

Dodik Ridho Nurrochmat

THE IMPACTS OF REGIONAL AUTONOMY

ON POLITICAL DYNAMICS, SOCIO-ECONOMICS AND FOREST DEGRADATION

Case of Jambi - Indonesia



**Institute of Forest Policy
and Nature Conservation**
University of Goettingen



Cuvillier Verlag Göttingen
internationaler
wissenschaftlicher Fachverlag

Dodik Ridho Nurrochmat

THE IMPACTS OF REGIONAL AUTONOMY

ON POLITICAL DYNAMICS, SOCIO-ECONOMICS AND FOREST DEGRADATION

Case of Jambi - Indonesia



**Institute of Forest Policy and Nature Conservation
Georg - August University of Goettingen**



**CUVILLIER VERLAG GOETTINGEN
2005**

THE IMPACTS OF REGIONAL AUTONOMY

ON POLITICAL DYNAMICS, SOCIO-ECONOMICS AND FOREST DEGRADATION

Case of Jambi - Indonesia

Dissertation

zur Erlangung des Doktorgrades
der Fakultät für Forstwissenschaft und Waldökologie
der Georg-August-Universität Göttingen



vorgelegt von
Dodik Ridho Nurrochmat
geboren in Ponorogo, Indonesien

Göttingen, 2005

Bibliografische Information Der Deutschen Bibliothek

Die Deutsche Bibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.ddb.de> abrufbar.

1. Aufl. - Göttingen : Cuvillier, 2005
Zugl.: Göttingen, Univ., Diss., 2005
ISBN 3-86537-390-9

D7

1. Berichterstatter: Prof. Dr. M. Krott
2. Berichterstatter: Prof. Dr. G. Gravenhorst
3. Berichterstatter: Prof. Dr. W. Manig

Tag der Mündlicherprüfung: 19.01.2005

Gedruckt mit Unterstützung des Deutschen Akademischen Austauschdienstes (DAAD)

© CUVILLIER VERLAG, Göttingen 2005
Nonnenstieg 8, 37075 Göttingen
Telefon: 0551-54724-0
Telefax: 0551-54724-21
www.cuvillier.de

Alle Rechte vorbehalten. Ohne ausdrückliche Genehmigung des Verlages ist es nicht gestattet, das Buch oder Teile daraus auf fotomechanischem Weg (Fotokopie, Mikrokopie) zu vervielfältigen.

1. Auflage, 2005
Gedruckt auf säurefreiem Papier

ISBN 3-86537-390-9

*Thanks to God the Merciful,
... who gave me a wonderful world.*

*To my respectful parents,
... who make my world meaningful.*

*To my beloved wife and sons,
... who make my world beautiful.*

Foreword

There are numerous political strategies against forest degradation. But despite many different efforts on regional, national and international levels, there has been little success and sustainable use of the natural resource forest is a vision rather than a reality.

Strengthening regional autonomy is one of the most important means for improving the regions' management of their own natural resources. The idea and hope is that a region which is responsible for its own forest will use it wisely.

Whether these expectations are met in practice is evaluated by the analysis of Dr. Dodik Nurrochmat in a case study of Jambi in Indonesia. The evaluation applies a comprehensive approach integrating ecological, socio-economic and political aspects. Therefore the results allow a complex judgment of the multiple impacts of decentralization on the sustainable use of forests.

The integrated approach of this book gives highly relevant information to stake holders who always have to act in practice on multiple dimensions of problems. Scientifically it is a good and rare example of a successful interdisciplinary analysis. Consequently the thesis was evaluated "*summa cum laude*" by the Faculty of Forest Sciences and Forest Ecology, University of Goettingen.

I wish the book well and believe it deserves the attention of readers in the scientific community and of all stakeholders who want to take effective and efficient political measures for the forest and the people.

Goettingen, February 2005

Prof. Dr. Max Krott

Institute of Forest Policy and Nature Conservation
George-August University of Goettingen, Germany

ACKNOWLEDGEMENTS

I am indebted to several persons and institutions that made it possible for this study to be undertaken. My greatest intellectual debt is to my academic supervisor, Prof. Dr. Max Krott at the Institute of Forest Policy, University of Goettingen, for his supervision and constructive criticism throughout discussions as well as teaching activities. My special thanks are due to PD. Dr. Regina Birner from the Institute of Rural Development University of Goettingen, who presently works in IFPRI Washington, D.C., for her invaluable advice, assistance and immense contributions to making this study what it is now.

I would like to express my heartfelt gratitude to Prof. Dr. W. Manig (Rural Development), Prof. Dr. G. Gravenhorst (Bioclimatology), and Prof. Dr. F. Hapla (Forest Utilization) for their kind recommendation and interesting discussion during my doctoral examination.

My deepest appreciation to Prof. Dr. (em) H.-J. Weidelt, who has given support to continue my doctoral study, and also to Prof. Dr. R. Mitlöhner and Prof. Dr. R. Bürger-Arndt for accommodating and recommending me for an annual extension of my DAAD scholarship. My special thanks also go to Dr. Roland Olschewski from the Institute of Forest Economics, University of Goettingen, who improved my knowledge on macroeconomics and to Dr. Oentarto, Director General of Regional Autonomy of the Republic of Indonesia, for his most valuable sharing on the actual government policy.

To my colleagues Mike and Abby Legaspi (Pennsylvania, USA), I express my gratitude for their helpful assistance and proof reading.

My great thanks are due to Katharina Vering for her assistance in proofing the German texts. Thanks also to Mr. Manfred Hellwig and Mrs. Stephanie Westphal at the office of the Institute of Forest Policy and to all scientific workers as well as my colleagues at the Institute of Forest Policy and Nature Conservation – Dr. Christiane Hubo, Dr. Daniela Kleinschmit, Hans -E. Kutscher, Carsten Lessner, Aan Dyna Andriani, Ju Hyoungh Lee, San Oo, Heiko Garrelts, Alejandra Real, Mi Sun Park, Andy

Russel, Ali Ashgar Nouri, Mirjana Stevanov, Marion Leng, Oliver Tuchtfield, Michael Böcher, and Maximilian Ortner for their amity and togetherness.

I owe my deepest thanks and appreciation to the German Academic Exchange Service (DAAD) that has provided me with scholarships. Special thanks are due to Mrs. Barbara Schwarz-Bergmann and all of the administrative staff at the DAAD Desk 424 (now 422) in Bonn for their kind assistance and support.

My special gratitude goes to Prof. Dr. Cecep Kusmana and Prof. Dr. Yusuf Sudohadi, Dean and former Dean of the Faculty of Forestry Bogor Agricultural University (IPB) and to Prof. Dr. Dudung Darusman, Director of the Institute of Forest Policy, Economics, and Social IPB, Bogor, Indonesia, for giving me the opportunity and support to study abroad.

Thanks to Ir. Nunung Nuryartono MS for his most valuable input on statistical analysis. To Dr. Nurhayati Agus Nanang, Dr. Bambang Irawan, Ir. Yun Alwi MSc and my colleagues in Mess Unja; Ir. Wardono Saleh, Ir. Agus Budi Santoso and all the staff of PT. DHE; Ir. Hermianto in Wisma Sylva Gama Muara Tebo and my enumerator Ahmad Muzakir SP, I express my sincere gratitude for all their helpful assistance during my field research in Indonesia. My thanks and appreciation are also due to all my respondents who gave me information as well as spent their time and shared invaluable experience.

I gratefully acknowledge to the International Tropical Timber Organization (ITTO) in Yokohama, Japan, for its support of my participation and paper submission (a part of this study) in the XXII IUFRO World Congress 2005 in Brisbane, Australia.

Finally and most of all, I would like to express my deepest and heartfelt thanks to my beloved wife, Meti Ekayani; my twin sons Andhika Akbar Nurrochmat and Nugraha Akbar Nurrochmat; as well as my beloved parents, H. Parludji and Hj. Sukartini in Ponorogo, my sister Denny Nurfarida in Mataram, and my respectful parents in law H. Sumeri and Hj. Sri Sutanti in Jakarta. Without their sincere love, patience, support and prayer, this dissertation could not have been completed.

Goettingen, 19th of January 2005

Dodik Ridho Nurrochmat

TABLE OF CONTENTS

	Page
Foreword	i
Acknowledgements	iii
Table of Contents	v
List of Tables	ix
List of Figures	xi
List of Boxes	xii
List of Appendices	xiii
Glossary	xiv
 1. Introduction	
1.1. Decentralization as a better Way for Regional Development?	1
1.1.1. Problems Concerning a Centralized System of Government	1
1.1.2. Decentralization as a Recent Trend in Developing Countries	2
1.1.3. Decentralization Offers a better System of Government?	3
1.1.4. Critical Views to Decentralization	4
1.2. The Challenge of Regional Autonomy and Forestry Decentralization in Indonesia	7
1.3. Objectives and Research Questions	9
1.4. Outline of the Study	11
 2. Conceptual Framework	
2.1. Decentralization: Theoretical Concepts	13
2.1.1. Definitions and Degrees of Decentralization	13
2.1.2. Decentralization as an Alternative System of Government	15
2.2. The Concepts Concerning Effective Government and Resource Use	19
2.2.1. The Concepts of Democracy and Good Governance	20
2.2.2. The Concept of Devolution	25
2.2.3. The Concept of Participation	27
2.2.4. The Concept of Resource Use	31
2.2.5. The Concepts of Rational Choice and Collective Action	32
2.2.6. The Concepts of Social Capital and Political Capital	35

2.2.6.1. What is Social Capital and How does it work?	35
2.2.6.2. What is Political Capital and How could Social Capital be transformed into Political Capital?	38
2.2.7. Hypotheses	41
3. Legal Basis of Regional Autonomy in Indonesia	
3.1. Reviews of the Post-Reform Indonesia	43
3.2. Indonesia's Regional Autonomy from an Historical Perspective	45
3.3. Arguments for Indonesia's Regional Autonomy	47
3.4. Hierarchy of Legislation and Codification	48
3.4.1. Regional Autonomy in the Legislation's Hierarchy	48
3.4.2. Policy Making Process: Law Codification in Indonesia	51
3.5. Legal Basis of Regional Autonomy and Forest Management	54
3.5.1. Regional Governance Law 22/1999	54
3.5.2. Fiscal Balance Law 25/1999	56
3.5.3. Forestry Law 41/1999	60
4. Research Area and Methods	
4.1. Why was Jambi selected as Research Area?	69
4.2. Research Procedures and Objects of the Study	70
4.3. Description of the Research Area	73
4.4. Research Methods	77
4.4.1. Sampling as a Method for Data Collection	77
4.4.1.1. Collection of Primary Data	79
4.4.1.2. Collection of Secondary Data	83
4.4.2. Data Analysis	84
4.4.2.1. Qualitative Analysis	84
4.4.2.2. Quantitative Analysis	84
4.4.3. Comprehensive Evaluation: SWOT and Confirmation of Hypotheses	84
5. Political Dynamics and Conflict of Interests Concerning Forestry Decentralization in Jambi	
5.1. Political Dynamics in Jambi	87
5.2. Conflict of Interests Concerning Decentralization in Jambi	88
5.2.1. The Struggle for Authority over Forest Resources in Jambi: A Legal Crisis	91
5.2.2. Weakening of the State and Implications for Forest Policy in Jambi	97
5.2.2.1. Weakening of the State: A Problem of Institutional	97

Choices in Forestry	
5.2.2.2. Forest Policy Implication: Ambiguity and Tendency	101
5.2.3. Strengthening Local Political Capital and Tenurial Conflicts in Jambi	107
5.2.3.1. Transformation of Social Capital into Political Capital in the Research Area	108
5.2.3.2. Forest as the Victim of Tenurial Conflicts in Jambi	115
6. Socio-Economic and Environmental Impacts: Case of Tebo Regency Jambi	
6.1. Socio-Economic Impacts	121
6.1.1. Income Growth and Poverty Rate	121
6.1.2. Benefits and Losses from Forestry Sector	124
6.1.3. Income Disparity	128
6.1.3.1. Distribution of GDRP among Regencies	129
6.1.3.2. Distribution of Per Capita Income	131
6.1.3.3. Household Economy	135
6.1.4. Perceptions toward Implementation of Regional Autonomy	143
6.1.4.1. Perception concerning People Participation in Forest Management	143
6.1.4.2. Perception concerning Socio-Economic Conditions after Regional Autonomy in the Three Sample Villages	145
6.1.4.3. Perception concerning Authority over Forest Management in Jambi	147
6.2. The Impact of Regional Autonomy on Forest Resources in Jambi	149
6.2.1. Illegal Logging in Indonesia Post Decentralization	150
6.2.2. Socio-Economic and Political Dimensions of Illegal Logging in Tebo Regency	152
6.2.3. Forest Resources Degradation in Jambi	155
6.2.4. Regional Autonomy and Factors Influencing Forest Degradation in Jambi	158
7. Discussions and Confirmation of Hypotheses	
7.1. Discussions	169
7.1.1. Strengths, Weaknesses, Opportunities and Threats of Regional Autonomy in Jambi	169
7.1.2. Findings Concerning Overall Aspects of Regional Autonomy in Jambi	172
7.2. Confirmation of Hypotheses	178

8. Conclusion and Policy Recommendation	
8.1. Conclusion	183
8.2. Policy Recommendation	186
Summary	189
Zusammenfassung	191
References	195
Appendices	207
INDEX	221
Curriculum Vitae	226

LIST OF TABLES

	Page
Table 2.1. Types of Organizations in the Public, Private and Collective Action Sectors	30
Table 2.2. Social and Political Capital Matrix	40
Table 3.1. List of Legislation Concerning Regional Autonomy and Forest Management	50
Table 3.2. The Fiscal Balance Fund between Centre and Regions	58
Table 3.3. The Detailed Distribution of Natural Resources Revenue in the Regions	59
Table 3.4. Forest Category According to Its Function (TGHK)	60
Table 3.5. Formulation Process of Forestry Law 41/1999	62
Table 3.6. Comparison of Contents between Basic Forestry Law 5/1967 and Forestry Law 41/1999	63
Table 4.1. Institutional Level, Name of Institutions, and Number of Key Person	81
Table 4.2. Name of Villages, Location, and Number of Respondents	83
Table 5.1. The Supporting Legislations Concerning The Government Regulation 34/2002	94
Table 5.2. The Differences of Preference between Centre and Regions towards Forest Resources Management	96
Table 5.3. Influence of State Capability and Social Capital on Institutional Choice and Its Constraints in Indonesian Situation	98
Table 5.4. Political Commitments and Factual Situation in Indonesia	102
Table 5.5. Tenurial Conflicts and Their Implication for Jambi Forests	115
Table 6.1. Original Income of Tebo Regency	122
Table 6.2. The Growth of Some Economic Indicators of Tebo Regency	123
Table 6.3. Poverty Rate Before and After Regional Autonomy	123
Table 6.4. Estimation of Legal and Illegal Logs in Tebo regency, Jambi Province and Indonesia Before and After Regional Autonomy	127
Tabel 6.5. Range of Disparity of GDRP between the Richest and the Poorest Regencies in Jambi Province	129
Table 6.6. Distribution of GDRP among Regencies in Jambi Province	130
Tabel 6.7. Range of Disparity of the Highest and Lowest Income in the Forest Villages of Tebo Regency	132

Tabel 6.8.	Distribution of Income According to Income Classes in Tebo Forest Villages and Indonesia	133
Table 6.9.	Description of the Socio-Economic Variables of Respondents	135
Table 6.10.	Descriptive Statistics of Socio-Economic Characteristics of Respondents	136
Table 6.11.	Sources of the Household's Income	137
Table 6.12.	Variables Related to the Portion of Forestry Income Sharing	139
Table 6.13.	Variables Related to the Absolute Benefits from Forest	140
Table 6.14.	Probit Analysis of Variables Related to the Poverty Level	142
Table 6.15.	Perception Concerning Participation after Regional Autonomy	143
Table 6.16.	Regional Autonomy and Prosperity of People in the Three Sample Villages	145
Table 6.17.	Chi-Square Test about the Perception of Respondents in the Three Sample Villages towards their Prosperity after Regional Autonomy	146
Table 6.18.	Perceptions toward Economic Situation in the Regions After Regional Autonomy	147
Table 6.19.	Annual Forest Lose Before and After Regional Autonomy	156
Table 7.1.	SWOT Analysis of Regional Autonomy in Jambi Province	170
Table 7.2.	Empirical Situation after Regional Autonomy in Jambi	173
Tab. Ap.1.	Regulative Instruments Related to the Regional Governance Law 22/1999	208
Tab. Ap. 2.	Variables Related to the Portion of Forestry Income Sharing	209
Tab. Ap. 3.	List of Institution and Key Person in Qualitative Interviews	210
Tab. Ap. 4.	Interviewed Stakeholders in Tebo Regency and their Perceptions Concerning Regional Autonomy	211
Tab. Ap. 5.	Interviewed Stakeholders in Jambi Province and their Perceptions Concerning Regional Autonomy	213
Tab. Ap. 6.	Interviewed Stakeholders in the Central Institutions and their Perceptions Concerning Regional Autonomy	215
Tab. Ap.7.1.	Capacity of Timber Based Industries in Tebo Regency 2002	217
Tab. Ap.7.2.	Regional Taxes ("retribusi daerah") of Logs in Tebo Regency 2002	217
Tab. Ap.7.3.	Estimation of Annual Illegal Logging and Loss of Retribution in Tebo Regency	217
Tab. Ap.8.	Estimation Models of the Large of Jambi Forests 2001-2010	218
Tab. Ap.9.	Comparison between Formal and Factual Forests in Jambi 2002	219
Tab. Ap.10.	Forest Category according to its Function (TGHK) in Jambi 1990-2002	220

LIST OF FIGURES

	Page
Figure 2.1. Arnstein's Ladder of Participation	28
Figure 2.2. Impact of Social Capital on Governance Costs	37
Figure 3.1. The Scheme of the Hierarchy of Legislation in Indonesia	49
Figure 3.2. Process of Law Codification in Indonesia	53
Figure 4.1. Steps of the Research	70
Figure 4.2. Policy Cycle and Objects of the Study	72
Figure 4.3. Location of the Research Site and Distribution of Jambi Forests	75
Figure 4.4. Tebo Regency in the Satellite Image of Jambi Province	76
Figure 4.5. Research Sites in the Map of Tebo Regency	76
Figure 5.1. Number of Large-Scale Forest Concession in Jambi 1992-2002	104
Figure 5.2. The Condition of a Nursery of a Forest Concession Before and After Regional Autonomy (at the same location)	105
Figure 5.3. The Dynamics of Social Capital and Political Capital in Jambi	109
Figure 5.4. Transformation of Social Capital into Political Capital in the Research Area	113
Figure 6.1. Poverty Rate in Forest Villages, Tebo regency and Indonesia After Regional Autonomy	124
Figure 6.2. The Procedure to Get Permission for the Sawn-timber Industry	125
Figure 6.3. Number of Sawmills in Tebo Regency 1996-2002	126
Figure 6.4. Estimation of Legal and Illegal Logs in Tebo Regency	127
Figure 6.5. Actual Revenue and Estimation of Revenue Loss from Regional Timber Fees in Tebo Regency	128
Figure 6.6. Lorenz Curve of GDRP among Regencies in Jambi Province 2001	131
Figure 6.7. Lorenz Curve of Forest Villages Community in Tebo Regency	134
Figure 6.8. Level of Income, Percentage and Absolute Contribution of Income Sources to Per Capita Income	138
Figure 6.9. The Distribution of Benefits from Forest in the Sample Villages	141
Figure 6.10. Perceptions toward Forest Management Authority	148
Figure 6.11. Practices of Illegal Logging in Jambi Province	152
Figure 6.12. Decreasing Size of Jambi Forests	155
Figure 6.13. Formal and Factual Forests in Jambi Province	157
Figure 6.14. Causes and Agents of Forest Degradation in Jambi	164
Figure 7.1. Poor Conditions of Public Infrastructures in the Research Area	176

LIST OF BOXES

	Page
Box 5.1. Illegal Loggers, Police, and Foresters Surrounding the Bukit Tiga Puluh National Park	106
Box 5.2. Approaching Key Persons and Gaining Trust: A Story Behind the Research	111
Box 5.3. Illegal Logging Network and Perverse Political Capital in Tebo Regency	114
Box 6.1. Illegal Logging and Government Transition in Indonesia	153

LIST OF APPENDICES

	Page
Appendix 1. Regulative Instruments Related to the Regional Governance Law	208
Appendix 2. Variables Related to the Portion of Forestry Income Sharing	209
Appendix 3. List of Institutions and key Persons Interviewed	210
Appendix 4. Perception of the Interviewed Stakeholders in Tebo Regency towards Regional Autonomy	211
Appendix 5. Perception of the Interviewed Stakeholders in Jambi Province towards Regional Autonomy	213
Appendix 6. Perception of the Interviewed Stakeholders in the Central Institutions towards Regional Autonomy	214
Appendix 7. Estimation of Annual Illegal Logging in Tebo Regency	217
Appendix 8. Forecasting the Size of Jambi Forests 2001-2010	218
Appendix 9. Comparison between Formal and Factual Forests in Jambi	219
Appendix 10. Forest Area by Function in Jambi Province	220

GLOSSARY

BAPPEDA (Badan Perencanaan Pembangunan Daerah): Regional Development Planning Agency. Each province and regency has this agency.

BPS (*Badan Pusat Statistik*): Central Statistics Agency.

Bupati: regency head; the head of the regency is elected by the regency parliament periodically (every five years).

Clear-cutting: the complete removal of all tree cover for wood harvesting and/or land clearance.

