act better as a source of equalization between provinces.

Increasing the scale of the DAK at the expense of the DAU might be a first step toward reconstructing a system of incentives for better road management. The funds should be more carefully conditioned so that they act, as originally intended, as an incentive for projects with spillover benefits between districts and regions, but also as an incentive for good planning and maintenance.

While there is strong evidence that the participatory approach works at the village level in the case of road construction and design, evidence is less clear that it does so at the Kabupaten level. An equivalent of the Indonesia Road Management System, which governs planning and budgeting at the national and provincial level to ensure budgeting is adequate and well-targeted, is needed at the district level. Funds for new investment projects in the transport sector would only flow in there was evidence that the existing road stock was being properly maintained, and that new investments were:

- Based on verifiable (and sensible) design and selection criteria which included consideration of spillover benefits;
- Being transparently and competitively bid out for construction; and
- Being constructed to a high standard based on independent quality audits carried out with inputs from NGOs and local transport operators. An earmarked priority for investments could be providing a basic all-weather road to villages currently lacking such access.

A district or provincial-level road fund might be created to provide revenue resources for maintenance. Such funds would collect resources from road users (including license and registration payments) and use these resources to maintain the road network under the oversight of a board involving both public and private sector representatives. The fund could contract with private providers to ensure road maintenance. Third party verification of the quality of the maintenance operation might be used by DAK administrators as part of yardstick competition (comparison of performance between similar kabupaten) to set standards to be met in order to receive investment funds. Local transport operators could again play an important role in providing inputs into the verification process, as a significant customer base for the road network.

**Conclusions and Summary of Policy Recommendations:**

The government of Indonesia spends considerable resources on electricity, telecommunications and roads. Without increasing these resources, it is quite possible to imagine a reallocation achieving far higher returns, not least in the provision of rural infrastructure and the growth of the non-farm sector.

The government is moving toward increased competitive provision of electricity and telecommunications services. In addition to increasing yardstick competition in the supply and maintenance of rural roads, such approaches could, alone, increase access. Removing regulations and policies that drive a wedge between the prices and costs of service provision could further increase rural supply. Targeting subsidies where they will have the most impact
could overcome most of the remaining barriers to universal access to basic infrastructure services in these three sectors.

Particularly in the case of rural roads, such approaches will involve a considerable rethinking of current financing models, and politically hard decisions regarding reallocation. Nonetheless, these approaches are likely to generate significantly higher rates of return, providing a catalyst for more rapid economic advance in the areas of Indonesia that need such advance the most.
REFERENCES


Gibson, John. 2006a. “Evidence from IFLS that can help to understand the constraints associated with infrastructure faced by non-farm enterprises at the Kabupaten level.” Mimeo, University of Canterbury.


__________. Forthcoming. “Indonesia Poverty assessment.”
CHAPTER 5.
THE DIFFUSION OF TECHNICAL KNOWLEDGE TO SMALL ENTERPRISES
Abstract

Levels of productivity are higher in large enterprises and foreign-owned enterprises than in small enterprises, partly because they have higher levels of technological capacity. Thus increasing the productivity of rural non-farm enterprises might be facilitated through improved knowledge or improved technology. The most important channels for the transfer of knowledge and technology from foreign countries to Indonesia include foreign direct investment (FDI), imports, and participation in world trade.

One example of how the transfer of knowledge can be achieved through participation in world trade involved the ‘accidental industrialization’ of garment and handicraft enterprises in Bali. Twenty-five years ago Bali’s economy was driven by agriculture and a rapidly growing tourist trade. The transformation took place in large part because of the diffusion of technical knowledge, especially about demand in export markets, by foreigners involved in local SMEs.

The most important channels for the diffusion of knowledge amongst domestic non-farm enterprises include sub-contracting arrangements, where buyers assist SME suppliers to meet technical standards for inputs, and the establishment of long-term networks through clustering and strategic alliances between large and small enterprises. The evidence for the success of these arrangements is mixed. Government-imposed systems of protection and local content rules in a number of industries, such as machinery, electronics, milk processing, and the automotive industry have been largely unsuccessful in creating strong interdependence between SEs, MEs and LEs. Successful private-led subcontracting networks have arisen in some sectors. One example involves Astra International business group, which was able to train several SMEs to become efficient and viable suppliers of car and motorcycle parts and components according to strict quality standards and to meet strict delivery schedules.

Since Indonesian government agencies are the most extensive provider of training to small enterprises, it is important to assess the effectiveness of the training programs they provide. Typically, these programs are marred by a low level of coverage, a lack of effective evaluation and assessment, and a supply rather than a demand orientation. The key to building the capacities of these enterprises through improved knowledge and improved technology involves promoting commercial interaction with actors outside the local economy; promoting private sector driven technological learning; creating a culture of innovation in the educational system; improving the capabilities of R&D institutions and universities and making them more demand driven by promoting links between enterprises and R&D institutions/universities; making Government a facilitator of demand driven training (and other business development services) rather than a provider; and evaluating the effectiveness of specific programs and scrapping those that don’t work.

Introduction

A key to increasing the productivity of rural non-farm enterprises is to build the capacities of these enterprises through improved knowledge or through the development of improved technology. This chapter examines the channels used for transferring knowledge or technology from foreign countries to Indonesia. It also examines the manner in which this knowledge is diffused among domestic non-farm enterprises. Given that government agencies are currently the largest providers of training and similar assistance, it looks at the effectiveness of the programs provided by these agencies. Based on this examination, it then presents policy recommendations. The map for this chapter is as follows:

The Technological Capacity and Productivity of RNFEs in Indonesia: This section contains a comparison between the productivity of large and/or foreign owned enterprises and their technological capacities with those of small enterprises, indicating that there is a correlation
between these factors. Other evidence also suggests that technological capability is a major determinant of firm performance.

Channels of Technology Transfer and Diffusion: This section explores the channels of knowledge diffusion, including both the international transfer of technical knowledge through FDI, imports, and participation in world trade; and the domestic diffusion of such capabilities through subcontracting arrangements, clusters, and strategic alliances.

The Effectiveness of Government and Government Funded Programs to Build Technological Capacity: This section looks at the (limited) effectiveness of government and government funded programs to boost the technological ability of small enterprises; and

Policy Recommendations: This section provides a set of policy recommendations on how to improve the technological capacity of small firms in the light of the limited effectiveness of government programs so far.

The Technological Capacity and Productivity of Enterprises in Indonesia

Foreign Enterprises Are More Productive than Domestic Enterprises: A number of researchers have attempted to measure the current technological capacity of Indonesian firms by comparing their levels of labor productivity with that of foreign firms or MNCs. Recently, Takii and Ramstetter (2005) have conducted a comparison between the average levels of labor productivity, as determined by value added-labor ratio, of MNCs and domestic medium- and large-scale industries in Indonesia. 25 They found that the productivity differentials were often very large in the Indonesian manufacturing sector and varied not only over time but also across industries. If all manufacturing industries are combined, they found that compared to fully locally owned enterprises, the average level of labor productivity was:

- 388 percent to 745 percent higher in minority-foreign MNCs;
- 436 percent to 594 percent higher in majority-foreign MNCs; and
- 164 percent to 542 percent higher in MNCs with foreign shares of 90 percent or more.

Examples of negative differentials, suggesting higher levels of labor productivity in local firms than in MNCs, were extremely rare.

These findings support the general assumption that MNCs will be more productive than local firms in a developing country such as Indonesia because they have relatively large endowments of firm specific, generally intangible assets. One of the greatest of these intangible assets is assumed to be technological capacity. That majority-foreign enterprises appear to be less productive than majority- or heavily-foreign MNCs supports the assumption that these enterprises restrict the access of minority-foreign affiliates to these firm-specific assets in order to avoid losing control of them.

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25 It is extremely difficult to measure and compare levels of technological capacity of enterprises and industries directly. Therefore, the measurement of total factor productivity (TFP) or partial productivity for one factor is often used as proxy for measuring this capacity. One means of establishing levels of technological capacity is achieved by comparing levels of labor productivity.
Previously, Sjöholm (1999a,b) compared levels of labor productivity of MNCs and domestic firms in Indonesia and found results similar to those of Takii and Ramstetter, supporting the thesis that because of their high level technological and human resources, the level of labor productivity of the MNCs was correspondingly much higher than in the Indonesian firms.

Unfortunately, the value of the studies conducted by both Sjöholm and Takii and Ramstetter is weakened by the fact that in their comparisons of levels of labor productivity, they only distinguished between MNC plants and domestic plants in the various manufacturing industries, without differentiating between levels of labor productivity in LEs and SMEs in the domestic sector. For a more meaningful comparison, it might have been useful to compare levels of labor productivity in production facilities of comparable size.

**Size of Enterprise: Larger Firms are More Productive:** There is some evidence to suggest that the value added-labor ratio increases by size of enterprise, suggesting that in larger enterprises the level of technology is higher than that in small ones (see Table 5.1). This is true regardless of whether the enterprise is locally or foreign owned.

**Table 5.1: Differences in Labor Productivity in Indonesian Manufacturing Industry by Size of Enterprise and Sub-sector, 2000 (average of value added per worker; in thousands of Rupiah).**

<table>
<thead>
<tr>
<th>ISIC Manufacturing Industry</th>
<th>MIEs</th>
<th>SEs</th>
<th>MEs</th>
<th>LEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Food, beverages &amp; tobacco</td>
<td>2,339</td>
<td>2,539</td>
<td>25,806</td>
<td>67,309</td>
</tr>
<tr>
<td>32 Textiles, garments, leather &amp; footwear</td>
<td>1,746</td>
<td>4,855</td>
<td>24,271</td>
<td>27,237</td>
</tr>
<tr>
<td>33 Wood &amp; wood products</td>
<td>2,103</td>
<td>6,743</td>
<td>12,403</td>
<td>30,236</td>
</tr>
<tr>
<td>34 Paper, printing &amp; publications</td>
<td>3,981</td>
<td>5,723</td>
<td>18,953</td>
<td>103,938</td>
</tr>
<tr>
<td>35 Chemicals (incl. fertilizers) &amp; rubber products</td>
<td>1,782</td>
<td>7,812</td>
<td>50,849</td>
<td>68,968</td>
</tr>
<tr>
<td>36 Cement &amp; non-metallic mineral products</td>
<td>3,346</td>
<td>3,071</td>
<td>8,849</td>
<td>63,327</td>
</tr>
<tr>
<td>37 Basic iron &amp; steel products</td>
<td>3,374</td>
<td>7,011</td>
<td>395,344</td>
<td>142,243</td>
</tr>
<tr>
<td>38 Transport means, machinery &amp; its tools</td>
<td>5,492</td>
<td>5,402</td>
<td>45,127</td>
<td>130,589</td>
</tr>
<tr>
<td>39 Other manufacturing</td>
<td>4,973</td>
<td>6,097</td>
<td>12,701</td>
<td>22,946</td>
</tr>
</tbody>
</table>

Source: Ministry of Industry (Mol) and Survei IndustryBPS

This is no surprise, because most micro and small enterprises (MIEs) in Indonesia (and many other developing countries) are traditional enterprises using manual production techniques with a low degree of mechanization. By contrast, large enterprises (LEs) are usually mechanized and computerized, the production processes are much better managed and organized, and they employ more highly skilled workers. In the food and beverages industry, for instance, micro enterprises are very simple processing units producing mostly for local markets, in contrast to large companies such as Unilever and Indofood.

**Technological Improvements: High Impact on Small Enterprises:** Comparisons of labor productivity between small and large firms are perhaps unfair – micro and small enterprises are, almost by definition, more labor intensive than larger firms and therefore have much lower labor productivity. Undoubtedly their Total Factor Productivity (see Box 5.1) is also lower than that of larger firms, but the marginal impact of investment in better technology for micro enterprises can be very high (Lanjouw and Lanjouw, 1995).

However, many firms do not regard technological capacity as a constraint. Both the 2006 Rural Investment Climate Survey (World Bank, 2006) and Survey on small scale manufacturing and handicraft data show that MIEs and SMES do not regard lack of technological capacity as one of their key constraints. Nonetheless, the evidence suggests that in some industries, the smallest units of production, MIEs, are able to improve their technology capabilities and that this benefits their performance. Sandee (1994, 1995, 1996) and Sandee et al. (1994, 2000, 2002), amongst others, show that even MIEs are in a position to adopt innovations in products and production process, even without support from the government. Moreover, Sandee (1995) shows that

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technological capability is a major determinant of firm performance. This suggests that there are substantial benefits from improving technological capabilities.

**Channels of Technology Transfer and Diffusion**

Non-farm firms must develop their capacity to improve their efficiency and competitiveness to ensure their viability and sustained growth. A key element of capacity building is knowledge or technology development – that is, the development of a firm's technological and associated managerial and marketing capabilities. This technology development can take place internally (inside the firm) or it can be fostered through access to outside sources, including domestic firms, multinational companies (MNCs)/foreign direct investment (FDI), technical licensing agreements, imported capital goods and the associated technical advice from the foreign equipment suppliers, technical information and advice from the foreign buyers of the firm's foreign buyers, universities, and government or private research institutes. Knowledge from outside sources can take various forms. For instance, it can be in the form of technology embodied in imported capital goods or transferred through FDI/MNCs, or through external economies from 'knowledge or technical spillovers' from MNCs or modern local firms. Through these spillovers, non-farm firms, including firms in rural areas, can benefit from ‘private technical assistance’ by the MNCs to their local supplier firms and customers and the ‘demonstration effects’ resulting from the use of modern technologies and management methods employed by these MNCs.

**The International Transfer of Technical Knowledge**

In most developing countries, including Indonesia, where basic knowledge development is still weak, knowledge or technology transfer from more technologically advanced countries plays a crucial role in developing the countries' technological capabilities.

There are various channels through which technology is transferred internationally. These include: foreign direct investment (FDI); technical licensing agreements between foreign and local firms; imports of capital goods; education and training in technologically advanced countries; turnkey plants and project contracts; technical consultancies by foreign companies/consultancy firms; and simply through participation in world trade. We consider three of the most important channels, FDI, imports, and participation in world trade in more detail below.

**Foreign Direct Investment (FDI): An Important but Limited Channel of Technology Transfer**

Because of the resources it brings in and the attributes embedded in it, FDI can increase technology capabilities in local industries through the transfer of technology and spillovers effects. For example, Thee and Pangestu (1998) assess the technological capability of Indonesian textile, garment and electronics industries to show that in efforts to increase technological capability, Indonesian textile and garment manufacturers established strategic alliances (SA) with their Japanese counterparts, and that this has been the most important channel of technology transfer. Similarly, business linkages with foreign companies have been a very important channel for the transfer of technology for electronics firms, especially for consumer electronics and electronic components.

However, the evidence suggest that the nature and extent of technology that is transferred can be rather limited. For example, Thee and Pangestu (1998) show that technology transfer in the textile industry was limited to improvements in production capability. Whilst important, more sophisticated activities that might help local firms upgrade their technological capabilities, including activities related to pre-investment, project implementation and technical changes in production or product were conducted by Japanese counterparts. In general, the evidence for FDI
as a channel for technology transfer is mixed. While there are only a few case studies available on the development of technological capabilities in Indonesian firms through FDI, these generally fail to provide strong evidence to support the hypothesis that there is a significant degree of technology transfer and spillover effect from MNCs to Indonesian firms (see Thee, 1990a, 1991; Hill, 1988; Thee and Pangestu, 1998; and Sato, 1998). Moreover, whether technology transfer will have a positive effect on the recipient firms or countries largely depends on the absorptive capacity of the firms/host countries – that is, on their ability to understand, assimilate and make effective use of the transferred knowledge or technology.

**Imports of Intermediate and Capital Goods: Embodying Technological Know-How**

Intermediate and capital goods embody the technological know-how involved in their production. As a result, trade in intermediate and capital goods in itself promotes the transfer of technology between trading partners. *This appears to have been an important channel for technology transfer to Indonesia.*

The only study available that directly addresses the role of imports in Indonesia is by Jacob and Meister (2005). They show that the transfer of foreign technologies through imports to Indonesia does indeed make a significant contribution to the performance of Indonesian manufacturing, especially after liberalization and reforms conducted between 1988-96. Their study was based on an assessment of the contribution of foreign technologies to manufacturing performance in Indonesia at the sub-sectoral level, in which they combined Indonesian data sets on production and input-output transactions with the R&D, export-to-Indonesia and output data of ten major OECD countries that trade with Indonesia.

Other studies provide indirect evidence of the importance of capital imports. For example, Thee (2003) stresses the role of imports, particularly given the weakness of the domestic capital goods sector in the country. Similarly BPS data shows an increasing share of imported intermediate inputs and capital goods in Indonesia’s total imports, suggesting that imports of these goods have been playing an important role in transferring technology from abroad to Indonesian firms.

**Participation in World Trade: Export Orientation as a Key to Technology Development**

Overseas, participation in world trade through the export of products has been used effectively by local enterprises as an important informal channel for the transfer of international technology. For example, local electronics firms in the four East Asian NIEs were able to build up production capabilities through simple assembly of mature products for exports, often developed through technical assistance provided by foreign buyers (Hobday, 1994 and Mans, 1996). This process of coupling exports with technology development has been called ‘export-led technology development’ (Hobday, 1994).

Similarly, since the mid-1970s, this has been an important informal channel for the transfer of international technology for Indonesian firms, including small and medium-scale enterprises (SMEs). The remarkable export performance of the garment industry in Bali and of the furniture industry in Jepara, Central Java, since the mid-1970s share important characteristics with the experience of these East Asian firms.

**The Case of Bali’s Garment Industry and Jepara’s Furniture Industry: The Importance of Foreign Buyers as a Source of Innovation**

The rapid growth of Bali’s export industries, starting with the garments industry in the mid-1970s and followed by the silver jewelry, wood carving, quilting, leather products, bamboo furniture, ceramics, and stone carving industries, was based on vital information flows which Balinese enterprises involved in these industries received through strategic business alliances with foreign firms and businessmen (Cole, 1998).
Foreign tourists provided an important source of innovation, as they were able to act as marketing intermediaries, connecting local producers with retail outlets abroad. In the process, these intermediaries dispensed important information on designs and production technique. Foreign buyers provided information and technical and managerial assistance on plant lay-out, the purchase of the most appropriate machines, and quality control methods, and also often acted as technical consultants to small firms. As a consequence, these firms were able to achieve higher levels of efficiency and accuracy. This assistance was provided on a for-profit basis, as it was specifically tied to tangible product output results (Cole, 1998). The ongoing interaction of these two parties started a virtuous cycle of technological improvements and learning that was self-replicating and largely self-financing, which led to rapid and sustained export growth (Cole, 1998).

Foreign buyers also provided vital information and technical, managerial and marketing assistance during the development of the export-oriented furniture industry in the town of Jepara, Central Java. As a result, the quality of Jepara furniture has been steadily upgraded (Sandee, et al., 2000). Foreign buyers have also played a crucial role in providing guidance to SMEs on the furniture designs popular in the export markets and the quality standards required to penetrate these markets (Berry and Levy, 1994; and Schiller and Martin-Schiller, 1997).

Participation in Foreign Trade: Basic Industrial Competence and Openness as the Keys to Success

These cases studies show that RNFEs in Bali and in and around Jepara have benefited from the inflows of technologies through their participation in foreign trade, showing that the more open the regional economy, as is particularly the case in Bali, the greater their chances of upgrading skills and technologies through this means. However, an important conclusion from these studies is that local SMEs must have some basic industrial competence in their particular field of activity to be able to absorb the inflow of technology or knowledge. In this regard, Bali and Jepara are still exceptional cases. In general, the capability of Indonesian non-farm firms, specifically the MIEs and SEs in the rural areas, to adopt and deploy new technologies is limited due to the lack of management capacity, access to information, skilled workers and capital.

The Domestic Diffusion of Technical Knowledge

Although the international transfer of knowledge is essential, such transfers tend primarily to impact larger and predominantly urban-based firms in the country. For such technological knowledge to improve the productivity of rural non-farm enterprises throughout the country, effective mechanisms are needed for the domestic diffusion of technical knowledge from the first local recipient firm to other local firms, or from a local university as the first recipient to local firms.27

Domestic diffusion of knowledge can occur through various channels28: the most immediate and direct channel is through sub-contracting, where buyers assist SME suppliers to meet technical standards for inputs. In addition there is growing recognition of the importance of long-term networks as a means for achieving the diffusion of knowledge. Through networks an entrepreneur can obtain knowledge from other entrepreneurs in the same sector or from universities; R&D institutions, or NGOs. The literature on networks in turn explores two main issues: strategic alliances (SAs) and clusters.

27 There is a growing literature on spillover effects of technology transfer; see, for example, Kokko et al. (1996) and Blomström and Kokko (1998) for a survey of the spillover literature.
28 For example, diffusion can occur through magazines and newspapers, education programs and documentaries on television, seminars, workshops, training, plant visiting, and exhibitions. It can also occur if an Indonesian manager or senior technician employed with a foreign firm leaves the firm to work with a domestic firm. The knowledge and experience received while working for the foreign firm is then deployed in the new job with the local firm.
Subcontracting as a Means for Achieving the Domestic Diffusion of Knowledge:

**Local Content Rules: What NOT to Do:** During the Soeharto era, the government imposed a system of protection and local content rules in a number of industries, such as machinery, electronics, milk processing, and the automotive industry. These local content rules stand as a clear lesson in how government interference does NOT facilitate the use of subcontracting as a means for achieving the domestic diffusion of knowledge. These measures were part of the import substitution policy, whose aim was not only to encourage industrialization domestically but also to encourage a pattern of development that followed the industrial pyramid model from Japanese, in which all levels were interconnected and mutually supportive: SEs were at the base to support MEs, which then supported LEs at the top of the pyramid. The import-protected domestic industries were guided towards use of domestically produced raw materials, components and other inputs, particularly those from SMEs (TAF, 2000).

However, industrial development did not follow the pattern suggested by this model. On the contrary, what did arise was a vertically integrated production system within LEs. In one important study, the Asia Foundation (TAF, 2000) argues that the lack of success of this pattern of industrialization in creating strong interdependence between SEs, MEs and LEs was largely due to the government’s excessive interference, aimed at replacing market mechanisms.

The economic rationale behind the local content policy was to create a captive market for domestic products in order to increase the economic scale of production and thereby to increase efficiency. However, in the case of Indonesia, government interference went too far. The government decided which products were to receive priority in the local content policy, and introduced fiscal incentives in line with the type of product receiving this priority. The determination of priorities does not always appear to have been based on economic considerations, such as SMEs’ capacity for investment and absorption of technology.