Conservation Forest: forest that is designated for wildlife or habitat protection, usually found within national parks and other protected areas.

Conversion Forest: forest that is designated for clearance and permanent conversion to another form of land use.

Deforestation: the permanent removal of forest cover and conversion of the land to other uses.

Desa: village; after regional autonomy the name of the village is not only 'desa', but varies from place to place.

DPRD (Dewan Perwakilan Rakyat Daerah): regional parliament; a legislative institution in province and regency. The members of DPRD come from the political parties and elected periodically by the people (every five years).

DR (Dana Reboisasi): reforestation fund; timber fees purposed for reforestation of degraded or disturbed forests.

Estate Crops: agricultural crops grown on plantations. The most widely grown estate crops include rubber, oil palm, coconut, cocoa, and tea.

Forest: land on which trees form the dominant vegetation type. The FAO defines forest as land with tree crown cover of more than 10 percent of the ground and land area of more than 0.5 ha where the trees should characteristically reach a minimum height of 5 m at maturity.

Forest Degradation: generally defined as a reduction in tree density and/or increased disturbance of the forest that results in the loss of forest products and forest-derived ecological services.

GOI: Government of Indonesia

Governor: head of the province, elected by the province parliament periodically (every five years).

HPH (Hak Pengusahaan Hutan): forest concession, an area of natural forest designated for selective harvest under a license. A license is granted for the selective harvest of natural forests over a given period, typically 20 years, and is renewable for a further period, typically another 20 years. The licenses are intended to maintain the forest as permanent production forest.

HTI (Hutan Tanaman Industri): timber estate; a license given to grow an industrial forest for a 35-year period. The license may be renewed for a further 35 years.

IPK (Ijin Pemanfaatan Kayu): a license to clear land for the purposes of establishing timber estate, agricultural plantations, transmigration sites, or other development schemes.

IPHH (Ijin Pemanfaatan Hasil Hutan): a small-scale logging license (maximum 100 hectares) given by the regency head in the production forestlands.

Kepala Desa: the head of the village; elected directly by the village people.

Limited Production Forest: forest that is allocated for low-intensity timber production with relatively high steep slopes.

LMD (Lembaga Masyarakat Desa): village council; the formal institution of the people's representatives in the village. The LMD members are elected directly by the village people.

Log: roundwood; all wood in its natural state obtained from felling or other forms of harvesting.

MOF: Ministry of Forestry

Non-forest: any land use or land cover category other than forest.

Permanent Forest Status: formal forest; land that is legally allocated as part of the national forest estate and falls under the control of the Ministry of Forestry. The term refers to land *use* (land intended for the purposes of forestry) not to land *cover* (land covered with trees). Land under permanent forest status is not necessarily forested and is not, therefore, the equivalent of forest cover.

Production Forest: forest that is managed by production purposes, mainly timber; usually falls within the boundaries of a timber concession (under an HPH or IPHH license).

Protection Forest: forest that is intended to serve environmental functions, typically to maintain vegetation cover and soil stability on steep slopes and to protect watersheds.

PSDH (Provisi Sumber daya Hutan): formerly named IHH (Iuran Hasil Hutan); timber royalties following the regulation of central government and distributed to the regions by fiscal balance scheme.

Reboisasi: reforestation; the establishment by human action of forest cover on formerly forested, degraded or disturbed forestland.

Retribusi Daerah: payment collected by regional government, such timber fees.

TPTI (Tebang Pilih Tanam Indonesia): Indonesian selective logging and replanting, the selective removal of specific tree species or trees of a specific size or other quality with a replanting scheme.

TJTI (Tebang Jalur Tanam Indonesia): Indonesian line harvesting and replanting, the removal of tree species or trees with a replanting scheme.

Transmigration: central government program relocated people from the densely populated islands of Java, Madura, and Bali to the outer islands.

*“... democracy is not freedom; it is one of the most important safeguards of freedom”
(Hayek in Gunning 2003:22).*

1. Introduction

1.1. Decentralization as a Better Way for Regional Development?

1.1.1. Problems Concerning a Centralized System of Government

After the Second World War, the centralized governments were viewed as playing a pivotal role in planning and industrialization, especially in developing countries which were attempting to emulate the growth patterns of Western nation-states. International institutions of development and aid focused on the central state as an important actor in transforming social relations, and most aid was channelled through the state. By the late 1970s analysts began to recognize that the state was not necessarily the best agent to pursue development as a universal good, or to deal with the problems of poverty, unemployment, and inflation. The decline of the state as the agent of development took place at the same time as the decline and fall of socialism as a political and economic system. Since the 1980s the new development paradigm has been widely accepted with emphasis on participation as well as decentralization of decision-making (Agrawal and Ostrom 1999:4).

Centralized government systems usually face huge problems in the countries with large land area and/or high population density. The top-down approach of the centralized government system creates a large gap between planning and implementation. It is too difficult and too costly to govern effectively from the center when the population and land area are very large. Large countries are likely to have large variation among regions in climate, geography, and economic base, so that centrally-mandated uniformity in the provision of government services is likely to be quite inefficient. Moreover, there are diseconomies of scale in trying to govern large countries which relate to the manpower costs of bureaucracy, the time required to

approve local decisions, and the problems of communications (Alm and Bahl 1999:2).

There are many examples of inadequate and unsustainable resource use by central governments and large private interests alike from both the developed and developing worlds. In developing countries, where governments are often distant from the resource base and have both poor facilities and human resource capacities, some nature reserves exist only on paper and have been exploited and converted into other land uses. Furthermore, natural resources management by the private sector has been equally questioned about its sustainability due to short-term economic interests. Because of these failures, decentralization has been viewed as a promising way of achieving a more sustainable use of natural resources (Anderson 2000:11).

In the forestry sector, centralized forest policies had a number of effects, such as forest land alienation from the forest users, commercial over-exploitation, over dependency on technocracy, and the adverse reaction of forest dependent people. They have caused and are still causing tremendous forest damage, such as a reduction in the extent of the forests, the deterioration of their quality and the loss of biodiversity (Banerjee 1997:8-9).

1.1.2. Decentralization as a Recent Trend in Developing Countries

Interest in decentralization as a mechanism for transforming government authority is not new. In the second half of the twentieth century, many countries have experimented with some forms of decentralization or local government reform with varying aims and outcomes (Cheema and Rondinelli 1983 *in* Parker 1995). Many of the world's largest developed and developing countries have adopted decentralized forms of governance and finance (e.g. the U.S., Canada, Australia, Germany, Russia, Nigeria, India, Brazil, and Argentina). China has not formally decentralized, but it operates under a de facto decentralized fiscal system. Based on its size and geography, one would predict Indonesia to be governed under a decentralized structure (Alm and Bahl 1999:2).

While in many developed countries decentralization has been practiced since the middle of the last century, the wave of decentralization in many developing countries just began in the last few decades and is continuing. In developing countries which are characterized by a high and diverse population, or those whose regional economies are diverse enough that there are distinct regional preferences for government services, there is a strong case for decentralized governance. "Diversity" might mean a number of different things; examples of the kinds of diversity that typically lead to cries for decentralization are variations in ethnic, religious, and cultural backgrounds, isolation from the governing centers, and distinctive economic bases (Alm and Bahl 1992:2). Decentralization takes place when a central government formally transfers powers to individuals and institutions at lower levels in a political-administrative and territorial hierarchy. Almost all developing countries are undertaking decentralization reforms. At least 60 countries are decentralizing some aspects of natural resource management, though motives for decentralizing vary greatly (Ribot 2002:3).

1.1.3. Decentralization Offers a Better System of Government?

The ideas of decentralization and increased local autonomy follow the well-accepted and benign principle of bringing government closer to the people. Although practices of decentralization have had different results in many countries, it is widely believed that decentralization promises more advantages than do centralized system of government. The objectives of decentralization may be many but the more laudable ones are to mobilize local resources, improve implementation, promote participation of the local people and, last but not least, to encourage equity in regard to distribution of wealth (Banerjee 1997:2).

Ribot (2002:3) stated that due to more accountable representatives as well as to local institutions, decentralization is key for equity, justice, and efficiency. Accountability of local decision makers to the people --that is, local democracy-- is believed to be the mechanism for achieving greater equity and efficiency. When locally-accountable bodies, such as elected local governments are chosen, democracy is strengthened. When self-interested, non-representative, or autocratic institutions such as interest groups, non-governmental organizations (NGOs), or

customary authorities, are chosen in the absence of overseeing representative bodies, there is a risk of strengthening their autocracy and weakening democracy.

Pluralism without representation favors the most organized and powerful groups and is characterized by insufficient transfer of powers to local institutions. Often, these local institutions do not represent and are not accountable to local communities. Decentralization reforms change the institutional infrastructure for local natural resource management and, in some cases, create an institutional basis for more popular and participatory management and use of natural and other public resources (Ribot 2002:3).

1.1.4. Critical Views to Decentralization

The advantages of decentralization are found more in the theoretical views; the empirical evidences are rare. Many of the cited reasons are claims that decentralization can improve information flow and make decision-making more efficient. But it is not clear why such advantages would motivate central government leaders to give up power, confusing the normative with the positive (Agrarwal and Ostrom 1994:14). It is common to find literature that argues on the one hand that decentralization is more efficient, and goes on to suggest that central government leaders did not decentralize because of a political desire to hold on to power. On the other hand, the empirical evidence is difficult to find. Thus, many analysts advocate decentralization on the basis of its greater efficiency or because it leads to meaningful democratic participation, but seldom do they indicate the conditions under which decentralization would not produce these outcomes and might, therefore, fail (Agrarwal and Ostrom 1999:14). They criticize that eventhough there were many studies on decentralization, most of them produced only a rhetorical strategy against centralization. First, those studies often talk of decentralization or devolution as a gross concept that signifies in authority structures but do not further investigate the specific dynamics of devolution, or its relationship to institutions through which it occurs. Second, the studies tend to follow much of the literature. They often try to show that decentralization or devolution is superior to a centralized solution by stressing the efficiency, equity or sustainability aspects of its outcomes. Thus, they defend and justify it on the basis of its effects. The rhetorical strategy emphasizes

why devolution should be pursued, but provides little insight into the actual conditions (Agrarwal and Ostrom 1999:3).

Moreover, though it contains promising elements, it is also important to note that decentralization cannot guarantee that communities will reap more benefits and be more interested in sustainable resources management. Experience shows that decentralization and devolution are complex processes and in themselves not sufficient to guarantee sustainable resource management (Anderson 2000). With decentralization, there is a substantial risk that local interests, through enactments of laws or through local executive action, could jeopardize national interests.

Decentralization can lead to conflict, particularly when it involves the transfer of natural resource management and the use of powers. Therefore, mediation mechanisms and access to recourse are needed. If local populations and authorities are to decide on the rights and obligations that come with decentralization, they must know the law. Civic education can inform people of these rights and obligations, raising their expectations for meaningful reform, representation, justice, and services (Ribot 2002:2).

It is also important to note that secure powers and accountable representation should go together. Ribot (2002:1) holds that “transferring power without accountable representation is dangerous. Establishing accountable representation without powers is empty”. Most decentralization reforms only establish one or the other. To date, the potential benefits of decentralization remain unrealized because government discourse has not resulted in the enactment of necessary laws, or where decentralization laws do exist, they have not been implemented (Ribot 2002:1-2).

In the forestry sector, devolution of forest management implies the transference of some types of rights to resources away from the central government towards more locally-based organizations (Agrarwal and Ostrom 1999:23). Furthermore, Mercado (2000:3) stated that “the purpose of decentralizing and devolving forest management from central to local authorities is more than a change in doing things. Foremost in the paradigm shift of forest management, or any natural resource management for that matter, is a change in thinking and attitude”.

Decentralization means many things for many people; therefore, decentralizing as well as devolving forest management is not a simple task. "...It would be naïve to think that all people with control over (forest) resources wield their power only for the common good. No doubt some people wish to retain their power over (forest) resources for their own benefit..." (Fisher *et al* 2000:x). Enters and Anderson (1999:8) holds that local communities' interest in forest management as well as conservation, depends at least to some degree on how much they are still part of the ecosystem and how much their management of forest resources directly affects their own survival. Traditional use patterns are only sustainable under specific circumstances, usually characterized by low population densities, land abundance, use of simple technologies and limited involvement in the market economy.

According to Anderson (2000:12), a critical approach is needed if decentralization is to live up to its promises and produce meaningful change and better forest management. A number of critical questions may be asked:

- when and where is decentralization justified?
- what should be decentralized and to what extent?
- do local entities have the capacity to handle additional responsibilities?
- how can decentralization avoid becoming deconcentration in new clothes?

There are some major 'institutional incompatibilities' between the forest department and local interests (Fisher 1990 *in* Fisher 2000:7):

- The forestry department tends to assume that there is some institutional vacuum at the local level. It was assumed that there was no useful local knowledge about forest management. Subsequently, locally established use-rights as well as existing local management systems and organizations are ignored. Thus, emphasis was placed on establishing new arrangements that not only ignored existing arrangements, but also are often in direct conflict with them.
- The 'committee syndrome', whereby interventions focused on setting up standardized and externally sponsored organizations in the form of committees.

Field staff are required to set up such committees, although they frequently lacked local support and operated in name only. In the meantime, functioning local systems often continued to operate unrecognized.

- The forest department continued to focus on local government, rather than on 'natural' user groups.

Adoption of the political will, as with decentralization, will be followed by changes in the forest policy, legislation of required laws and framing of rules thereunder (Banarjee 1997:24). The next section will discuss the challenge of regional autonomy and forestry decentralization in Indonesia.

1.2. The Challenge of Regional Autonomy and Forestry Decentralization in Indonesia

The political map in Indonesia has changed drastically since the reform movement of 1998. The most important political reform related to forest resources is decentralization policy –named regional autonomy. The substance of the regional autonomy in Indonesia is that the central government in Jakarta decentralizes fiscal, political and administrative responsibilities to lower-level governments. The most important laws related to forestry decentralization are Regional Governance Law 22/1999, Fiscal Balance Law 25/1999, Forestry Law 41/1999 and Government Regulation on the Authority of Government and Province as the Autonomous Governance 25/2000. Those laws indicated that the regencies are the main functional level of decentralized government. Under the new law, regencies are provided with wide-ranging authority on almost all government matters, except defense and security affairs, foreign affairs, fiscal and monetary affairs, judicature, religion, and other policies in certain areas such as strategic technologies, conservation and national standardization.

Regional autonomy has changed forest authority and the forestry administrative system. Under decentralization many forestry matters are decided more locally and the decisions could be made at the lowest effective level. Furthermore, regional autonomy has given a large opportunity for local people to participate in managing forests through community forests, cooperative or other institutions. Due to the ambiguities and contradictory regulations, however, during the process of

decentralization, removal of central control over natural resources to the local authorities led to virtually no control at all. Illegal logging spiraled upward and deforestation rate sharply increased (World Bank 2001; Smith 2002).

Decentralization is one of the most important principles in the new paradigm of forestry planning, besides participation and intersectoral orientation. There are three main objectives of policy planning in forestry: first, to enhance the rationality of policies; second, to ensure the long-term orientation of policies; and third, to better coordinate the decisions of various political actors (Glück 1999). Moreover, forestry decentralization also promises a number of advantages. Fisher (2000) reported that examination of the key issues surrounding decentralization of forest management in the some regions clearly reveals a single important theme that it is not enough simply to diversify the responsibility for implementing centrally defined objectives. Rather, decentralization policies and implementation must progress to devolve forms of decision-making and goal-setting.

In the era of Indonesia's regional autonomy, with the progressive transfer of forest management to local authorities, the function of the forestry department has changed substantially.

The Ministry of Forestry continues to administer and manage all nationally important protected areas (national parks, nature reserves, wildlife reserves and hunting reserves). However, a large number of forestry matters have been decentralized. Decisions on the allocation and management of other forest areas, including watershed areas, production forests and local protected areas of limited conservation value (such as recreational parks), have now devolved to the local level. The forester's interests as to what kind of forest should be managed and with what objectives should be achieved may come into conflict to some extent with the policy of maximizing extraction of natural resources, which is supported by most regional governments to achieve a target of higher regional revenue.

Lack of consistency between normative commitments and policy implementation could cause a serious problem in Indonesian forestry. Forest conservation, for instance, has been accepted by the Indonesian government but has been difficult to realize. Conservation is defined as "the management of the human use of the

biosphere so that it may yield the greatest sustainable development to present generations while maintaining its potential to meet needs and aspirations of future generations” (World Conservation Strategy 1980 *quoted in* Chisholm 1988:15). According to the World Conservation Strategy, the sustainable development is seen as requiring: first, the maintenance of essential ecological processes and live support systems; second, the preservation of genetic biodiversity; and third, sustainable utilization of species and ecosystems. Following Indonesia’s regional autonomy, a combination of the existence of property claims, competing authority systems between central and regional governments and a short-term interest to generate regional income caused the conservation policy to become ineffective (McCarty 2000:121; Matthews 2002:xii; Ekayani and Nurrochmat 2003:120).

1. 3. Objectives and Research Questions

The overall objective of this research is to study the potential and challenges of regional autonomy to the regional government as well as to the village community surrounding the forests, including inter-government relations, socio-economic performance, and assessment of the practices of forestry decentralization in the research area. The main concern of this study is to evaluate the implementation of regional autonomy in Indonesia focusing on three aspects of analyses: political dynamics, socio-economics and forest resources degradation. In general, this study is proposed to contribute more cases as well as experiences and to complement the existing studies on decentralization. No study is ideal, but a further study should learn from the existing studies and add to or improve them. While there is an increasing number of case studies, an application of the theoretical concepts for a systematic analysis of decentralization and devolution has remained remarkable scarce (Birner and Wittmer 2000b). The existing studies about decentralization or devolution mostly elaborate on the reasons why it should occur, but pay less attention to whether, when and how it occurs (Agrarwal and Ostrom 1999:13). Therefore, it is a challenge to conduct a study that combines scientific theories (normative) and practical needs (positive) of decentralization.

As is the case in the common research, this study starts by exploring normative aspects of decentralization which involve theoretical concepts and the legal basis of

Indonesia's regional autonomy as a form of decentralization policy. This study deals not only with normative analysis but also with positive analysis. The next important step of positive analysis is to elaborate on the political dynamics and conflicts of interest concerning regional autonomy. This fits with the statement of Agrarwal and Ostrom (1999:13) that the most important element in understanding decentralization or devolution and whether it is likely to occur is attention to the politics that surround it. Moreover, they suggested that a study on decentralization should not emphasize only the rhetoric aspect, but should also provide more insight into the actual conditions.

Besides having a political agenda, Indonesia's regional autonomy could also be seen as having a development strategy. Agrarwal and Ostrom (1999:4) hold that development has always been a multi-faceted goal, its aspects sometimes in tension. It is somewhat ironic that contemporary prescriptions for development simultaneously highlight alternatives that are frequently viewed as being against each other, i.e. growth and equity. Therefore, this study analyses the actual socio-economic conditions -particularly growth and equity- following regional autonomy in terms of the government unit as well as the community.

Regional autonomy is a necessary response to the demands of the people of post reform Indonesia. It relates not only to political, social, and economic conditions but also deals with shifting authority toward natural resources management. For this reason, this study also analyses the impact of regional autonomy on natural resources in the research area, particularly in dealing with forest degradation. Regarding the actual situation of regional autonomy in Indonesia, the problem statement could be summarized in the following research questions:

- What are the substantial contents of laws concerning regional autonomy in Indonesia and what are the implications of those laws in changing the formal political structure and in shifting decision-making processes -especially in forestry matters?
- How does regional autonomy influence the dynamics of inter-government relations, i.e. center-province-regency, and what are the implications for the various stakeholders with regard to forestry decentralization?

- Does regional autonomy influence the changing of socio-economic and ecological performance –particularly forest resources of the regions- and if so, why?
- What are the advantages and disadvantages of regional autonomy, particularly dealing with forestry decentralization, both for the government and for the people, and on which level should decisions be made?

This study aims to contribute to the understanding of the performance and impact of Indonesia's regional autonomy -particularly forestry decentralization- on political dynamics, socio-economics and forest degradation. The specific objectives of this research are as follows:

- to understand the concepts of Indonesia's regional autonomy according to scientific considerations and existing regulations in relation to forestry decentralization;
- to study the political dynamics and conflicts of interest among various stakeholders concerning forestry decentralization;
- to evaluate the consequences of regional autonomy for socio-economics and forest resources in a selected research area;
- to learn about constraints and opportunities of Indonesia's current system of regional autonomy and to discuss implications for improved policies.

1.4. Outline of the Study

This study is organized into eight chapters, which are arranged in the following manner. Chapter 1 provides an introduction and background of the issues investigated in the study and outlines the objectives and research questions. To lay the theoretical basis for the inquiry, chapter 2 presents the conceptual frameworks of the study, which consist of the concepts of decentralization, democracy and good governance, devolution, participation and collective action, social capital and political capital, resource use and rational choice. Chapter 2 also outlines the hypotheses of the study.

Chapter 3 explores the legal basis of Indonesia's regional autonomy. It consists of reviews of the situation in post reform Indonesia, arguments for Indonesia's regional autonomy, and hierarchy of legislation and law codification; it lays out the legal basis for regional autonomy and decentralization of forest management in Indonesia. Chapter 4 provides the overview of the research area and describes the research methods used for the study.

Chapter 5 deals with the political dynamics and conflicts of interest following regional autonomy, particularly concerning forestry decentralization, by focusing the analyses on the struggle for authority over forest resources, the weakening of the state and policy implementation, the strengthening of local political capital, and the scramble of natural resources.