Similarly, Thee (1984, 1985, 1990b, 1993, 1997a) argues that such linkages did not develop smoothly during the New Order era because of market distortions and the lack of skills and low technological capabilities of local firms. SRI International (1992) found that business linkages between LEs and SME clusters are weak and only a small number of clusters (all located in Java) established subcontracting relationships with LEs. The general impression from other studies is also that subcontracting between SMEs and LEs is weak, mainly because SMEs cannot meet the required standard of quality due to their lack of technology and skills (For example, see Soepardi, 1996; PASMI, 1996; Harianto, 1993; Kitabata, 1988; Sato, 2000a,b; Supratikno, 2001; Goeltom, 1997; and JICA, 2000).

**Successful Private-Led Subcontracting Networks:** Although the mandatory deletion programs of the late 1970s and early 1980s were largely unsuccessful in developing viable domestic supplier firms, successful private-led subcontracting networks did arise in some sectors, with the evidence showing that these arrangements did successfully facilitate technological capacity building. A successful case of developing viable supplier firms is the case of Astra Otoparts, part of the large Astra International business group, Indonesia’s largest integrated automotive company. Through Astra Otoparts, Astra International was able to develop several SMEs into efficient and viable supplier firms. As a result of the rigorous training which Astra provided to local supplier firms with potential (most of them SMEs), over time, these suppliers were able to produce a wide range of car and motorcycle parts and components according to the strict quality standards set by Astra, and also to meet its strict delivery schedules.
Strategic Alliances as a Means for Achieving the Domestic Diffusion of Knowledge:

Strategic Alliances (SAs) are defined as the development of a long term and stable relationship with other enterprises. Many researchers suggest that such alliances are a key component of successful firms’ competitiveness. Such partnerships are especially important for SMEs (including MIEs), which in general have limited capital, human resources, information, and technology. Through collaboration, large enterprises can share their capacities with SMEs in order to reduce costs, without having to reduce the creativeness and competitiveness of each company (Weaver and Dickson, 1995).

The evidence shows that strategic alliances are quite common among medium-sized enterprises. For example, a study by Tambunan and LPEM-UI surveyed 124 respondents, most of which were medium enterprises (MEs), to find that more than 50 percent of them have had SAs with other firms. However, the percentage of those who have SAs varies among sub-sectors. A majority of the firms surveyed in food, beverages, and tobacco industries and industries manufacturing metal products, machines, tools and other capital goods had some kind of SAs with other firms, while the proportion in other industries was considerably lower.

Most of the firms surveyed have had more than one type of SAs (see Table 5.2). The most important types are long-term marketing agreements (i.e. cooperation among firms in marketing of output), purchaser-supplier alliances (i.e. cooperation between input suppliers and their purchasers), joint venture with other SMEs, and co-operation in technology. With respect to the kinds of assistance that the surveyed firms have received from their SA partners, technology, market information, and worker skill training are the most important. Cooperation in marketing, rather than in technology, was also the most prevalent form of partnership in a study of 300 enterprises in the food, wood products and clothing sectors in six provinces (TAF, 2000).

Table 5.2: Types of strategic alliances by the surveyed firms, 1997

<table>
<thead>
<tr>
<th>Types</th>
<th>Percentage of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term marketing agreements</td>
<td>25.3</td>
</tr>
<tr>
<td>Purchaser-supplier alliance</td>
<td>23.9</td>
</tr>
<tr>
<td>Joint venture with other SMEs</td>
<td>22.8</td>
</tr>
<tr>
<td>Technology alliances</td>
<td>22.0</td>
</tr>
<tr>
<td>Outside contracting/Licensing</td>
<td>21.2</td>
</tr>
<tr>
<td>Joint venture with LEs</td>
<td>20.0</td>
</tr>
<tr>
<td>Equity investments</td>
<td>18.9</td>
</tr>
<tr>
<td>Export management</td>
<td>14.8</td>
</tr>
<tr>
<td></td>
<td>13.4</td>
</tr>
</tbody>
</table>

Source: Tambunan (2005)

Clusters: A Potentially Powerful Means for Small Enterprises to Overcome Constraints

Clusters can be defined as “geographical concentrations of industries that gain performance advantages through co-location” (Doeringer and Terkla 1995). The evidence shows that clusters can be a powerful means for small firms to overcome constraints on their development. Through co-operation in a cluster, SMEs may take advantages of external economies such as: the presence of suppliers of raw materials, components, or new technologies embodied in new machinery and parts; the presence of workers with sector-specific skills; and the presence of workshops that make or service the machinery and production tools (Humphrey and Schmitz, 1995). Also, with the clustering of enterprises, it becomes easier for the government, large enterprises, universities/research institutes, and other agencies to provide supporting services. These might include technical development and management training as well as general facilities

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29 Strategic Alliances can take many forms, including subcontracting, joint ventures, and cooperation in R&D activities.
such as large machinery for raw material processing. Such services and facilities would be very costly to provide if given to individual enterprises in dispersed locations (Tambunan, 2000).

The evidence shows that while clustering is commonplace throughout the developing world, well-developed networks among enterprises inside clusters and between the clusters and external agencies are rare. Highly developed inter-firm divisions of labor, subcontracting and cases where technical information flows have resulted in ongoing technical innovation tend only to be observed in the more advanced clusters of East and Southeast Asia and Latin America (Nadvi and Schmitz, 1994). However, internal networks among firms inside clusters, as well as external networks, are important for the development of technology in the clusters. (Sandee, 1995; Sandee and Weijland, 1989 and Sandee and ter Wingel, 2002)

Unfortunately, Indonesia’s clusters appear to be quite weak in this regard. For example, Sato (2000a) saw little evidence of positive effects of clustering, as she found no inter-firm specialization of work processes and no joint actions in marketing, production, distribution or technological development among the firms inside the cluster studied. Supratikno (1996, 2001, 2002) also found that, in general, inter-firm specialization and cooperation among producers inside the clusters were very limited. He concludes that the importance of a cluster for production development, including technology and marketing, depends on whether there are leading/pioneering firms inside the cluster. These are usually larger and faster growing firms that are able to manage a large and differentiated set of relationships with firms and institutions both within and outside clusters. He found that such firms have utilized cutting-edge technologies in production. He cites examples of the clove cigarette cluster in Kudus, tea-processing cluster in Slawi, and tourism clusters in Bali. In the case of the clove cigarette cluster in Kudus, their products are able to outperform products from Philip Morris and BAT. Similarly, the tea-processing cluster in Slawi, led by the large company Sostro, has grown to become the market leader in the Indonesian soft drink market, leaving giant Coca Cola behind.

By contrast, Sandee, et al. (2002) emphasize the role of traders, suppliers of raw materials and other inputs, and other market agents in introducing new technologies into clusters. Weijland’s studies (1992, 1994) particularly emphasize the importance of middlemen or traders as a source of knowledge transfer to the clusters.

The Effectiveness of Government and Governmental Funded Programs to Build Technological Capacity

Government Programs to Support SMEs

In Indonesia, almost all known types of government intervention to promote the development of SMEs have been tried at one time or another. These include:

- Subsidized credit, such as credit for small farmers and village cooperatives (KUD), small-scale credit (KUK), and credit for village units (KUPEDES);
- Development of small rural development banks (BKD);
- Human resource development training such as in production technique, general management (MS/MUK), management quality systems ISO-9000, and entrepreneurship (CEFE, AMT);
- Providing total quality control advice,
- Providing technology and especially Internet access (WARS), advisory extension workers, subsidized inputs, facilitation,
- Setting up of Cooperatives of Small-Scale Industries (KOPINKRA) in clusters, development of infrastructure,
- Building special small-scale industrial estates (LIK),
- Partnership program (the FP scheme),
- Small Business Consultancy Clinics (KKB), establishment of the Export Support Board of Indonesia (DPE),
- Establishment of common service facilities (UPT) in clusters, and
- Implementation of an incubator system for promoting the development of new entrepreneurs (SMERU, 2004).

The SMERU Research Institute has mapped out most of the important assistance programs to strengthen MIEs and SEs provided by government and non-government institutes during the period 1997-2003, showing that most are run by the government (SMERU, 2004). The data in Table 5.3 show that there were 64 institutions with programs to assist the strengthening of MIEs and SEs. A total of 594 programs were identified, two-thirds of which were provided by the government. Other programs were conducted by NGOs (18%), donor agencies (8%), banking institutions (5%), private companies (2%), and other institutions. The government is still running 127 different support programs.

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Number of institutions</th>
<th>Number of assistance programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Still continuing</td>
</tr>
<tr>
<td>Government institutions</td>
<td>13</td>
<td>388</td>
</tr>
<tr>
<td>Banking institutions</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>Private companies</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Donor agencies</td>
<td>8</td>
<td>46</td>
</tr>
<tr>
<td>NGOs</td>
<td>20</td>
<td>109</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>594</td>
</tr>
</tbody>
</table>


Table 5.4 shows the types of assistance provided by these programs. The number of activities within each program also varied, but generally ranged from between one and three. In total, the most common types of activities were the provision of training (22.9%), capital assistance/credit (17.3%), facilitation (16.1%), and the dissemination/introduction of new technology (15.2%).

The data in Table 5.4 show that government agencies were the most common to introduce new technology (27.9%) and provide training (21.1%), whereas other institutions mostly provided capital assistance. Of all the institutions, government agencies played the most prominent role (50.9%), followed by NGOs (29.4%) and donor agencies (10.1%). Based on the type of activity, training was mostly undertaken by government institutions (46.9%) and NGOs (37.2%). Capital assistance was mostly provided by local and international NGOs (50.3%), followed by government institutions (15.5%) and banking institutions (14.9%). Facilitation was mainly provided by NGOs (52.4%) and government institutions (35.7%).

Assistance Programs: Low Level of Coverage: Despite their large number, the level of coverage of assistance programs is very low, reaching one percent or less of eligible MIEs and SEs (see Figure 5.1). Also, coverage is heavily skewed towards Java and Bali – of 481,714 non-farm MIEs and SEs that received support in 2003, 71 percent were located in Java and Bali.

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30 The scale of each assistance program varied greatly based on the amount of funds, time frame and geographical scope.
Table 5.4: The proportion of assistance programs to strengthen MIEs and SEs based upon the type of activities and the implementing institutions

<table>
<thead>
<tr>
<th>Type Of Activities</th>
<th>Government Institutions</th>
<th>Banking Institutions</th>
<th>Private Companies</th>
<th>Donor Agency</th>
<th>NGOs</th>
<th>Other Institutions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital assistance</td>
<td>5.3</td>
<td>52.9</td>
<td>25.0</td>
<td>21.0</td>
<td>29.6</td>
<td>28.6</td>
<td>17.3</td>
</tr>
<tr>
<td>Training</td>
<td>21.1</td>
<td>13.7</td>
<td>22.2</td>
<td>19.0</td>
<td>29.0</td>
<td>21.4</td>
<td>22.9</td>
</tr>
<tr>
<td>Facilitation</td>
<td>11.3</td>
<td>9.8</td>
<td>19.4</td>
<td>7.6</td>
<td>28.7</td>
<td>0.0</td>
<td>16.1</td>
</tr>
<tr>
<td>Information</td>
<td>1.9</td>
<td>7.8</td>
<td>2.8</td>
<td>3.8</td>
<td>1.6</td>
<td>21.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Facilities</td>
<td>16.2</td>
<td>2.0</td>
<td>5.6</td>
<td>8.6</td>
<td>1.0</td>
<td>0.0</td>
<td>9.7</td>
</tr>
<tr>
<td>Promotion</td>
<td>3.0</td>
<td>3.9</td>
<td>13.9</td>
<td>6.7</td>
<td>1.0</td>
<td>7.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Dissemination / introduction of new technology</td>
<td>27.9</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>1.3</td>
<td>0.0</td>
<td>15.2</td>
</tr>
<tr>
<td>Guidelines</td>
<td>4.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.7</td>
<td>0.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Others</td>
<td>9.0</td>
<td>9.8</td>
<td>11.1</td>
<td>26.7</td>
<td>7.2</td>
<td>21.4</td>
<td>10.5</td>
</tr>
<tr>
<td>Number of types of activities</td>
<td>531</td>
<td>51</td>
<td>36</td>
<td>105</td>
<td>307</td>
<td>14</td>
<td>1044</td>
</tr>
</tbody>
</table>


Figure 5.1: Proportion of SEs and MIEs receiving assistances from government by region, 2003 (% of total SEs and MIEs in the region)


Beneficial Impact of Assistance Programs: Despite this low level of coverage, those enterprises that do receive assistance appear to benefit from it. To assess the effectiveness of assistance programs, SMERU (2004) studied 172 MIEs and SEs in six Kabupaten/Kota. These firms were mostly informal, non-legal entities whose turnover and employees fluctuate over time, and which operated without any or with only simple technology. A large number of MIEs (58.6 percent) and SEs (63 percent) stated that by obtaining assistance their business had improved in terms of increased revenues. Some MIE owners stated that they had been able to develop their business as a result. Unfortunately, it was not determined whether there had been an increase in knowledge or technological capability as a result of the training or technical assistance received.

Lack of Effective Evaluation: Typically, government programs are evaluated according to the number of MIEs and SMEs who participate. The actual outcome of the program is generally not assessed. Thus, it is impossible to tell for most government programs whether they are effective or not in improving technical ability. Moreover, program benefits should be compared with program costs to determine the net benefit, but this is generally not done (van Dierman, 2004).

Lack of Success of SME Development Programs: The few studies conducted suggest that most SME development programs have not been very successful.31 For example, the Foster Parent

31 For discussion explicitly or implicitly on the government programs to support SMEs in Indonesia, see for instance Sandee and van Hulsen, 2000, Tambunan (1998a,b,c, 2000), Tambunan and Keddie (1998), Klapwijk
scheme attempted to create productive linkages between large and small firms, but levels of participation were low and very little training and technical assistance was supplied (see Box 5.2). Low participation is a common feature of such programs. For example, SUSI data show that the majority of MIEs and SMEs were not members of KOPINKRA. The reason for this has been mentioned by Klapwijk (1997), who stated that:

*In view of the wide definition of small industry employed by the Ministry, much of the promotion efforts may have bypassed the smallest enterprises that are most in need of assistance... The extension officers generally have little technical or business experience, and training or other technical facilities have been largely provided according to the directions of central planners, rather than having been adapted to local needs.*

Another more comprehensive technical assistance program has involved the development of technical service units (UPT) in existing SME clusters of similar industries across provinces. These units provide extension and technical services and training courses, and are staffed by government technical officers who have received special training. Van Diermen (2004) concludes that the UPT extension service program has achieved poor results. It has failed to deliver efficient services; to target appropriate recipients; or to address the important criteria of providing a net benefit to society and/or effectively addressing equity or fairness objectives. In particular, Van Diermen notes that:

- Types of services are highly supply oriented rather than demand driven;
- Most of the machines and equipments are outdated. Originally, these units were supplied with modern technological machines and equipments. However, over the years, especially after the economic crisis 1997/1998, budget constraints have prevented the replacement of the existing equipment;
- Services have been delivered indiscriminately to clusters;
- The staff of the UPT had not had the appropriate training to respond to entrepreneurs’ needs; and
- There was not enough flexibility in the system to respond to the changing needs of SMEs, possibly due to the bureaucratic structure of the UPT.

Based on his analysis of the effects of macro-and micro-policy environments on rural industries in Indonesia, van Dierman (2004) comes to the following conclusions:

- Few of the micro-policies (programs) implemented by the government have had a lasting impact on improving rural SMEs;
- A significant number of macro-and micro-policies placed additional costs and burdens on rural SMEs’ compliance. This has led to most operating outside of the formal economy; and
- Macro-policies that created a favorable economic environment, as reflected by consistently high growth rates in GDP, and not biased in favor of large enterprises, provided the best stimulus for SME growth.

Box 5.2: FOSTER FAILURE?

In this scheme, introduced on a nation-wide basis in February 1992, all state-owned enterprises and big
private companies (LEs) were required to assist SMEs with capital, training and technical assistance,
marketing, procurement of raw material, and in many other areas. For example, with respect to marketing, the
parent companies provided promotion facilities such as trade exhibitions and study tours for the supported
enterprises or acted as a trading house. With respect to technology, the parent companies provided the
supported enterprises with financial assistance for the purchase of new machines or provided them technical
training or technicians during the innovation process.

Evaluations of the program suggest it was not a success:

From the input side, the scheme achieved only limited success – only 6.5 percent of micro-
manufacturing enterprises participated although almost 15 percent of SMEs were involved (SUSI
2002). Furthermore, the emphasis was on the provision of capital and marketing channels – only
11 percent of micro-enterprises (and 3 percent of SMEs) received any training and technical
assistance from the program.

The general impression is that the FP was essentially a non-market mechanism to pressure LEs
and the SMEs into a ‘forced marriage.’ International evidence shows dense patterns of linkages
and partnerships are not established through mandatory linkage requirements. Rather, they are
established when they offer commercial benefits to both parties.

**Government Intervention in the Successful Fostering of Clusters:** Based on their study of a
furniture cluster in Jepara (Central Java), Sandee et al (2000) conclude that public intervention is
likely to have contributed to the success of this cluster. A comprehensive development package,
including technical upgrading through the provision of a common service facility for wood drying;
export training and support for participation in trade fairs; and investment in improvement of the
regional infrastructure (container facilities, roads, telephone) helped the cluster to develop export
markets.

On the other hand, Sato’s (2000a) field study of several clusters in the metal-working and
machinery industry in Java concludes that the **successful development of these clusters has been achieved without significant government supports.** Her impression of the effectiveness of
government programs in the development of SMEs is also supported by Tambunan’s (1998b)
findings on rattan industries in Padang, West Sumatra; and the findings of Tambunan and Keddie
(1998) on leather industries in Yogyakarta. They conclude that the government’s efforts to
support the clusters have not yielded positive results. One reason appears to be the lack of
coordination between the various government agencies. In many clusters, local government
agencies such as regional offices of the State Ministry for Cooperatives and SME; the Mol; state
universities; and workers’ skill training centers (Balai Latihan Kerja) from the Department of
Manpower provided some support. However, sometimes different agencies provided similar
schemes/programs, and there was little attempt to coordinate their efforts.

**Government Training Programs:** While the Government is the largest supplier of training, the
evidence suggests that the quality and relevance of the training provided is poor. As Table 5.4
shows, government agencies are the most common providers of training and technical assistance
to non-farm firms, and particularly to manufacturing firms. Unfortunately, most of these programs
do not appear to have been very effective in upgrading the capabilities of these firms.

For example, Sandee (1994) notes that training materials and other information do not always
match the needs of the producers, stating that:

*In practice, direct assistance frequently concerns brief training sessions of one or two days for
a selected group of producers. Such sessions are characterized by a great deal of theory and*
little attention paid to how to improve the actual running of the business of particular activities. (p. 152).

A similar situation was found in the metalwork cluster in Kabupaten Tegal where the government training was too theoretical and therefore of limited use to participants (World Bank, 2006a).

The poor quality and relevance of government training is unfortunate, given that government agencies are often the only bodies supplying broader training which might enable firms to upgrade their production processes. Private firms tend to provide higher quality and more relevant training, but often this training is only for a very specific production process. Training which might allow the firm to expand its capabilities more broadly is rarely provided.

Knowledge diffusion from universities and research institutes

The evidence shows that universities and research institutes can also contribute to the diffusion of knowledge to non-farm firms, particularly manufacturing firms, through publications, patents and consultancy services (Agrawal, 2001).

In Indonesia, the public science and technology institutes consist of the 12 national-level and several regional-level R&D centers of the Agency for Industrial Research and Development (BPPI), Department of Industry, and the research centers of the non-departmental government research institutes, particularly the Indonesian Institute of Sciences (LIPI) and the Agency for the Assessment and Application of Technology (BPPT). However, BPPI's R&D centers are mostly engaged in product certification, training and testing activities for manufacturing firms, particularly the SOEs and SMEs. Their research staff are generally not well trained, and are often not aware of the latest technological developments in their fields. Moreover, much of their laboratory equipment is obsolete because the centers are underfunded, particularly since the Asian economic crisis (Lall and Rao, 1995). Hence, in general they are not able to provide adequate technical information or technology support services to Indonesia’s manufacturing firms (Thee, 1998).

The non-departmental government institutes, particularly LIPI and BPPT, are better funded, better equipped and better staffed, with highly-trained researchers, many of whom have pursued postgraduate training abroad. However, like the Department of Industries R&D institutes, the research centres of LIPI and BPPT have not played a significant role in developing the technological capabilities of Indonesia’s non-farm firms, particularly manufacturing firms. The reason for this is that they have generally not been able to establish mutually profitable linkages with national industry, particularly private industry. Because of their lack of contact with national industry, they are generally not aware of the technological needs of private industry and therefore lag behind world technological frontiers (Lall and Rao, 1995). As a result of their failure to establish mutually profitable linkages with non-farm firms, most, if not all, of their research is supply rather than demand driven (Thee, 1998).

Moreover, the universities and research institutes are located mainly in urban areas, with little interest in the problems of rural non-farm firms. The available literature confirms that spillovers from universities or research institutes to non-farm firms are positively correlated with geographical proximity (For example, see Anselin et al., 1997).
Policy Recommendations

This review of international literature and empirical studies in Indonesia suggests the following recommendations for policy makers and the private sector:

Promote commercial interaction with actors outside the local economy

One of the key lessons from the above analysis is that an outward orientation is critical to success. This is true at a national level where the government should promote an “export-led technological learning” strategy. According to this strategy, Indonesia’s exports should gradually move up the technological ladder from labor-intensive light to heavier manufactured products, or from standardized manufacturing processes to more advanced stages of process engineering, product-process interfacing and product design.

But it is also true at the local level. Analysis from the RICS shows that most goods produced by RNFEs are bought and sold very close to the place where the firm is based. When the geographical reach of trade is so local there are very few opportunities for technological learning. Bali’s industrial success lies in part because its unique access to foreign tourists, but the “outside actors” that bring new ideas and techniques do not have to be foreign. Facilitating voluntary linkages with more modern firms based in nearby urban centers can help to expand the domain of trade and the depth of technical capacity in rural areas.

Promote private sector driven technological learning

Perhaps, the one overriding message from the above analysis is that the diffusion of technical knowledge is not something that government does to SMEs – it is something that happens when SMEs work together with larger and more modern enterprises on mutually profitable activities. Both the provision and the absorption of new knowledge happens more effectively when there is a strong incentive for the supplier and the user of that knowledge. The job of the government in such learning is primarily to facilitate such private interactions by reducing the “search costs” for suitable partners both SMEs and larger firms.