Chapter 6 analyzes socio-economic and environmental impacts of regional autonomy in the research area by using both primary and secondary data. The sub-chapter on socio-economic impact deals with the analyses of income growth, income disparity, and attitudes toward regional autonomy. The other chapter lays out the impact of regional autonomy on forest resources, including analyses of illegal logging, forest resources degradation, and factors influencing forest degradation.

Chapter 7 offers a comprehensive evaluation of the Indonesia's regional autonomy, including analyses of strengths, weaknesses, opportunities, and threats. This chapter also provides the analysis of the factual situation of regional autonomy in the research area and discusses the confirmation of research findings and the hypotheses.

Finally, chapter 8 presents the conclusion and policy recommendations. Conclusions reflect the results of evaluation concerning the implementation of regional autonomy in the research area. This chapter also provides policy recommendations dealing with Indonesia's regional autonomy, particularly concerning forestry decentralization.

2. Conceptual Framework

2.1. Decentralization: Theoretical Concepts

From a theoretical point of view, interest in decentralization as a mechanism for transforming authority is not new. In the second half of the twentieth century, many countries experimented with some form of decentralization or local government reform with varying aims and outcomes (Cheema and Rondinelli 1983; Parker 1995).

2.1.1. Definitions and Degrees of Decentralization

Decentralization is any act in which a central government formally cedes powers to actors and institutions at lower levels in a political-administrative and territorial hierarchy (Ribot 2002:3).

There is some terminology which is often used in discussions of decentralization. Decentralization is a broad term, which is distinguished between four different categories:

1. *Deconcentration* is defined as a transfer of power to local administrative offices of the central government. This does not transfer the authority to make decisions. Some argue that this is not a decentralized program, because it does not involve any delegation that may include substantial local discretion in decision-making (Cheema and Rondinelli 1983; Parker 1995:19).
2. *Delegation* is the transfer of power to subnational governments or other government organizations (entities). The organizations may have semi-independent authority to perform their responsibilities. Delegation of functions from the central government to such particular organizations represents a more extensive form of decentralization than does administrative deconcentration (Cheema and Rondinelli 1983; Parker 1995:19).

3. *Devolution* is the transfer of power to subnational political entities (Parker 1999:19). However, according to Meinzen-Dick and Knox (1999:42), devolution involves the transfer of rights and responsibilities to user groups at the local level.
4. *Privatization* broadly refers to transfer from the public sector to private groups or individuals (Cheema and Rondinelli 1983; Parker 1995:19, Meinzen-Dick and Knox 1999:42)

Degree of decentralization can be seen in several different perspectives. Rondinelli and Meinzen-Dick categorized degrees of decentralization based on how and to whom the authority will be transferred. Another scientist categorized degrees of decentralization according to in which matters of authority will be devolved and some others just differentiated decentralization regarding with governance hierarchy (Barnett *et al* 1997).

According to Ribot (2004:4) "...political or democratic decentralization occurs when powers and resources are transferred to authorities representative of and downwardly accountable to local populations. Democratic decentralization aims to increase popular participation in local decision-making. Democratic decentralization is an institutionalized form of the participatory approach. This is considered the 'strong' form of decentralization -the form that theoretically provides the greatest benefits". In contrast to democratic decentralization, administrative decentralization or deconcentration involves the transfer of power to local branches of the central government, such as prefects, administrators, or local technical line-ministry agents. In other words, deconcentration bodies are local administrative extensions of the central state. They may have some downward accountability built into their functions, but their primary responsibility is to the central government.

Thus, according to Ribot (2002:4), "...deconcentration is a 'weak' form of decentralization because the downward accountability, from which many benefits are expected are not as well established as in democratic or political forms of decentralization. Privatization is the transfer of powers to any non-state entity, including individuals, corporations, or NGOs. Although often carried out in the name of decentralization, privatization is not a form of decentralization. It operates on an exclusive logic, rather than on the inclusive public logic of decentralization".

According to Inman and Rubinfeld (1997) *in* Litvack *et al* (1998:6), fiscal decentralization has been especially prominent in recent discussions in many countries, as have political and administrative decentralization. Political decentralization refers to the level at which policy decisions are made and the extent of the authority to make them. Administrative decentralization is concerned with how government institutions turn policy decisions into allocative and distributive outcomes through fiscal on regulatory action and services. The political decision to devolve powers from the central government can only be translated into actual powers if subnational governments have the fiscal, political, and administrative capacity to manage this responsibility. These three aspects of decentralization are the substances of public demand in the regional autonomy.

2.1.2. Decentralization as an Alternative System of Government

It has been and is a tendency in the recent century to believe that decentralization as an alternative governance system could substitute for centralization in many countries. If the population of a country is diverse, or if the regional economies are diverse enough that there are distinct regional preferences for government services, then there is a strong case for decentralized governance. 'Diversity' might mean a number of different things. Examples of the kinds of diversity that typically lead to cries for decentralization are variations in ethnic, religious, and cultural backgrounds; isolation from the governing centers; and distinctive economic bases. Diverse countries seem to decentralize for two reasons: to accommodate regional differences in preferences for services, and/or to hold a potentially divided country together by providing appeasement via some degree of regional autonomy to potential breakaway regions (Alm and Bahl 1999:2).

Ribot (2002:5) holds that logically decentralization promises more equity and efficiency. Decentralization is believed to help improve equity through fairer distribution of benefits from local activities. By decentralization, economic and managerial efficiency are believed to increase in several ways:

1. Accounting for costs in decision making

When communities and their representatives make resource-use decisions, they are believed to be more likely to take into account (or 'internalize') the whole array of costs to local people. Resource waste may result when outsiders or unaccountable individuals make decisions based on their own benefits without considering costs to others.

2. Increasing accountability

By bringing public decision making closer to the citizenry, decentralization is believed to increase public-sector accountability and therefore effectiveness.

3. Reducing transaction costs

Administrative and management transaction costs may be reduced by means through increased proximity to local participants and access to local skills, labor, and local information.

4. Matching services to needs

Bringing local knowledge and aspirations into project design, implementation, management, and evaluation helps decision-makers to better match actions to local needs.

5. Mobilizing local knowledge

Bringing government closer to people increases efficiency by helping to tap the knowledge, creativity, and resources of local communities.

6. Improving coordination

Decentralization is also believed to increase effectiveness of coordination and flexibility among administrative agencies and in planning and implementation of development and conservation.

7. Providing resources

Decentralization and participation in the benefits from local resources can also contribute to development and to environmental management agendas by providing local communities with material and revenues.

According to Anderson (2000:11), there are many examples of inadequate and unsustainable forest management by central governments as well as large-scale forest concessions. In large developing countries, where governments are often far from the resource base, it is possible that some forest reserves exist only in statistical reports, and in reality have been exploited or converted into other land use categories. Moreover, due to lack of control, forest concession management by large-scale enterprises has also been questioned concerning its sustainability. Thus, centralized system of government has been heavily criticized for such weaknesses as inadequate coverage, ineffectiveness, inefficiency and bias.

Political dynamics and conflicts of interest concerning decentralization occur since there is much disagreement as to whether forest resources should be handed over to a lower level authority and if so, to which entities. One line of thinking holds that forestry decentralization or devolution is not only desirable, but also necessary; another holds that it is totally undesirable. Between these extremes lie other less absolute viewpoints (Fisher *et al* 2000:vii). The political dynamics of regional forestry planning might become more apparent if it is understood where stakeholders and user groups, interested in the natural resources of forests receive their ability to influence the planning process and its results. Goal-setting is a key element of rational planning. Goals enable the planner to identify problems and to choose optimum measures. Most of the regional plans are formulated in a very general or even contradictory manner. A political reason for weak goal-setting is the well-known and simple fact that powerful users of forest lands are strongly opposed to binding decisions in public plans, because they can fulfill their user interests best without additional regulations (Krott and Bloetzer 1998 *in* Krott 1999:187).

Fisher *et al* (2000:viii) explained the arguments for both supporting and rejecting devolution in forestry. According to Fisher, the main argument in favor of devolution is essentially pragmatic: conventional forest management, for instance, through

forestry departments, has not worked well in much of the region. Continuing high deforestation rates have been viewed as evidence that the centralized system is not working. Devolution is expected to offer more effective management. In addition, it is often argued that devolution is desirable on grounds of equity and social justice. One of the key arguments against devolution is based on the belief embraced by some foresters that communities do not have the ability to manage forests. Partly underlying the apprehension about relinquishing control of forests seems to be a real concern on the part of some foresters about giving up the valuable understanding, tools and techniques of forestry science. Furthermore, Fisher cited this important argument opposing forestry devolution; "if foresters do not control forests, then what will be their role? "

The above arguments may be legitimate in particular cases and may indicate a need for some controls and for capacity building at the community level, but they are not valid as arguments against community control of forests. Those viewpoints indicate an obvious lack of trust and confidence in communities. Fisher *et al* (2000:ix) said that devolution could offer an opportunity for rethinking how forestry can support local management. Therefore, devolution needs a political will and this political will must be afforded a platform and an atmosphere for the emerging democracy in forestry.

While the above contains promising elements, however, frequent changes in the government system, as in the transition from centralization to decentralization, cause political instability, such as unwillingness of the bureaucracy to delegate power to local levels, problems in budget allocation from the center to the regions, crisis of confidence among political parties and staff changes in public sector institutions. Furthermore, political instability also contributes to corruption as some officials try to reap the benefits of their position before they are moved on (Hussein and Montagu 2000). Moreover, in a decentralized government system, the feature of intergovernmental fiscal relations is usually a response to the rich regions' aspiration for fairness, especially the scheme of equalization fund (transfer). "The transfer tends to increase regional disparity and has failed to fully address social conditions in term of poverty. Keeping the same arrangement for a longer time would potentially worsen regional disparity" (Tadjoeddin 2003:23).

In countries in transition, political instability could also result from the individual actors' manoeuvres to improve their position in an unstable political environment characterized by a breakdown of law, institutions and even customary rules of social behaviour (Le Billon 2000:798). While the government formally adopted a set of normative commitments or a 'public transcript' concerning sustainable resources management, at the same time political leaders pursued a more personal agenda, including exclusionary access to natural resources such as forests, thereby conducting both 'formal' and 'shadow' governance. As coined by Reno (1995:3) *in* Le Billon (2000:798), "the formal state can be defined as the official institutional structures and the political and legal system regulating them. The shadow state is a term which refers to the system through which rules drawing authority from their ability to control markets and their material rewards". The formal and shadow sides of the state are not neatly divided, as actors and relations often overlap, but the conceptual division helps in understanding the supposedly 'irrational' behavior of the state as well as political instability during the period of governance system transition (Le Billon 2000:798).

Anderson (2000:20) holds that decentralization does not guarantee sustainable forest management and in itself is not sufficient to ensure sustainability. One of the major arguments in opposition to decentralization is the lack of capacity of the decentralized entities.

Decentralization in forestry holds a number of perhaps illusory and unkept promises. It does not mean that local communities or groups magically have the capacity for sustainable forest management. "They may lack skills, they may be unable to manage conflicting interests within the community, and its knowledge and management systems may be stressed by an increasingly globalized, populated and liberalized world" (Anderson 2000:12).

2.2. The Concepts Concerning Effective Governance and Resource Use

This chapter provides the concepts concerning effective governance and resource use in the context of decentralization. The following parts will discuss some relevant concepts such as the concepts of democracy and good governance, the concept of devolution, the concepts of participation and collective action, the

concepts of social capital and political capital as well as the concepts of resource use and rational choice.

2.2.1. The Concepts of Democracy and Good Governance

Democracy can be understood as an ideology as well as a type of government system. It is an ideology in so far as it embodies a set of political ideas that detail the best possible form of social organization (Abdellatif 2003:6). In this sense, democracy means that people have inalienable rights to make decisions for themselves, and to be committed to the notion that all people are equal in some fundamental and essential way (Beetham 1992:40).

Democracy is also defined as a form of government in which the principal positions of political power are filled through free, fair, and regular elections (USAID 2002:6; Abdellatif 2003:6-7). As a form of government, in a democratic country people control the most significant agents through periodic elections. They exercise their control either directly through a plebiscite or indirectly by the election of representatives. In this sense democracy is “of the people, by the people, and for the people” (Gunning 2003:12-13). In other words, democracy is defined in terms of sources of authority for government, purposes served by government, and procedures for constituting government (Huntington 1991:6).

Democracy has two fundamental characteristics: representation and rule of law. Ideally, representation means that each citizen's preferences are represented in law making and law enforcing. The rule of law means that decisions about whether individuals have violated the law and about their punishment are made according to the general principles. General principles are principles that apply equally to everyone, regardless of their appearance or creed. Ideally, all citizens are subject to the same laws, enforcement procedures and punishments. There is no discrimination based on status, occupation, heritage, wealth, race, gender or religious beliefs (Gunning 2003:13).

Governance comprises the complex mechanisms, processes, and institutions through which citizens and groups articulate their interests, mediate their differences,

and exercise their legal rights and obligations (World Bank 2004). Governance refers to the process whereby elements in society wield power and authority, and influence and enact policies and decisions concerning public life, and economic and social development. It involves interaction between these formal institutions and those of civil society. Governance has no automatic normative connotation. However, typical criteria for assessing governance in a particular context might include the degree of legitimacy, representativeness, popular accountability and efficiency with which public affairs are conducted (Anonymous 1996). Governance is a broader notion than government, whose principal elements include the constitution, legislature, executive and judiciary. Government means the existence and use of a monopoly over physically coercive force. A government has laws and it uses its monopoly over force to enforce them (Gunning 2003:12).

Good governance is among other things participatory, transparent and accountable. It is also effective and equitable and it promotes the rule of law. Good governance assures that political, social and economic priorities are based on broad consensus in society and that the voices of the poorest and the most vulnerable are heard in decision-making over the allocation of development resources. Good governance occurs when societal norms and practices empower and encourage people to take increasingly greater control over their own development in a manner that does not impinge upon the accepted rights of others (UNDP *in* GDRC 2004).

Democratic governance is built on the concept of human development in its full sense of the term, which is about expanding capabilities people have to be free and to be able to lead lives that they would choose to lead. The capability to be free from threats of violence and to be able to speak freely is as important as being literate for a full life. While the range of capabilities that people have is huge and almost infinite, several key capabilities are fundamental in human life and are universally valued. These include not only those in the 'socioeconomic sphere', such as health and survival, education and access to knowledge, minimum material means for a decent standard of living, but also those in the 'political sphere', such as security from violence and political freedom and participation. Democratic governance needs to be underpinned by a political regime that guarantees civil and political liberties as

human rights, and that ensures participation of people and accountability of decision makers (Abdellatif 2003:11).

A democratic government may lay the foundation for good governance. A vigilant and active citizenry is essential to its sustenance. The quality of governance is enhanced when government as a whole and public agencies in particular become open to new ideas and responsive to citizens. Responsiveness in turn is improved when citizens are well-informed and collectively seek better performance from these agencies (Policy Affairs Centre *in* GDRC 2004). In other words, World Bank (2004) stated that "... good governance epitomized by open and enlightened policy making; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in public affairs; and all behaving under the rule of law." The criteria that constitute good governance include:

- legitimacy of government (degree of 'democratization'),
- accountability of political and official elements of government (media freedom, transparency of decision-making, accountability mechanisms),
- competence of governments to formulate policies and deliver services,
- respect for human rights and rule of law (individual and group rights and security, framework for economic and social activity, participation).

(Novartis Foundation for Sustainable Development *in* GDRC 2004)

In a democracy, free, fair, and competitive elections make it possible to remove bad or corrupt political leaders. Thus they encourage leaders to govern more effectively, in the public interest. Democracy also gives citizens non-electoral means - associations, movements, the media - to monitor officials and participate in policymaking. In addition, leaders in democracies have stronger incentives (and more institutional means and obligations) to explain and justify their decisions and to consult a broad range of constituencies before making decisions. Such participation and debate give the public a stronger sense of policy ownership. As a result policies are more sustainable and government is more legitimate. For these and other reasons, it is strongly in the interest of many international development agencies to

promote both democracy and good governance. According to the USAID (2002) the two are mutually reinforcing. When they develop together:

- resources are used to advance the public good.
- public institutions perform their designated roles;
- social consensus supports and stabilizes the system of government;
- disputes are settled peacefully; and
- investment flows into the country, attracted by the low transaction costs associated with government transparency and legitimacy and the rule of law.

In these circumstances, it is argued, economies grow, human welfare improves, trade expands, political stability and capacity deepen, and countries become more responsible and resourceful members of the international community (Abdellatif 2003:12-13).

However, some scientists also reported different results that the existing evidence on the link between democracy and economic growth does not provide clear-cut support of the idea that increased democracy causes growth. Some early studies found statistically significant effects of measures of political freedom on growth. However, more recent studies have provided ambiguous results. For instance, Barro concludes that the growth is not only a result of democracy. The established links between democracy and growth are, however, a result of the connections between democracy and other determinants of growth, such as human capital (Barro 1996:1-27). Similarly, Rodrik concludes that after controlling for other variables, “there does not seem to be a strong, determinate relationship between democracy and growth.” (Rodrik 1997 *in* Abdellatif 2003:16-17).

According to Gunning (2003:21-22), sometimes a democracy is not efficient for certain reasons. First, in a democracy, individuals typically have only a relatively small incentive to reveal their true demands when they are called upon to join in the making of a collective decision. Second, individuals have an incentive to use politicians and bureaucrats who administer the government for their personal gain. Third, elected officials often have an incentive to act against the electorate either by

shirking their duties or by outright fraud and corruption. Fourth, there are inefficiencies that result from representative democracy. Representative democracy means that laws and administrative policies are made by elected representatives instead of by the people directly. Sometimes, the laws of the representatives differ from the people's needs. Fifth, government supply often means supply by a bureaucracy. Neither the bureau chief nor the ordinary bureaucrats have the kind of strong profit incentive to please 'special' consumers as would like a large investor. Seventh, if the government takes an active role in the market economy, it may prompt action from individuals seeking to gain an advantage. Eighth, once a government begins to supply some good, the suppliers often have a vested interest in continuing their supply even after the reason for it disappears.

It could be said that the introduction of democratic institutions in the form of more ample political rights, civil rights, and freedom of the press, among others, may or may not be associated with improved governance. The real question, then, is the relative strength of the forces just discussed in the real world. "Are the various cases of 'enlightened dictatorship' the rule or the exception in the recent past? Do most democracies allow their population to choose more effective policymakers or are they just used as a tool by specific classes and oligarchies to control political power and sustain ineffective, corrupt regimes? Indeed, democracy is not strictly essential for good governance, just as bad governance is quite possible under formal democratic structures." (USAID 2002).

Therefore, it could be stated that democratic governance differs from the concept of 'good governance' in recognizing that political and civil freedoms and participation have basic value as developmental ends in themselves and not just as means for achieving socio-economic progress (Abdellatif 2003:11). Even though a democratic government is not always parallel to good governance and is sometimes likely to be inefficient, the alternative –a dictatorship- may be worse. Dictators can use their power against their subjects directly by taking away their property and other rights. Democracy provides a measure of protection against the worse abuses. It is important to be noted that "...democracy is not freedom; it is one of the most important safeguards of freedom" (Hayek *in* Gunning 2003:22).

In the forestry sector, sustainable forest management is supported and could be achieved by 'good governance'. Vice-versa, under 'bad governance' illegal logging as well as over-exploitation occurs in forests. According to Yeom and Chandrasekharan (2002), ambiguities in the laws, insufficient staff for crime detection, dereliction of duty and conflict of interest on the part of enforcement staff, inadequate cooperation among law enforcement agencies, and delays in judicial action contribute to the higher rate of illegal logging operations.

'Bad governance' can be explained as one of the influencing factors of deforestation. Banerjee (1997:16) holds that deficiencies in political will, policies and legislation, tenure, organizational structure and bureaucratic apathy are some macro level issues close to 'bad governance' that could cause serious problem in implementing sustainable forest management.

2.2.2. The Concept of Devolution

Devolution is distinct from decentralization and has a more specific meaning. Fisher (2000:3) defined decentralization as relocating administrative functions away from a central location. This does not necessarily involve changing the locus of decision-making or devolving power, while devolution can be understood as relocating power away from a central focal point. In the context of devolution, power is defined as the capacity to affect the outcome of decision-making processes. It is important to stress that devolution implies a genuine role in decision-making, not just an acceptance of input in the form of 'consultation'.

Devolution involves the transfer or at least some rights from officials at a central governmental office to local officers, or in some cases, to local users; this involves a shift in the power of some over the actions of others. It is concerned with the distribution of power, resources, and administrative capacities through different territorial units of government or local groups (Agrarwal and Ostrom 1999:13).

Types of devolution can be differentiated by the direction in which functions or powers are shifted from a central bureaucracy (Fisher *et al* 2000:vi):

- to regional or local offices;

- to local political structures (i.e. local government); or
- to local communities or natural resource users.

While there is no clear consensus about whether devolution is desirable, it is possible to classify most cases of decentralization and devolution into three basic types of approaches (Fisher *et al* 2000:ix).

- Governments, following the first type seek public participation in certain program with centrally set objectives. Some benefits are provided in return for participation; however, the objectives are set by the forestry department. In other words, communities participate in government programs, but they are given little or no authority. This type is essentially decentralization without devolution.
- The second type involves the decentralization of forest management roles from central government to local government, but not to local communities. Local government had to 'pull power down' from the central government in order to implement the program. This approach involves decentralization, with a degree of devolution in some instances.
- Following the third type, the central government devolved a significant amount of control to local communities or individuals. Local governmental units control all natural resources within their administrative area. However, this may cause confusion and conflict at the local level regarding rights to benefits, access and responsibilities.

The process of devolution of resources management, as well as forest management, involves programs that shift responsibility and authority from state to non-governmental bodies. Devolution programs can have a range of frameworks. When control over resources is transferred more or less completely to local user groups, it is often referred to as Community Based Resources Management. When the state retains a large role in resource management, in conjunction with an expanded role for users, it may be referred to as joint management or co-management (Meinzen-Dick and Knox 1999:41).

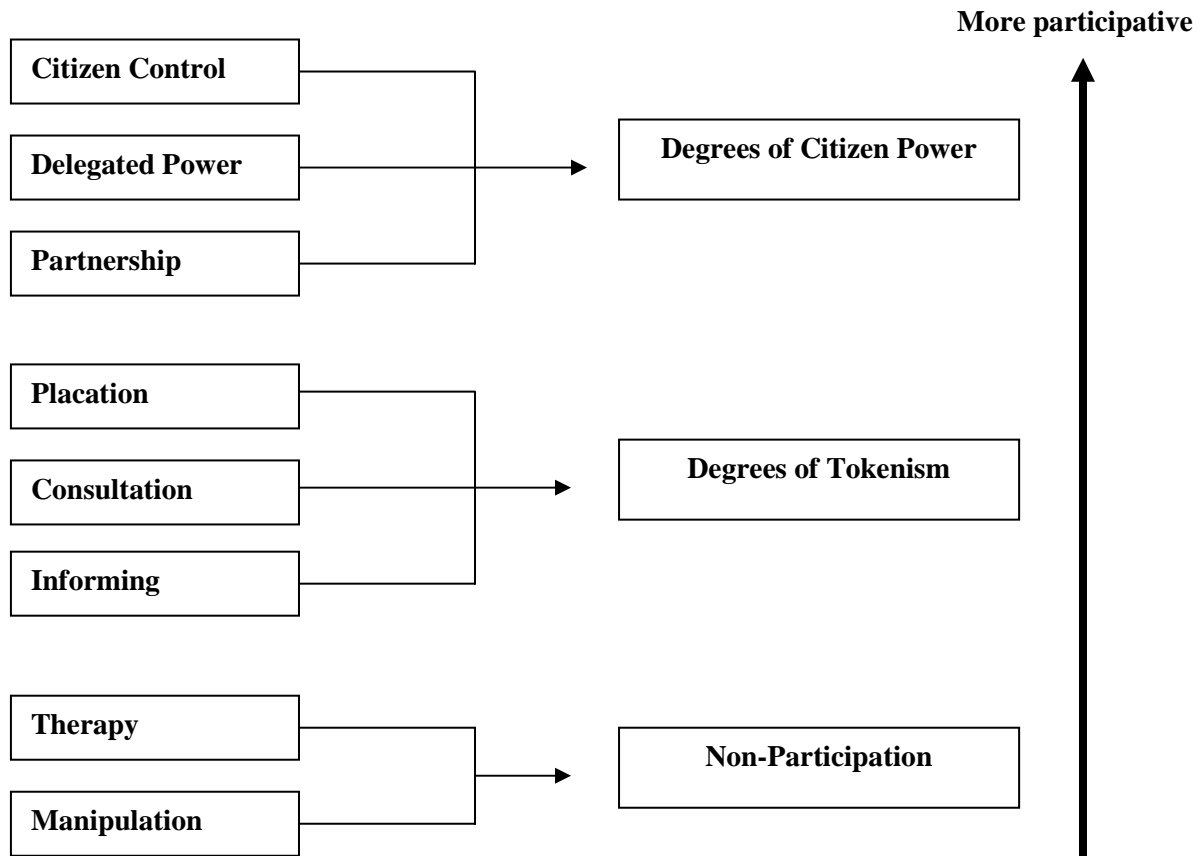
2.2.3. The Concept of Participation

Participation has a broader meaning than both decentralization and devolution. Decentralization is a structural reform; in contrast to decentralization participation can be only a program, which may also be conducted by a centralized government. Participation is defined as a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them (World Bank 1996).

The term of participation is not new to the theoretical discussions. Since the mid-eighties, the terms of participation, empowerment, bottom-up planning, and indigenous knowledge have become increasingly common in world development (Henkel and Stirrat 2001). Participation has been considered a better approach to development since it respects a sense of fairness and considers the pluralism better than a centralized system does, and it is one of the most important parameters to measure the success of decentralization policy.

World Bank (1996:6-7) states two categories of participation: 'popular' participation and 'stakeholder' participation. 'Popular' participation is participation of the poor and others who are disadvantaged in terms of wealth, education, ethnicity, or gender, while 'stakeholder' participation refers to the participation of all relevant stakeholders in the development process. The World Bank holds that the 'stakeholder' participation has more important implications in the development process than 'popular' participation.

There are three degrees of participation: 'non-participation'; 'degree of tokenism'; and 'degree of citizen power'. Non-participation involves two categories, manipulation and therapy, while informing, consultation, and placation refer to the degree of tokenism. There are three categories involve in the highest degree of participation (degree of citizen power): partnership, delegated power, and citizen control (Arnstein 1968 *quoted in* Fisher 2000:4). The following figure 2.1 shows 'the degree of participation' according to Arnstein's ladder.



Source: Arstein (1969) in Fisher (2000)

Figure 2.1. Arnstein's Ladder of Participation

Forests often provide diverse benefits to multiple groups of users. Therefore, participatory forestry involves a broader view of forest resources that takes into account the multiple values of forests, the limited resources and institutional capacity of governments, and the social and economic needs of forest users (Banarjee *et al* 1997). Rights, resource flows and relationships are all complex, dynamic, often contradictory and frequently lead to conflict between users. To achieve an effective administration and control of forests, it is important to consider public involvement and support. Thus, the shift to more participatory approaches makes the mandate in managing forests easier to carry out. In areas with large and growing populations, participation is often the only viable way to conserve forest areas or ensure their sustainable use (Banerjee *et al* 1997).

Furthermore DFID (1999) reported that experience with various approaches to forest management has underlined the importance of participation as a means of improving equity, effectiveness and sustainability. The challenge is now to identify and operationalise the most appropriate form of participation in any given situation.

However, it is important to note that participatory approaches do not guarantee that forest management will take place in a more sustainable way. Within the realms of participation many conventional assumptions remain unchallenged and lead to unclear objectives. A major problem is that the concept of partnership in forest management or conservation is often based on the following untested assumptions (Enters and Anderson 2000:171):

1. Local populations are interested and skilled in sustainable forest resource use and conservation.
2. Contemporary rural communities are homogeneous and stable.
3. Local community-based tenurial, knowledge and management systems are uniquely suitable for forest conservation.

In some cases, those assumptions are inaccurate. Banarjee *et al* (1997) for instance stated that participation, like all other approaches, has a limitation. Participatory approaches have not worked in some areas because of conflicts over forest resources, dispersed population structure, or the history of forest ownership patterns and use. Moreover, there are growing numbers of groups who are independent and do not share the same forest management objectives capacity (Anderson 2000:17). It is a challenge to manage such disagreements effectively in achieving a common understanding.

Often, people, both locals and migrants, who live in or surrounding the forest are poor, vulnerable, and sometimes landless. Increasingly, these people seek a voice in forestry and environment policy decision-making, as well as the benefits that flow from forestry development and commercialization. Participatory forestry and conservation strengthens their capacity to manage forests sustainably and realize a share of the benefits. Participatory forestry involves a broader view of forest resources that takes into account the multiple values of forests, the limited resources

and institutional capacity of governments, and the social and economic needs of forest users (Banerjee *et al* 1997).

According to Banarjee *et al* (1997), participation in forest management refers to the active involvement of various stakeholders in the aspects of:

- defining forest management objectives,
- determining beneficiaries,
- managing forest resources,
- resolving conflicts over forest uses, and
- monitoring and evaluating the performance of forest management practices.

In order to increase environmental management efficiency and improve equity and justice for local people, many environmentalists have advocated participatory and community based natural resource management (CBNRM). Democratic decentralization is a promising means of institutionalizing and increasing the popular participation that makes CBNRM effective (Ribot 2002:1). To determine relevant stakeholders, it is important to understand the types of organizations in the public, private and collective action sector. The following table 2.1 explains the different types of various organizations related to natural resources management.

Table 2.1. Types of Organizations in the Public, Private and Collective Action Sectors

Public sector		Collective Action Sector		Private Sector		
Government	Administra- tion	Membership organization	Cooperative	Service organization	Private businesses	Farm households
<i>Orientations of organizations</i>						
Political	Bureaucratic	Self-help (common interests)	Self-help (resource pooling)	Charitable (non-profit)	Profit making	Multiple goals (profit and non profit)
<i>Roles of individuals in relation to different kinds of organizations</i>						
Voters and constituents	Citizens or subjects	Members	Members	Clients or beneficiaries	Customers or employees	Family members

Source: Uphoff (1993) in Birner and Wittmer (2000b:5)

2.2.4. The Concept of Resource Use

Many analysts of natural resources management refer to the thesis of ‘the tragedy of the commons’ (Hardin 1968:1244). Hardin gives an example of open grazing to explain about the threat of ‘open access’ natural resources. As is stated by Hardin, “... the tragedy of the commons develops in this way. Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many as cattle as possible on the commons... Finally, however, comes the day of reckoning... At this point, the inherent logic of the commons remorselessly generates tragedy.”

Considering the tragedy of freedom in a commons, many ecologists advocate that a dominant goal of mankind should be sustainable development of “...living and non living resources to satisfy human needs and improve the quality of life” (World Conservation Strategy 1986 *quoted in* Chisholm 1988:15). However, sustainable resource management is a principle that is easy to talk but difficult to realize. There are four elements of sustainable resources management: first, ecological integrity and sustainability; second, sustainable and equitable human resource uses; third, integrated management at the right scale; and fourth, equitable and informed participation by stakeholders (Barber *et al* 1994). In short, sustainable resources management means ecologically sustainable, economically feasible, and socially acceptable.

Conservation versus exploitation of natural resources (like forestry) is an issue of concern to societies in both developed and developing countries. From a conceptual point of view, the above issues closely are linked by two concepts: irreversibility and uncertainty. Natural resources are the products of geomorphologic and biological processes that represent a time frame measured in aeons. If they are destroyed or degraded, they cannot be reproduced or restored by man except perhaps with great difficulty. There is thus a basic argument of irreversibility. Uncertainty is pervasive in economic life, but more than the usual degree of uncertainty surrounds the potential future benefits from conserving ecosystems or questions of sustainable resource-use (Chisholm 1988:1).

The introduction of uncertainty into decision-making models requires a clear specification of the nature and sources of uncertainty. The goal of sustainability has

been strongly advocated by ecologists. This goal is usually stated in very general terms and needs to be defined more precisely for purposes of economic analysis. Most policy decisions relating to competing uses for natural resources are made under circumstances of risk aversion and a high degree of unresolved uncertainty. Expected utility theory provides the conventional framework for rational individual choice under uncertainty (Chisholm 1988:1-2).

2.2.5. The Concepts of Rational Choice and Collective Action

According to Zey (1998:1) rational choice approach is common used in many disciplines with various names such as 'public choice' (political scientists), 'rational choice theory' (economists and sociologists), and 'expected utility theory' (psychologists). Rationality has been applied to many concepts: beliefs, preferences, choices, actions, behavioral patterns, persons, even collectives and institutions (Elster 1983:1). Zey (1998:1) holds that the assumptions of rational choice theory lie at the heart of modern political doctrines that advocate minimal government. The assumption is that individuals behave rationally; therefore "...individuals should not be interfered with by the collective, except when individual behavior undermines collective interests."

Sociologists and political scientists have tried to build theories around the idea that all action is fundamentally 'rational' in character and that people calculate the likely costs and benefits of any action before deciding what to do. This approach to theory is known as rational choice theory. Basic to all forms of rational choice theory is the assumption that complex social phenomena can be explained in terms of the elementary 'individual' actions of which they are composed (Scott 2000).

The basic principles of rational choice theory are derived from neoclassical economic theory, utilitarian theory, and game theory (Levi *et al* 1990:1-18; Tijs 2003:1). The fundamental core of rational choice theory is that social interaction is basically an economic transaction that is guided in its course by actor's rational choices among alternative outcomes. An action is taken only after its benefits and costs have been weighted (Coleman 1990:13-19, 27-44; Zey 1998:2).

That action in politics is as self-interested as it is in business is a simple idea, which is part of the common sense of rational choice. Rational choice assumes that people act in their self-interest, whether they are consumers in the market, voters, teachers, owners of business, employees of private companies, or government officials (Gunning 2003:29).

Rational choice theory sees human action primarily in economic terms and is not concerned with the ethics or values that lead to rational decision. Social outcomes are produced by aggregating individual actions (Zey 1998:11). Some premises of rational choice theory are generalized as follows (Zey 1998:13-14):

- utility is maximized;
- preferences are structured;
- decisions are made under conditions of uncertainty;
- individual behaviour is central to the understanding of organizations.

Following the logic of the above rational choice theory, it has long been recognized that there arises a particular group of problems when explaining behaviour with respect to what are called collective or public goods. Olson (1971) offers an important definition of a collective good as: "a common, collective or public good is defined as any good such that if person X ... in a group consumes it, it cannot feasibly be withheld from others in that group." In other words, a collective good is one that satisfies two conditions: first, it benefits every individual agent belonging to the group; second, it is hard to exclude any individual from its use (Gleason 2004). Furthermore, Olson (1971) states that since the goal of a group is to further the interest of its members, the competition of individual and common interests in an organization mimics that of a free market: "people always maximize self-interest in a rational way." He argues against the popular idea that humans have an abstract and innate 'propensity' to organize. Gleason (2004) gives a more detailed explanation, "...since an individual cannot be excluded from these goods and the enjoyment of this good does not diminish the supply to other individuals, it is rational for individuals to shirk responsibilities associated with the production of the good to free-ride on the sacrifice of others. But since the individuals in the group must cooperate to produce the good in the first place, if everyone were to shirk and free-ride it would mean that

no one would work to produce the good". In the other words, "...if people know that they are not compensated in proportion to their sacrifice, they will tend not to sacrifice. Furthermore, if people know that the amount they benefit is not determined by the amount that they contribute; they will tend to contribute less. In a collectivist society, a syndrome is produced in which people tend to reduce their contributions and increase their withdrawal" (Gleason 2004). It could be explained that a 'rational' (that is, a value-maximizing) individual in an egalitarian collectivist society will recognize that his or her contribution (that is, the product of one's labours) as well as one's benefits (that is, the amount that one withdraws from society) will be divided by the total number of individuals in the society. "Since little proportionality exists between contribution and withdrawal, the rational individual will have an incentive to contribute less than the average contributor and withdraw more than the average beneficiary. Since each rational individual faces the same payoffs, the overall effect will be to ratchet the productivity of the society downward as each individual calculates how to maximize the withdrawal of benefits in the midst of this declining productivity" (Gleason 2004).

The above logic of situations causes a collective action dilemma. According to Gleason (2004), "the collective action dilemma is that, with respect to collective goods, rational action leads to a failure of cooperation", even when people know that it is in everyone's interest to cooperate, there are ways in which situations are structured that make it hard for people to cooperate.

As stated previously, one common meaning of rationality is 'reasoned action' of any types. However, there is also another meaning that "one is rational if, after considering all of one's concerns –moral, altruistic, familial, narrowly self-interested, and so forth –one then chooses coherently in trading each off against the other, or even in refusing to make certain trade-offs" (Hardin 1982:10). The fact that people take rational actions alongside other forms of action, seeing that human action involves both rational and non-rational elements, has also been recognized by many sociologists (Scott 2000). Therefore, it must be considered that the 'rational choice' in managing common property like natural resources should always be conducted along a frame of rules because rational choice does not mean unlimited 'freedom'.

Unlimited freedom in using common property will create the tragedy of the commons (Hardin 1968:1243-1248).

2.2.6. The Concepts of Social Capital and Political Capital

Social capital has gained attention over the last decade, introduced by the work of Pierre Bourdieu in the mid-eighties, James Coleman (1988), and more recently with the publication of Robert Putnam's *Making Democracy Work* (1993).

2.2.6.1. What is Social Capital and How does it works?

Social capital is subject to a variety of interpretations reflecting different trends in prevailing thought and the particular perspective of the user. Although anthropologists, sociologists, economists, and political scientists have all figured in the development of the concept of social capital, the first term of 'social capital' has only entered the academic lexicon in recent times i.e. in the Encyclopedia of Sociology 1992 under the title of '*Social Network Theory*' (Wall *et al* 1998:300-301). Originally in the nineteenth century the term of 'capital', by itself, was normally equated with economic capital or productive wealth which could be employed for the creation of more wealth. Then, Marx added the usage of the concept capital as an overall capacity to mobilize not only economic and political resources but also social and cultural ones (Wall *et al* 1998:303).

According to Wall *et al* (1998:306), the contemporary usage of the term social capital can be classified into three distinct approaches in the social sciences, that are from Bourdieu (1986), Coleman (1988) and Putnam (1993). Bourdieu emphasizes social capital on strategies for maintaining or changing one's position in a hierarchical social structure; Coleman finds in social capital an implicit connection to the economic rationality of human capital; according to Putnam, social capital contributes a strong association with civic responsibility.

Birner and Wittmer (2000a:6) differentiated the usage of social capital into two perspectives that are private perspective (Bourdieu approach) and public perspective (Putnam approach). According to Bourdieu (1992) social capital is the totality of all actual and potential resources associated with the possession of a lasting network of

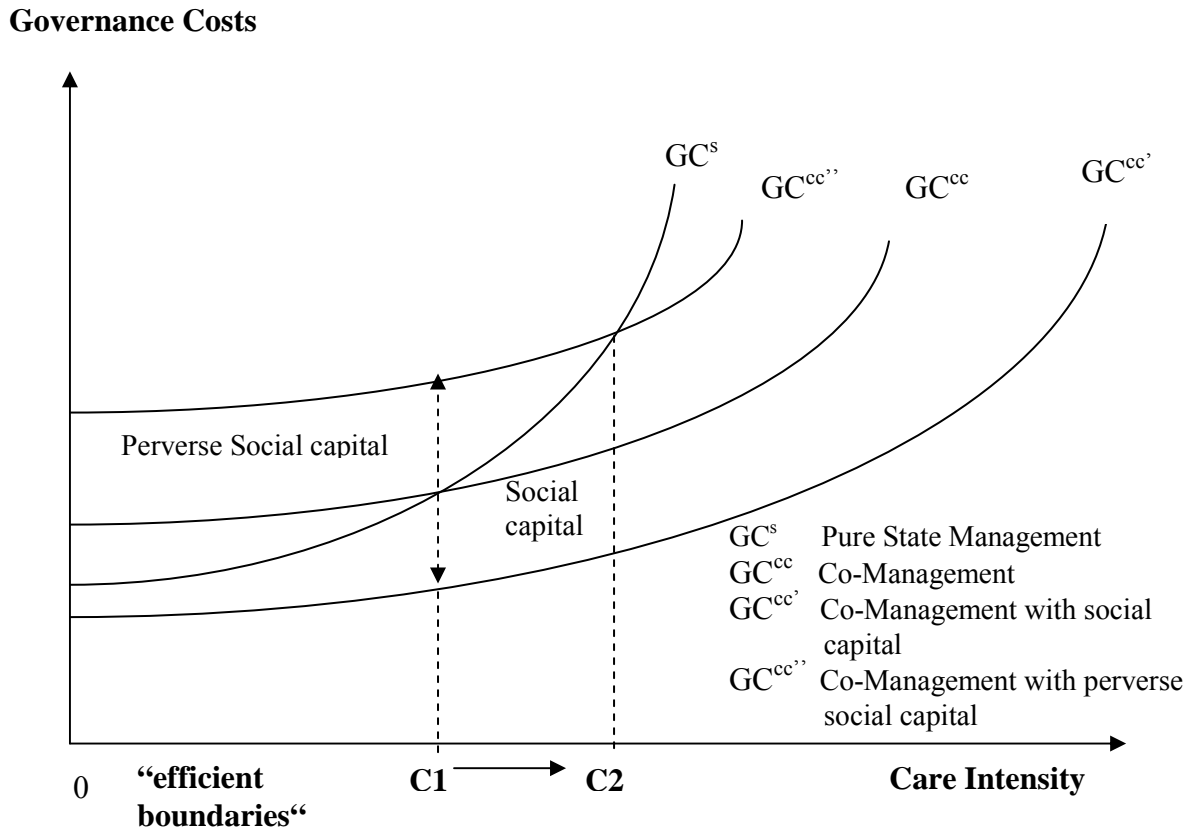
more or less institutionalized relations of knowing or respecting each other. The Bourdieu concept of social capital has been widely used in the study of inequality and hierarchical social structure. Putnam (1995:67) holds a broader definition of social capital. He defines social capital as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit. Putnam stresses that a special attributes of social capital is ordinarily a public good, unlike conventional capital, which is ordinarily a private good (Putnam 1993). The concept of Putnam reflects a public perspective, so that it is useful to analyze structural variables of the social system or political system.

The concept of social capital may be of particular relevance to the decentralization debate. Putnam (1993) shows how the differences in existing social capital (meaning norms of reciprocity, networks, and trust) impact and condition the success of decentralization. The central question of the Putnam's study was "what are the conditions for creating strong, responsive, effective representative institutions?" According to Putnam, the success of decentralization can be traced back to higher levels of civic engagement or social capital. His analysis stresses that the success of decentralization depends on the levels of social capital that already exist within the local area, which is path-dependent or historical in nature. His work is interesting because it lays the groundwork for predicting the success of decentralization.