Creating a culture of innovation in the educational system

It has been shown elsewhere that innovative economic systems cannot function well without a highly educated work force. Improving the quality of secondary- and tertiary-level science and technology skills to encourage creativity and enlarge the number of innovators is a critical strand of policy in supporting technology/innovation capacity building in enterprises. This is both a national and a local responsibility; the centre should improve the educational curriculum to place greater stress on science and technology, and on innovation and creativity more generally; the district government’s have the responsibility of effectively monitoring (in creating incentives for) improvements in the delivery of educational services (see Making Services Work for the Poor – World Bank (2006b) for more details.)

Improving the capabilities of R&D institutions and universities...

This should be achieved through the implementation of a national strategy for technological development and would involve increasing the government budget for science and technology, particularly to:

1. Improve salaries to attract high-caliber staff;
2. Upgrade their facilities (including equipment) so they can meet best practice requirements; and
3. Increase capacity in those agencies working in remote rural areas to engage in meaningful outreach activities for the targeted client groups.

...and making them more demand driven by promoting links between enterprises and R&D institutions/universities

But Indonesia’s research institutes and universities also need to be made more demand driven. This can be done by creating incentives for links with the private sector. The Government and the R&D institutions and universities should implement the following steps:

1. Changing their mission statements and philosophies from supply towards demand driven;
2. Adopting a more progressive approach to selling their developed technologies or innovations and to disseminate information to the private sector; and
3. Providing incentives through such measures as
   a. Opening access to funding for R&D activities or providing direct subsidies to R&D institutions and universities;
   b. Granting these institutions greater managerial autonomy;
   c. Enforcing greater observance of intellectual property rights;
   d. Requiring universities to obtain co-funding from the private sector to obtain certain government-funded research projects;
   e. Giving awards for the most active universities or R&D institutions in conducting R&D activities and dissemination of their findings to the private sector.

Make Government a facilitator of demand driven training (and other business development services) rather than a provider

Government facilitated technical training can be useful. The RICS Case Study on the metalwork cluster in Tegal (World Bank, 2006a) confirmed earlier research that showed that government training covers areas which are both important and not covered in the typical form of training, including in buyer-supplier interactions. However, it also showed that this training was generally of poor quality and of limited relevance to recipients. The government needs to shift from being the principle provider of such training to crowding in demand-driven private sector provision of training and other business development services. For example, government could help to bear the costs of identifying the types of training and capacity building which are needed in a local area and disseminating this information widely. It could also stimulate market demand by issuing “upgrading vouchers” allowing SMEs to obtain introductory training from local private providers. Government both nationally and locally needs to learn from successful approaches to the development of training and BDS elsewhere and experiment with their introduction in Indonesia.

Evaluate the effectiveness of specific programs and scrap those that don’t work

Based on the few evaluations of government SME support programs which have been done, it is likely that many of the 127 existing government support programs are not effective in boosting the technological capacity of the vast majority of smaller enterprises. The Government urgently needs to undertake a comprehensive evaluation of the outcomes (rather than merely the inputs) of these programs and scrap those that create no net benefit. More importantly, it should learn the lessons from those programs that are more successful and apply these to the redesign and implementation of the remaining programs. In doing so it will be important to recognize that there may be substantial regional variation in the quality of such programs, due to better leadership in some areas, or local innovations in implementation. Whilst the comprehensive review should provide a set of general principles to apply to government programs, national government should also support the systematic monitoring and evaluation of such local innovations in order to identify and disseminate successful models of knowledge diffusion and technological capacity building for RNFEs.
REFERENCES


103


Supratikno, Hendrawan. 1996. “Partnership Between SMEs and Large Firms: Trap or Trajectory?” Working paper, Faculty of Economics, Satya Wacana University, Salatiga.


__________. 2006. “Technology/Knowledge Transfer and Diffusion in Indonesia non-farm enterprises.” Background paper for Indonesia Rural Investment Climate Assessment.


CHAPTER 6.
MARKETING AND COMPETITION CONSTRAINTS TO RURAL GROWTH
Abstract

At present, there remains a strong link between rural agricultural growth and the growth of rural non-farm enterprises, with little evidence to suggest that the growth of these enterprises is driven by urban or international demand. Thus, opportunities for the growth of RNFEs depend on i) increased growth of the rural agricultural sector, and/or ii) the expansion of the domain of trade for both agricultural and non-agricultural goods to larger urban and international markets.

Agricultural growth in the future is likely to be driven by increasing urban and international demand for high-value agricultural products. While the market is still small, the ‘supermarket revolution’ and the associated modernization of agricultural marketing is playing an increasing role in extending the market for rural agricultural goods; increasing the production of more specialized, higher value products; improving quality control; and reducing costs. To a significant degree, small farmers appear to be able to participate in these new marketing channels. And, because of existing strong linkages with the non-farm sector, agricultural growth will stimulate the growth of RNFEs as well.

But to stimulate rural growth, it will also be important to strengthen market linkages between RNFEs and Indonesia’s dynamic and growing urban economy and to improve the capacity of RNFEs to serve this market. While it is clear that market linkages are most effective when they are market-driven and established by the private sector rather than through government intervention, local governments do have an important role to play in facilitating linkages and promoting, rather than inhibiting, stronger competition.

Introduction

RNFEs are constrained by demand as much as supply. Agriculture remains the primary economic activity in most regions of Indonesia. RNFEs are, by the definition used in this report, mostly based in rural areas. At present, much of the market for these enterprises is based on demand from agriculture (through forward and backward production linkages) and from agricultural incomes (through consumption linkages). Thus it is important to understand the nature and strength of linkages between agriculture and the non-farm economy in order to understand the constraints to the growth of RNFEs. In the agricultural sector, modernization of marketing, most clearly demonstrated by the so-called ‘supermarket revolution,’ has driven a change towards more efficient, buyer-driven supply chains, dramatically reducing costs and extending the market for rural agricultural goods. If the linkages between RNFEs and the agricultural sector are strong, then growth induced by this transformation of agriculture will stimulate the growth of the rural non-farm economy too. This implies that revitalizing agriculture will have a doubly beneficial impact on the rural economy. Conversely, if the links between RNFEs and agriculture are weak or increasingly irrelevant in a world of fully tradable goods and services driven by the global economy, stimulus to achieve increased growth and expansion of RNFEs will have to come from outside the agricultural sector. If this occurs, the nature of marketing channels and factors affecting competition in these channels will be critical determinants of the investment climate facing rural non-farm enterprises.

Even if linkages between the rural farm and non-farm economy are strong, it may still be important for policy to stimulate stronger market linkages between RNFEs and the growing urban economy. Although substantial increases in agricultural output might be possible with appropriate policies and investments, relying only on agricultural growth to stimulate the rural non-farm economy may not be wise in an environment in which no new productivity enhancing agricultural technologies are readily available for adoption. Further, Indonesia is already well along in its structural transformation, so agriculture has become a less important driver of economic growth.

Even where agriculture remains the main driver of the rural economy, the marketing of farm products is a rural, non-farm activity, and the state of competition in rural markets affects the distribution of income and incentives to invest in physical and human capital that raise
productivity. Thus, understanding the linkages between agriculture and the rural non-farm sector is critical to understanding how it is possible to increase the competitiveness and facilitate the expansion of RNFEs.

In order to facilitate this understanding, this chapter contains the following sections:

**Non-Farm Enterprises: What is the Driver of Growth?**

What drives the growth of rural non-farm enterprises? There are two possible answers to the question: the growth of RNFEs is driven by agriculture, or it is driven by non-farm activities in urban areas.

Agriculture remains the primary economic activity in most regions of Indonesia. Since RNFEs are by definition based in rural areas, it is possible that much of the market for these enterprises will be based on demand from rural households. Alternatively, Indonesia’s growing urban economy could be driving the demand for the output of RNFEs.

In order to answer the question, it is important to understand the nature of the linkages between agriculture and the rural non-farm sector.

**The Nature of Economic Linkages in the Rural Economy**

Although agriculture only consists of 15 percent of national GDP, the existence of forward and backward production, distribution and consumption linkages means that the importance of the agricultural sector cannot be judged merely from the value of its direct output. In 2003, for example, the food, beverages and tobacco sub-sector contributed 28 percent of total output of the manufacturing industry. Similarly, a significant part of the output of the services sector is also strongly connected to agriculture.
A production linkage occurs when a sector produces an output which is then used as an intermediate input by another sector. These can be either backward or forward linkages. For example, from a farm’s point of view, the linkages to fertilizer suppliers and seed producers are backward linkages. The linkages from the farm to food processing industries are forward linkages.

Distribution linkages apply to the intermediaries between two sectors. A farm may supply its output directly to a food-processing industry, but it may also sell its output to a trader who then re-sells it to the food-processing industry. In this case, the trader plays the role of a distribution linkage. Trade in itself constitutes the largest non-farm activity in most rural areas, so improving the efficiency of distribution linkages is important for strengthening the linkages between sources of demand and the rural economy.

Consumption linkages refer to the consumption demand from households for the output of a sector. Strong local consumption linkages increase the impact of growth in one sector on the local economy. Moreover, as households get better off they tend to spend a larger share of their income on the output of the non-farm sector. For example, technological improvements in the agricultural sector can increase farm productivity. The resulting increase in the incomes of farm households produces an increased demand for various other goods and services. The increase in demand for the output from the non-tradable sector will then in turn stimulate income growth in this labor-intensive sector, increasing the income of the local economy further.

Agricultural Growth Drives the Growth of the Rural Non-Farm Sector

The extent to which an increase in income in a particular sector induces an increase in income of the whole economy is referred to as the sectoral growth multiplier. Therefore, the agricultural growth multiplier quantifies the impact of an increase in income in the agricultural sector on the growth of income in other sectors.

Early in development thinking, this multiplier was thought to be small because agriculture was considered a low-linkage sector (Hirschman, 1958). This conclusion turned out to be wrong because it was based only upon consideration of production linkages. Once consumption linkages are taken into account, the multiplier turns out to be quite significant, especially for the incomes of the rural poor who work in this non-tradable sector (Haggblade, Hazel, and Brown, 1989; Mellor, 1976, 1999).

Estimating these linkages in a particular empirical setting is a complex task, partly because the relevant data are rarely available. The database used in this project to estimate the value of the linkages is a panel of sectoral GDP growth data with the province as the unit of observation (Suryahadi, et al., 2006). The source of the data is the province-level Regional Gross Domestic Product (RGDP) which are matched with Susenas data, available from BPS.

The RGDP data for each province are already disaggregated by sectors, but they are not divided into rural and urban areas. To split the sectoral RGDP data into rural-urban areas in each province, the proportions of aggregate sectoral rural and urban household expenditures in each province are calculated from Susenas Consumption Module data, and are then applied to the RGDP data. The time period covered in the panel data is from 1984 to 2002 with a three-year interval in accordance with the Susenas Consumption Module survey.

When these data are used to estimate a formal linkage model that controls for initial conditions and the fact that agricultural and rural non-agricultural growth mutually depend on each other, the coefficient on growth of the rural agricultural sector is significantly positive. In the period between 1984 and 2002, one percent growth in the agricultural sector induced an average growth of 1.2 percent in the non-agricultural sector in rural areas. This is clear evidence that growth of the agricultural sector positively induces growth of the non-agricultural sector in rural areas. Rising incomes in the agricultural sector stimulate demand for local goods and services, in particular those produced by the non-tradable sector.
Urban Growth Does NOT Drive the Growth of the Rural Non-Farm Sector

In the same regression, the coefficient on the growth of the urban sector is negative. This indicates that urban development is not complementary to the development of the non-agricultural sector in rural areas. Rather, urban sector growth seems to suppress rural non-agricultural sector growth, perhaps because both sectors produce goods and services which compete with each other. However, it is also possible that the reclassification of rural areas as ‘urban’ over the last 20 years gives rise to a spurious negative impact of urban growth on non-farm rural growth. Thus rural areas with strong linkages to the urban economy may be lost in the analysis because their very success results in their reclassification as urban areas.

Agricultural Marketing: A Quiet Revolution

This section addresses the question of how Indonesian marketing channels have changed in recent years in response to:

- Liberalized entry provisions governing giant MNE retail chains,
- Continuing urbanization, and
- The telecommunications revolution.

Largely as a result of these factors, agricultural marketing is modernizing, with increased urban (and international) demand for agricultural products playing an important role in shaping the pattern of market linkages and building capacity amongst agricultural enterprises. While the market is still small, the ‘supermarket revolution’ is extending the market for rural agricultural goods; encouraging the production of more specialized, higher value products; improving quality control; and reducing costs. To a significant degree, small farmers appear to be able to respond to these changes and participate in these new marketing channels.

Traditional markets: long, inter-twined, uncoordinated and seller-driven

Traditional agricultural marketing channels in Indonesia, as in other developing countries, are characterized by four features (Simatupang, 2005):

- High transaction costs – poor infrastructure raises the costs of marketing, whilst dispersed small-scale production tends to result in a large number of actors in the supply chain, adding further transaction costs.
- Imperfect competition – the small size of the market in rural areas can mean that it is only profitable for a small number of actors to be involved in local marketing chains. This can sometimes result in anti-competitive behavior.
- Missing markets – in some circumstance transaction costs are sufficiently high and markets sufficiently small to make it not viable to market some products at all in certain rural areas.
- Uncoordinated supply chains – traditional supply chains tend to rely on delivery to wholesale markets with little or no coordination of supply to meet demand and few quality controls.
Despite these problems, traditional marketing channels are typically profit-driven and able to respond to market signals. An older literature, dating back to Boeke, argues that traditional marketing channels respond poorly to increased prices and that rural areas lack entrepreneurial capacity. However, a variety of empirical evidence shows that, when markets ‘work’ (i.e., price signals are effectively transmitted, infrastructure provision opens up a ‘vent for surplus,’ etc), farmers and traders invariably do respond (see, for example the influential study by Hayami and Kawagoe, 1993).

Nonetheless, traditional marketing channels are long, inter-twined, uncoordinated and seller-driven, reflecting the realities of high transaction costs in dealing with small, spatially dispersed producers, the variable timing of harvests influenced by climatic factors; and economies of scale in processing and transportation.

These multi-tiered chains, while possessing their own economic logic, are ‘institutionally inefficient’ in the sense of having relatively high margins between producers and final consumers. Price signals as a spur to improved quality may also be suppressed, owing to the problem of traceability, which arises because the output of many small farmers is pooled, with limited grading for quality. Information is asymmetrical, in the sense that traders have superior knowledge of market conditions and opportunities. And marketing margins are typically high, although this reflects at least in part the uncertainty faced by traders and high wastage rates. In general, producers are disconnected from retailers and consumers and rarely alter their product mix. In consequence, these arrangements are prone to the problem of mismatches between supply and demand.

The Modern Retail Industry: Efficient Supply Chain Management

Alongside these traditional markets is the rapidly emerging modern retail industry, including department stores, hypermarkets, supermarkets, mini-markets, and specialist outlets. The services offered by these modern retail outlets differ significantly from those offered by traditional markets. The modern outlets are ceramic floored, air conditioned, self-service, fixed price, and offer a very wide range of goods and services. Goods are typically branded and packaged, and quality control is high. They tend to cater to urban, middle class consumers. Table 6.1 summarizes the contrasting characteristics of the two sets of markets.

Modern outlets have revolutionized marketing channels through the implementation of more efficient supply chain management systems, in which traditional trade networks are by-passed and costs are lower. These systems are marked by the following characteristics:

- **Harvest to shelf** schedules: Modern outlets have introduced ‘harvest to shelf’ schedules, based on efficient and highly organized logistics, which deliver produce to supermarket shelves within 24 hours of harvest. Such a chain is important where refrigerated transport is expensive and still quite uncommon, as it is in Indonesia.

- **Use of technology**: Modern logistics technologies, the telecommunications revolution, and improved transportation networks (at least compared to the 1970s) underpin the supply chain management system.

- **Product specifications**: Producers follow these outlets’ product specifications, as transmitted via consumer buying preferences. Farmers’ production plans are coordinated to ensure supply is met.

- **Durable relationships with suppliers**: To facilitate supply chain management, these modern outlets typically have formal, tightly specified contracts with a substantial number of suppliers.\(^{32}\) Relationships are frequently durable, and the buyers transfer a

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\(^{32}\) For example, in East Java the large Hero supermarket group has supply contracts with more than 50 fruit and vegetable suppliers.
package of inputs including market information, technology\textsuperscript{33} and sometimes finance. They also ‘benchmark’ their suppliers for price, quality and reliability. Generally, suppliers need to reach some minimum size to be able to be able to fulfill orders.

- **Cooperative farming arrangements:** Arrangements of this kind, including nucleus estates, are encouraged, to meet large-volume orders. Village collectors typically play a coordinating role in this process,\textsuperscript{34} while innovative local ‘pioneer suppliers’ often provide an important demonstration effect. For example, the RICA Case Study in Malang (World Bank, 2006a) draws attention to the key role played by a major seed supply company, Tanindo, which entered the supermarket supply chain in 2001.\textsuperscript{35}

### Table 6.1: Contrasting characteristics between traditional and modern market systems.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Traditional market</th>
<th>Modern market</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Retailers market place</strong></td>
<td>Bazaars wet markets, petty shops, peddler:</td>
<td>Super/hypermarkets, mini markets:</td>
</tr>
<tr>
<td></td>
<td>· Inconvenient</td>
<td>· Convenient</td>
</tr>
<tr>
<td></td>
<td>· Assisted-service</td>
<td>· Self-service</td>
</tr>
<tr>
<td><strong>2. Distribution governance</strong></td>
<td>Decentralized:</td>
<td>Centralized:</td>
</tr>
<tr>
<td></td>
<td>· Overlapping chains</td>
<td>· Unique chain</td>
</tr>
<tr>
<td></td>
<td>· Unmanaged supply chain</td>
<td>· Managed supply chain</td>
</tr>
<tr>
<td></td>
<td>· Without condition</td>
<td>· Coordinated by a chain champion</td>
</tr>
<tr>
<td><strong>3. Quality and delivery</strong></td>
<td>Disorder:</td>
<td>Assured:</td>
</tr>
<tr>
<td></td>
<td>· No standard</td>
<td>· Standardized</td>
</tr>
<tr>
<td></td>
<td>· No quality differentiation</td>
<td>· Distinct quality differentiation</td>
</tr>
<tr>
<td></td>
<td>· No delivery protocol</td>
<td>· Tight delivery protocol</td>
</tr>
<tr>
<td><strong>4. Transaction arrangement</strong></td>
<td>On spot negotiated:</td>
<td>Predetermined contact:</td>
</tr>
<tr>
<td></td>
<td>· Unplanned / unorganized</td>
<td>· Planned/organized</td>
</tr>
<tr>
<td></td>
<td>· Once-ended</td>
<td>· Recurrent</td>
</tr>
<tr>
<td></td>
<td>· Open-actors</td>
<td>· Exclusive actors</td>
</tr>
<tr>
<td><strong>5. Trace ability</strong></td>
<td>Impossible:</td>
<td>Assured:</td>
</tr>
<tr>
<td></td>
<td>· Disorder distribution line</td>
<td>· Organizer distribution line</td>
</tr>
<tr>
<td></td>
<td>· Unanimous producers and middlemen</td>
<td>· Unique producers and middlemen</td>
</tr>
<tr>
<td><strong>6. Transparency and credibility</strong></td>
<td>Inapplicable:</td>
<td>Assured:</td>
</tr>
<tr>
<td></td>
<td>· No information on quality</td>
<td>· Revealed quality attributes</td>
</tr>
<tr>
<td></td>
<td>· No supplier identity (unbranded)</td>
<td>· Revealed supplier identity (branded)</td>
</tr>
<tr>
<td><strong>7. Key Driver</strong></td>
<td>Producers (sellers)</td>
<td>Consumers (buyers)</td>
</tr>
<tr>
<td><strong>8. Price</strong></td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

*Source: Simatupang (2005)*

#### Modern Markets: Connecting to the Global Economy

A key feature of the modern markets is their connections to the global economy. Their product quality and production process standards are converging to international standards. They are more likely to sell imported products, especially now that Indonesia has relatively few import barriers for these products, and they offer the prospect of connecting domestic producers to these international markets, both directly and indirectly.

#### Impact of Modern Outlets on Traditional Markets: As Much Complementary As Competitive

While the overall trends clearly indicate the rapid growth of the modern sector, there are limited aggregate data. For the period 1997-2001, data show that modern retail sales grew by 26

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\textsuperscript{33} For example, seed varieties and agro-chemicals, especially for fruits and vegetables, where public research institutes have a limited capacity to support innovation.

\textsuperscript{34} According to the RICA Malang case study (World Bank, 2006a), about 75 percent of supermarket suppliers rely on these collectors (pengepul), who also play a role in quality control and market intelligence.

\textsuperscript{35} The study found that Tanindo carefully selected good quality, innovative farmers on the basis of its extensive local knowledge. Tanindo provides seeds for high valued commodities on credit, oversees planting and harvesting, and undertakes rigorous quality control.
percent per annum, to about 17 percent of the total (Simatupang, 2005). By contrast, over the same period, traditional retail markets contracted by 3 percent per year. By 2005, evidence suggests that perhaps 30 percent of retail food sales were from the modern sector. The sector is quite highly concentrated, with 4-firm ratios of around 60 percent in 2001. Supermarkets have spread to practically all provinces, whereas hypermarkets are still located mainly in the large urban centers.

Given the growth of the modern sector, what will be the impact of these modern outlets on traditional markets?

Traditional markets play a buffer role in relation to these modern chains. They take residual produce, including that which fails to meet demanding quality control checks. They sometimes sell to the modern sector in times of scarcity or sudden loss of supplies. Prices in the traditional markets are also used as a reference point for the modern sector. Importantly, traditional markets serve to place a cap on modern sector market power. Thus, although the latter is gradually supplanting the former, in reality the market segments are as much complementary as competitive.

Impact of Modern Outlets on Small Farmers: Profitable Access to Modern Chains

Contrary to some common perceptions, small farmers, even those with holdings as little as 0.1 ha, are able to profitably access these modern chains, providing they meet the more demanding market schedules. In the process, the signals from the modern outlets induce agricultural diversification towards high value crops. As small farmers shift out of these traditional low value crops (such as rice, soybean, bananas, etc) to high value crops (such as sweet corn, lettuce, melon, etc), the returns are potentially very much higher, albeit with higher risk. Table 6.2 presents some indicative yield differentials. Moreover, there are additional potential benefits from planting the high value crops: cropping times are shorter, income flows can be balanced throughout the year, and crop diversity can be extended.