Social capital is one of the key factors that might be needed in designing decentralization strategies. However, Putnam's outlook seems pessimistic about the techniques to build social capital and the length of time involved are daunting (Anderson, 2000:19).

A community could lose its common goals such as higher prosperity because of the lack of norms, trust, and reciprocity networks that facilitate mutually beneficial cooperation in a community. Birner and Wittmer (2000b:9) show that increased social capital and preferences for local equity may influence the efficient governance structure.

The following figure 2.2 describes the impacts of social capital and perverse social capital on the government costs.



Source: adopted from Birner and Wittmer (2000b:9)

Figure 2.2. Impact of Social Capital on Governance Costs

The above curve shows the relation between governmental cost and care intensity in the condition of pure state management (GC^S) and co-management (GC^{CC}). Social capital is used here as a variable that expresses the capability of the local communities to overcome the free-rider problem of collective action. The above figure shows that due to the presence of social capital, the curve of co-management (GC^{CC}) shifts to $GC^{CC'}$. It means that increased social capital reduces the governance costs of co-management because the transaction costs of decision-making decrease (co-ordination becomes easier) and the instrument of social control can be used more efficiently (Birner and Wittmer 2000b:9-10). Conversely, the presence of perverse social capital will be detrimental to the economic efficiency and the welfare of society (Rubio 1997:805). The consequence is that the curve of co-management (GC^{CC}) shifts to $GC^{CC''}$, which means that increased perverse social capital increases the governance costs of co-management because the costs of decision-making and

social control increase. It also explains that pure state management is more 'efficient' than co-management until care intensity level C1. It means that in the low level of care intensity of natural resources co-management is not efficient due to higher costs for preparation and coordination (transaction costs). However, co-management will be more efficient than pure state management in the case of natural resources, which need more care intensity (more than C2). The presence of social capital will reduce transaction costs causing more efficient of co-management.

The previous figure 2.2 implies that the transaction cost framework can be adapted to account for the specificities of natural resources management in developing countries. Birner and Wittmer (2000b:10) give an example: the comparative advantage of state governance depends on the question of whether the threats to natural resources are caused by community members or outsiders. They also explain that "another factor to be considered is the 'boundedness' of resources of the users, which is related to the social capital concept." Collective action can be very difficult where levels of social capital are low and capacity is weak or lacking (Anderson 2000:18). Devolution of rights and responsibilities to membership organization is appropriate, if the users of a resource system are an identifiable and coherent group, but if the users of a resources system lack group identity and structure, elected local governments which are responsible to the entire local population, have a comparative advantage (Uphoff 1986 *quoted in* Birner and Wittmer 2000b:10).

2.2.6.2. What is Political Capital and How can Social Capital be transformed into Political Capital?

"As a theoretical or analytical concept, political capital has apparently not gained wide currency in political science, political economy or any related discipline. The term is hardly found in any handbook or dictionary of political sciences, but frequently used by journalists in the expression 'to make political capital' of some event, which a connotation of taking an unfair advantage of the event." (Birner and Wittmer 2000a:4).

CPRC (2003) holds that political capital is increasingly recognised as the missing dimension of the sustainable livelihoods framework, and as one potential remedy to the limited use of political analysis in studies of development and poverty. To a large extent, political capital is proposed as a means of overcoming some of the problems of using social capital as a catch all concept for explaining the importance of non-material factors in poverty. As a concept the term 'political capital' is initially used by Booth and Richard (1998:780) in a study that reconsiders Putnam's major argument that civil society, expressed in citizens' organizational activity, contributes to successful governance and democracy. They criticize Putnam for failing to specify how civil society impinges upon government as he never elucidates how group involvement affects citizen behavior or attitudes so as to influence government performance or enhance prospects for democracy (Booth and Richard 1998:782). Moreover, they hold that in order to have political significance, associational activism must foster attitudes and behaviors that actually influence political regimes. They label such state-impinging attitudes and activities as 'political capital'.

Hicks and Misra (1993:672) used the concept of political resources to build a coherent framework for analyzing welfare spending, which allowed them to integrate theoretical arguments put forward by four different perspectives in political sciences: pluralist, statist, mass political conflict and social democrat perspectives. They distinguish between 'instrumental resources', defined as specific resources used by specific actors to realize their perceived interests and 'infra-resource', defined as resources that broadly facilitate diverse actors pursuits of their interests by empowering their actions or conditioning the effectiveness of specific instrumental resources. Furthermore, Leicht and Jenkins (1998) apply the political resource framework for analyzing the adoption of public venture capital programs in the American states. Their results support the political resource idea that contextual combinations of infra-resources and instrumental resources are relevant for explaining policy adoption.

CPRC (2003) reported that the most extensive elaboration of political capital as an operational concept comes from Birner and Wittner (2000a:5-6). They draw on Leicht and Jenkins' political resource theory because it allows one to take the influence of specific interactions between interest groups, local pressures as well as global

pressures on policy formation into account. They proposed the distinction between instrumental resources and infra-resources in political resource theory, which parallels the distinction between the private perspective and the public perspective of social capital. In the private perspective, political capital consists of the resources, which an actor, i.e. an individual or a group, can dispose of and use to influence policy formation processes and realize outcomes, that are in the actor's perceived interest. This perspective also could be denominated as 'instrumental political capital' or 'actor perspective'.

In the public perspective, political capital refers to the structural variables of the political system, which influence the possibilities of the diverse actors to accumulate instrumental political capital and condition the effectiveness of different types of instrumental political capital. The public perspective of political capital corresponds to the concept of infra-resources in political resources theory. Birner and Wittmer (2000a:6) proposed the term 'structural political capital' to denominate the public perspective. Applying both actors' (private) perspective and a public perspective to the concepts of social and political capital leads to the four-way classification outlined in table 2.2.

Table 2.2. Social and Political Capital Matrix

Perspective	Public Perspective (Structural Capital)	Actors' Perspective (Instrumental Capital)
Social capital	Structural variables of the social system	Social capital held by actors
Political capital	Structural variables of the political system	Political capital held by actors

Source: Birner and Wittmer (2000a:7)

The classification on table 2.2 is the basis for analyzing the transformation of social capital into political capital. The structural parameters of the social and political system (public perspective) determine which type of social capital the diverse actors can accumulate, and to which extent they can transform (invest) it into different forms of political capital (actors' perspective). The actors may differ in their capacity

(entrepreneurship, innovatives, etc.) to find efficient ways of capital transformation, especially when the structural parameters of the political and social systems are changing (Birner and Wittmer 2000a:7).

2.2.7. Hypotheses

Decentralization is a complex and multi-dimensional issue. It is the reason why many case studies on decentralization do not suggest any specific solutions. The solution in any particular case usually involves tradeoffs between the various factors. On one side, centralization is believed to help ensure uniform and consistent standards, minimize inequalities, avoid the duplication of services, allow for the achievement of economies of scale, and increase coherence and coordination. Decentralization, on the other side, can help enhance local autonomy and empowerment, encourage customization and innovation, and increase participation (Brady 2002). According to the literatures concerning theories and practices of decentralization, the following hypotheses are formulated:

1. Regional autonomy will create better public administrative services in the region but cause more political instability, particularly concerning forest management.
2. Regional autonomy will increase regional income but create larger income disparities among regencies and within forest village communities.
3. Regional autonomy will give more opportunity to local people in managing and utilizing forest resources.
4. Regional autonomy will reduce forest degradation due to a greater responsibility of regional government as well as local people towards the sustainability of their own natural resources.

3. Legal Basis of Regional Autonomy in Indonesia

3. 1. Reviews of the Post-Reform Indonesia

It is important to briefly describe the fundamental political change of post-reform Indonesia before further discussion about regional autonomy. A deep economic crisis and massive student demonstration forced Indonesian President Suharto to retreat in 1998. Following this reform movement named '*reformasi*', there are six agenda of political reform which were demanded by most people (Hanggono and Haripramono 2000:v):

1. amendment of national constitution;
2. supremacy of justice;
3. cancellation of the socio-political function of the military and police;
4. democratization;
5. clean governance; and
6. regional autonomy.

The first agenda -amendment of national constitution- has met in four steps. The first amendment was affirmed on the 19th of October, 1999, and then the second, third, and fourth amendment were conducted on the 18th of August, 2000, the 10th of November, 2001, and the 10th of August, 2002. Compared with the old version, the new version of the national constitution has given larger and more detailed attention to local governance in the context of decentralization (article 18 and 18A), as well as a better respect to plurality and customary right (article 18B). Furthermore, it also involved regional representatives in making decision concerning regional autonomy such as those which concern the relation between central and regional governances, the forming or dissolving regions, natural resources management, and financial sharing (article 22D). Implementation of regional autonomy, however, shall be in the context of national sovereignty (article 1) and social welfare (article 33).

Supremacy of justice as the second agenda of political reform is until now still far from an ideal condition. There is a tendency of political interests and political bargaining to play a more important role than justice. Law enforcement, though promised, is ineffective. According to the World Bank (2004), there are a number of obstacles impeding justice in post-reform Indonesia, e.g. sluggish investigations, lack of responsiveness of the police and prosecutors, and legal institutions influenced by power-holders.

The third agenda, cancellation of the socio-political function of the military was approved by the national parliament. The number of military fraction members in the parliament has been reduced gradually. Politicians, bureaucrats, or businessmen coming from the military must make a choice: continue a military career or enter public service as a civilian. Since '*reformasi*', about 2,000 military representatives have been removed from central and regional legislatures, as have 3,000 to 4,000 active military officers from the civilian bureaucracy (Anggoro 2004).

Democratization is the fourth agenda of political reform and one that made placed Indonesia, with more than 200 million people, one of the biggest democratic countries. The number of political party has drastically increased from only three in the Suharto era to be more than 200 political parties in 2003 (Detikcom 2003c)¹. Freedom of expression is also the result of democratization in Indonesia post reform. However, as a new democratic country –that is beginning to learn how to conduct a proper democracy- some practical inequities has been found, such as expressing freedom without following the order. The cases of some social conflicts in post reform Indonesia might be caused by the weakness of state to enforce order (Tadjoeddin 2003:14-15). A proper democracy requires serious effort.

The fifth agenda of political reform is to achieve clean governance and to combat the practices of corruption, collusion, and nepotism. The practice of bribery has been a cancer on the Indonesian economy. Since there is no serious law enforcement, the agenda of clean governance is far from being realized. Transparency International (2003) has placed Indonesia as the sixth most corrupt country in World (Kompas 2003f; Detikcom 2003b). A public poll conducted by Kompas (2003) shows that more than 50% of respondent said that the bribery practices after regional autonomy is still bad or even getting worse².

The sixth agenda is regional autonomy and was reflected the largest demand of Indonesia's regions following political reform in the year 1998. One year after reform, the central government decided to devolve a large authority to the regions by enacting law concerning regional autonomy. It is clear that regional autonomy in Indonesia could not be separated from Indonesia's political reform as a whole. Thus, the implementation of Indonesia's regional autonomy should be consider to the spirit of political reform. A basic knowledge of the hierarchy of legislations, the decision-making process, and the legal basis for decentralization are also needed before evaluating a policy implementation, i.e. regional autonomy.

3.2. Indonesia's Regional Autonomy from an Historical Perspective

This section provides the historical perspective on regional autonomy in Indonesia during the periods of Pre-Colonial, 'Dutch Indies', 'Old Order', 'New Order', and 'Post Reform'.

Pre-Colonial Period

'Regional autonomy' had been practiced 'de facto' in 'Nusantara' (Indonesian archipelago) since the pre-colonial period without as well as under a 'confederacy' with a 'big monarchy' like 'Sriwijaya' and then 'Majapahit'. In this period, there were many 'independent monarchy states' in the 'Nusantara'. According to Wibawa (2003:97), "...they were sovereign, engaged in cooperation with each other as well as in conflicts, war, compromise, and agreements."

'Dutch Indies' Period

The Dutch colonial government had taken into account the issue of regional autonomy firstly in 1903 through the enactment of a decentralization law named '*Decentralisatie Wet*'. The law was intended primarily to increase administrative effectiveness and the other reasons: pressure of the European capitalists to open Dutch Indies ('*Hindia Belanda*') for global investment and lack of financial resources as well as the 'ethical politics'. Two decades later, the decentralization law was improved by '*Bestuurhervormingswet* 1922 that made it possible for '*pribumi*'

(Indonesian natives) to take part in the government (Buising 2000; Wibawa 2003:97). Participation was supposed to provide Indonesians with political education named '*politike scholing*' in order to make them capable of later managing an independent Dutch Indies under a confederacy with the Dutch monarchy (Kaho 1997:23 *cited in* Wibawa 2003:97). No Dutch Indies decentralization laws were satisfactory and they also did not apply to all of Indonesia because they were framed during the anti-colonial struggle for independence. The Dutch were still working towards implementing the decentralization laws when the Japanese invaded the Dutch Indies in 1942 (Buising 2000).

The 'Old Order' Period

The independent Republic of Indonesia enacted a replacement for the Dutch laws. According to the Law 1/1945, which was implemented after the independence and then Law 1/1957, which was passed after the first parliament election of 1955, the '*Bupati*' (regency head) is elected by the local parliament (DPRD) without intervention by the central government. Unfortunately, the PRRI-Permesta regional rebellions gave President Sukarno (the first president of the Republic of Indonesia) the opportunity to replace constitutional democracy under the 1950 provisional constitution with presidential rule under the 1945 constitution through a Presidential Decree on the 5th of July, 1959 (Buising 2000). Under the 'guided democracy' the Sukarno's government –frequently called as the 'Old Order'- established Law 18/1965 (Wibawa 2003:96)

The 'New Order' Period

The 'New Order' is the name of the government under the Indonesia's second president, Suharto. The 'New Order' government tried to decentralize as well through the enactment of regional governance Law 5/1974. This law was potentially an effective general design but was negated by a lack of detailed design and implementation. Like the Dutch, Suharto's government accepted the need for decentralisation if only as a means of enhancing administrative effectiveness,

particularly with respect to development and thus its claims to legitimacy through performance. However, Law 5/1974 left many details to be finalized in subordinate legislation. This applied in particular to the problem of sectoral decentralization - that is, the allocation of specific functions in the various fields of government activity to particular levels of government (Buising 2000). After the Suharto's party of '*Golkar*' lost votes in the 1992 election, the government tried to give more decentralization to the regency through Government Regulation 45/1992. Three years later, through Government Regulation 8/1995 a pilot project of regency autonomy was implemented. The pilot project in 26 regencies was to be evaluated in 1998, and would be expanded at the second step to other regencies. However, it was too late because in May 1998 the Suharto's regime fell.

The 'Post Reform' Period

The transitional administration of President B.J. Habibie legalized regional Law 22/1999 on regional governance and Law 25/1999 on fiscal balance, which arranged the relation between center – province - and regency. Law 22/1999 is more specific about the role of the regencies and municipalities than was Law 5/1974. Law 22/1999 also clearly stipulates that the decentralization of functions to the regions must include the transfer of the relevant resources - facilities and infrastructure, personnel and funding. The new decentralization law is considered by some observers as revolutionary (Wibawa 2003:96). It could also potentially enhance 'democracy, community participation, equitable distribution and justice as well as take into account the regions' potential and diversity (Alm and Bahl 1999:6; Buising 2000). Under the new decentralization law, 'administrative territories' which made the regency subordinates to the provinces and hence the center, are no longer part of the hierarchy. However, Law 22/1999 still requires considerable supplementary legislations to be implemented well (Buising 2000).

3. 3. Arguments for Indonesia's Regional Autonomy

Indonesia's growth and development has been mostly fuelled by the exploitation of its rich natural resources, primarily petroleum but also timber, minerals, and agricultural commodities (Encyclopedia Indonesia 2003). Before the reform

movement 1998, forest policy making in Indonesia was a relatively insular top-down process: other sectoral agencies of the government outside the forestry department, provincial-level forestry officials, non-governmental organizations and the general public had a limited voice. After the reform movement in 1998, decentralization became a central issue in the government policy and it was strongly demanded by most of the regions in Indonesia. To respond to the spirit of reform, the Indonesian government launched some new regulations on whole sectors in the context of decentralization policy. By the year 1999 Indonesia adopted two laws concerning decentralization. Law 22 relates to the devolution of governmental authority, and Law 25 involves fiscal decentralization. The new laws will entail many changes in Indonesia's governance.

Regional autonomy in Indonesia reflects a broader process of political reform that has brought economic and political systems closer to the local communities. This is a key step towards a full implementation of Indonesia's regional autonomy law, which seeks to give the regencies greater freedom in administering rights concerning natural resources management, as well as investment approvals. The move should make governments more responsive and accountable. The most common theoretical rationale for decentralization is to attain allocative efficiency in the face of different local preferences for local public goods (Musgrave 1983 *quoted in* Litvack *et al* 1998:5).

3. 4. Hierarchy of Legislation and Codification

Understanding the hierarchy of legislation is needed as a basic guide to evaluate in which level -legislation or implementation- certain problems, contradictions or mistakes occur and how to formulate an accurate solution.

3.4.1. Regional Autonomy in the Legislation's Hierarchy

The implementation of regional autonomy as well as other policies follows the hierarchy of legislation. The following figure shows the scheme of the hierarchy of legislation in Indonesia:

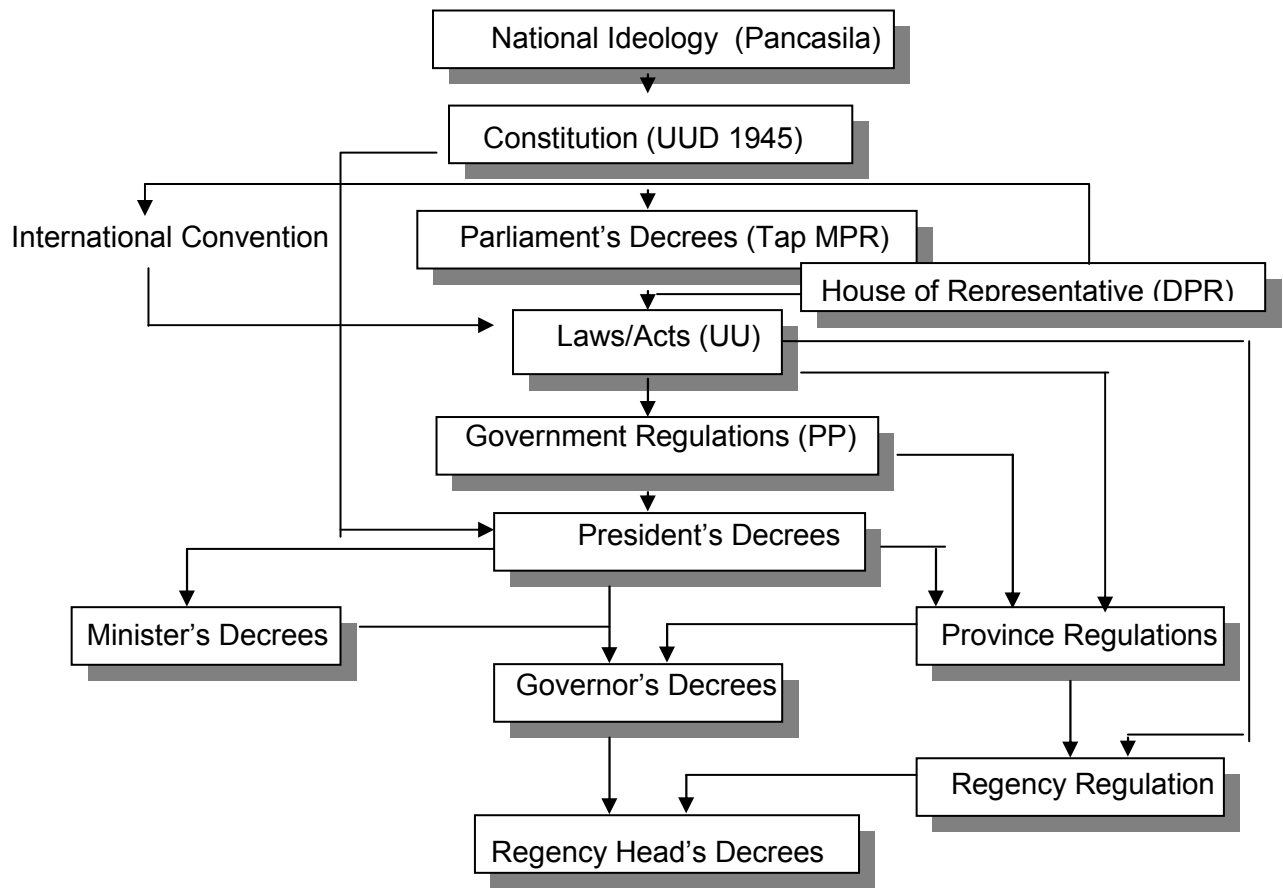


Figure 3.1. The Scheme of the Hierarchy of Legislation in Indonesia³

The principle of regional autonomy could be found in all level of the hierarchy of legislations in Indonesia. The national ideology named *Pancasila*⁴ entrusts the principle of humanism and fairness (principle 2) and social welfare for all Indonesians (principle 5) and shapes all laws concerning regional autonomy in Indonesia. Table 3.1 below shows the list of legislations concerning regional autonomy.