Table 6.2: Cost and profitability indicators of vegetable and fruit farming as a ratio to rice in irrigated land

<table>
<thead>
<tr>
<th>Crops</th>
<th>Location/year</th>
<th>Cost ratio (1)</th>
<th>Profit ratio (2)</th>
<th>Profitability ratio (3) = (2)/(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onion</td>
<td>Indramayu, 2001</td>
<td>3.49</td>
<td>7.79</td>
<td>2.23</td>
</tr>
<tr>
<td>Curl Chili</td>
<td>Agam, 2001</td>
<td>2.09</td>
<td>9.9</td>
<td>4.74</td>
</tr>
<tr>
<td>Red chili</td>
<td>Kediri, 2001</td>
<td>2.48</td>
<td>13.38</td>
<td>5.4</td>
</tr>
<tr>
<td>Melon</td>
<td>Ngawi, 2001</td>
<td>6.26</td>
<td>28.53</td>
<td>4.56</td>
</tr>
<tr>
<td>Lettuce</td>
<td>Malang, 2005</td>
<td>1.94</td>
<td>4.42</td>
<td>2.28</td>
</tr>
<tr>
<td>Broccoli</td>
<td>Malang, 2005</td>
<td>1.7</td>
<td>2.66</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Source: Simatupang (2005)

While bearing in mind the caveats associated with a single area study, the RICA Case Study in Malang (2006a) reinforces this story of potentially very large gains for farmers. In particular, there are very high returns to innovation. The study indicates that farmers are quickly adopting high valued commodities (hvc’s), driven by higher profitability, good information flows, and a well-developed set of middleman/trading networks, which perform information and risk-sharing functions. The expansion of cellular telecommunication services has been particularly important in providing timely and accurate information.

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36 According to a study by AC Nielson the modern sector is growing by 31 percent per year and the traditional sector is shrinking by 8 percent. See Simatupang 2005.

37 For example, one farmer planted 28 kinds of vegetables on 2 ha of land (Simatupang, 2005).
However, the Malang case study also demonstrates the risks associated with the adoption of hvc’s, owing to more expensive inputs and the demanding top-end product quality standards. Hence, farmers sensibly manage risk by diversifying, generally planting both conventional crops and hvc’s, and catering to both the lower return traditional markets alongside the supermarkets. The implication is that there is a premium attached to farmer’s skill, initiative and adaptability. Those unable to compete may suffer the fate of all ‘innovation laggards:’ reduced returns, and being consigned to low yield segments of the market. They are also more vulnerable to sudden large price declines in times of periodic over-supply.

Constraints on Farmers’ Participation in the Modern Sector: Geography and Infrastructure

There are constraints and potential barriers to participation in the booming modern sector. Good quality telecommunications and a paved-road network are essential, as otherwise local farmers will struggle to compete with imports. This is especially an issue as hvc’s in Indonesia are often produced in remote, high-altitude areas where these infrastructure facilities are often deficient. Moreover, public extension services are deeply rooted in traditional agricultural crops, especially rice, and have been slow to diversify their focus. Local governments can also play a light-handed role in encouraging the development of agricultural clusters which are better able to service the high-volume modern sector demand. More generally, competition among regions for lucrative supermarket contracts is likely to intensify. Regional governments have a major role to play here, in the provision of efficient marketing infrastructure, together with the removal of complex licensing requirements and informal levies.

These points also highlight the distinction between Java-Bali and other regions in Indonesia, where markets and know-how are generally less well developed. In particular, the development of markets outside Java-Bali is crucially shaped by the quality of the road infrastructure (Hayami and Kwagoe, 1993). Thus, supermarkets in South Sulawesi and South Kalimantan are generally sourcing their fruit and vegetables from East Java, even though there are suitable local production sites, because these sites lack transportation connections.

Public Policy: A Negative and a Positive Role

The modernization of agricultural marketing has occurred largely as a result of market-driven, private initiatives, rather than as a direct result of government intervention. Nonetheless, it is clear that public policy plays both a positive and negative role in the progress of this ‘quiet revolution.’

Monitoring Anti-Competitive Behavior:

Contrary to some popular perceptions, there is very little evidence that modern retail outlets engage in anti-competitive behavior. Whilst it is true that, as noted above, seller concentration indicators are quite high, the market is contestable as barriers to entry are modest.

Nevertheless, the potential for collusive behavior among the modern retail outlets remains, and there is therefore a role for KPPU to regularly monitor price comparisons. In addition, owing to the

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38 For example, see the case study of Buah Indah, a large vegetable and fruit supplier in Kabupaten Batu, as reported in the Malang case study (World Bank, 2006a).
39 As an illustration, Herlambang (2006) worries that the mango producers of Probolinggo (East Java) appear to be unable to adapt. These are small cultivators, typically with 2-5 trees. Yields are low, quality is variable, post-harvest technologies are deficient, and price information is limited.
40 See for example the so-called “vegetable bombs” story in the Malang case study.
41 Such as the Sub Terminal Agribisnis Mantung referred to in the Malang case study.
political sensitivities associated with the displacement of small-scale traditional traders, the issuance of licenses for the development of supermarkets, now in the hands of Kabupaten governments, needs to be undertaken in a transparent manner involving public awareness and consultation.

**Government Monopolies:**

The role of the government in marketing arrangements has been problematic. Especially prior to the major deregulation of 1999, intervention was pervasive, and frequently perverse. A wide range of monopolies was in place, including the state logistic bureau (BULOG), various trade monopolies (increasingly cornered by the Suharto family in his last decade of power), crop-specific monopolies (e.g., cloves, jeruk Pontianak, Nusa Tenggara sandalwood, rattan). Although most of the Suharto-linked monopolies have been dismantled, domestic monopolies continue to be an ever-present feature of Indonesia. Notably, efforts to integrate Indonesia’s rice and sugar economies with world markets have failed dismally. The result has been large distortions and high prices for consumers.

**Inter-Regional Trade Taxes:**

A second set of barriers are related to inter-regional trade, such as in livestock and sugar. While these barriers have also been abolished in theory, quasi-legal inter-regional trade taxes, which were widespread in the 1950s and 1960s as central authority over the regions weakened, have reappeared, particularly since the 1997-98 crisis and the 2001 decentralization.

For example, an 8-ton consignment of oranges from Karo (North Sumatra) to Jakarta had to pay levies totaling Rp190,000 at 45 collection points. These levies were equivalent to Rp24/kg. By way of comparison, the farm price of the oranges was approximately Rp1,850 per kilo, and trucking costs were estimated to be about Rp 692 per kilo. Thus these levies appear to be quite trivial, equivalent to less than 5% of total transport costs. However, account needs to be taken of the time lost and inconvenience, in addition to the general unpredictability of these levies.\(^\text{42}\) Recent field research in Aceh, for example, suggests they may be a good deal higher. But perhaps this province is a special case in view of its history of conflict.\(^\text{43}\)

In principle, most of these regional levies should have been abolished, but regional governments have been emboldened by a weakened central government and increased fiscal autonomy.

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\(^{42}\) See Simatupang (2005, Table 3) and Montgomery et al (2002) for further discussion of these inter-regional trade barriers.

\(^{43}\) For example, a development agency carefully monitored a cross-Aceh consignment. It observed 12 check points, and estimated that the levies were equivalent to 11% of the value of the goods. In late 2005, the BRR and the World Bank began monitoring levies imposed on trucks plying the Banda Aceh-Medan route. They found that trucks pay on average about Rp340,000 per trip. Encouragingly, the levies appear to have declined after the military withdrew as part of the peace settlement. Conversely, other illegal payments (e.g., by over-weight trucks at weigh stations) have risen. See Olken 2006.
Broadening Markets for Non-Farm Products

The opportunities for expanding the market for non-farm goods depends on both creating market linkages and building capacity. Market linkages are best established by the private sector themselves, but local governments do have a small but important role to play.

There is significantly less research on the marketing of rural manufactures in Indonesia than on agricultural marketing. Still, the subject can be approached through three sources: some general studies; research related to SME export success; and studies of subcontracting networks.

Many of the general findings from the agricultural marketing literature would seem also to apply to manufactures. However, on a priori grounds, there are also likely to be substantial differences. These include the following:

- **Perishability**: This is not such a concern for most manufactures, and thus the imperative for a rapid, highly efficient logistics supply chain is less important. Still, working capital tied up in stocks compels suppliers to move goods quickly;
- **Product Differentiation**: Manufactures are more likely to be product-differentiated than agricultural produce, and therefore producers’ bargaining power vis-à-vis retail chains may be stronger;
- **Size and Spatial Distribution of Production Facilities**: Manufacturing plants are on average larger than those of agricultural producers and are generally closer to major urban markets. Hence, their knowledge of markets and capacity to negotiate is likely to be more developed.

Marketing Chains:

One strand of the general literature, enunciated by the Bandung-based think tank Akatiga (2004), argues that the development of SMEs is hampered by the allegedly ‘exploitative’ behavior of the large supply chains. This is a frequently heard criticism in Indonesia and elsewhere. For small firms producing low quality, undifferentiated products, and with limited marketing capabilities, margins are indeed likely to be low. However, as a generalized model of marketing, it lacks analytical persuasion, since the framework does not illuminate the bases for many well-known business success stories growing out of small enterprises.44

Tambunan (2006) has also examined the marketing chains of SME manufacturers, finding a diverse set of arrangements (see Chapter 5). He reports on the 2002 BPS Survei Usaha Terintegras (SUSI), which found that the most important marketing channels for these enterprises were, in diminishing order of importance:

- collectors/agents (73 percent of firms),
- personal marketing efforts (38 percent),
- trader/exporters (2 percent) and
- cooperatives (0.1 percent).45

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44 It is useful to recall that the statistical observation of a declining share of small enterprises in industrial output does not necessarily indicate this sector’s demise. Since size shares are typically measured on a “current year” basis, a declining share could just as easily indicate that these firms are dynamic and graduating to larger class sizes. In fact, in the only empirical study on this issue, this is precisely what Aswicahyono et al (1996) found to be the case for Indonesian firms over the period 1977-91.

45 Note that firms were able to select more than one marketing channel.
In terms of sales destination, only 0.2 percent of firms engaged in direct export.

Among household enterprises (i.e., those with fewer than five employees), the most important marketing channels were, in diminishing order of importance:

- collectors/agents (48 percent),
- own marketing (21 percent),
- retailers (19 percent),
- consignments (5 percent), and
- cooperatives (0.2 percent).

Thus, agents or ‘middlemen’ dominate the channels. Despite their policy significance, cooperatives appear to be almost irrelevant. The more recent SUSI 2002 concluded that very few of these enterprises were involved in the government’s long running Bapak Angkat (literally ‘foster parent’) scheme, but in practice few (9 percent of small enterprises, 3 percent of household enterprises) marketed their products with the help of SOEs.

**Major MNEs as a Marketing Channel: The Case of Unilever**

Major MNEs are another means by which SME suppliers are able to achieve better connections to the national and global economy. The case study of PT Unilever Indonesia, one of the largest and oldest established MNEs in Indonesia, is illustrative of these channels. In 2003, Unilever worked with 334 suppliers in the home and personal-care sector, purchasing goods and services worth approximately Rp3.6 trillion in total. Of this expenditure, 84 percent was on goods and services supplied by domestically owned firms.

Unilever’s best known products are its range of personal toiletries, although it produces a wide range of other household and other goods besides. Its supply chain includes a diverse array of agricultural raw materials, with tea, palm oil, cassava, black soybean, and coconut sugar being the most important. The Oxfam-Unilever report (2005) provides several case studies showing how Unilever has acquired branded products and developed a national distribution strategy which has stimulated rapidly increased production on the part of its suppliers. There are also cases where it worked with national institutions (e.g., Gadjah Mada University) to upgrade quality and introduce greater product diversity.

Thus, many of the elements noted with respect to supermarket entry also apply to its operations, which stimulated technology transfers, new products and processes, quality control, delivery timing; but also rigorous competitive benchmarking, which precludes some suppliers.

What is crucial, and as yet undocumented, is the extent of spillovers from these commercial relationships. To determine this, it would be necessary to explore the extent and the speed to which these innovations and developments diffuse to other firms; and the extent to which firms within the Unilever supply chain are able to connect to export markets.

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**SMEs and Export Opportunities:**

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46 See Oxfam-Unilever (2005), especially chapter 4, on which this paragraph draws.
Although SMEs generally cater to the local market, there have been some interesting Indonesian case studies which have demonstrated how selected firms can engage in profitable employment-generating export opportunities. Two case studies deserve brief mention:

- The Bali garment industry;
- The Jepara furniture industry.\(^{47}\)

**The Bali Garment Industry**

The Bali garment industry, which grew spectacularly in the 1980s and is almost exclusively based on small firms, was practically an ‘accidental’ case of industrialization (Cole, 1998). Foreign tourists, mainly surfers wishing to support a recreational life-style, saw commercial opportunities in Balinese garments and indigenous design capacity. They were able to act as marketing intermediaries, connecting local producers with retail outlets abroad, in the process dispensing important information on designs and production techniques. Later, as the island’s fame spread, these links developed quickly, and the industry mushroomed from its seasonal, cottage origins to larger production units and some local design capacity. It was also a magnet for creative designers and entrepreneurs from other parts of Indonesia, who sought to emulate Bali’s successes in their own regions.

**The Jepara Furniture Industry**

By contrast, export-oriented SME furniture manufacturers in Jepara, northern Central Java, had their origins further back, but here too exports began to grow quickly in the 1980s. The industry lacked the tourism connection, but it did have a good local skills base together with access to raw materials, and foreigners quickly saw the opportunities for profitable export as deregulation proceeded.

These studies suggest a model of successful and innovative SME development in which the following ingredients appear to be important.

- There was some basic industrial competence in a particular field of activity (e.g., sewing and wood-working);
- There was generally a conducive macroeconomic environment (except at the peak of the 1997-98 crisis), including especially a competitive exchange rate;
- There was reasonably good physical infrastructure, including proximity to adequately functioning import and export facilities;
- There was an important input of technical, design and marketing expertise which linked small producers to new ideas and major markets.

With the partial exception of the first ingredient, all four elements are directly amenable to public policy. However, while this has important implications for policy, it is worth noting that in both case studies, deliberate government promotional measures did not play an important role. The government did play an important role in providing a supportive macroeconomic environment and in the provision of a rapidly improving infrastructure.

In Bali, the local government generally adopted a fairly open policy towards the presence of foreign entrepreneurs, and export procedures were not unduly burdensome most of the time.

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These of course hardly constitute ‘contributions’ from government, except in the negative sense of avoiding a harshly restrictive regulatory regime.48

The Relationship between Small and Large Enterprises

A useful typology of manufacturing market channels is based upon the nature of the relationship between large and small firms. This relationship may be:

- Complementary (via subcontracting networks);
- Competitive (producing similar products); or
- Specialized (non-competing).

Particularly in the automotive and electronic industries, marketing channels are dominated by subcontracting networks, through which specialist SME firms supply end-product assemblers and producers. Successive governments have sought to develop these networks through mandatory deletion programs and the Bapak Angkat (literally ‘foster parent’) scheme. These have proven to be largely unsuccessful, owing to the heavy-handed nature of the intervention and the highly fragmented, inefficient auto industry.

The promotion of these networks has been an article of faith for successive Indonesian governments since the 1970s: they accord with philosophical notions that large firms have a responsibility to develop (membimbing) SMEs. Thus, Indonesian industrial policy makers have always found the dirigiste Japanese industrial policies and experience (including those related to subcontracting networks) attractive. From the late 1970s, the government’s mandatory deletion programs required that auto assemblers had to meet ambitious local content ratios. In addition, for finely specified product categories, this goal had to be achieved through arms-length subcontracting.

In practice, however, the results of these policies have been mixed (see Sato, 2000, and the literature cited therein). Although the range of products produced domestically and the size of producers grew rapidly until 1997, the expected dense subcontracting arrangements failed to materialize. Assembler-supplier relationships were often shallow, short-term and non-exclusive, bearing little relationship to the Japanese model.49

The reasons for such an outcome are not difficult to explain: the market is small, and was highly protected and fragmented until 1998. In order to achieve economies of scale, suppliers necessarily sold to several assemblers. Technology transfers associated with these short-term relationships have been minimal, with the exception of some involving the Astra group. Government industrial extension efforts in support of these SME producers have also been weak and sporadic.

Perhaps more important than these domestic subcontracting networks is the scope such arrangements provide for Indonesian firms to connect to global networks, including both buying networks and MNE global factories. In both cases, there is some cause for concern. Indonesia has been steadily losing market share in major manufacturing markets such as the US and Japan. It has also been a relatively small player in the rapidly expanding global electronics industry (Yusuf and Associates, 2003).

Along with a range of supply-side, policy-related factors, the modest MNE presence since 1998 has contributed to this decline, especially where (as in electronics) these firms dominate an

48 As Cole (1998) puts it, “...beyond these points, the role the government played seems more positive in its absence than in its actions.”
49 The RICA Tegal case study (World Bank, 2006b) of metal working enterprises comes to a broadly similar conclusion, alluding to “unhealthy competition” and “lack of trust” among producers and buyers within the cluster.
industry. Moreover, foreign ownership (both its presence and its enterprise ownership share) has been a critical determinant of firm-level recovery since the 1997-98 crisis (Narjoko, 2006).

**Insights from the Rural Investment Climate Survey**

Additional insights on marketing issues for RNFEs can be gleaned from the RIC Survey (RICS) conducted by the World Bank in 2006 (see Box 6.1). In total, households were surveyed, 1,757 with a non-farm enterprise, and 1,056 without. In addition 619 standalone enterprises and 144 enterprises from the local register of enterprises were also surveyed. Overall there were 11.9% in manufacturing, 53.1% in trade, and 35% in other services. These enterprises were mainly located in rural areas (62%), and overwhelmingly (90%) consisted of household enterprises. The enterprises were virtually all (domestic) privately owned, by individuals. The NFEs surveyed were distributed across six kabupaten in as many provinces: Malang (East Java, 61% of the total), Kutai (East Kalimantan, 12%), Labuan Batu (North Sumatra, 11%), Sumbawa (West Nusa Tenggara, 8%), Badung (Bali, 6%) and Barru (South Sulawesi, 1%).

From the survey it is possible to calculate the reach of marketing channels open to RNFE. Figure 6.1 shows the proportion of sales made in different marketing areas according to whether the NFE was a production, trading, or service enterprise. Markets are defined spatially, in an ascending hierarchy: same village, same sub-district (kecamatan), same district (kabupaten), and same province, together with national and international markets.

![Figure 6.1: Location of final consumption for the output from production, sales and services enterprises](image)

Source: Calculated from RICS 2006

Figure 6.1 shows that most sales are made extremely locally. Production enterprises are the least local with almost 10 percent of goods sold in other provinces. But even here a third of sales are made in the same sub-district, and three-quarters are made in the same Kabupaten. Trading enterprises are much more localized at the village level, selling 30 percent of their goods in the same village, and 94% in the same province. Service NFEs are the most localized of all, selling 40 percent of their services in the same village and 70 percent in the same sub-district.

Given our focus on marketing it is interesting to look specifically at trading enterprises in more detail. Table 6.3 and 6.4 disaggregate trading enterprises by their dominant type of product sold – there are three broad product categories, unprocessed agricultural goods, processed
agricultural products and non-agricultural products. Table 6.3 shows the procurement areas for each type of trading firm; Table 6.4 shows the marketing areas.50

Table 6.3: Procurement Area by Type of Trading Firm in 2005

<table>
<thead>
<tr>
<th>Trading Firm</th>
<th>Same Village</th>
<th>Same Sub District, different village</th>
<th>Same District, different sub-district</th>
<th>Same Province, different district</th>
<th>Different Province</th>
<th>Different Country</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unprocessed Agriculture Product</td>
<td>45%</td>
<td>28%</td>
<td>11%</td>
<td>16%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Processed Agriculture Product</td>
<td>46%</td>
<td>28%</td>
<td>16%</td>
<td>6%</td>
<td>4%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Non Agriculture Product</td>
<td>24%</td>
<td>22%</td>
<td>28%</td>
<td>18%</td>
<td>8%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>31%</td>
<td>24%</td>
<td>23%</td>
<td>16%</td>
<td>6%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Calculated from RICS 2006

Table 6.4: Sales Area by Type of Trading Firm in 2005

<table>
<thead>
<tr>
<th>Trading Firm</th>
<th>Same Village</th>
<th>Same Sub District, different village</th>
<th>Same District, different sub-district</th>
<th>Same Province, different district</th>
<th>Different Province</th>
<th>Different Country</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unprocessed Agriculture Product</td>
<td>54%</td>
<td>27%</td>
<td>14%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Processed Agriculture Product</td>
<td>61%</td>
<td>33%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Non Agriculture Product</td>
<td>59%</td>
<td>22%</td>
<td>11%</td>
<td>6%</td>
<td>1%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>58%</td>
<td>25%</td>
<td>11%</td>
<td>5%</td>
<td>1%</td>
<td>1%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Calculated from RICS 2006

Again the key result is that trading NFEs buy and sell predominantly in their immediate locality. In 2005, 31% of the NFEs procured mainly from within their own village, and a further 24% from other villages in the same sub-district. In all, 94% of NFEs procured mainly from within their province. International procurements are minuscule, and occur only in one special case, Badung (Bali). Of course, there may be indirect procurement channels which are not detected in the survey, but the findings appear to be reasonably robust and consistent. In 2002, the percentages are almost identical: respectively 34%, 27%, and 97%.

When examining the three broad product categories (unprocessed and processed agricultural products and non-agricultural goods), the results generally accord with a priori expectations, in the sense that procurement areas for the first two groups are very localized, much more so than for the non-agriculture group. In fact, the latter group of NFEs, which is two-thirds of the survey, accounts for 90% of the observed extra-provincial procurements. This share appears to have risen since 2002.