Table 3.1. List of Legislations Concerning Regional Autonomy and Forest Management

Legislation's Hierarchy	The relevant legislations	Contents
National Ideology (Pancasila)	<ol style="list-style-type: none"> 1. Principle No. 2 2. Principle No. 3 3. Principle No. 5 	<ol style="list-style-type: none"> 1. General principle on humanism and fairness 2. Unity of Indonesia 3. General principle on social welfare and equity
National Constitution (UUD 1945)	<ol style="list-style-type: none"> 1. Article 1 (1), (2), (3) 2. Article 18 (1) to (7) 3. Article 18A (1), (2) 4. Article 18B (1), (2) 5. Article 22C (1) to (4) 6. Article 22D (1) to (4) 7. Article 24A (1) 8. Article 33 (3) to (5) 	<ol style="list-style-type: none"> 1. Unitary of state and sovereignty 2. Regional government 3. Relation between central and regional government 4. Special regions and customary rights 5. Regional representative 6. Role of regional representative 7. Supreme courthouse and verification of legislation 8. Authority over natural resources, equity, and prosperity
Parliament Decree (TAP MPR)	<ol style="list-style-type: none"> 1. Decree XI/MPR/1998 2. Decree XV/MPR/1998 3. Decree III/MPR/2000 4. Decree IV/MPR/2000 	<ol style="list-style-type: none"> 1. Clean governance 2. Regional autonomy 3. Hierarchy of Legislation 4. Regional governance
Laws (UU)	<ol style="list-style-type: none"> 1. Law 22/1999 2. Law 25/1999 3. Law 41/1999 	<ol style="list-style-type: none"> 1. Regional governance 2. Fiscal balance 3. Forestry
Government Regulations–GR (PP)	<ol style="list-style-type: none"> 1. GR 25/2000 2. GR 104/2000 3. GR 105/2000 4. GR 107/2000 5. GR 108/2000 6. GR 129/2000 7. GR 20/2001 8. GR 34/2002 9. GR 35/2002 	<ol style="list-style-type: none"> 1. Central government and Province authorities 2. Balance fund 3. Regional fiscal management and responsibility 4. Regional loan 5. Responsibility mechanism of the regional head 6. Region formation, merger, and erasure 7. Supervision of regional autonomy 8. Forest arrangement and utilization 9. Reforestation fund
Presidential Decree – PD (Keppres)	<ol style="list-style-type: none"> 1. PD 49, 84, 151/2000 2. PD 131/2001 	<ol style="list-style-type: none"> 1. Regional Autonomy Advisory Board 2. General Allocation Fund
Minister Decree (Kepmen)	<ol style="list-style-type: none"> 1. Forestry Minister Decree 05.1/2000 2. Forestry Minister Decree 541/2002 	<ol style="list-style-type: none"> 1. Mechanism of permission to utilize natural production forests 2. Cancellation of the decree 05.1/2000

Province Regulation (Perda Propinsi)	Various	Depend on the regions
Governor Decree (Kep Gubernur)	Various	Depend on the regions
Regency Regulation (Perda Kabupaten)	Various	Depend on the regions
Regency Head Decree (Kep. Bupati)	Various	Depend on the regions

Source: own representation

According to Kompas (2003b), the total number of regional regulations is about 2000; 340 of those regulations are concerned with regional taxes and fees (*retribusi daerah*); and 69% of them did not consider the upper regulations⁵. It caused a large legal problem in many of Indonesia's regions.

3.4.2. The Policy Making Process: Law Codification in Indonesia

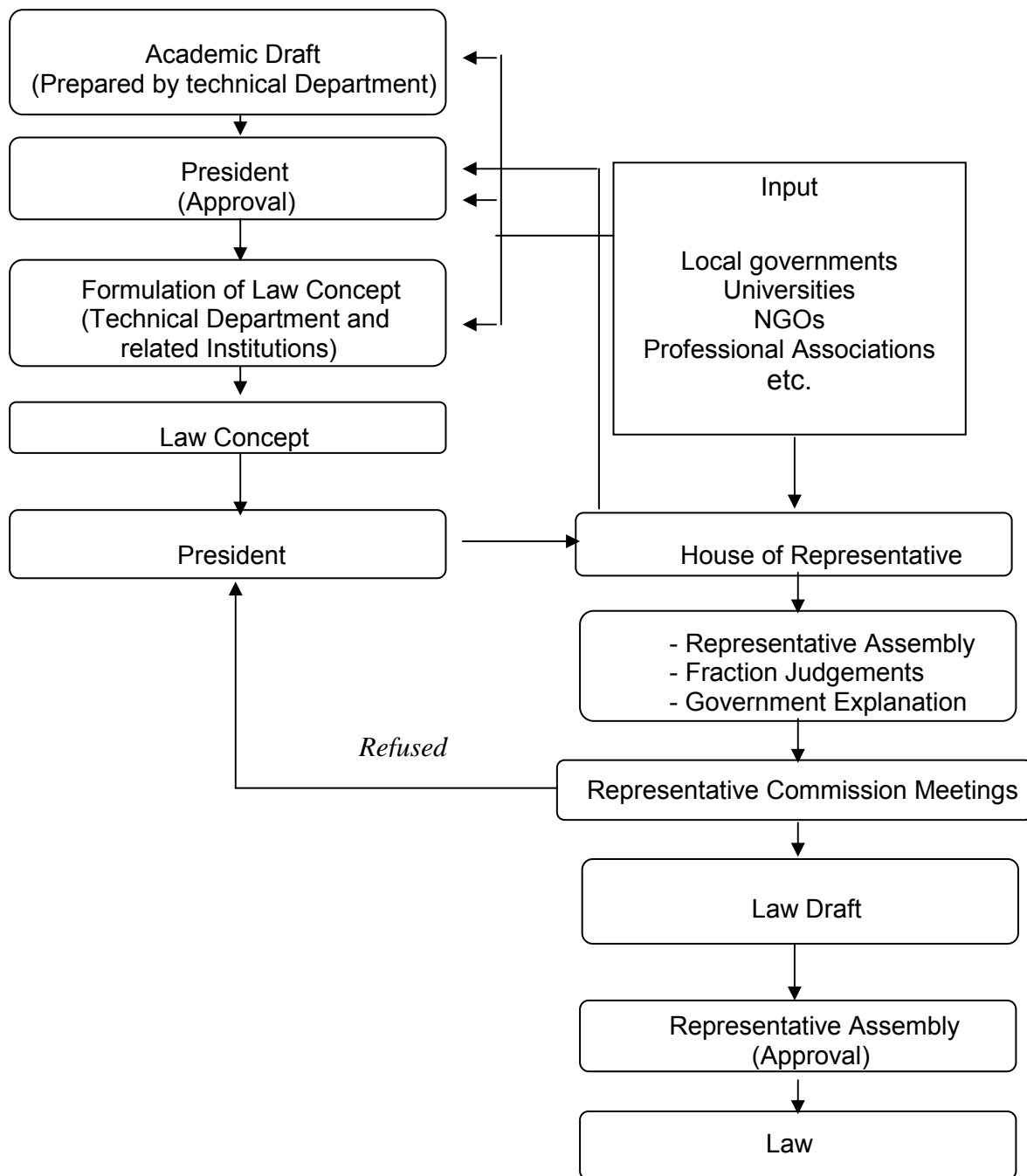
Usually the executive government, i.e. the President through the sectoral departments, keeps the initiative to perform or revise laws. The sectoral department prepares a rough concept of the law named 'the academic draft', then this draft is given to the president for approval. After receives the President's approval, the sectoral department invites related departments and relevant institutions such as other state agencies as well as universities to form an 'inter-sectoral working committee'. It is needed to ensure that the concept of the prospective law has considered inter-sectoral interests, does not overlap or contradict with other laws, and is as far as possible scientifically accepted. The output of this work is a 'law concept', which is again given to the president for approval.

After it is approved by the president, the 'law concept' is submitted to the House of representatives ('DPR'). Any inputs or criticisms from various interests –personal (e.g. scientist, businessman, politician, etc.), groups (e.g. traditional community, professional groups, etc.) or institutions (local government, NGOs, business associations, etc.) are usually given at this stage⁶.

The House of Representatives can invite the sectoral department, relevant institutions, or scientists for 'hearings' or discussion aimed at improving the 'law

concept'. Next, the House of Representative's Assembly hears the fractions (political party's groups) judgements and (executive) government explanations. The results of the assembly are discussed in more detail in the 'Representative Commission Meetings'. There are two possibilities of the commission meetings: to recommend to the assembly to refuse the 'law concept' and give back to the president (executive government) to be improved (or totally changed); or to recommend to the assembly to accept the 'law concept' and make it as a 'law draft'. This 'law draft' then is submitted to the House of Representative Assembly to receive approval and to be enacted officially as a new law.

The following figure 3.2 describes the process of law codification in Indonesia.



Source: Ministry of Forestry (1999) simplified

Figure 3.2. Process of Law Codification in Indonesia

3.5. Legal Basis of Regional Autonomy and Forest Management

As explained previously, there are three most important laws concerning regional autonomy and forest management that are Law 22/1999 about Regional Governance, Law 25/1999 about Fiscal Balance, and Law 41/1999 about Forestry. The following parts will explore and analyze the contents of these laws in the context of regional autonomy and forest management.

3.5.1. Regional Governance Law 22/1999

The Law 22/1999 concerning Regional Governance is the most important legal basis for regional autonomy in Indonesia. This law was enacted on May 7th, 1999, and consists of 16 chapters and 134 articles, which contain the general guidelines of decentralizing government administrative system and officially started in the year 2001. In fact, however, the implementation of regional autonomy was practiced in the regencies soon after the law was enacted, i.e. by launching various regional regulations.

Regional autonomy devolved a number of governance authorities to the regional governments. According to the Law 22/1999: 7(1), regional government is responsible in all fields of governance, except over authorities in the field of foreign affairs, defense and security, judicature, monetary and fiscal, religion and some authorities in other fields, 7(2) consisting national development planning, finance balance fund, state administration system, state economic institutional systems, human resources development, management of natural resources as well as strategic high technology, conservation, and national standardization. Thus, generally forest resources management and conservation are still under the responsibility of the central government. However, some parts of the forest management could be delegated to the regional or local level based on article 10 (1). It mentions that regions shall have authority to manage national resources located in their area and must be responsible to maintain their environments in accordance with laws and regulations.

Since this Regional Autonomy Law is a global guideline for regional governance system, however, further technical regulative instruments are needed. The further

regulative instruments needed for implementing the Regional Autonomy Law are presented in the Appendix 1. Those technical instruments should be available in one year after launching the law.

The Indonesian state administration system is obligated to implement the principle of deconcentration and decentralization in the context of the Unitary State of the Republic of Indonesia. Regarding the National Constitution article 18 (1) and (2), the territory of the unitary state of the Republic of Indonesia is divided into autonomous provincial regions, regency regions, and municipal regions. Law 22/1999, article 4 mentioned that in the context of the implementation of the decentralization principle, provincial regions, regency regions and municipal regions shall be authorized to govern and administer the interest of the local people, according to their own initiatives, based on the people's aspirations. Each region shall be independent and shall not have a hierarchical relationship to each other.

According to the official explanation of the Law 22/1999, the principle of regional autonomy should follow the following guidelines.

- Regional autonomy should be conducted by taking into account the aspect of democracy and justice as well as local potency and local diversity.
- The implementation of regional autonomy should be carried out integrally and accountably. These require a democratic atmosphere to grant regional houses of representatives and public awareness access to regional government.
- The implementation of regional autonomy is placed in the regencies, whereas the province has only a more limited authority.
- The implementation of regional autonomy must be in accordance with the state constitution, so that the harmonious relationship between the central government and the regions shall be ensured.
- The implementation of regional autonomy must improve the independence of the autonomous regions.
- The implementation of regional autonomy must be able to improve the role and function of the regional house of representatives, either as legislative function,

supervising function or budgeting function over the organization of regional governance.

- The implementation of the principle of deconcentration shall be placed in its position as administrative region for conducting certain governance authorities delegated to governor as government representative.
- The implementation of the principle of assisting duties shall be allowed not only from center to regions, but also from center and regions to villages.

3.5.2. Fiscal Balance Law 25/1999

Fiscal Balance Law 25/1999 is an obligatory complement to the regional governance law because one of the most important matters in decentralization is the fiscal authority. Furthermore, decentralization has significant consequences for resource mobilization and allocation, macroeconomic stability, and, importantly equity (Litvack *et al* 1998). Decentralization initiatives that focus exclusively on electoral and administrative processes without considering the fiscal and institutional dimensions will not be sustainable (Meenakshisundaram 1994 *in* Parker 1995).

According to Law 25/1999, the fiscal balance between central and regional governments is a system of government financing in line with the unitary state, consisting of a financial division between the central government and regions and equity between regions that is proportional, democratic, and transparent (article 1:1). It is compatible with the aim of decentralization to transfer rights and responsibilities as well as part of fiscal authority from the central government to more localized bodies, whether local government units, civil society, organizations or informal community groups. Theoretically, this policy will shift away from a more paternalistic view of centralized administrations as the primary authority on what is best for all levels of society. If decentralized institutions are to perform the responsibilities devolved to them, they will need an appropriate level of fiscal resources to cover the costs of providing rural public goods and services. Three main sources of revenue are available: locally-generated resources; transfers from higher-level institutions; and resources from borrowing (Parker 1995). In many instances, a dichotomy exists between rights that are upheld by statutory regulation and those that are actually in practice (Meinzen-Dick and Knoxx 1999:5).

Parker (1995) indicated that in some cases, the level of revenues that can be mobilized locally is severely restricted. General skepticism about the financial management capabilities of local institutions, coupled with reluctance on the part of national governments to give up control of resources has resulted in local authorities' ability to tax typically being curtailed or denied entirely. In Indonesia, regional governments have the power to raise local revenues bestowed on them, as insofar as it is compatible with the higher legislations and national interests. In the forestry sector, the central government has prescribed tax rates and defines the tax base for timber (PSDH and DR). Regional government, however, usually also collects regional taxes, named '*retribusi daerah*'.

The administrative costs associated with collecting local taxes should be formulated and implemented carefully. In addition, improperly designed programs of sub-national revenue sharing may provide perverse incentives to local institutions not to maximize local fiscal effort. Parker (1995) noted that there is a potential for macroeconomic imbalance, if local governments are permitted too much revenue-raising autonomy. If local governments are allowed unrestricted revenue-raising without an appropriate system of checks and balances, fiscal problems can rapidly emerge. A fine balance must be found in designing a system of accountability that prevents severe fiscal imbalance, but at the same time does not place unnecessary restrictions on important local fiscal decision-making.

The current legal framework has given substantial decentralization of authority to the regions. Besides from natural resources and other local revenues, the regions receive most revenue sources through a general allocation fund. According to the Fiscal Balance Law, sources of the regional revenues in the implementation of decentralization shall be (article 3):

- (1) Original Regional Revenues;
- (2) Balance Funds;
- (3) Regional Loans;
- (4) Other legal Revenues.

The following table 3.2 shows the balance fund between central and regional governments in Indonesia.

Table 3.2. The Fiscal Balance Fund between Center and Regions

No	Revenue Sources	Central Government (%)	Regional Government (%)
1.	Tax of land and property (PBB)	10	90
2.	Tax on acquisition of land and property rights	20	80
3.	State revenue of natural resources (forestry, general mining and fishery sector)	20	80
4.	State revenue of oil mining	85	15
5.	State revenue of natural gas mining	70	30
6.	Reforestation fund	60	40

Source: Law 25/1999; 6(2-6), 8(4) and GR 104/2000, articles 2 (1), 5 (1), 8, 12 (2), 19 (5)

In the forestry sector, the regional government will receive 90% of land and property tax and 80% of forest resources (Law 25/1999, article 6). For the special allocation fund, e.g. reforestation fund, regional governance will receive 40% of its fund (article 8). Table 3.3 describes detailed distribution of revenue from natural resources among the regions.

Table 3.3. The Detailed Distribution of Natural Resources Revenue in the Regions

Sector	Kind of Taxes	Province (%)	Producing Regency (%)	Other Regencies in the same Province (%)
Forestry	1. IHPH (right fund of forest concession)	16	64	-
	2. PSDH (royalty for forest resources)	16	32	32
General Mining	1. Land rent (right fund)	16	64	-
	2. Tax of general mining	16	32	32
Fishery	Tax of fishery business	-	Distributed evenly to all regencies in Indonesia	

Source: GR 104/2000, articles 9 (1-4), 10 (1-4)

As is shown in the above table, Fiscal Balance Law has given significant a portion of fiscal authority to the regions. Generally, the average portion of fiscal balance for the regions in Indonesia is about 50% of the total national budget. Seen in terms of the review of the World Bank (2001b), this proportion is relatively high compared with other countries.

Fiscal Balance Law requires that the potential, condition, and the requirements of the regions be taken into consideration along with the obligation and division of authority and the procedures on the implementation of the authority, including the management and its financial supervision. There are four fundamental principles in fiscal balance (article 2):

- The implementation of the decentralized tasks of the region shall be financed by the regional budget (APBD).

- The implementation of the tasks of the central government shall be carried out by people of the provincial region in line with the implementation of deconcentration, which shall be financed by the national budget (APBN).
- The implementation of the tasks of the central government shall be conducted by people from the region and village in line with the assistance task financed by the national budget (APBN).
- The handing over of the delegation of authority of the central government to the governor or the delegation of authority or the assignment of the central government to the regency should be followed by financial assistance.

3.5.3. Forestry Law 41/1999

Forestry Law is very important legislation in Indonesia, since 67% of the total land area or more than 130 million ha is classified as forestland. Forests supply a vast number of goods and service that vary with ecological, social and economic conditions that accommodate a wide array of multiple uses and user. Regarding its function Indonesian forests divide into five categories as shown in the following table 3.4.

Table 3.4. Forest Category According to Its Function (TGHK)

Forest Category	Number (hectares)
Fixed Production Forest	33.203.202
Limited Production Forest	29.833.302
Protected Forest	29.784.305
Nature Conservation and Wild Sanctuary	19.326.960
Conversion Forest	18.461.538
Total	130.609.307

Source: MOF (1996), Directorate General Forest Inventory and Land Use Planning⁷

- Nature Conservation consists of National Parks, Wild Sanctuaries and Nature Reserves. This category involved 15% of forest land, set aside for preservation

of genetic resources, life-supporting systems and the development of science, education and recreation

- Protected Forest 21%. This category is mostly comprised of watershed forests completely closed to commercial and even recreational uses. This type of forest is entitled to protection because of its hydrological function
- Limited Production Forest 21%. Managed for timber production, but may have lower allowable harvest levels due to environmental concerns. Only selective felling is permitted.
- Regular Production Forest 24%. Designated for timber, rattan and other forestry products; managed under harvesting and reforestation regulations. Selective felling and some clear cutting is permitted.
- Conversion Forest 21%. Forest convertible to farms, plantations and other uses such as resettlement.

The forestry sector in Indonesia just received a serious attention in the mid-sixties, through the enactment of Basic Forestry Law 5/1967 which provided the legal basis for awarding timber harvesting rights. The situation of Indonesian economy in the sixties was very difficult, and forestry was expected to be one of the leading sectors in generating government earnings. The government offered investment in many sectors that involved forestry by enacting Law 1/1967, which was concerned with foreign investment and Law 6/1968, which offered opportunity for local investment. Then, through Government Regulation 21/1970, many large twenty-year logging concessions (HPHs) were granted in Indonesia. According to Ministry of Forestry (2003), in the early nineties the number of logging concessions reached more than 500 and covered 63 million ha, approximately one third of the nation's total land area. In the mid-1990s, however, many concessions were withdrawn, in part because of violations by concession holders and in part because the value of timber stands in many concessions was declining, a situation that reduced their attractiveness as long-term commercial operations.

In 1990 many foresters, NGOs, and academicians considered revising the Basic Forestry Law 5/1967. A long series of discussions, seminars and workshops

concerning forestry law was conducted in 1990-1993. By 1993, the Ministry of Forestry finished the academic draft of the new forestry law to be proposed to the President. The proposal has been approved by President, but it has not been easy to make a fixed concept of the new forestry law. Between 1993 and 1998, 11 concepts of forestry law were considered (MOF 1999). It indicated that it is not easy to formulate a new forestry law that can satisfy all interests. Through a hard lobbying and long debate, on the 30th of September 1999, the new Forestry Law 41/1999 was officially enacted⁸. Table 3.6 shows the formulation process to establish the new Forestry Law 41/1999.

Table 3.5. Formulation Process of Forestry Law 41/1999

Year	Stages	Notes
1967	Basic Forestry Law 1967	
1990	Consider to revise Forestry Law	Seminar, discussion, etc.
1993	Academic Draft	Ministry of Forestry
1993	Proposal approval	President
1993-1998	Formulating Concepts of Forestry Law	11 concepts
1998-1999	Inter-departments coordination meetings	Improvement of concept
April 1999	Forestry Law Concept approval	President
April-Sep 1999	Legislation process	House of Representative
Sep 30 th , 1999	Forestry Law 41/1999	Officially enacted

Source: Ministry of Forestry (1999)

Compared to the old Forestry Law 5/1967, the new Forestry Law 41/1999 is not only emphasized the production aspect, but also gave more attention to conservation and participation. The following table 3.6 shows the comparison of contents between the Basic Forestry Law 5/1967 and the new Forestry Law 41/1999.

Table 3.6. Comparison of Contents between Basic Forestry Law 5/1967 and Forestry Law 41/1999

No.	Substance	Basic Forestry Law 5/1967 (Article)	Forestry Law 41/1999 (Article)
1.	Integral, transparent and participative as paradigm of forestry planning	-	11
2.	Forests for traditional people	17 ^a	8, 34, 37, 67
3.	Forests management should consider local specific and socio-culture	-	52
4.	Center, regions and all people are responsible to control forestry activities and maintain sustainable forest	18 ^b	60-64, 68, 69
5.	Central government devolves parts of authority in forest management to the regions	12 ^c	66
6.	Empowering local people in forest management	-	70
7.	Claim for negative impacts of forest activities	-	71-73
8.	Accomplishment of forestry conflicts	-	74-76
9.	Sanctions	19 ^d	78
10.	Incentives	-	79

Notes:

^a Traditional people can manage their forests, insofar as it does not disturb national interest.