As would be expected, there are differences across the six regions, reflecting differences in infrastructure conditions, the density of local market networks, output compositions, connections to the regional and national economies, and commercial histories. Thus, for example, in Badung 10% of NFEs procure from outside the province, reflecting Bali’s strong, tourism-related connections to the rest of Indonesia, and abroad, and also the province’s small size. The extra-provincial share is also somewhat higher for the Malang NFEs, and is indicative of that region’s longer history of commercial networks, principally through Surabaya. By contrast, NFEs in the four regions outside Java and Bali rarely procure beyond their province. In all cases the extra-provincial share is less than 3%. Here too the results are similar for 2002, except that the inter-provincial shares for both Badung and Malang are higher in 2005, perhaps indicating a slight strengthening of inter-provincial trade networks over this period.

50 Figures are also available for 2002 and for each individual Kabupaten, but for simplicity of exposition they are omitted from the Tables and simply mentioned in the text.
One might expect that the trading NFEs would be more widely distributed in their marketing than
their procurements, on the principle that by their very nature they develop commercial activities
based on locally available inputs. In fact, the distribution of marketing regions is broadly similar to
that of their procurements, in the sense that the great majority of trading NFEs sell in very
localized markets. In 2005, 58% of trading NFEs sold their output mainly in the local village, and
a further 25% just within the same sub-district. Almost 98% of sales were within the same
province. That is, compared to procurements, trading NFEs were even more ‘village-oriented’ in
their sales. At the provincial level, the shares are identical (both 94%), suggesting that
procurements are more likely to come from other villages in the same province, as compared to
sales. The importance of same-village sales declined somewhat, as compared to the 64%
recorded in 2002, but the provincial share was marginally lower (92%) in 2002. Although small in
both years, international sales were slightly higher than extra-provincial (but domestic) sales in
both years.

The results are also broadly similar across the three product groups and the six localities. For the
three product groups, unprocessed and processed agricultural products are much more likely to
be sold in local regions. Perhaps surprisingly, processed goods are actually the more localized of
the two. One might expect processing to reduce perishability and weight, therefore increasing
their ‘tradability’. Although the figures are small, non-agricultural products are more likely to be
sold outside the province and internationally. In fact, virtually all the recorded exports come from
this group. The proportions are similar in 2002.

Across the six localities, the findings for procurements and sales are also similar. The trading
NFEs in Badung have quite well developed international connections, with 16% exporting, and a
further 2% selling domestically but beyond the province. In fact, all the exports found in the
survey originated from the Badung NFEs, no doubt reflecting the impact of tourism and related
spin-offs. As with procurements, the Malang NFEs are less (same) village-oriented than the otherive localities. But the figure is still high (51%), and sales within the same kabupaten dominate. In
all four localities outside Java and Bali, the same-village shares are very high: 70% in Labuan
Batu, 74% in Sumbawa, 70% in Kutai, and 65% in Barru.

In sum, the clear picture which emerges is that these predominantly household trading NFEs buy
and sell overwhelmingly in their local neighborhood, most of all in the same village. For all the
discussion of national market integration and globalization, the fortunes of these NFEs are linked
primarily to the local village economy. The two reference points of the survey are not sufficiently
widely apart to draw definitive conclusions regarding trends. But it is important to remember that
these findings come after the 30 years of massive Soeharto-era infrastructure expansion, and a
broadly open economy. For all the discussion of ‘SME export success stories’ and the intrusion of
MNE-linked buying chains into the village economy, most NFEs remain heavily local. Of course,
this conclusion has to be qualified by emphasizing that the survey was a representative sample of
enterprises which inevitably means that the focus was on the ‘micro’ end of NFEs – very few
medium and large ‘factories’ were included. Account also needs to be taken of indirect
procurement and marketing chains, in that the NFE respondents may be referring only to the final
link in the procurement chain and the first link in marketing. Factoring in these second tiers may
alter the conclusions, but they are unlikely to be fundamentally different.

**Spurring Competition**

This section examines the level of competition in rural markets to see if there are significant
inefficiencies in the marketing chain resulting from anti-competitive behavior. Although intense
competition is nearly always good for consumers, it can also be an impediment to new
investment. The perspective here is on the role of competition, and competition policy, on the rural investment climate.

In spite of Indonesia’s relatively good database, there has only been one detailed analysis of the extent of competition at the aggregate level in the Indonesian industrial economy. This is contained in the study of industrial concentration by Kelly Bird (1999). He found high levels of concentration, typical of those in relatively small, late-industrializing nations. Over the period 1975-93, concentration levels were declining steadily, though in the latter year the simple average 4-firm concentration ratio was still 54 percent. Concentration ratios fell significantly once allowance is made for imports. He also confirmed the statistical relationship between concentration and industry profitability.

Indicators of corporate conglomeration in Indonesia are more difficult to obtain owing to data limitations. Few major corporations are prepared to place the details of the majority of their assets in public hands, and no accurate records are reported to public authorities. However, various business surveys do provide at least an approximate picture. Illustrative of this sort of approach is Claessens et al (2000). For nine East Asian economies, they found that:

- More than two-thirds of firms are controlled by a single shareholder,
- Corporate wealth is concentrated among a few families, and
- Managers of closely held firms tend to be relatives of the controlling shareholder’s family.

Among the nine countries, Indonesia was found to have the most concentrated ownership patterns in 1996, with the top family owning 16.6 percent of listed corporate assets, and the top 10 families owning 57.7 percent of the total. No similar analysis has been conducted since the financial crisis significantly altered the pattern of corporate ownership in Indonesia.

An alternative, but complementary, approach is to attempt to identify barriers to competition, or at least to define some notion of ‘contestability,’ and to examine the characteristics of industries which might be regarded as having a ‘competition problem.’ Here, a useful framework is to first identify the barriers to competition. In principal, these barriers might arise from:

- Government-imposed or sanctioned barriers to entry;
- Collusive behavior on the part of sellers;
- Infrastructure bottlenecks.

Government-Imposed or Sanctioned Barriers to Entry

In the case of Indonesia such barriers take many forms, including:

- Restraints on competition to protect the monopoly position of SOEs and other favored investors; and
- Complex entry procedures which inhibit the entry of new firms.

Examples of the latter include the bureaucratic requirements associated with BKPM provisions for foreign firms, and those domestic firms wishing to avail of its (now very limited) fiscal incentives. Indonesia’s regulatory environment is widely regarded as one of the most complex in developing Asia. This proposition receives empirical support from numerous comparative business surveys.51

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51 For example, according to the 2005 IFC/World Bank report on Doing Business in 2005, it takes on average 151 days to register a business in Indonesia, one of the longest among the 145 nations surveyed. By comparison, the OECD average is reported to be 27 days, while that for East Asia is 61 days. Note however that the estimates
In the case of agriculture, there has been renewed political pressure in recent years to re-regulate international and domestic trade. In services, in spite of some significant recent deregulations, many sectors remain highly regulated and SOE-dominated.

**Collusive Behavior On The Part Of Sellers: The Role of the Supervisory Commission on Business Competition (KPPU)**

Cases of collusive behavior are difficult to document, although the Supervisory Commission on Business Competition (KPPU) will provide useful information over time. A working hypothesis is that such behavior is more likely to arise in highly concentrated industries which are insulated from import competition. High concentration can, of course, be the result of healthy competition displacing weaker enterprises from the market and therefore it does not necessarily provide the grounds for public policy intervention, as long as the industry is contestable.

The KPPU was established in 2000, following the enactment of a competition law in 1999, itself the result of one of the conditions in the IMF recovery packages. Although drawing on international best-practice in its design, the KPPU operates in the context of its prescribed objectives. An important factor, unusual for commissions of this type, is its implicit ‘affirmative action’ mandate, designed to protect cooperatives and SMEs. The KPPU is also empowered to examine restrictive business practices only in the private sector. Thus, all government-sanctioned restrictions are in principle excluded from its purview.

It is too early to offer a definitive assessment of the KPPU’s operation, and its effectiveness in any case is circumscribed by limited resources. Over the year 2003-04, for example, it received 54 reports and complaints, and was able to issue six decisions. Of the latter, three were accepted by the relevant parties, two were contested and one withdrawn. Thee (2006) judges that the Commission’s early record provides grounds for optimism that it will foster a more competitive business environment in Indonesia. Moreover, he finds no evidence thus far that it will have a deleterious impact on business, or pursue a political agenda and introduce another layer of bureaucratic complexity with which firms have to contend.

The Commission has already been engaged in a case of relevance to this chapter. In a high-profile, political case in mid 2001, the KPPU ordered the Indomaret mini-market retail chain to cease its expansion into locations where there were a large number of small, traditional retailers. This was not a case of anti-competitive behavior on the part of Indomaret, but the Commission was implementing its ‘economic democracy’ charter. The outcome of the case involved an apparently acceptable compromise, in which the chain was required to reserve a certain part of its premises for these small retailers.

**Increase in Competitive Pressures since the 1997-98 Crisis**

The empirical work referred to above was undertaken in the late Suharto period. Surprisingly – for all the interest the subject attracts in Indonesia – there has been no detailed analytical research on competition since the 1997-98 crisis. However, it is very likely that competitive pressures have increased since then, for at least four reasons, these being related to:

- Corporate volatility and restructuring;
- Decline in levels of import protection;
- Limited deregulation;
- Decentralization.

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for Indonesia are regarded as an over-estimate. LPEM (2005) reports a (still lengthy) start-up period of 80 days. Also, see survey results on licensing issues in Chapter 7.

52 This and the following two paragraphs draw heavily on Thee (2006).
Corporate Volatility and Restructuring:
This has been a period of corporate volatility and restructuring. The major Suharto-linked business empires (Bimantara, Humpus, etc) have collapsed, while many of the major private sector conglomerates have experienced significant changes, either related to financial work-outs, the loss of crony privileges, or both. Foreign ownership shares have increased in most major industries. This has generally (though not always) led to increased competition.

Decline in Levels of Import Protection
Levels of import protection have very likely declined, although there are no systematic studies. The principal driver of this process has been the IMF conditionality packages, resulting in increased competitive pressures (Basri and Soesastro, 2005).

Limited Deregulation
There has been some, albeit limited, deregulation in key sectors, particularly those dominated by SOE such as domestic civil aviation and telecommunications. As noted, the establishment of the KPPU has probably also increased competition through its scrutiny of collusive arrangements. Moreover, there is much less blatant ‘palace corruption’ involving measures to suppress competition of the type which was prevalent in the late Soeharto era (For example, with projects such as the national car (Mobnas) and the clove monopoly, both associated with Tommy Suharto.

Decentralization
With the decentralization measures of 2001, power has shifted away from Jakarta and the concentration of regulatory authority has declined. For example, the authority to issue business licenses has been transferred to kabupaten governments (see Chapter 7). The effects are probably thus far quite limited, and local monopolies may have increased. But over time, there is likely to be increased competition for business investment among regions.

Increasingly Competitive Commercial Environment
The increasingly competitive commercial environment has had dynamic and wide-ranging impacts. For example, competition is likely to have beneficial employment effects: there is considerable evidence to show that managers in competitive environments are more likely to adopt labor-intensive technologies, as compared to monopolists who prefer the ‘quiet life’ of more capital-intensive technologies and ‘engineering man.’

Competition is also a powerful spur for firms to seek out new market opportunities. This was evident in the Indonesian context in the late 1990s, where in response to the deep economic crisis and significant deregulations, firms in more competitive circumstances appeared to be able to adapt and adjust more quickly (Ardiyanto, 2006).

53 See Wells (1973) for an early Indonesian case study supporting this proposition.
Summary and Implications for Policy

This chapter ends with a series of observations designed to integrate these three areas of empirical analysis and provide perspective for the policy actions contained in Chapter 8.

Nine general policy issues deserve mention:

1. Commercial Policy Environment: Although Indonesia’s commercial policy environment remains more unpredictable than in the Suharto era, there can be no doubt that markets are more competitive. On balance, this is good for consumers and most producers. Prices are cheaper, and there is a more level playing field, with less arbitrary political intrusion, in the business sector. This trend should be supported by policy makers.

2. Deregulation of SOEs and Government Monopolies: There have been several major, high-profile deregulation measures involving these sectors and other:
   - domestic civil aviation;
   - telecommunications;
   - various agricultural monopolies.

These measures have been unambiguously beneficial for consumers. Again, this trend should be supported.

3. Physical Infrastructure: This has deteriorated significantly since 1997, owing to the sharp contraction in the central government’s development budget and its inability to establish a clear and commercially viable framework for long-term private sector infrastructure providers (see the World Bank, 2004). High quality infrastructure, especially rural roads, is absolutely critical to marketing, competition and the effective functioning of markets. It lowers distribution and logistics costs, and it enables more traders to enter isolated regions and therefore results in increased competition. This is arguably the most important policy challenge for the government in this area (see Chapter 4 for a fuller discussion of this issue);

4. Deregulation of Markets: Markets need to be able to operate more effectively, and much more deregulation is desirable. These reforms will be good for both efficiency and in most cases equity. The following issues should be addressed:
   - Land market rigidities and complexities need to be addressed, which in turn would enable small firms and farmers to access formal credit markets;
   - The regulatory/licensing regime is unnecessarily complex. This is a major anti-competitive factor, since it operates as a de facto barrier to entry;
   - The regime also impinges disproportionately on the poor, since there are pecuniary economies of scale in having to circumvent regulatory complexities and pay bribes. The regulatory complexity also hurts micro and small enterprises disproportionately since they are more vulnerable to arbitrary bureaucratic harassment, especially given the quasi-legality of their business operations (itself in part a product of regulatory complexity);
   - Regional governments are continuing to tax and restrain inter-regional trade, though perhaps less than in the period between 1998 and 2002;

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54 Something similar has happened in the Philippines since its crisis: the country’s infrastructure spending is about half the East Asian average (as a percentage of GDP), and is a major bottleneck to growth; see Llanto, 2006.

55 von Luebke (2006) estimated these costs to be at least 10 percent higher for SMEs as compared to larger firms.
Many government-sanctioned monopolies remain, including most of all in the BUMN/SOE sector. Indeed, there has been little reform of the SOE sector since the crisis, and their operations so far have been beyond the purview of the KPPU.

5. Barriers to the Cross-Border Flow of Goods: Indonesia is now a largely open economy, as indicated by its formal trade regime. However, there are major barriers to the cross-border flow of goods. Its shipping services are slow and expensive by best-practice regional standards. Its customs arrangements similarly under-perform, and are characterized by widespread corruption. Also, much services trade is highly regulated: Indonesia has the most restrictive foreign employment regulations among the original ASEAN-5 (Manning 2005).

6. Clustering: Especially for smaller units (SMEs, small farmers), clusters may be useful for marketing purposes and to facilitate knowledge spillovers: as a means of exploiting scale economies, achieving external efficiencies, etc. However, there is arguably little role for government other than perhaps in provision of specialized infrastructure and some extension services, as the most effective clusters seem to be market-driven commercial arrangements. In any case, the empirical evidence on the effectiveness of clusters is mixed (see Chapter 5).

7. Political Sensitivity Of Measures Effecting Small Business: The intrusion of large commercial units and the demise of small scale enterprises is always a highly sensitive issue in Indonesia, easily amenable to political exploitation. This is especially true if the large units are foreign or non-pribumi owned (as most are). This sensitivity accounts for the key recommendation in Simatupang (2005), that the entry of large new hypermarkets be handled in an open, transparent, consultative manner, with due recognition of and perhaps remedial action for, the displaced traders. The KPPU appears to be playing a useful and constructive role in this context, although the micro-management of these issues is not customarily the responsibility of such an agency.

8. Systematic Evaluation of KPPU: More generally, there needs to be a systematic evaluation of the operation of the Commission. The general impression is that it has not had a major impact on the competitive environment, but that at the margin it is perhaps operating as a check on the exertion of monopolistic power. That is, firms are conscious of its existence, and its thus far constructive approach, and would not wish to become embroiled in a case before it.

9. Regional Policy Framework: Getting the regional policy framework right is absolutely critical for competition and marketing. That means encouraging ‘healthy competition’ among the 440 or so kabupaten/kota, so that those which offer a sustainable, business-friendly environment are rewarded (See Chapter 7).
References


Nasihin, M. (in progress), PhD dissertation on regional price differences in Indonesia, ANU.


CHAPTER 7.
LOCAL GOVERNANCE:
THE IMPACT OF TAXATION, LICENSING, AND REGULATION
Abstract

Local government impositions in the form of onerous licensing procedures, the highly uncertain costs of meeting regulations, and the burden of multiple taxes and charges are probably the primary constraints facing rural non-farm enterprises. While the cost of taxes imposed directly on local enterprises is not particularly large in monetary terms, costs associated with compliance with local business licensing requirements represent a significant burden, with the costs, delay and inconvenience of business licensing being one of the most commonly mentioned criticisms of the local investment climate. Moreover, often the taxes and license revenues do not result in any useful services being delivered to the enterprises which pay them. Public goods that underpin an efficient market economy, such as services that guarantee security of property, a functioning infrastructure and a ‘level playing field’ for all competitors, are conspicuous by their absence in far too many kabupatens.

Also, many local charges do not even provide a high degree of benefit to the local governments imposing them, with a generally low proportion of the revenue of these governments deriving from such sources. The 6,000 or so new taxes and charges introduced since decentralization generate less than 7 percent of local government revenue and in one out of 10 local governments the cost of administering these taxes is greater than the revenue collected. Many of the newly introduced taxes and retribusi restrict or tax trade within or between kabupatens and provinces as these charges are easy to implement. These taxes and restrictions interfere in domestic trade, restrict the size of the market facing rural enterprises and undermine internal market efficiency.

This dismal benefit-cost outcome is the result of both administrative inefficiency, and outright corruption. To improve this situation, major efforts will be needed to improve skills, increase accountability, and implement better basic procedures – all measures that could improve both the quality of local governance and the rural investment climate. Indeed, it is clear that progress in other aspects of the investment climate will be hard to achieve without significant improvements in the functioning of governance at the kabupaten level. Fortunately, a number of local governments provide positive examples of how such measures can be implemented and from which policy makers can learn.

Introduction

This chapter reviews the main constraints placed in the path of rural non-farm enterprises by their local governments. There are three main areas of discussion: the tax burden on local enterprises (Lewis, 2006); the costs and benefits of the regulatory regime at the local level (Simanjuntak, 2006); and the political economy of improving local governance (von Luebke, 2006). The map for this chapter is as follows:

1. **Sources and Composition of Local Revenues: Changes Since the Mid-1990’s:** This section examines changes to the sources and composition of local government revenues since the mid-1990s, noting the significant absolute increase in own source revenues since decentralization; the declining contribution of user charges to own-source revenue; the increased importance of ‘other own-source revenues’; and the fact that own source revenues constitute a declining proportion of local resources;

2. **The Tax Burden on Local Enterprises: A Light Load:** This section examines the total local revenue burden associated with local government own-source taxes and charges and the central property tax to determine the extent to which these are a burden on enterprises;

3. **The Licensing and Regulatory Regime:** Wasting Time and Resources: This section examines the costs of compliance with major local taxes in terms of the difficulty of
complying with business licensing requirements and the time and resources required to meet the often difficult, contradictory and confusing conditions required to achieve such licenses;

4. **Political Economy of Local Business Regulations and Tax Policies:** This section looks at the opportunities and threats to the creation of a conducive business climate created by decentralization, paying particular attention to the factors leading to success in districts that have distinguished themselves;

5. **Concluding observations and policy recommendations:** This section notes that most of the reasons for the unsatisfactory business climates in many kabupaten are institutional in nature and that they could be partially addressed by implementing measures to: overcome inefficiency and ineffectiveness; build institutional capacities for supervision; and improve service delivery.

**Sources and Composition of Local Revenues:**
**Changes since the Mid-1990’s**

The composition and sources of local government revenues have changed significantly over the past decade, partly as a result of decentralization, as Table 7.1 demonstrates. Four main sets of points stand out:

1. **The significant absolute increase in own source revenues since decentralization:** Real own-source revenues declined by an average of 4.1 percent per year from 1994/95 to 1999/00. However, the average annual real growth rate of own-source revenues was 7.6 percent over the entire period 1994-95 to 2003.\(^{56}\) This clearly indicates the importance of own-source revenue growth in the post-decentralization period. The absolute increase in the level of own-source revenues between 1999/00 and 2003 was approximately Rp 4.7 trillion (in real terms);

2. **Declining contribution of user charges to own-source revenue:** In the mid 1990s, user charges were the most important source of local revenue, followed closely by local taxes; by the late 1990s, the reverse was true. Currently, the principal taxes are on electricity sales and hotels and restaurants. These taxes make up more than 90 percent of total tax revenue. Puskesmas health service fees make up the most significant proportion of user charges, comprising approximately one-third of total user charges. Market fees contribute less than eight percent of total revenue. The most significant category of user charges is ‘other’, which has more than doubled since 1999/2000 and now makes up nearly 60 percent of the total. This class of charges comprises, most notably, business licenses and fees of various kinds;

3. **Increased importance of ‘other own-source revenues’:** In 2003, ‘other own-source revenues’ brought in roughly the same amount of revenue as local taxes and charges. This category has grown five-fold since 1999/2000 – indeed, nearly half (46 percent) of the absolute increase in all own-source revenue since decentralization is accounted for by the increase in ‘other own-source revenues’. The most important type of revenue in ‘other OSR’ is interest earnings on bank balances. It is well known that local governments have built up large surpluses since decentralization and these funds have led to considerable interest earnings;

\(^{56}\) The down-turn was largely a function of the financial and economic crisis, the effects of which were most strongly felt in fiscal year 1998/99.
Table 7.1: Kabupaten/Kota, by Type 1994/95-2003

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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Taxes</td>
<td>1,468.8</td>
<td>1,742.2</td>
<td>1,863.6</td>
<td>2,004.7</td>
<td>2,095.5</td>
<td>2,489.5</td>
<td>2,744.1</td>
<td></td>
<td></td>
<td>2.1%</td>
<td>17.3%</td>
<td>1,111.0</td>
</tr>
<tr>
<td>Electricity</td>
<td>494.6</td>
<td>710.9</td>
<td>797.6</td>
<td>854.2</td>
<td>620.4</td>
<td>692.6</td>
<td>1,011.2</td>
<td>1,398.2</td>
<td>1,676.9</td>
<td>7.0%</td>
<td>29.5%</td>
<td>984.3</td>
</tr>
<tr>
<td>Hotel/Restaurant</td>
<td>601.7</td>
<td>687.4</td>
<td>739.9</td>
<td>830.4</td>
<td>717.2</td>
<td>772.7</td>
<td>904.5</td>
<td>807.2</td>
<td></td>
<td>5.1%</td>
<td>1.3%</td>
<td>34.5</td>
</tr>
<tr>
<td>Other</td>
<td>372.5</td>
<td>344.0</td>
<td>326.1</td>
<td>320.0</td>
<td>159.9</td>
<td>168.0</td>
<td>221.6</td>
<td>260.1</td>
<td>-14.7%</td>
<td>-14.6%</td>
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<td>Total Charges</td>
<td>2,378.8</td>
<td>2,550.5</td>
<td>2,681.5</td>
<td>2,634.8</td>
<td>1,329.6</td>
<td>1,396.1</td>
<td>1,984.7</td>
<td>2,465.5</td>
<td>2,823.1</td>
<td>-10.1%</td>
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<tr>
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<td>379.5</td>
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<td>455.0</td>
<td>608.6</td>
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<td>3.7%</td>
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<td>Market Fees</td>
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<td>335.4</td>
<td>325.7</td>
<td>189.4</td>
<td>186.0</td>
<td>191.1</td>
<td>216.9</td>
<td>213.3</td>
<td>-10.0%</td>
<td>4.6%</td>
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<td>Other</td>
<td>1,084.8</td>
<td>1,827.7</td>
<td>1,952.7</td>
<td>1,906.7</td>
<td>767.8</td>
<td>755.2</td>
<td>1,185.0</td>
<td>1,428.9</td>
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<td>-14.8%</td>
<td>26.5%</td>
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</tr>
<tr>
<td>Other OSR</td>
<td>522.1</td>
<td>643.8</td>
<td>632.1</td>
<td>622.3</td>
<td>577.2</td>
<td>522.7</td>
<td>1,385.8</td>
<td>2,487.1</td>
<td>2,695.1</td>
<td>0.0%</td>
<td>54.7%</td>
<td>2,172.4</td>
</tr>
<tr>
<td>Total OSR</td>
<td>4,369.7</td>
<td>4,936.5</td>
<td>5,177.2</td>
<td>5,261.7</td>
<td>3,404.2</td>
<td>3,552.0</td>
<td>5,465.9</td>
<td>7,442.1</td>
<td>8,262.3</td>
<td>-4.1%</td>
<td>28.1%</td>
<td>4,710.4</td>
</tr>
<tr>
<td>All Other Revenue</td>
<td>30,830.1</td>
<td>33,082.8</td>
<td>35,301.7</td>
<td>38,343.6</td>
<td>29,335.3</td>
<td>35,555.2</td>
<td>85,843.0</td>
<td>101,872.1</td>
<td>106,528.5</td>
<td>2.9%</td>
<td>36.6%</td>
<td>4,710.4</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>35,199.7</td>
<td>38,019.3</td>
<td>40,478.9</td>
<td>43,605.3</td>
<td>32,739.5</td>
<td>39,107.1</td>
<td>91,308.9</td>
<td>109,314.1</td>
<td>114,790.8</td>
<td>2.1%</td>
<td>35.9%</td>
<td>4,710.4</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Taxes</td>
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<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Electricity</td>
<td>33.7</td>
<td>40.8</td>
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<td>41.4</td>
<td>42.4</td>
<td>48.3</td>
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<td>61.1</td>
<td>100.0</td>
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<td>100.0</td>
</tr>
<tr>
<td>Hotel/Restaurant</td>
<td>41.0</td>
<td>39.5</td>
<td>39.7</td>
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<td>47.9</td>
<td>47.3</td>
<td>43.2</td>
<td>34.9</td>
<td>29.4</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Other</td>
<td>25.4</td>
<td>19.7</td>
<td>17.5</td>
<td>16.0</td>
<td>10.7</td>
<td>10.3</td>
<td>8.6</td>
<td>8.9</td>
<td>9.5</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total Charges</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Health</td>
<td>16.0</td>
<td>15.5</td>
<td>14.7</td>
<td>15.3</td>
<td>28.0</td>
<td>32.6</td>
<td>30.7</td>
<td>33.2</td>
<td>33.1</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Market Fees</td>
<td>13.2</td>
<td>12.8</td>
<td>12.5</td>
<td>12.4</td>
<td>14.2</td>
<td>13.3</td>
<td>9.6</td>
<td>8.8</td>
<td>7.6</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Other</td>
<td>70.8</td>
<td>71.7</td>
<td>72.8</td>
<td>72.4</td>
<td>57.7</td>
<td>54.1</td>
<td>59.7</td>
<td>58.0</td>
<td>59.3</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Taxes/Total OSR</td>
<td>33.6</td>
<td>35.3</td>
<td>36.0</td>
<td>38.1</td>
<td>44.0</td>
<td>46.0</td>
<td>38.3</td>
<td>33.5</td>
<td>33.2</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Charges/Total OSR</td>
<td>54.4</td>
<td>51.7</td>
<td>51.8</td>
<td>50.1</td>
<td>39.1</td>
<td>39.3</td>
<td>36.3</td>
<td>33.1</td>
<td>34.2</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Other OSR/Total OSR</td>
<td>11.9</td>
<td>13.0</td>
<td>12.2</td>
<td>11.8</td>
<td>17.0</td>
<td>14.7</td>
<td>25.4</td>
<td>33.4</td>
<td>32.6</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total OSR/Total Revenue</td>
<td>12.4</td>
<td>13.0</td>
<td>12.8</td>
<td>12.1</td>
<td>10.4</td>
<td>9.1</td>
<td>6.0</td>
<td>6.8</td>
<td>7.2</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>All Other Revenue/Total Revenue</td>
<td>87.6</td>
<td>87.0</td>
<td>87.2</td>
<td>87.9</td>
<td>89.6</td>
<td>90.9</td>
<td>94.0</td>
<td>93.2</td>
<td>92.8</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: World Bank Data Base
3. **Own source revenues constitute a declining proportion of local resources**: Despite the growth in own source revenues in absolute terms, the relative importance of such resources has actually declined since decentralization, making up a very small proportion of total local resources. As of 2003, own-source revenues accounted for slightly more than 7 percent of total local government revenues, down from 12.4 percent in 1994/95. This relative decline indicates the strong and growing importance of transfers to local government budgets in the decentralization period. The dominance of transfers has not led to reduced efforts to collect local own-source revenue, however, as has been found elsewhere (Zhuravskaya, 2000). Lewis (2005) finds that, in post-decentralization Indonesia, increasing per capita transfers stimulate increases in per capita own-source revenues, across local governments as a whole. 57

### The Tax Burden on Local Enterprises: A Light Load

The total local revenue burden is that associated with local government own-source taxes and charges and the central property tax. 58 The sum of these revenue sources in 2003 was Rp 15.6 trillion. This figure represents just 0.75 percent of GDP. If one considers only the local government own-source taxes and charges and central property tax from the urban and rural sectors only (and, excluding, most importantly, gas and oil ‘property taxes’), then the total amount of revenue generated from these sources was equal to Rp 9.5 trillion in 2003 or about 0.5 percent of (non-oil and gas) GDP.

Thus, the local revenue burden would not appear to be particularly significant. This conclusion is corroborated by the views of firm managers and owners themselves. A recent survey carried out by LPEM-FEUI (2004) found that only about 10 percent of the firms interviewed considered the amount of taxes that they paid to be burdensome. Even fewer of the respondents in the RICS (2006) survey found official or unofficial taxes to be a ‘big problem’ (Table 7.2).

<p>| Table 7.2: Problems Related to Official and Unofficial Taxes and Compliance Costs |
|---------------------------------|---------------------------------|---------------------------------|</p>
<table>
<thead>
<tr>
<th>Official Taxes</th>
<th>Unofficial Taxes</th>
<th>Compliance Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent % of Respondents</td>
<td>% of Respondents</td>
<td>% of Respondents</td>
</tr>
<tr>
<td>Not a Problem 78.3</td>
<td>81.4</td>
<td>80.8</td>
</tr>
<tr>
<td>Small Problem 7.5</td>
<td>8.0</td>
<td>10.5</td>
</tr>
<tr>
<td>Medium Problem 8.0</td>
<td>6.7</td>
<td>5.1</td>
</tr>
<tr>
<td>Big Problem 6.1</td>
<td>3.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Total 85.8</td>
<td>89.3</td>
<td>91.3</td>
</tr>
</tbody>
</table>

*Source: Calculated from RICS 2006*

Further, Table 7.3 shows that the average tax rates facing enterprises sampled in the RICS survey is extremely small, with the median firm paying zero taxes on sales or profits in half the Kabupatenes. (Only in Badung, Bali, does the tax rate reach 1% of sales.)

<p>| Table 7.3: Tax Rates on Enterprises in the RICS Sample |
|---------------------------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>2005</th>
<th>Percentage of Tax from Total Sales</th>
<th>Percentage of Tax from Total Cost</th>
<th>Percentage of Tax from Total Profit</th>
</tr>
</thead>
</table>

57 The suggested explanation for this finding was that local governments and parliaments insist that their overhead budgets keep pace with increases in total revenue and that these expectations drive increases in local taxation (the funding source for overhead expenditure) in response to growing transfers from the center.

58 All “other” local government own-source revenue is assumed to derive from interest earnings and not constitute a tax burden.
Property Taxes

The property tax is a central tax in Indonesia and is not part of local-source revenue, although the government has considered decentralization of the property tax, most recently in 2005, in the run-up to revising Law No. 34/2000. The government may or may not eventually devolve some control over some aspects of the tax to local governments. At present, however, the central government defines the tax base, sets the effective tax rates, manages the tax cadastre, assesses tax liability, collects the tax, and enforces tax payment. Local governments do, however, play a supporting role in tax collection. Property tax receipts are shared among the provinces and kabupaten/kota. Provinces and local governments receive 16.2 percent and 74.8 percent of total property tax receipts, respectively. According to law, allocations to provinces and kabupaten/kota are implemented by derivation, except in the mining sector. The center keeps nine percent of the property tax to cover the cost of administration (Lewis 2003a).

While property taxes are not technically a local government tax, they are worth discussing here because, under the revenue sharing agreement, the contribution to local revenues is extremely significant. As of 2003, total property taxes were approximately Rp 10 trillion. This figure is about 20 percent higher than total own-source revenues (which were just over Rp 8 trillion in 2003). Property taxes in the urban and rural sectors, which are more relevant for most businesses, constitute just less than four trillion rupiah, or about half of total local government own-source revenue (and about 60 percent of local own-source taxes and charges).

Compliance Costs

Compliance costs associated with the major local taxes do not appear to be very substantial. A firm’s tax liability attendant to electricity use is indicated on its monthly electricity bill; payments can be made to PLN via most local banks. Hotels and restaurants are notified in writing of their tax liability on a monthly basis (in theory) and taxes are collected by local officials on the premises. Businesses (and individuals) are made aware of their property tax liabilities by mailed or hand-delivered notifications from decentralized offices of the Ministry of Finance (Directorate General of Tax) or from local governments; the tax can easily be paid at a variety of locations, including local branches of designated state banks. As Table 7.2 showed, more than 80 percent of respondents to the RICS (2006) survey considered compliance costs ‘not a problem,’ and just 3.7% considered these costs a ‘big problem.’

The Licensing and Regulatory Regime: Wasting Time and Resources

While the monetary cost of compliance with major local taxes does not appear to be excessive and is not perceived to be a major constraint by local enterprises, the difficulty of complying with business licensing requirements is perceived to be a major obstacle. In this case, the costs of compliance are generally associated not with the formal charges imposed, but with the time and resources required to meet the often difficult, contradictory and confusing conditions required to achieve such licenses.
LPEM-UI (2005b) has estimated that it takes 80 days to register a new business in Indonesia.\(^{59}\) Most of the time to register a new business is taken up with satisfying central government requirements, especially those of the Ministry of Law. About 24 days (out of the total), however, are needed in order to comply with the attendant requirements of various local government offices.

Having obtained the required start-up permits, it is necessary for a business to secure a variety of other licenses. LPEM-FEUI (2005b) lists six different local licenses and permits that most businesses need to secure before they can legally operate: environmental permit, building license, location permit, principle permit, nuisance permit, and work safety permit. The time required to obtain these permits and licenses is estimated to range between 43 and 180 days.\(^{60}\) Other authorizations may also be required, depending on the exact nature of the business. The LPEM-FEUI study lists an additional 20 permits that many firms may need to secure; a single business would require 24 days to obtain each of these permits, on average. In addition to the time spent obtaining various business licenses, some firms pay top-offs to local officials in order to speed up the process (LPEM-FEUI, 2005b; von Luebke, 2006). Not surprisingly, many firms cite the time required to secure the multitude of permits and licenses (and attendant top-offs) as being a more significant constraint on business operations than the actual monetary amount of local taxes, charges, and fees that they have to pay (von Luebke, 2006). Table 7.4 shows that Malang and Badung Kabupatens seem to have substantially longer licensing times than the other Kabupatens in the RICS sample.

### Table 7.4: Median time needed to get licenses (work days)

<table>
<thead>
<tr>
<th>Kabupaten</th>
<th>Building Permit</th>
<th>Enterprise Registration</th>
<th>Surat Ijin Usaha Perdagangan (SiUP)</th>
<th>Application for Electricity Connection</th>
<th>Work Safety Permit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labuhan Batu</td>
<td>2</td>
<td>9</td>
<td>8.5</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>Malang</td>
<td>2</td>
<td>15</td>
<td>14</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td>Badung</td>
<td>2</td>
<td>14</td>
<td>20</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Sumbawa</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
</tr>
<tr>
<td>Kutai Karantanegara</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>3.5</td>
<td>5</td>
</tr>
<tr>
<td>Barru</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>10.5</td>
<td>7</td>
</tr>
</tbody>
</table>

*Source: Calculated from RICS 2006*

A study by von Luebke (2006) concludes that licensing practices vary significantly among decentralized district government but remain in a critical state. In five out of eight district cases, decentralization has been accompanied by rising rather than decreasing capture practices. In the eight Kabupatens he surveyed, time requirements for administrative procedures have decreased during the last few years, but remain extensive in Klaten, Kebumen, Gianyar and Karang Asem. One-stop license services, with the exception of Solok, continue to operate on a level that is unsatisfactory to business needs. Table 7.5 summarizes the quantitative findings on perceived business problems. Businesses seem most concerned about unofficial payments, uncertainty in dealing with local policies, and the time spent during the licensing process.

### Table 7.5: Ranking of perceived business problems

<table>
<thead>
<tr>
<th>Rank</th>
<th>Problem</th>
<th>Obstacle (%)</th>
<th>Likert Mean</th>
<th>Std. Dev.</th>
<th>Resp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Uncertainty of District Policies</td>
<td>58.17</td>
<td>2.29</td>
<td>1.35</td>
<td>1016</td>
</tr>
<tr>
<td>2</td>
<td>Unofficial Payments for Licenses</td>
<td>46.8</td>
<td>1.93</td>
<td>1.2</td>
<td>1015</td>
</tr>
<tr>
<td>3</td>
<td>Time Spent for License Administration</td>
<td>45.37</td>
<td>1.82</td>
<td>1.09</td>
<td>1016</td>
</tr>
</tbody>
</table>

\(^{59}\) The estimate is derived from a survey of local notaries in five cities. The World Bank (2005), based on interviews with lawyers in Jakarta, calculates that it takes up to 151 days to register a new business.

\(^{60}\) It takes on average 43 days to secure the environmental permit, the longest amount of time for any of the permits listed. The sum of days required to obtain all six licenses is 180; this is the upper bound on time spent.
4 Unofficial Payments during Tax Collection 39.73 1.78 1.14 1012  
5 Official Tax Costs 39.69 1.69 0.99 1018  
6 Official License Costs 34.68 1.63 1.01 1018  
7 Security Payments 18.88 1.31 0.75 985  

Source: von Luebke (2006) estimates based on 1041 randomly selected business respondents in eight districts; Likert Scale ranges from 1 (no obstacle) to 5 (very strong obstacle)

The Post-Decentralization Period: A Plethora of New Taxes and Charges

In order to understand the extent to which the licensing and regulatory regime in the post-decentralization period represents a major obstacle to local businesses, it is necessary to examine the following issues:

- The number and nature of new taxes and charges created,
- Sectors and locations in which they were established, and
- The effectiveness of the procedures for the review and cancellation of local regulations.

Number and Nature of New Taxes and Charges:

Local governments have apparently established new revenue instruments in a rather aggressive manner since decentralization. An early study estimated that just fewer than 1,000 new taxes and charges were created by kabupaten/kota in the run-up to and during the first year of decentralization (Lewis, 2003b). More recent work indicates that local governments may have established as many as 6,000 new taxes and charges during the period 2000 through mid-2005 (LPEM-FEUI, 2005a).

Law No. 34/2000 enumerates specific allowable local government taxes. These ‘positive list’ taxes comprise those on hotels, restaurants, entertainment, advertisement, electricity use, class C mineral extraction, and parking. Law No. 34/2000 also permits local government to create supplementary new taxes, providing a number of ‘good tax’ conditions are met.

In addition, the law authorizes kabupaten/kota to levy three different types of user charges, including those on (pure) public services, public services that possess certain private good characteristics, and licenses and fees of various kinds.

The law does not enumerate particular user charges that local governments are allowed to create but instead authorizes local governments to establish charges in these three categories under certain rules. Typical pure public service charges include those associated with public health clinics, public markets, and refuse collection and solid waste removal, for example. Common user fees for services with private good characteristics include those for slaughterhouses, wholesale

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61 A caveat is in order with regard to the figure of 6,000 “new taxes and charges”. The latter number actually represents the number of new tax and charge by-laws (peraturan daerah—perda) issued from 2000 through mid-2005. Some of these new perda undoubtedly were written in order to change the tariffs and/or bases of existing taxes and charges, as allowed by Law 34/2000. That is, the new perda did not, in all cases, authorize new tax and charge instruments. As such, the quoted figure might best be thought of as an upper bound on the number of newly established revenues. In the earlier study cited (Lewis 2003b), about one-third of total tax perda submitted to the center for review concerned changes to existing revenue instruments and two thirds (i.e. about 1,000) were for new taxes and charges.

62 The good tax criteria assert that (1) tax objects should be located in the particular district and possess relatively low mobility across district boundaries; (2) the tax should not contradict the public interest; (3) the tax should not constitute a national or provincial tax; (4) tax revenues should be elastic with regard to regional income; (5) implementation of the tax should not have a negative impact on the local economy; (6) development of the tax should take into consideration issues of fairness to and capacity of local residents; and (7) the tax should safeguard the environment.

63 The conditions under which user charges may be established are similar to those under which taxes can be created, as noted above.
markets, and auction houses, among others. Standard licenses include construction permits, land utilization permits, and, especially, business operating licenses.

The vast majority of new revenue instruments authorized by local governments would seem to be user charges levied at least to some extent on private businesses. Some of the taxes and charges are levied on both businesses and individuals, of course. Relatively few, if any, of the revenues would appear to be levied exclusively on individuals. Lewis (2003b) reports that about 90 percent of a large (but non-random) sample of the total number of new revenue instruments created during the run-up to and the first year of decentralization were charges.

However, it also appears that the line between a service charge and a tax is rather blurred, with experience showing that sometimes revenues that have been identified as charges by local governments are really just disguised taxes. In other words, many of the newly created user charges do not appear to be associated with the delivery of particular public services (i.e. either pure public services or those with private good characteristics) or the granting of permissions, as they should be by law.

New Taxes and Charges: Sectors and Locations

In descending order, the focus of new taxes and charges established by local governments since decentralization has been on the following sectors (Lewis, 2003b):

- Primary sector commodities (40 percent of the total);
- Services (21 percent);
- Distribution (12 percent);
- The secondary sector (11 percent);
- Government administration (11 percent), and
- ‘Other’ (5 percent).

In the primary sector, no particular product was singled out as the main target of new taxes and charges. Indeed, the list of primary sector goods taxed in those early years is remarkable for its variety and seems mostly to depend on location: fish in Sumatra, tea and tobacco in Java, rubber and timber in Kalimantan, cloves and cashew nuts in Sulawesi, and livestock in Eastern Indonesia, for example.

Local governments on Sumatra and Java-Bali seem to have been most assertive in establishing new taxes and charges, at least during the initial years of decentralization. Lewis (2003b) reports that kabupaten/kota in those locations created about 38 percent and 30 percent of the total number of newly created revenue instruments during 2000-2001, respectively. Local governments in Sulawesi, Kalimantan, and Eastern Indonesia created 16 percent, nine percent, and eight percent, respectively, of the total number during that period. Unfortunately, there is no more recent evidence on this question.

Procedural Issues in the Review and Cancellation of New Taxes and Charges

Local governments appear to have created many of their new revenue collection instruments in an extra-legal manner, and this problem has been exacerbated by poorly implemented appraisals by the central government.

Specifically, Lewis (2003b) estimated that only about 40 percent of the newly established taxes and charges in 2000-2001 were submitted to the central government for review and evaluation, as required by law. The remainder were presumably implemented directly through local

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64 The puskesmas service charge is sometimes raised as the exception to the rule, although, it appears that some businesses also cover the puskesmas health expenses of their employees.
regulations (perda) without central government appraisal in contravention of the applicable legislation.

LPEM-FEUI (2005a) reports that the central government has only managed to review 47 percent of 13,520 (tax and non-tax) perda sent in for evaluation from 2000 to mid-2005. Lewis (2003b) estimates that central government cancelled just less than 30 percent of all new tax and charge perda it reviewed by the end of 2001. The cancellations were made because the submitted tax and charge perda contradicted in some way central guidelines for the establishment of new revenue instruments. A review of the cancelled perda suggests that the bulk were rejected on the grounds that the authorized tax or charge would somehow harm the regional economy. A second important reason for cancellation was that the good or factor in question was considered already to be sufficiently covered by another tax or charge; and that the implementation of the proposed perda would amount to ‘double taxation’. More recently, researchers at LPEM-FEUI (2005a) calculated that the central government cancelled about 448 of 6,456 tax and charge perda it evaluated between 2000 and mid-2005 (about 6.9 percent).

Again, it is important to keep in mind that the latter estimate refers both to new local taxes and charges as well as to perda that revised in some manner already existing revenue instruments. Table 7.6 shows the number of perdas that were challenged by sector, with most of the challenges coming in the primary sector, which is also where most of the new taxes have been levied.

Table 7.6: List of challenged perda by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>MK Recommendation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cancellation</td>
<td>Revision</td>
</tr>
<tr>
<td>Industry and Trade</td>
<td>69</td>
<td>11</td>
</tr>
<tr>
<td>Transportation</td>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>Labor</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>Agriculture and Livestock</td>
<td>76</td>
<td>11</td>
</tr>
<tr>
<td>Farming</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>Environment</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Forestry</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>Fisheries</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>Tourism</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>404</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: Simanjuntak (2006)

Corruption: Hidden Cost of Onerous Licensing Requirements

In addition to the cost in terms of time and resources required to comply with complicated business licensing requirements, the regulatory regime creates a fertile environment for the imposition of hidden costs in the form of bribes paid to local and other officials that businesses must pay in order to acquire the necessary licenses and permits and/or to operate without harassment.