^b Controlling mechanism was conducted only by forestry officer.

^c Central government could devolve parts of authority in forest management to the regions (not obligatory).

^d The sanction could be jail or a fine, but not specifically stated.

The above table indicated that Forestry Law 41/1999 gives more attention to the socio-cultural as well as participation of local people in managing forest resources. However, it still also remains unsatisfactory in some matters, such as the establishment of a category of customary forest. According to the new Forestry Law, customary forest is defined as the state forest that happens to lie within the territory

of 'customary law community'. There are different views concerning the regulation of customary forest in the Forestry Law. On the one hand, the government and some analysts saw that it showed significant progress and a better awareness of government to customary communities. On the other hand some other analysts and some NGOs expressed concern. Under the law, the government is obliged to respect the rights of communities that have received its blessing as 'truly customary'. A truly customary community is very difficult to explain and could mean, "only as long as those rights do not conflict with national interests." The Forestry Law stated that the government determines which communities qualify as customary and thus which community rights to respect. This term tends to have an elastic meaning; therefore, the concept of Forestry Law has been denounced by some indigenous people's organizations and NGOs as a sham with respect to protecting the rights of traditional forest communities. In this case, it could be seen that the real problem is a crisis of trust among government and other forest stakeholders.

According to the Indonesian constitution all natural resources are owned by the state and intended for the maximum prosperity of people (article 33). Property rights to resources that are held in common also tend to accommodate many different users (e.g. women, men, foresters, pastoralists, agriculturalists, fishers, hunters, etc.), who exercise a variety of resource uses (e.g. animal grazing, firewood, collecting three products, timber, etc.). Access and use rights may be simultaneous among different types of uses and users, or in cases where the conflict or the uses fail to coincide; they might be structured to overlap. In respect to the multi users and multi uses of forests, forestry administration shall be based on the following principles (Forestry Law chapter 1, article 2):

- benefit and sustainability,
- democracy,
- equity,
- togetherness and integration.

Moreover, article 3 explained that forest administration should be oriented toward people's maximum welfare based on equity and sustainability principles through:

1. Ensuring that forests are sufficient in area and evenly distributed;
2. Optimizing the variety of forest functions which cover conservation, protection and production functions in order to gain balance and sustainable benefits of environment, society, culture and economy;
3. Improving the carrying capacity of watershed;
4. Improving the capacity to develop community potentials and empowerment through participatory, equal and environmental-friendly ways so as to establish an endurance against the external change; and
5. Securing equal and sustainable distribution of benefits.

One of the most important aspects in the forest allocation is property rights. Property rights and collective action institutions are fundamentally related to how natural resources are managed locally and the efficiency, environmental, and poverty outcomes that emerge from management practices. For an effective devolution process to emerge, consideration will need to be given to what type of property rights create incentives for people to manage resources sustainably and productively, while at the same time ensuring access to those whose livelihoods depend on them. Managed common property institutions are often appropriate for landscape level resources and involve different combinations of property rights and collective action institutions depending on ecological and socioeconomic condition (Knox and Meinzen-Dick 1999:8). According to Forestry Law 41 (chapter 2, article 5), based on its status, two forests are determined that are:

1. State forests, and
2. Right forest.

To discuss forest resources management and property right, it is important first to understand forest allocation. Forest allocation is not only reflected by the size and function of the forest, but also the responsibility and authority that closely refers to the land tenure. Barber *et al* (1994) stated that patterns of forest ownership, access, and control (collectively termed tenure) create powerful incentives for sapping or saving forests. At base, forest tenure is a bundle of rights to occupy, use, or benefit from forests and forestlands under a particular system, such rights are linked to

corresponding duties. Based on the definition in Forestry Law (chapter 1, article 1); state forest means a forest located on lands bearing no ownership rights, while right forest means a forest located on lands bearing ownership right. Regarding the main functions, government determines forests to three categories (chapter 2, article 7):

1. Conservation forest
2. Protection forest, and
3. Production forest

Although Forestry Law 41/1999 has divided category of forests based on for instance ownership and functions, the problem related to utilization of forest yields and tenurial conflicts could still occur. However, the arrangements of forest categories is needed such that Knox and Meinzen-Dick (1999:9) stated "...although common property and overlapping private property arrangements do not guarantee equity and have been known to exclude those with less power and voice, the outcome of these systems is often greater equality that would be achieved under traditional private property regimes."

NOTES:

¹ Ahyani (2003) reported that as of June 2003, 238 political parties have been registered in the Ministry of Justice and Human Rights. However, the National Election Committee (KPU) announced that after verification, only 24 political parties will be able to participate in the election of representative members in 2004 (Detikcom 2003c). As a comparison, when the first legislative election in Indonesia was held in 1955, 178 political parties and individuals represented. The second legislative election was conducted in 1971 with 10 political parties; in 1977, 1982, 1987, 1992, and 1997 only 3 political parties were allowed to participate in the legislative election. The 1999 election was the first legislative election in Indonesia post reform, participated by 11,583 legislative candidates from 48 political parties to compete for 462 chairs of the National House of Representative.

² Kompas, January 6th, 2003 reported that according to the public pooling (n=888) in Jakarta, Yogyakarta, Surabaya, Medan, Palembang, Samarinda, Manado, and Makassar, 31,6% of respondents said that Corruption, Collusion, and Nepotism are still bad and 18,6% of respondents perceive that the bribery practices are worse after regional autonomy.

³ According to the Parliament Decree III/TAP-MPR/2000 on the Hierarchy of Legislations and Regional Governance Law 22/1999, as an autonomous government the regency has no instructional relation to the province and sectoral department.

⁴ *Pancasila* is the name of national ideology of the Republic of Indonesia that consists of five basic principles that are first, the almighty power of God; second, humanity and fairness; third, unity of Indonesia; fourth, togetherness and democracy; fifth, social welfare for all Indonesian. The text of Pancasila is stated in the preface of the National Constitution of 18th of August 1945; although the National Constitution has been amended, national consensus required that Pancasila not be revised.

⁵ The Regional Autonomy Monitoring Committee reported that 69% of 340 regional regulations concerning taxes and fees did not conform to regional autonomy law (Kompas 2003b).

⁶ Inputs from the various interests of people could be given also in the earlier step, in the event that the House of Representatives take the initiative to perform law. It is possible in the Indonesian system of law because, besides the executive government, the legislative body (the House of Representative) has also the right of initiative (*'Hak Inisiatif'*) to initiate or ask to perform or revise laws.

⁷ It is difficult to state the exact number of Indonesian forest covers because there are some different data concerning the extent of Indonesian forest covers. The data of 131 million hectares forest is compiled from the report of Directorate General of Forest Inventory and Landuse Planning (Ministry of Forestry 1996). The other data indicate that Indonesian forests comprise 144 million hectares (World Resource Institute 2003). According to Kartodihardjo (1999), the Function Category of Forests (TGHK) was enacted in 1984 and ended in 1997, and then integrated in the Regional Land Use Planning (RTRW). He estimated that the total area of Indonesian forests is 112 million hectares. The lowest estimation was given by Matthews (2002:13), and stated that by 1997 the Indonesian forests remained only 95 million hectares.

⁸ Actually, the early step of decentralization in forestry has been begun by the enactment of Government Regulation No. 62/1998 concerning decentralization of the part of the authority of forestry sector to the regions. This means that the process of forestry decentralization was conducted before the enactment of the Regional Governance Law 22/1999 and Forestry Law 41/1999. Therefore, the further step of forestry decentralization must follow the new legislations.

4. Research Area and Methods

4.1. Why was Jambi selected as the Research Area?

Although studying decentralization in developing countries as well as in Indonesia is not new, the further studies concerning decentralization are still relevant since studies differ in their choice of topics and are also usually interesting because each region has different political, social, economic, and cultural characteristics.

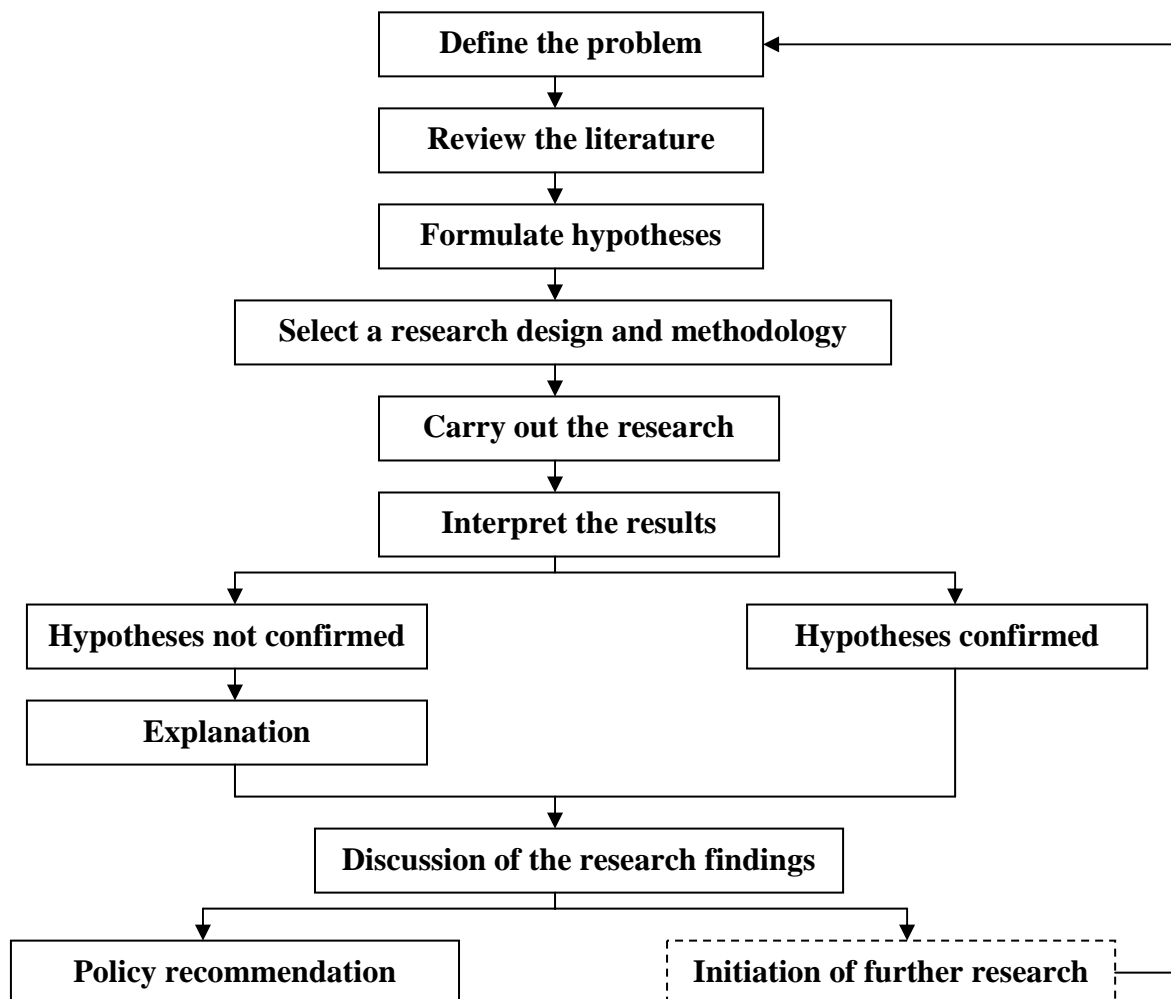
Some case studies on regional autonomy have been conducted in some Indonesian regions since 1999 (see Casson 2000 and 2001; Potter and Badcock 2001; McCarthy 2001). Most case studies concerning regional autonomy in Indonesia focused on wealthy regions, whose income is generated mainly from oil as well as other natural resources such as mines and forests. Those studies are very useful in contributing information concerning the preconditions and early process of the implementation of regional autonomy in some of Indonesian wealthy regions. For many researchers, the wealthy regions are more interesting for case studies because they often criticize more loudly or even refuse the central government's policies. Since these regions contribute significantly to the national revenue, they enjoy stronger political bargaining power against the central government.

Different from most of the earlier studies, this study was not conducted in a wealthy region but in Jambi –one of the poorest provinces in Sumatra- because of the following reasons. First, in the logic of nature the poor regions must endure a more difficult situation following regional autonomy because of their higher dependence on the central government. Second, Jambi has huge natural forest resources, but nearly half of its forests' resources are categorized as conservation forests. Since the region has almost no other alternative of income sources besides forests, the only way to increase the regional revenue is to exploit the forest resources as much as possible. This condition could potentially lead to sharp conflicts of interest with

national policies as well inter-regional governments. Therefore, it is very important to understand and to learn about the implementation of regional autonomy in Jambi.

4. 2. Research Procedures and Objects of the Study

This research was conducted with the following steps: first, define the problem; second, review the literature (theoretical concepts); third, formulate hypotheses; fourth, select a research design and methodology; fifth, carry out the research; sixth, interpret the results; seventh, confirm the hypotheses: eighth, discuss the research findings; ninth, make policy recommendation or initiate further research (next study). The following figure 4.1 shows all steps carried out in this research.



Own representation, adopted from Bryman (2001:63); Kirk and Mai (1997:2)

Figure 4.1. Steps of the Research

This research involves five objects of study: 1) legal basis of regional autonomy; 2) political dynamics; 3) socio-economics; 4) forest resources; and 5) overall empirical evidences concerning strengths, weaknesses, opportunities and threats of regional autonomy based on stakeholders perception and observation.

Legal basis of regional autonomy. This study tries to understand the legal basis of regional autonomy by exploring the historical views of decentralization policy in Indonesia, political demand and agenda of post-reform Indonesia, arguments supporting regional autonomy in Indonesia, and the hierarchy of legislation and law codification which involve the content of laws.

Political dynamics. The second object to be studied is the political dynamics that characterize the conflict of interests between central government and regions, as well as conflicts among stakeholders. This study focused on some phenomena such as the struggle for authority and legal crises, weakening of the state, and the formation of social capital in the village community and its transformation into political capital.

Socio-economics. Socio-economic is the third object of study that is very important to evaluate. One of the most important parameters of the success of regional autonomy is the socio-economics. This study evaluates some socio-economic aspects such as fiscal balance between center and region, distribution of Gross Domestic Regional Product among regencies as well as income disparity among people, growth of timber industries and its contribution to regional revenue, and general prosperity.

Forest resources. The fourth object of study is forest resources, which involve the evaluation of the dynamics of forest categories, forest ownership and property rights, forest management systems, and particularly causes and impacts of forest degradation.

Overall empirical evidences. The fifth object is the overall result that has been observed in the field and stakeholders' perceptions collected from interviews. The 'empirical evidences' are further categorized as strengths, weaknesses, opportunities and threats.

The following figure 4.2 shows the objects of the study in a policy cycle.

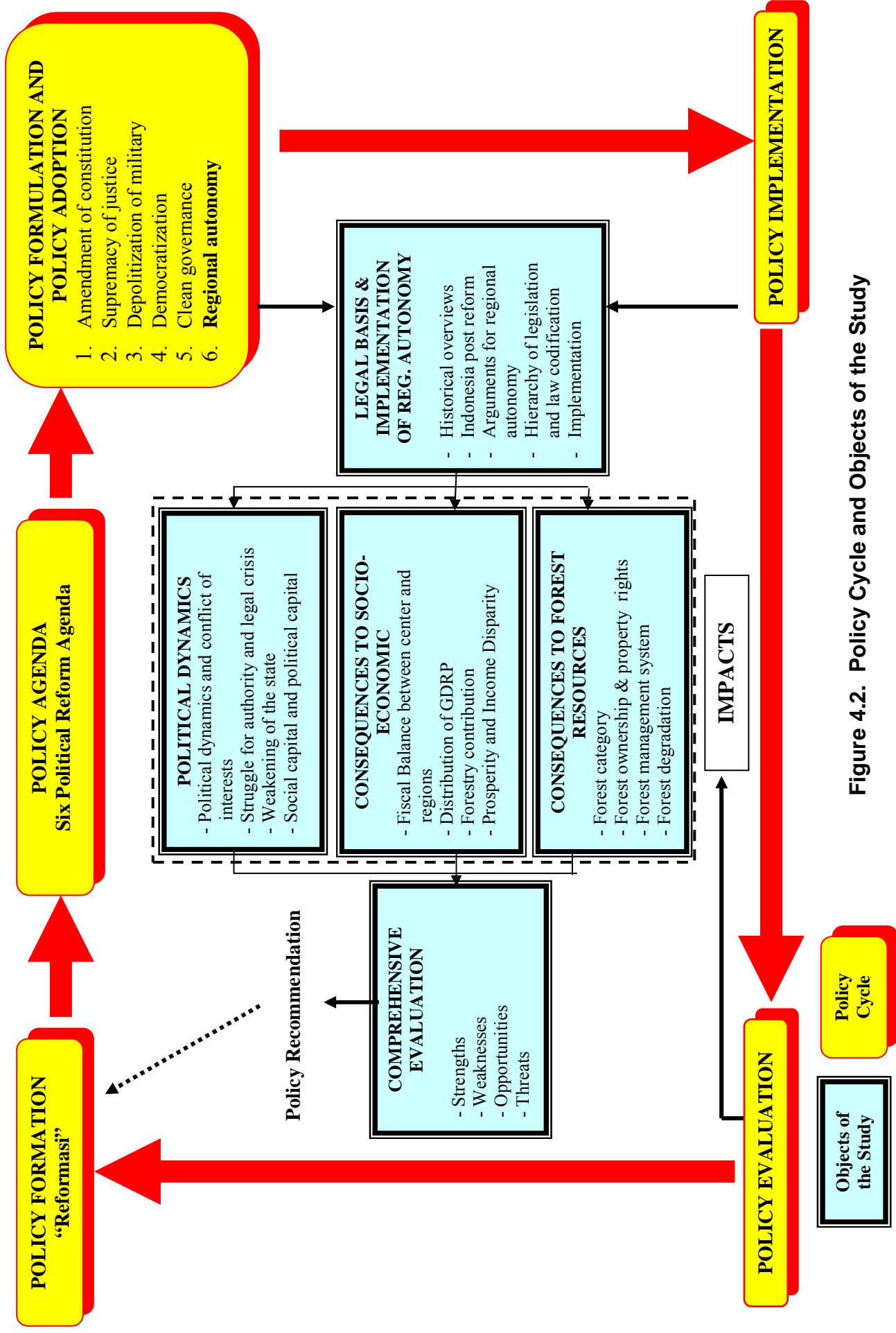


Figure 4.2. Policy Cycle and Objects of the Study

4.3. Description of the Research Area

The case study was conducted in the province of Jambi, Sumatra, Indonesia. Sumatra is the third largest island in Indonesian Archipelago and is perhaps affected by some of the overpopulation on the other islands such as Java, Madura and Bali. Historically it has been an important shipping and maritime trade region due to immediate control of the narrow sea lanes of the Malacca and Sunda Straits. Some very fertile land is found between mountains to the west and the swamp lands to the east. A large part of this island is covered by forest, both natural forest land and timber estate. Productive plantations are found also in Sumatra, where tobacco, tea, rubber, coffee, and oil palm are grown. According to Rutström (1991) some areas in the coastal mountains have very fertile volcanic soils and therefore intensive agriculture and dense population. Overall the population is very unevenly distributed in Sumatra.

In some parts of Sumatra, indigenous people practiced a traditional farming system of shifting cultivation named *ladang*. For a period of 1-2 years the peasant grows dry rice or vegetables on land that has been cleared from rain forest vegetation. As the yield drops the peasants move on to clear a new plot of land and they let the forest recover the original plot before too much soil fertility is lost. Traditionally they do not return to the same plot until at least 10-15 years later. With a growing population pressure, however, the traditional cycle has been shortened with the result that soil fertility is lost and the forest cannot recover abandoned land. World Bank (2001a) reported that the total forest area of Sumatra has decreased from over 23 million ha to probably less than 16 million ha. More than 17 million ha of forest loss in Sumatra, Kalimantan and Sulawesi, but only 4.1 million ha have actually been replaced by other tree crops.

The province of Jambi is located in Central Sumatra encompassing an area of 53,435 km² consisting of 10 regencies: Kerinci, Bungo, Tebo, Sarolangun, Merangin, Batanghari, Muaro Jambi, West Tangungjabung, East Tanjungjabung, and Jambi Township. Almost half of Jambi area is covered by forests, which has made the province not only the home of a large variety of fauna and flora but also an exciting place for recreation and adventure. The geographical location is within the Batanghari river basin, between 0°45' to 2°45' south latitude and 101°10' to 104°55'

east longitude. Temperatures usually vary during the day from 23° C to 31° C and are cooler on the mountains. Jambi province has a population of 2,031,954 consisting of Jambinese, Minangkabaus, Javanese, Sundanese, Bugis, and descendants of Indians and Chinese. About 90% are Moslems and the remaining 10% are Christians, Hindus, and Buddhists. They earn their living as farmers, traders and public servants (Anonymous 2002).

Total forest area of Jambi is 2,179,440 ha, 870,250 ha of which is protected forest and about 1,320,700 ha production forest (Governor Decree 108/1999). Therefore, according to its function, 40% of Jambi forests were categorized as conservation forests, which involve national parks and protected forests, while the remaining 60% were categorized as production forests, i.e. forest concessions, timber estate and other production purposes.