Kuncoro (2004) examines bribery linked to official local taxation in a survey covering over 1,800 firms in 64 kabupaten/kota. He provides evidence to suggest that the level of bribes paid by firms is just less than 40 percent of the taxes the firms pay. This bribe payment is positively related to the number of business licenses that a particular firm must obtain in order to operate legally.

Kuncoro notes that service sector firms, businesses operating in natural resource rich locations, and firms situated in urban areas pay higher bribes; while more established and larger businesses pay lower bribes, all other things being equal. Another study (KPPOD, 2003) estimated that, on average, firms pay about 60 percent of their total taxes and charges in bribes.
to local officials. Kuncoro (2004) notes that bribery also creates additional and significant compliance costs, largely in the form of time spent in negotiating bribe payments, but offers no precise estimates of these costs.

The payment of illegal fees has been considered by a number of researchers (KPPOD, 2003; Ray, 2003; von Luebke, 2004 and von Luebke, 2006). Such fees seem for the most part to be paid to institutions other than local governments, including, most importantly, the judiciary, police, and community groups. These illegal fees can be quite significant for firms operating in some sectors, especially transportation (Ray, 2003 and von Luebke, 2004). Understandably, there are no estimates of the precise magnitude of this kind of corruption, but the ‘debt trap’ that snares new public officials who must pay large, illegal fees to obtain public sector jobs, seems to be a major source of the endemic corruption seen at the local level (von Luebke, 2006).

The Political Economy of Local Business Regulations and Tax Policies

Decentralization: Opportunities and Threats for the Creation of a Conducive Business Climate

The degree to which governments establish favourable business conditions ultimately depends on their political economy. A primary concern is the degree to which prevailing institutions succeed or fail to curb vested local interests.

After more than thirty years of strong national administration under President Suharto, the sudden leap to more autonomous decision making for local governments has created long-term opportunities as well as short-term threats. While district governments are empowered to better respond to local needs, they also have ample space for misusing the enhanced discretion by pursuing private rather than common objectives.

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65 McLeod (2000, 2003) argues that the transition from Suharto’s authoritarian regime to decentralisation creates more uncertainty for the business community, at least temporarily, by putting an end to a well-established vertical system of benefit sharing. Key administrators under Suharto devoted their loyalty and resources to an all-informed president and - similar to a “franchise concept” - received rewards and limited authority in return. A decentralised form of administrative corruption, which is no longer fine-tuned by a powerful oligarch who maximizes rents over time by ensuring that capture practices do not suppress investments and economic growth (MacIntyre, 2001), may initially be more harmful to the business environment.
Figure 7.1: Perception of local business policies during subsequent governance periods

Source: von Luebke (2006) survey data based on 1014 randomly selected business respondents in eight districts
Note: 1 = 'very unconducive' 2 = 'unconducive' 3 = 'fair' 4 = 'conducive' 5 = 'very conducive';

Von Luebke (2006) explores whether the local business climate has got better or worse since decentralization. In his survey of Central Java, West Sumatra, Bali, and NTB, he notes that there has been a shift in perceptions since decentralization, with an increasing number of respondents describing the business climate as ‘unconducive’. These responses, illustrated in Figure 7.1, are supported by more detailed data on the degree of capture by local officials and how well ‘one stop license shops’ serve their business clientele.

Deficient Institutions

It appears that institutional deficiencies at both the national and local levels have affected the application and implementation of decentralization in a manner that has caused a deterioration in the local business environment.

National Level: At the national level, an assessment of Indonesia’s decentralization laws and their application reveals two problematic aspects for local business climates:

1. The vague wording of the regional tax Law No. 34/2000, and
2. The insufficient capacity of national ministries to monitor new district tax regulations.

District Level: At the district level, two institutional features have a bearing on the political economy of local business regulations:

3. Institutional detachment of local legislatures: Local parliaments (DPRD) appear to be institutionally detached from their constituency as a result of the way their membership is constituted and their budgets are determined.
4. Endemic bribing conventions: Public civil servants (PNS) often have to make large bribe payments to get employment in the bureaucracy. The resulting ‘indebtedness’ of civil servants provides a strong incentive for them to recoup their ‘investment’ through higher charges for regulatory approvals and licences.
The combination of these features raises the risk of administrative misconduct and poor legislative oversight, thus increasing the likelihood of distortions to the business climate. The way in which these issues interact and impact on the local business climate is illustrated in Figure 7.2.

**Figure 7.2: Institutional deficiencies on national and district levels**

Political economy of change: why do some districts perform better than others?

Considering that all eight districts surveyed by von Luebke face similar institutional deficiencies, an important question remains: why do some districts perform better than others? There appear to be two possible explanations:

- Variations in government leadership and
- Variations in civic pressures,

Perceptions of business respondents in von Luebke’s study indicate that leadership varies significantly among the eight district cases. Solok’s Bupati achieves 87 percent of the maximum score due to strong marks on several indicators of leadership quality, closely followed by Kebumen’s Bupati who achieves 79 percent. Neither of the Bupatis in Bali score highly, and Klaten’s district head comes lowest, with 38 percent, based on poor evaluations in each aspect, as is shown in Table 7.7.

It is also possible to compare scores for leadership, civic pressure and other institutional indicators with business conditions in each district. Table 7.8 shows that stronger leadership values ‘correlate’ positively with better tax and licensing conditions. However, there is not enough variation from the eight case studies to show any significant relationship between ‘civic pressure’ and the business climate (von Luebke, 2006).
<table>
<thead>
<tr>
<th>District</th>
<th>Central Java</th>
<th>W-Sumatra</th>
<th>Bali</th>
<th>NTB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Klaten</td>
<td>Kebumen</td>
<td>Solok Pesisir Selatan</td>
<td>Gianyar Karang Asem</td>
</tr>
<tr>
<td>Integrity/Efforts against Corruption</td>
<td>1.94</td>
<td>3.16</td>
<td>4.19</td>
<td>2.09</td>
</tr>
<tr>
<td>Vision and Political Will</td>
<td>2.09</td>
<td>3.68</td>
<td>4.27</td>
<td>2.91</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>1.92</td>
<td>3.98</td>
<td>4.1</td>
<td>3.18</td>
</tr>
<tr>
<td>Popularity and Public Support</td>
<td>2.39</td>
<td>4.26</td>
<td>4.26</td>
<td>2.72</td>
</tr>
<tr>
<td>Power to Bring About Change</td>
<td>2</td>
<td>3.6</td>
<td>4.15</td>
<td>2.86</td>
</tr>
<tr>
<td>Educational Background</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Average Score</td>
<td>1.9</td>
<td>3.9</td>
<td>4.3</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: von Luebke (2006) survey data based on 1041 randomly selected business respondents in eight districts
Note: Scores are means of a Likert Scale: 1 = ‘very poor,’ 2 = ‘poor,’ 3 = ‘fair,’ 4 = ‘strong,’ 5 = ‘very strong’
Figure 7.3: Governmental Leadership Indicators in Case Districts

Source: von Luebke (2006) survey data based on 1041 randomly selected business respondents in eight districts
Note: Scores are means of a Likert Scale: 1= ‘very poor,’ 2= ‘poor’, 3= ‘fair’, 4= ‘strong’, 5= ‘very strong’

Table 7.8: Overview of business conditions in relation to political economy indicators

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Central Java</th>
<th>West Sumatra</th>
<th>Bali</th>
<th>NTB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Klaten</td>
<td>Kebumen</td>
<td>Solok</td>
<td>Pesisir Selatan</td>
</tr>
<tr>
<td>(1) Business Conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Licensing - Capture</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>(b) Licensing - Adm. Time</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td>(c) Distortionary Taxes</td>
<td>None (+)</td>
<td>None (+)</td>
<td>None (+)</td>
<td>Road Levies (+)</td>
</tr>
<tr>
<td>(d) Quality of OSS</td>
<td>V-Poor 0.8</td>
<td>Poor/Fair 2.3</td>
<td>Good 3.8</td>
<td>V-Poor/Poor 1.4</td>
</tr>
<tr>
<td>Overall Tendency</td>
<td>V-Poor/ Poor</td>
<td>Poor/ Fair</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>(2) Political Economy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) National Law, Supervision, and DPRD Oversight</td>
<td>Very High</td>
<td>Fair</td>
<td>None</td>
<td>High</td>
</tr>
<tr>
<td>(b) Tendency of PNS Bribing ('Dept Trap')</td>
<td>(64 mill)</td>
<td>(6 mill)</td>
<td>(0 mill)</td>
<td>(23 mill)</td>
</tr>
<tr>
<td>(c) Civic Voice</td>
<td>Dissatisfied/Undecided 2.4</td>
<td>Dissatisfied/Undecided 2.7</td>
<td>Dissatisfied/Undecided 2.7</td>
<td>Dissatisfied/Undecided 2.5</td>
</tr>
<tr>
<td>(d) Governmental Leadership</td>
<td>Weak</td>
<td>Strong</td>
<td>Strong</td>
<td>Fair</td>
</tr>
</tbody>
</table>

Source: von Luebke (2006) summary of analyses, based on survey data, interviews, and personal observations
One Stop Shops:

It has often been pointed out that one-stop shops where local businesses may access all the technical support they need and which offer a one-stop service center for all local authority legal and regulatory issues as well as business issues are an effective way of providing technical and financial support. However, von Luebke (2006) shows clearly that the quality and value of these one stop shops varies widely. Rather than these centers being a simple, easy to implement solution, his survey suggests that when these centers work, they do so because of a broad and integrated approach to improve the entire institutional structure of local governance.

As Box 7.1 shows, the perceived success of Solok’s OSS is the result of such an approach. The effort has been lead by a dynamic Bupati, but has been supported by international donors and NGOs, especially Transparency International. In setting up Solok as a model of ‘best practice,’ it will be important not to ‘cherry pick’ the reforms that are easy while ignoring the crucial institutional changes needed to make these reforms sustainable and effective.

Von Luebke’s survey shows that perceptions regarding the quality of the OSS in each of the kabupatens he examined varied widely, from very good to very poor. Based on interviews with 6 to 8 business people in each district and direct observations during unannounced visits to service stations, performance levels of one-stop services (OSS) were evaluated in terms of:

- Transparency and access of license information;
- Authority to decide on license applications;
- Human capacity;
- Physical facilities;
- Data management; and
- Additional measures to curb bribe payments (von Luebke, 2006).

Table 7.9: Scoring board for one-stop license services

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Klaten</th>
<th>Kebumen</th>
<th>Solok</th>
<th>Pesisir Selatan</th>
<th>Gianyar</th>
<th>Lombok Timur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency of Information – Brochures, Boards, Web</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3.5</td>
</tr>
<tr>
<td>Authority Level – Discretion to decide on applications</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Human Capacity – Impression of Service and Qualification</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Physical Facilities – Room, Counter, Signs, Waiting Area</td>
<td>1</td>
<td>2.5</td>
<td>4</td>
<td>2</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Data Management – Computer Equipment, Filing System</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Anti-Corruption Measures – Curbing ‘Bribe Payments’</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Average Score</td>
<td>0.8</td>
<td>2.3</td>
<td>3.8</td>
<td>1.5</td>
<td>3.1</td>
<td>2.4</td>
</tr>
</tbody>
</table>


Note: Scores range from 1-5: 1= ‘very poor,’ 2= ‘poor,’ 3= ‘fair,’ 4= ‘strong,’ 5= ‘very strong’

The low score of Klaten’s OSS is a result of overall low standards. During a spontaneous visit, license information was not available and the technical knowledge of staff that were present appeared very limited. The dark and dusty room and the old typewriters in the corners did not produce an impression of a professional needs-oriented service unit. As a consequence, most businesses reported that they avoid the OSS altogether and approach technical departments directly for their licensing requirements.
In contrast, Solok’s OSS (Satu Pintu Plus) represents a positive benchmark of service provision. Since 1996 services have been continuously improved and extended to serve the licensing needs of Solok’s business community. Now the portfolio includes 25 different types of business licenses and civil certifications. It is recognized for its high standard of professionalism and transparency by business people and civil society observers alike.

**Box 7.1. Government reforms in Solok during the term of Bupati Fauzi Gamawan**

**Integrity Pact**

Solok is the first Indonesian district to have successfully implemented an ‘Integrity Pact’ under the supervision of Transparency International (TI). The agreement was signed officially in 2003 by senior public officials, parliamentarians and construction businesses. It represents a promising first step to eradicate corruption practices in public government projects. The monitoring of public tender procedures, often seen to be the core of Indonesian’s corruption problems, is delegated to independent ‘watch dogs’, including the local TI office and other civil society institutions. According to interviews, Gawawan was determined to implement the Integrity Pact in cooperation with TI and the German Development Agency GTZ after coming back from a convincing study tour of government transparency in South Korea.

**Regulation on Government Transparency**

The district regulation on governmental transparency (Perda 5/2004) emphasizes the obligations of local government officials to serve their citizens. It represents a first step to set a minimum service standard by informing Solok’s people of government programs and performance. Government publications are publicly accessible (APBD, PDRB) and public servants are reported to have an ‘open door’ policy for the public. These policies were further enhanced by Bupati Gamawan through weekly ‘coffee mornings’ in his residence - where he invited government and civil society representatives to joint discussions.

**One-Stop License Services (Satu Pintu Plus)**

As described in more detail above, Solok’s government has continuously improved licensing services to its citizens. A customer-oriented service counters managed by friendly and professional public servants assist applicants in a wide range of 25 different licenses. Based on interview and questionnaire results, processing times and capture practices are decreasing since decentralization. The concept was envisioned by Solok’s Bupati in the late 1990s.

**Abolition of ‘Project Allowances’**

Bupati Gamawan took an important step to abolish common ‘Project Allowances’ (Tunjangan Daerah), an Indonesian-wide convention that secures high-level officials (Bupati, Deputy Bupati, District Secretary, and Project Leaders) high benefits from public projects. Instead, he decided to redistribute project allowances evenly amongst all public servants based on their work experience and bureaucratic rank (Peraturan Bupati 2/2005). Inevitably, this produces income losses for higher officials and raise income for lower-ranked officials. Moreover, it balances incomes amongst technical departments. Whereas some departments used to be privileged by high project allowances (e.g. public works), now all departments are treated equally.

*Source: von Luebke (2006).*

Each applicant receives an information brochure precisely determining required documents, costs and administration times for each license. For remote business people Solok’s government has extended the access to licensing services by the so-called ‘Plus’ option, which allows handing in applications through local post offices. During an unannounced visit to Solok’s OSS, the four service counters were attended by professional and well trained staff. The atmosphere of the clean and bright room was welcoming. Offices are equipped with modern computer technology and colorful information boards. ‘Anti-Suap’ stickers (‘no grease money’) are placed on each counter window – an extraordinary feature of Solok’s efforts to curb administrative corruption.

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66 A PDF-file of the brochure can be downloaded from Solok’s government website ([www.solok.go.id](http://www.solok.go.id))
In both cases, the quality of the OSS correlated strongly with perceptions of the quality of the local government as a whole. The following box demonstrates how the success of Solok’s OSS must be seen in the wider context of an approach to improve the entire institutional structure of local governance.

Concluding Observations and Policy Recommendations:

The local governance of the investment climate in most districts is poor. In general, local firms face rising capture practices, extensive administrative time requirements, unsatisfactory one-stop license services, and inadequate tax administration. Overall, district administrations continue to operate on a level that is unsatisfactory to business needs. Most of the reasons for these unsatisfactory business climates are institutional in nature. They can be seen in vague (tax) law enforcement, insufficient legislative oversight and adverse bureaucratic conventions. These issues could be partially addressed by implementing measures to:

- Overcome inefficiency and ineffectiveness;
- Build institutional capacities for supervision; and
- Improve service delivery.

Taxation Collection: The need for administrative effectiveness and efficiency

Lewis (2003a) estimates that only around 40 percent of urban and rural property tax potential has been realized under central administration. Property valuations are the most problematic aspect of administration; the evidence suggests that government appraisals of taxable property make up only 60 percent of real market values, on average. Tax coverage and collection are apparently less worrisome but still weaker than one might expect; moreover, improvements here would appear to have stalled in recent years. The relevant coverage and collection ratios are currently around 80 percent for both, as they have been since at least the mid-1990s.

Von Luebke (2006) notes that district governments implement a ‘target system’ of tax estimation which involves rough estimations and personal negotiations. Modern accountability systems are missing in both the private and public sector. Consequently, tax subjects—be they restaurants, hotels, shops, or home industries—are directly approached by tax officers and inspected regarding their tax potential. Both parties engage in a bargaining process and agree on a tax target based on estimated turnover of the business, its size and ability to pay. The agreed tax target is then collected at the end of each month. This target-based collection of local revenues is flawed in two critical ways:

1. **Missing accountability creates room for misconduct:** Tax subjects may understate their actual turnover, while the tax collectors may abuse administrative powers to scale up tax targets and bargain for informal rents;
2. **The bargaining conventions and limited outreach of tax officials induces a significant loss of potential revenues and an uneven division of tax burdens:** Many tax subjects are not approached by tax officials—either because of staff shortage or because businesses are considered remote.

Two steps are needed to address these flaws:

1. **Professionalise the tax collection service:** national and local governments need to work together to professionalize the tax collection service. The introduction of proper facilities
and training can motivate local staff, whilst strict sanctions for corruption can change mindsets about acceptable professional behaviour;

2. **Scrap the target system:** tax assessments should be non-negotiable – indeed firms often complain that it is the uncertainty associated with negotiated tax assessment that is as damaging as the actual rate applied. Local governments should publicly scrap the target system and replace it with random, strict tax audits with strong penalties attached. A mechanism for appealing assessments to a tax court would be an essential part of this reform.

**Institutional capacity for supervision**

The central government’s lack of capacity to enforce and execute its supervisory function for local taxation policy is a serious problem. The central government managed to review less than half of the estimated 13,520 perda that had been reported to the central government by that time. The failure to exercise its legal oversight means a large number of inappropriate perda continue to be implemented. Three measures might help:

1. Improve the resources devoted nationally to reviewing perdas to ensure that all perdas that are submitted are reviewed in a timely fashion;
2. Provide an easy mechanism for the submission of new perdas and incentives for the timely submission (and penalties for non-submission);
3. Make the transfer of the DAU conditional on having made satisfactory progress towards the revision or cancellation of perdas deemed to be illegal.

Such measures would ensure much higher compliance with the regulatory review of perdas and improved adherence to the law when perdas are deemed inconsistent with national legislation.

**Service Delivery**

Many private firms complain that they get little service benefit in return for the taxes and charges imposed by local governments (von Luebke, 2006). Among the most important public services according to businesses are electricity, water, and (local) roads (KPOD, 2004; LPEM-FEUI, 2005b). Electricity is centrally provided, although local governments tax its use (and ostensibly employ the revenues to provide public street and park lighting, among other things). Water and roads are local government services. The LPEM-FEUI (2005b) study suggests that both electricity and water services have deteriorated in quality over the past two years, whilst the RICS (2006) identifies the quality of local roads as a major concern of local businesses. Chapter 4 on infrastructure provides a set of recommendations on how to improve service delivery in these areas.

**Leadership**

Despite the fact that institutional shortcomings apply in a similar way to all district governments, the degree of business obstruction varies. The objective must be to spread the ‘best practices’ seen in Solok to poor performers elsewhere. The issue is what policy mechanisms can be used to do this.

It appears that leadership values varied significantly and related closely to more conducive business conditions (von Luebke, 2006). Promising examples of good leadership should be assessed in further detail, supported by provincial/national incentive schemes, and disseminated to other districts. Possible measures in this regard are:

1. **Understanding Leadership:** Benchmarks of strong leadership, such as in the cases of Solok and Kebumen, need to be studied in more depth in order to identify ‘generic lessons’ for future policy measures.
2. **Creating Leadership Incentives**: Local governments require clear incentives for good leadership such as (a) performance based DAU indicators, (b) reachable minimum standards, c) special awards for governance achievements, and (d) credible penalty measures in case of non-compliance.

3. **Building Leadership Capacities**: The development of nation-wide curricula for government leaders (Gubenur, Bupati, Walikota, Ketua DPRD) that include technical training (management, communication, diplomacy, anti-corruption strategies) and specific case studies on best practice locations.

There will be strong business support for these measures. The 500+ business respondents in von Luebke’s study supported a balanced policy-mix of measures addressing leadership as well as civic dimensions. Asked what is key for future business climate improvements, respondents in all four districts agreed that (a) district leadership, (b) parliamentarian oversight, (c) and private sector pressure are equally important.

**Civic Voice**

At this early stage of democratization—and given Indonesia’s socio-economic and historical context—governmental leadership probably can be more influential in the short run than civic pressures. However, the voice of local businesses can be strengthened by the following institutional measures:

1. **Extending ‘Integrity Pacts’**: Based on the example of Solok, active efforts to curb corruption in public procurement need to be extended. The ‘iron triangle’ of corruption between local executives, civil servants, and private contractors need to be broken in order to creates space for market competition and private sector voice.

2. **Solving the ‘Dept Trap’ of Public Servants**: While the President has already re-established PNS selection under central supervision, more comprehensive civil service reforms are needed to break the pattern of extractive local governance resulting from the debt trap of civil servants.
References


CHAPTER 8.
SUMMARY OF RECOMMENDATIONS
Introduction

The preceding chapters have laid out an analysis of many different aspects of the investment climate facing Rural Non-Farm Enterprises (RNFEs). Each chapter concluded with a set of policy recommendations. This chapter pulls together and summarizes the main recommendations.

There are many policy reforms and activities that could be included. We provide below a mixture of reforms and actions including longer-term reforms which, if implemented, would have a significant impact upon the investment climate, as well as actions which can be implemented more easily and which could immediately start to improve the investment climate.

For each of these reforms and activities to be successful the responsible body will have to draw up much more detailed plans. Therefore these recommendations should only be seen as a starting point for a debate about priorities and modalities: priorities – because resources are limited and some of these actions may matter more than others; and modalities – because in many areas the best way of implementing these reforms is not yet clear. The challenge will be to learn from success both within Indonesia and elsewhere to design and implement reforms that will improve the rural investment climate to stimulate growth and poverty reduction throughout the country.

Labor

Review and revise national labor laws

There is currently a heated public debate about the proposed revisions to the National Manpower Law, Law No. 13/2003. This is a good thing. Due to the economy-wide ramifications, a thorough review and revision of Indonesia’s labor laws at both the national and local levels is vital. There is ample evidence that the “jobless” recovery since the financial crisis is largely a product of a worsening investment climate for formal-sector firms. Recent labor regulations may be contributing to this. Existing labor regulations discourage the employment of younger and less-skilled workers who tend to be poorer. This may be forcing an increasing share of the labor force into the informal, unprotected sector.

Moreover, a new social contract is needed with respect to minimum wages, severance pay, and methods for settling industrial labor disputes. Indonesia needs to substantially reduce the costs associated with employment, particularly of younger and female workers who face the greatest barriers to obtaining formal sector jobs. At the same time, it must protect and enforce basic labor rights and conditions appropriate to the country’s stage of development.

These efforts may need to be accompanied by endeavors to ‘socialize’ the main ideas through media and advocacy campaigns, if they are to be accepted by all stakeholders at the national, provincial and district levels. Social support policies for the poor, such as the fuel-subsidy reduction cash compensation program, can be an important complement to build support for reforms to the regulatory environment for labor.

Remove barriers preventing the free movement of labor throughout Indonesia

The Rural Investment Climate Survey (2006) shows that more than 80 percent of the firms interviewed saw the difficulty of hiring workers from outside the region as a moderate or big problem. More effort should therefore be directed towards canceling local perda that
discriminate against the employment of workers from outside the region. The national
government should also socialize the right of all Indonesians to work anywhere in the country,
regardless of their place of residence and birth. A mechanism should be provided whereby
discrimination against outsiders can be reviewed on a regular basis (in much the same way as
the Government reviews restrictions to trade or new taxes and charges levied at the district and
provincial level). The new labor courts, once established, might become an important forum for
dealing with complaints from outsiders regarding discrimination in employment. At the same time
it will be important for investment promotion authorities, both national and regional, to help
investors from outside the region understand local sensitivities and to invest in capacity building
for local workers to enable them to participate in such investments.

Improving rural schools to better prepare workers

Rural schools must do a much better job of preparing workers for higher productivity jobs. The
demand for higher educational levels and skill training is not yet apparent in rural labor markets.
But given the time lag between the implementation of reforms in the educational system and the
point where a new generation enters the job market, it is clear that improvements must be
implemented now. Otherwise, school leavers of the future will be ill-prepared for the new
opportunities. Detailed recommendations for improvements in service delivery, including in
education, can be found in the World Bank’s Making Services Work for the Poor (2006b).

Credit

Many micro and small enterprises need credit for their business operations but do not apply for
credit from formal financial institutions, especially commercial banks, either because they lack
one of the basic requirements for a loan or because they think they would not qualify. Equally
banks and other financial institutions face a number of constraints in profitably lending to RNFEs.
Three key recommendations are made to broaden the access of RNFEs to credit:

Support pro-competition policies and reinforce competitive behavior at
the micro level:

Key components of this recommendation include:

- **Information sharing requirements**: Until a credit bureau exists that accommodates the
  credit histories of micro borrowers, regulations should ensure that a standard credit
  record is available between banks (and, preferably, non-bank SME lenders), with access
to this record based on a signed request from the borrower. More broadly, BI should
implement a transition towards greater private sector involvement in the provision of
credit bureaus with BI acting as a data wholesaler;

- **Ending of BPD quasi-monopolies on lending to civil servants**: At present, virtually all BPDs
  retain a privileged, protected position, serving the basic credit needs of civil servants,
typically based on their role as the region’s paymaster for civil servants. Unfortunately,
this has had several anti-competitive effects beyond the maintenance of high margins
with little product innovation in lending to civil servants. With only a few exceptions, most
BPDs have been very slow to move out of their sheltered markets into the more
competitive but still profitable micro and SME lending segments in their respective
provinces. And new micro banking entrants have been unable to tap this market
segment as part of an overall rural service strategy. As banks with mandates to serve
their respective provinces, BPDs typically have the second-best rural branch networks in their working areas after BRI, so they could play a useful role in supplying credit to RNFEs.

- **Common on-line savings initiative involving BPRs:** Although the large majority of BPRs have done a good job in microfinance outreach (on the whole, trailing only BRI in terms of outreach to micro enterprises), these lower-tier banks are at present uncompetitive in mobilizing funds, placing them at a serious disadvantage relative to the microfinance-oriented commercial banks with whom they compete directly for funds. A shared approach to IT development and network participation is needed to ensure that BPRs can offer competitive savings products at an affordable cost to themselves.

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**Make commercial banks (and BPRs) more transparent:**

BRI has established itself as perhaps the world’s best micro-enterprise finance institution, currently lending to more than 3 million micro-borrowers nationwide. However, the way in which reporting is done by BRI, most BPDs and some other banks that claim to focus on micro/SME lending, makes it difficult to determine how much lending has actually gone to micro/small enterprises, and how much has been consumer lending to individuals.

For example, these banks are often reluctant to show micro-enterprise lending separate from micro-scale lending to civil servants and employees, and they tend to emphasize cumulative disbursement rather than outstanding loan amounts and number of borrowers. The point here is not to embarrass banks or to add an additional reporting burden. Rather it is to require them to provide a more accurate picture of their current microfinance activities.

In practice, the actual additional information required from banks is fairly modest:

- Greater emphasis on orang (account) figures for reporting micro and SME loans, not just Rupiah values;
- A more honest classification of loans, distinguishing between enterprise and consumption lending; and
- Particularly for state-owned banks, the requirement that the profit and loss of the banks be disaggregated according to business line.

State banks and BPDs should also be required to formulate strategies for increasing micro and SME lending. Beyond this, it may be worthwhile to work with certain SME lenders to ensure that profitability both drives decision-making and leads to incentive payouts to staff.

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**Support for one or more outreach initiatives aimed at connecting new micro borrowers to the financial system**

One approach would be to develop a P4K-style outreach program for financing the household enterprises of rural low-income households. Like the Kredit Mini/Midi program that marked the true beginning of BRI Unit microfinance in the late 1970s, the P4K program is a notable exception to the general rule that credit programs do not work. Originally funded by IFAD/ADB and implemented jointly by the Department of Agriculture and BRI, agricultural extension workers carried out group formation and maintenance while BRI loaned to groups once they were ready. BRI also handled the financial administration. At its peak, the program was successfully lending to more than 200,000 marginal farming and fishing households.

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67 Pembinaan Peningkatan Pendapatan Petani Nelayan or Assistance in Income Generation for Marginal Farmers and Fishermen.
Though the program had a very good repayment record (higher than 95 percent), especially compared to other government/donor credit programs, there is a need for an indirect subsidy to cover some of the cost of group formation; local, regional, and national supervision; and institutionalization, including some technical assistance. In general, loan risk proved to be concentrated in the first loan; if the borrower paid their first loan back on time, the risk on subsequent loans dropped to commercially acceptable levels. A successor to this program could be spread to all rural and semi-urban areas throughout Indonesia, not just in the present provinces. The P4K approach has the great advantage of scaling down in rural areas better than virtually any other program tried in Indonesia; other efforts at reaching the same class of borrowers (including small savings and loan cooperatives) require a critical mass of borrowers (50-100) at the local level in order to support the development of an institution.

In order to be a long-term success, such an initiative would need to have as its objective the bringing of borrowers into the financial system. In the past, this was largely accomplished by institutionalizing the program. A better approach at this point, though, is to provide incentives for commercial micro lenders to begin lending to borrowers before the program ends (rather than attempt end-of-project handovers which often do not work). The key to this is early involvement of interested commercial microfinance institutions.

**Infrastructure**

**Extend rural access to electricity**

Access to electricity is essential for improving productivity of RNFEs. But the current structure of subsidies takes resources away from extending access and redirects them towards subsidizing consumption. User subsidies should be redirected to district and local governments to support grid extension and off-grid energy solutions. In addition it will be important to allow PLN greater flexibility to provide electricity at tariffs which better reflect the cost of delivery, as well as the flexibility to identify components of input costs that could be reduced by using differential quality standards for different regions (e.g. using local materials for poles).

At the same time it will be important to clarify the roles for different levels of government in promoting electricity access through revision to Law 34/2004 and Regulation 3/2005 on the role of local governments in developing rural electricity. This should improve the environment for off-grid solutions, as well as easing conditions surrounding provision of electricity from Captive Power Plants/other plants to local networks. Provincial governments could also work with PLN to set up output-based universal service schemes to support rollout of electricity to currently unserved households and villages.

**Extend rural access to telephony**

Access to telecommunications has the potential to greatly improve productivity in rural areas. However, to realize this potential it will be important to ensure that the licensing interconnection regime favors rural access. This will require the introduction of regulations allowing asymmetric interconnection between rural and urban operators and the establishment of an open, technology neutral licensing regime.

In addition it will be important to extend output-based approaches to access, by setting up a national USO scheme utilizing OBA approaches to utilize USO operator tax. To make this possible it will be necessary to review Ministerial Decree No 34/2004 on ownership of assets purchased
using government resources since this current requires government ownership of assets purchased with government funds.

**Boost expenditure on the maintenance of Kabupaten roads**

Kabupaten level roads are in very poor conditions and impose large costs on RNFEs. Improving the quality of Kabupaten roads will require several steps. Firstly reforms are needed to the mechanisms that channels central funds to local governments. In particular GR 55/2005 should be amended to ensure that central government fund allocations are made increasingly on the basis of need. Furthermore, DAK resources could be used to provide incentives for appropriate allocations of funds towards road maintenance.

Nonetheless it may still be necessary to earmark dedicated funds for road maintenance to ensure an appropriate allocation. The governance and efficiency of the road sector could also be improved through greater use of public-private partnerships. These might involve the introduction of public-private oversight, independent financial and technical audits, and yardstick competition based on quality of maintenance.

Finally, it may make sense to introduce selective incentives for labor-based road construction and to broaden the evaluation criteria for selecting construction projects to take into consideration employment creation. Promoting greater community involvement in the planning and implementation of road maintenance may help both to prevent corruption and to ensure that resources are allocated where they are most needed.

**The Diffusion of Technical Knowledge**

**Promote commercial interaction with actors outside the local economy**

Outward orientation is critical to success at the local level as well as at the national level. Analysis from the RICS shows that most goods produced by RNFEs are bought and sold very close to the place where the firm is based. When the geographical reach of trade is so local there are very few opportunities for technological learning. Bali’s industrial success lies in part because its unique access to foreign tourists, but the “outside actors” that bring new ideas and techniques do not have to be foreign. Facilitating voluntary linkages with more modern firms based in nearby urban centers can help to expand the domain of trade and the depth of technical capacity in rural areas.

**Promote private sector driven technological learning**

The diffusion of technical knowledge is not something that government does to SMEs – it is something that happens when SMEs work together with larger and more modern enterprises on mutually profitable activities. Both the provision and the absorption of new knowledge happens more effectively when there is a strong incentive for the supplier and the user of that knowledge. The job of the government in such learning is primarily to facilitate such private interactions by reducing the “search costs” for suitable partners both SMEs and larger firms.
Create a culture of innovation in the educational system

Innovative economic systems cannot function well without an educated work force. Improving the quality of secondary- and tertiary-level science and technology skills to encourage creativity and enlarge the number of innovators is a critical strand of policy in supporting technology/innovation capacity building in enterprises. This is both a national and a local responsibility: the centre should improve the educational curriculum to place greater stress on science and technology, and on innovation and creativity more generally; the district government’s have the responsibility of effectively monitoring (in creating incentives for) improvements in the delivery of educational services (see Making Services Work for the Poor – World Bank (2006b) for more details.) Similarly, the quality of vocational education needs to be improved and made more relevant to the needs of employers. This could be done by separating the provision and funding of such training in order to make it more demand driven.

Improve the capabilities of R&D institutions and universities and make them more demand driven

A national strategy for technological development is needed and this should include better mechanisms of developing and disseminating technology to RNFEs. Such a strategy would involve increasing the government budget for science and technology in order to attract high-caliber staff, upgrade facilities, and increase the capacity of such agencies to engage in meaningful outreach activities for the targeted client groups.

But Indonesia’s research institutes and universities also need to be made more demand driven. This can be done by creating incentives for links with the private sector. Steps to support this include: changing mission statements and philosophies from supply towards demand driven; and adopting a more progressive approach to selling their developed technologies or innovations and to disseminating information to the private sector. The government could encourage such moves by:

- Providing greater funding for R&D activities or providing direct subsidies to R&D institutions and universities;
- Granting these institutions greater managerial autonomy;
- Enforcing greater observance of intellectual property rights;
- Requiring universities to obtain co-funding from the private sector to obtain certain government-funded research projects; and
- Giving awards for the most active universities or R&D institutions in conducting R&D activities and dissemination of their findings to the private sector.

Make Government a facilitator of demand driven training (and other business development services) rather than a provider

Government facilitated technical training can be useful. The RICS Case Study on the metalwork cluster in Tegal (World Bank, 2006a) confirmed earlier research that showed that government training covers areas which are both important and not covered in the typical form of training, including in buyer-supplier interactions. However, it also showed that this training was generally of poor quality and of limited relevance to recipients. The government needs to shift from being the principle provider of such training to crowding in demand-driven private sector provision of training and other business development services. For example, government could help to bear the costs of identifying the types of training and capacity building which are needed in a local area and disseminating this information widely. It could also stimulate market demand by issuing “upgrading vouchers” allowing SMEs to obtain introductory training from local private providers.
Government both nationally and locally needs to learn from successful approaches to the development of training and BDS elsewhere and experiment with their introduction in Indonesia.

**Evaluate the effectiveness of specific programs and scrap those that don’t work**

Based on the few evaluations of government SME support programs which have been done, it is likely that many of the 127 existing government support programs are not effective in boosting the technological capacity of the vast majority of smaller enterprises. The Government urgently needs to undertake a comprehensive evaluation of the outcomes (rather than merely the inputs) of these programs and scrap those that create no net benefit. More importantly, it should learn the lessons from those programs that are more successful and apply these to the redesign and implementation of the remaining programs. In doing so it will be important to recognize that there may be substantial regional variation in the quality of such programs, due to better leadership in some areas, or local innovations in implementation. Whilst the comprehensive review should provide a set of general principles to apply to government programs, national government should also support the systematic monitoring and evaluation of such local innovations in order to identify and disseminate successful models of knowledge diffusion and technological capacity building for RNFEs.

**Marketing and Competition**

**Improve marketing efficiency**

Improving marketing efficiency reduces costs and promotes growth. There are several ways in which the government can help to improve marketing efficiency. Firstly, and most directly, the Government can facilitate greater market interaction through the rehabilitation and renovation of public marketplaces. This should be done in consultation with the local private sector and the general public.

In addition the government should take steps to ensure the free movement of goods between different regions. This could be done by reviewing regional government regulations on the movement of tradeable goods within and between regions of the country, and cancelling existing and new draft regional regulations that obstruct regional trade.

Local governments should also support the development of rural producer organizations by providing incentives for non-government agencies (e.g. universities, NGOs, business associations etc) to act as catalysts in assisting farmers and non-agricultural businesses to develop their marketing skills.

Reducing high transportation costs will also be an important part of improving marketing efficiency. Government can assist in reducing these costs both through better infrastructure (see above), as well as by reviewing and revising as appropriate restrictions and regulations on the local trucking industry.
**Promote a competitive commercial environment**

A higher level of competition promotes productivity growth and reduces prices for consumers. The trend in recent years towards greater competition has been towards a more level playing field for all participants in the market and less arbitrary political intrusion. This trend should be strongly supported by policy makers. The benefits of such an approach are clearly shown by the successful growth of sectors in which there have been major, high-profile deregulation measures, including: domestic civil aviation; telecommunications; and various agricultural monopolies.

But many government-sanctioned monopolies remain, most of all in the BUMN/SOE sector. Indeed, there has been little reform of the SOE sector since the crisis, and their operations so far have been beyond the purview of the KPPU. Moreover, some local governments take actions which inhibit rather than promote competition (e.g. favoring local contractors for public works). The Government should consider empowering KPPU to explore anti-competitive practices by state-owned enterprises and local governments, and provide KPPU with the necessary manpower, operating budget and office facilities for this expanded mandate.

**Support improved access to modern supply chains for rural producers**

Gaining access to modern supply chains has been an important route for productivity growth for rural producers. The government can support such access by strengthening research and extension systems to enable farmers to have access to the necessary technologies and market information. For example, the government could promote market-oriented adaptive research (especially strengthening the outreach role and mandate of provincial BPTPs). In addition it will be essential to support the development of a relevant, skilled and pluralistic extension service that draws on universities and private sector actors.

The government can also enhance rural producers’ bargaining position through facilitating meetings between improving communication between producers, retailers, local industries and researchers. For example, incentive schemes could be introduced for specialized wholesale suppliers and/or leading farmers who connect rural producers to modern supply chains.

The government also needs to strike an appropriate balance between the interests of traditional markets and the development of modern markets at the Kabupaten level. On the one hand the government should revise the restrictions on the development of modern markets in Kabupatens; on the other hand it will be essential to institute a transparent, fair and impartial process for determining modern market developments, and, at the same time, improve the quality and capacity of traditional market facilities through funding for traditional market rehabilitation and development.

**Local Governance**

The local governance of the investment climate in most districts is poor. In general, local firms face high capture practices, extensive administrative time requirements, unsatisfactory one-stop license services, and inadequate tax administration. Overall, district administrations continue to operate on a level that is unsatisfactory to business needs.

Several steps are needed to improve local economic governance:
Enhance the quality and capacity of local leadership

Despite the fact that institutional shortcomings apply in a similar way to all district governments, the quality of the local investment climate can vary markedly. One of the most important reasons that some districts have a good investment climate whilst others have a poor environment, is the quality and capacity of local leadership (see Chapter 7). There are two concrete actions that the national government could do to improve the quality of local leadership.

Firstly, it is important to provide incentives for good performance. The current system of inter-governmental transfers provides little incentive for stimulating growth (and rather stronger incentives for increasing the PAD even if this worsens the investment climate). The national government could link some inter-government transfers to local government performance in a variety of areas of service delivery in order to provide an incentive for improved performance.

Secondly, the government should create a national training program for local government leaders. This would involve introducing a nationwide curricula for government leaders (Gubenur, Bupati, Walikota, Ketua DPRD and DPRD members) that includes technical training (management, communication, diplomacy, anti-corruption strategies) and specific case studies on best practice locations. It would also be necessary to monitor and evaluate the effectiveness of existing training programs.

Improve the efficiency of local tax practices

Efficient local tax and licensing services are a key component of a good investment climate. But tax administration in many districts is extremely inefficient whilst licensing procedures can be costly and time-consuming. For example, only around 40 percent of urban and rural property tax potential has been realized under central administration. Property valuations are the most problematic aspect of administration; the evidence suggests that government appraisals of taxable property make up only 60 percent of real market values, on average. Moreover, the methods of tax collection often involve rough estimations and personal negotiations. Modern accountability systems are missing. Consequently tax subjects are directly approached by tax officers and inspected regarding their tax potential. Both parties engage in a bargaining process and agree on a tax target based on estimated turnover of the business and its size and ability to pay. The agreed tax target is then collected at the end of each month.

Two actions are therefore needed to create a more efficient tax service and greater certainty for taxpayers:

- Professionalize the tax service: national and local governments need to work together to professionalize the tax collection service. The introduction of proper facilities and training can motivate local staff, whilst strict sanctions for corruption can change mindsets about acceptable professional behaviour;
- Eliminate tax “negotiation”: government should publicly shift towards a non-negotiated tax assessment accompanied by random, strict tax audits with strong penalties attached. A mechanism for appealing assessments to a tax court would be an essential part of this reform.

Reduce the cost and time associated with obtaining business licenses

Businesses that have to deal regularly with the bureaucracy frequently complain of the high cost and, particularly, the long and uncertain amount of time required to obtain key business licenses. But excellent examples exist of local governments that are delivering these services quickly, efficiently and without corruption. The key to success is not merely having a One Stop Shops – many districts have rather ineffective OSSs – but setting targets, aligning the incentives of the staff towards achieving those targets, and continuously monitoring performance. Similarly,
publicizing fixed low rates for obtaining business licenses and putting in place systems to allow any interested party to easily access official information (e.g. through posters, booklets, websites etc) are valuable components of an overall strategy for improving the services offered to local businesses.

**Ensure that regional legislation is consistent with national legislation**

The central government’s lack of capacity to enforce and execute its supervisory function for local taxation and licensing policy is a serious problem. The central government managed to review less than half of the estimated 13,520 (tax and non-tax) perda sent in for evaluation from 2000 to mid-2005. This lack of capacity means a large number of inappropriate perda continue to be implemented. Three measures might help:

- Improve the resources devoted nationally to reviewing perdas to ensure that all perdas that are submitted are reviewed in a timely fashion;
- Apply the legislated sanctions for the persistent application of inconsistent perda;
- Provide an easy mechanism for the submission of new perdas and incentives for the timely submission (and penalties for non-submission);

Such measures would ensure much higher compliance with the regulatory review of perdas and improved adherence to the law when perdas are deemed inconsistent with national legislation.

**Encourage greater involvement of civil society, including the private sector, in local economic policy making**

Civil society involvement in local economic policy making is important for two reasons. Firstly, it makes it more likely that the policies pursued actually reflect the wishes of the population. Secondly, it discourages corruption and exposes inefficiency thereby putting pressure on local administrations to improve performance. There are many ways of encouraging greater civil society participation. Examples include:

- Extending ‘Integrity Pacts’: The example of Kabupaten Solok has shown how integrity pacts can help to curb corruption in the public service. Such efforts are essential, particularly in public procurement, in order to break the ‘iron triangle’ of corruption between local executives, civil servants, and private contractors.
- Implementing Regulatory Impact Assessments (RIAs): Institutionalizing RIAs would provide local governments with a mechanism of ensuring that local perdas only imposed a burden on local businesses when there was widespread agreement that a good public interest case could be made for their existence and that no other forms of policy would be better able to tackle the problem in question.
- Breaking the “Debt Trap” of Civil Servants: in many administrations civil servants have to pay substantial sums for their positions. To do so they often borrow money, providing a strong incentive for them to use their public position to recover their investment. Complete transparency in recruitment procedures and penalties for those caught making and receiving such payments can help to eliminate this practice and ensure that public servants devote their energies to serving the public.