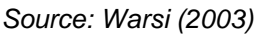
Generally, production forest in Jambi Province is lowland tropical forest, which is very vulnerable to destruction. However, some area of forest classified as limited production forest has been allocated to industrial timber plantation with land-clearing scheme. It indicates that some change of forest category in Jambi ignores technical constraints on land-use. The following figure 4.3 describes the location of Jambi province in Indonesian map and the distribution of Jambi forests.



sources: *asiamaya.com* (2003), Warsi (2003)

Figure 4.3. Location of the Research Site and Distribution of Jambi Forests

Socio-economic surveys and field observations were conducted in the three villages: Suo-suo, Teluk Langkap, and Muara Kilis located in the regency of Tebo, Jambi province. The following figures show the location of the research sites (the yellow colour) in the satellite image map of Jambi province and in the map of Tebo regency.



4. 4. Research Methods

This research has been conducted in two parts, desk and field research. It is a typical study based on cross-sectional primary and secondary data. Primary data were collected by personal and group interviews with various stakeholders, decision makers, and experts as well as by fact finding and field observations. Secondary data were taken from laws and regulations, official reports, statistical bureaus, and other relevant data sources. It can be called descriptive-empirical research and its aim is to describe and explain the phenomena under consideration (Niemela 1993).

4.4.1. Sampling as a Method for Data Collection

The purpose of all sampling is to obtain an insight into the population, using the information taken from the sample. A sample is a selection of units chosen to represent the target population. Samples are made to draw inferences for the whole target population. In other words, a sample represents the likeness of the whole. They have to be selected in such a way that each member of the population being studied has a same probability to be chosen as a sample (Kirk and Mai 1997:4; Akca 2000:6). According to Kirk and Mai (1997:4), there are some advantages of sample surveys:

- **Economy**

Only a limited number of units must be examined and analyzed. It reduces costs and saves time.

- **Accuracy**

Quality of enumeration and supervision is usually higher than in censuses; the data should be of a better quality.

- **Adaptability**

Many topics require an intensity of interview or observation that cannot be covered by a census (e.g. transactions between households, long-term study of income generation, and expenses of households).

Moreover, Akca (2000:6) stated that there are many reasons why sampling is often preferred:

- Complete measurement or enumeration may be impossible.
- Total measurement or count is not feasible.
- Sampling will provide the essential information at a far lower cost than a total enumeration.
- The fact that the information obtained by sampling may be, at times, more reliable than that obtained by a census.
- Since sample data can be compiled and processed in a fraction of the time required for a census, the information obtained by sampling will also be more recent.

Sampling was carried out in a selected research area (case study). A field research aims to fill the gap between a conceptual framework and reality by showing more clearly the conditions for successful practice and suggesting the kinds of innovations and interventions which might be needed (Wollenberg 1998:1). A case study involves the detailed examination of relatively few persons or items or is limited to a certain location, which promises some benefits (Casley and Lury 1987:64-73 *in* Kirk and Mai 1997:33):

- It provides in deeper and more detailed analysis.
- It probes deeply into the systems, behavior and the interrelationships between people and institutions.
- It helps to establish and to explain attitudes and beliefs.
- It shows why certain behaviour occurs.

Field research is proposed to get a sharper and better analysis by supporting the arguments and findings, as well as identifying exceptions to the general conclusion in conditional cases, if there are any. Field research is done in order to secure a more reliable conclusion and enable a more relevant recommendation. After completing the field research, it is expected that the researcher will understand various aspects such as the motives and perceptions of stakeholders, resources and capacities of stakeholders to undertake local forest management, the nature of social arrangements, and the influence of macro-economic as well as political factors. A

case study in a field research could also be useful in measuring the effectiveness, consistency and acceptability of certain policy.

4.4.1.1. Collection of Primary Data

Primary data were gathered from interviews with key persons and householders. There are two types of questionnaires used in the interviews. The first type is a semi-structured questionnaire, which is used for key person interviews. This questioner provides only general guidelines of the question's topics with emphasis on qualitative data. The key person's interviews were mostly conducted by personal discussion using open questions to understand the perceptions of various stakeholder towards regional autonomy. The key person interviews were carried out in some relevant institutions of the three levels of governments, i.e. national, province, and regency.

The second type of questionnaire is a structured used for household surveys. This provides detailed questions using both close-questions and open-questions. This kind of structured interview (household survey) was used to get information about the socio-economic conditions of the rural community particularly in the villages inside and around the forests. These interviews were conducted with the support of an enumerator from a social forestry and community development's NGO in Jambi. All primary data were collected in 6 months, from August 2002 to January 2003.

Method of Key Person Interview

Key person interviews were conducted to gather the perceptions of stakeholders in the three levels of governments. It used a qualitative research, which is conducted by purposive sampling. In all, 47 key persons representing 24 institutions of the three levels were interviewed. Each level was represented by eight institutions. A sampling-plan according to which interviews with institutions' key persons has already been developed. However, the choice of person for each interview determined using the 'snowball method'. In this method, the further interview partners are selected by considering the recommendation of the former interview partners (Bryman 2001:98-99). A quota control was also used to limit the number of interview partners in certain institutions. It was important to ensure that each important stakeholder (or focus group) was represented. The final choice of whom to

interview was left to the interviewer's judgment. To design a quota sample the researcher must know at least approximately the conditions of the target group (institution) according to the research objectives (Kirk and Mai 1997:12).

The selection of institutions and key persons in which and with whom the interview are conducted is based on the relevance to the research topic and the principle of the representativeness. The following table 4.1 shows all the name of institutions and the number of interview partners in the three levels of governments.

Table 4.1. Institutional Level, Name of Institutions, and Number of Key Person

Level	Institution	Number of Key Persons
National	1. Directorate General of Regional Autonomy 2. Forestry Department 3. Forest Concessionaires' Association 4. Forest Management Expert 5. Forest Policy Expert 6. Political Expert 7. State Administration Law Expert 8. National (consortium) NGO	1 1 1 1 1 1 1 1
Province (Jambi)	1. Province Government 2. Regional House of Representative of Jambi 3. Forestry Office of Jambi 4. Regional Development Planning Board of Jambi 5. University of Jambi 6. Forest company 7. Nature Conservation Agency 8. Local NGOs	1 9 2 2 1 1 2 2
Regency (Tebo)	1. Regency Government 2. Regional House of Representative of Tebo 3. Forestry Office of Tebo 4. Regional Development Planning Board of Tebo 5. National Land Agency of Tebo 6. Forest concession 7. Sawmill owners 8. Village Leaders	1 3 2 1 1 2 2 7
Total Key Persons		47

Method of Household Survey

The household survey was conducted in the rural community inside and around the forests. This survey emphasized quantitative research, particularly information about the socio-economic conditions of the forest-village community after regional autonomy. Qualitative interviews, however, were also conducted to understand the people's perceptions concerning the implementation of regional autonomy.

This survey was carried out by stratified random sampling in the three different locations inside and around the forests. The first research site was the village Suo-Suo, district of Sumay. In this village, samples were taken from both inside the forests (indigenous people and employees of forest concession) and outside the forests (village community). The second and third research sites are located outside the forests: village Teluk Langkap, district of Sumay, and village Muara Kilis, district of Tebo Tengah. All research sites lie in the regency of Tebo, Jambi Province. Each village is defined as a stratum, therefore the households in the same village were categorized in the same stratum. The scale and mechanism of the household survey are described below.

Summary of the scale and mechanism of the household's survey:

- Geographical area of coverage : 3 villages
- Sampling method : stratified random sampling
- Stratum : village
- Sample unit (respondent) : household
- Total sample size : 200 respondents
- Subject of study : socio-economics and perceptions
- Frequency of enumeration : single visit
- Method for data collection : interview and discussion

The following table 4.2 provides the number of respondents in the household's survey in the three villages.

Table 4.2. Name of Villages, Location, and Number of Respondents

Name of Village and District	Location	Number of Respondents
Village: Suo-Suo District: Sumay	Inside Forest - Traditional Communities (Tribes Kubu and Talang Mamak) - Employees of Forest Concession (HPH) Outside Forest: - Village Community of Suo-suo Total	 15 27 55 97
Village: Teluk Langkap District: Sumay	Inside Forest: Outside Forest: - Village Community of Teluk Langkap Total	0 52 52
Village: Muara Kilis District: Tebo Tengah	Inside Forest: Outside Forest: - Village Community of Muara Kilis Total	0 51 51
Total Respondents (Households)		200

4.4.1.2. Collection of Secondary Data

Secondary data are needed as a complement to primary data and are important for supporting arguments of analysis. The main sources of secondary data were the government policies related to regional autonomy, consisting of laws and regulations (national and regional) collected from relevant national, province and regency agencies. The other important sources of secondary data were statistical data, which were collected from the Center of Statistical Bureau and the Regional Development Planning Board. These statistical data involved geographic as well as demographic information (population, socio-economics, etc.). Besides government policies and statistical information, secondary data were also gathered from the reports and the results of the previous related studies.

4.4.2. Data Analysis

This study applied both qualitative and quantitative approaches. These two approaches were used together as synergic analyses in order to achieve the study objectives.

4.4.2.1. Qualitative Analysis

A qualitative approach emphasizes words rather than numbers – attempting to accurately describe and interpret the precise meanings of research focus (Bryman 2001:20; Cassel and Symon 1995:4). The qualitative approach was used to analyze the underlying causes of political dynamics and conflicts of interest between different institutions as well as among actors. This approach is also useful in explaining the motives and perceptions of stakeholders concerning regional autonomy and natural resources use. It could also describe the interaction among stakeholders. In sum, the qualitative approach was used to get the inside views of the stakeholders' perspectives.

4.4.2.2. Quantitative Analysis

In contrast to qualitative approach, a quantitative approach emphasizes numbers rather than words (Bryman 2001:20). The quantitative data entry was conducted in January to April 2003. The entire data of household's questioners were compiled in the Excel files and then transferred to SPSS. Besides the numeric data generated from socio-economic information such as household income, age, frequency of logging activities and revenue from timber and non-timber, some qualitative data such as 'perceptions' were also quantified. The data tabulation and graphical analyses were made by Excel program, while the statistical analyses used SPSS program.

4. 4. 3. Comprehensive Evaluation: SWOT and Confirmation of Hypotheses

A comprehensive evaluation was conducted after all the above three stages of analyses (center, province, and regency) were finished. It discusses and makes a synthesis from the results of analyses and also takes into consideration the analysis

of strength, weakness, opportunity, and threat, so called SWOT analysis. According to Manktelow (2003), SWOT Analysis is a very effective way of identifying the strengths and weaknesses, and of examining the opportunities and threats in this study, those of decentralization. Carrying out an analysis using the SWOT framework helps the decision makers to formulate a better policy and may also find greatest opportunities to implement an optimal and effective policy. These following questions may help to carry out a SWOT Analysis concerning the implementation of regional autonomy in Jambi province.

Strengths

- What are the advantages of regional autonomy for the various stakeholders?
- In which aspects could regional autonomy be better conducted?
- What kind of resources could be utilized?
- Which aspects of regional autonomy do people support?

The answers of the questions above may be useful to the decision-makers in making more realistic policies.

Weaknesses

- Which aspects of regional autonomy in the present situation are not well implemented and why?
- What, according to people, are negatives aspects of regional autonomy?
- Are any negative impacts of regional autonomy observed?

Based on internal perceptions (people, community leaders) and external judgments (experts, observation), the weakness of regional autonomy may be diagnosed and may help form the best solutions.

Opportunities

- Are there any good opportunities for people or governments because of regional autonomy?

- What are the positive trends of regional autonomy?

A useful approach to looking at opportunities is to look at the strengths and analyze whether these open up any opportunities. Conversely, it is useful to look at the weaknesses and analyze whether the autonomous government could open up opportunities by eliminating the weaknesses.

Threats

- What are the serious obstacles faced in regional autonomy?
- Does regional autonomy threaten the interests of the dominant stakeholders?

Carrying out this analysis was often be illuminating - both in terms of pointing out what needs to be done, and in putting problems into perspective. It also offers more opportunity to formulate better and more practiced policies, strategies or practices concerning decentralization.

5. Political Dynamics and Conflicts of Interest Concerning Forestry Decentralization in Jambi

5.1. Political Dynamics in Jambi

This chapter will discuss the implementation issues associated with the transition to a decentralized system in Indonesia by focusing on the case of Jambi province. It seems clear that the local governments in Indonesia, particularly in Jambi, could not absorb their new responsibilities because of the poor management capabilities. Conflicts occur because one may hide behind this issue and create a self-fulfilling prophecy that leads to the conclusion that local governments are not able to manage their own affairs (compare Alm and Bahl 1999:24).

Following regional autonomy, the political tension between center and region as well as among regencies in Jambi province tends to heat up since a wide array of powers have been devolved from the central government to the regency accompanied by substantial fiscal transfers. The legislation on which this decentralization was based also allowed for the creation of new regions by dividing or merging existing administrative units. In practice, this process has meant not mergers but administrative fragmentation and the creation of several new provinces and close to 100 new regencies. In Jambi province, 5 regencies were fragmented into 10 after regional autonomy. The research area of Tebo regency is also the result of the administrative fragmentation of the former regency of Bungo Tebo. With some of those regencies drawn along ethnic lines and vastly increased economic stakes for local political office, there have been fears of new conflicts over land, resources, or boundaries and of local politicians manipulating tensions for personal political gain (see table 5.5; compare ICG 2003:i).

The Regional Governance Law and the Forestry Law grant more authority over natural resources management, including forestry, to local governments, and

decisions are made at the lowest effective level. This offers more opportunities for local governments, to manage their own natural resources. For the regencies with rich forest resources, such as the research area of Tebo, the decentralization policy provides an opportunity to increase incomes for local people and provides financial resources for the local government. However, the local policy of maximizing income has caused over-exploitation of natural resources in Jambi as well as in many Indonesia's regions (see chapter 6). The combination of economic reasons and lack of law enforcement has been the main cause of a higher rate of natural resource degradation in the beginning of the decentralization era in Jambi (compare McCarty 2000:121; Matthews 2002:xii,61).

5.2. Conflicts of Interest Concerning Forestry Decentralization in Jambi

Conflicts of interest concerning forestry decentralization in Jambi occur due to different and even contrary roles and goals of the various stakeholders. Given the phenomenon of high forest degradation in Jambi, there are fears and some real risks that some types of competition between multiple interests at the local level can lead to forest degradation. However, Anderson (2000:18) holds that the presence of multiple interests can lead to a system of checks and balances and mutual monitoring by autonomous groups where the chances for sustainability are improved over single interest management. Various stakeholders have been interviewed argue that crucial to new relationships and the success of decentralization is the recognition that the creation of coordination mechanisms and participatory methods should respect the plurality of participation.

Forest resources management in Indonesia, and in Jambi as well, during the centralization period of 1967 to 1999 was dominated by the role of the state. During this period, benefits from logging and other forest industries flowed largely to large-scale forest concessions, not to the local communities. According to key persons interviewed in the research area (village leaders and local legislative members), the conflicts between the state and local people occur because the local community perceives that the forests belong to them, so that they should receive the largest portion of benefits. On the other hand, during the centralized era the customary rights of indigenous people and traditional forest management systems were neglected.

Due to these reasons, it is not surprising if conflicts between forest-dependent communities on one side and government or large-scale company (forest concession and estate crops) on the other side are growing in the research area. The phenomenon of the higher rate of deforestation is partly a result of tenurial conflicts (see table 5.5).

As mentioned previously, under regional autonomy, much authority over forest management has been devolved to local authorities. Moreover, as stated in chapter 2, regional autonomy also promised that forest resources management would be conducted in a more democratic way. The evidence in the research area, however, indicates that a democratic process is not automatically resulting in better methods of forest management. During the implementation of regional autonomy in Jambi, public perception as to what kind of forest should be created and with what objectives has been and is an important factor in policy-making and could also be, to some extent, in conflict with environmental policy. An increasing rate of forest conversion and a growing number of sawn timber industries in the research area are indubitable proofs that regional policy on generating income often contravenes sustainable development principles. Since raising revenue is foremost on the minds of local governments, the policy of maximizing wood production will be a common problem following regional autonomy in Jambi (compare Matthews 2002: 61).

The massive logging practices conducted by local people in the research area are a complex problem. Those occur due to commercialization and marketization, which transform the rural economy to such an extent that traditional resource-use patterns are replaced with newer livelihood strategies that include commercial exploitation. This situation leads to over-exploitation of forest resources in Jambi, but some argue that there is no reason to prohibit local people from managing forests for commercial purposes. As with Fisher *et al* (2000:viii), rural people also have the same rights to get benefits as their urban counterparts such as large-scale forest entrepreneurs.

The logging practices in the research area of Tebo are mostly conducted by the young people (see chapter 6). As commonly seen in the research area, the younger generation of rural people has largely set out on the path of 'modernization'. This means that labour-intensive or traditional forest management activities are no longer in their interest. As consequences, expectations of high development, which many

rural people harbor, can be a serious threat to sustainable forest management in Jambi. Thus, the implication is that forest management policies need to be flexible so they can be adjusted to local realities and the desire to break out of economic exclusion by simultaneously considering sustainability.

There are some arguments opposing and supporting forestry decentralization in Indonesia and in Jambi, as well. The debates center mainly on which level decentralization should be implemented, and not on the idea of decentralization itself. The interviews with key persons in the center, province, and regency show that the arguments against forestry decentralization at the regency level are generally supported by forestry departments (in the center and province), the province's government and legislative members, the national land agency, and forest management as well as state administration law experts (see appendix 4). Some NGOs that were interviewed (WARSI, Gita Buana, and YP2M) did not give a specific statement concerning the level of government to which forestry matters should be devolved, but generally they argue that it may be better to devolve forestry matters to the province than to the regencies. Summarizing the interview results, the main arguments opposing forestry decentralization in the regency are as follows:

- The regencies mostly have poor human resources and less capability to manage their own natural resources.
- Indonesia is a Unitarian state; any benefits from natural resources should be distributed equally to all regions.
- Intersectoral coordination will be very difficult, since there is no deconcentration office in the regency anymore.
- Forest is a complex ecosystem that cannot simply be fragmented by administrative authority such as regency. Since each regency has its own plan and regional egoism, it will be very difficult to integrate planning.
- Impacts of mismanagement of natural resources in certain regencies will influence other regencies.

By contrast, the arguments to decentralize a large authority of forest management at the regency level are generally supported by the central and regency governments,

regency legislative members and social as well as political experts (see appendix 4). The arguments supporting forestry decentralization in the regency level are as follows:

- Indonesia has more than 100 million hectares of forest that are distributed widely over thousands of islands. This condition implies the difficulties of controlling the area from the center as well as from provincial government.
- Natural resources have locally specific ecological characteristic, therefore forest management should belong to local authorities and based on local factors.
- Forests have socio-cultural characteristics that should be managed with certain approaches. Giving a greater authority to the regency may help to adapt local conditions and meet local needs.
- The experience of imbalanced financial sharing between center and region during the centralized period has led to a high political demand for decentralization.

The central government has specific interests in devolving authority to the regency instead of to the province level. The potency for separatism will be higher, if decentralization is given to the province as an autonomous region. This could threaten the sovereignty of the unitary state of the Republic of Indonesia.¹

5.2.1. The Struggle for Authority over Forest Resources in Jambi: A Legal Crisis

Forest is one of the most important sources of revenue in Jambi. Therefore, the struggle for authority over forest resources often causes legal conflicts between center and region (province or regency) as well as among regencies in the research area.

This section will discuss the interesting case of the struggle for authority over natural resources between center and regencies in Jambi province. Soon after the enactment of the regional autonomy law, many regions responded by establishing a number of regional regulations. Some of those regional regulations are intended to fill the 'holes' of technical guidance of the Regional Autonomy Law. On the other hand, they create further problems because they are mostly intended only to

increase regional income without considering higher-level regulations or long-term sustainability (see chapter 6)

Considering that central government cannot adequately manage and effectively control the vast production forests, the central government through the Forestry Minister enacted Decree 05.1/2000, which gave the regency heads the right to hand out 100 ha logging licenses called IPHH (Ijin Pemanfaatan Hasil Hutan)². By promising attractive income, the policy of IPHH had a great response both from the local government and the local community in Jambi.

However, the practices of IPHH are uncontrollable. Since there is no clear limitation on the number of licenses to be given, the regency heads release as many as number of IPHHs in their own region. The result is a very high rate of forest degradation, mainly because of legalized 'illegal' logging practices with a sheltered by the regional regulations in the name of IPHH³. Thus, the Forestry Minister stopped the practice of IPHH by enacting Forestry Minister Decree 541/2002 to cancel the previous decree 05.1/2000. The new decree withdraws the authority of regency heads to hand out 100 ha logging licenses.

The regional governments in Jambi, both province and regencies, resisted the Forestry Minister Decree 541/2002. By a political agreement⁴ concluded on April 25th, 2002 and signed by the governor, all heads of regencies (Bupati), and all chairs of the local parliament (Ketua DPRD), the regional governments of Jambi stated that the substance of the Forestry Minister Decree 541/2002 is not compatible with Regional Autonomy Law 22/1999, Forestry Law 41/1999 and Government Regulation 25/2000 on the authority of central government and provinces. According to this argument, the regional governments in Jambi decided to refuse Forestry Minister Decree 541/2002 with a promise to "postpone the implementation of the Forestry Minister Decree". The implication of this political statement is that all forestry business related 100 ha logging licenses (IPHH) in Jambi must follow the previous regional regulations instead of the forestry minister decree.

This indicates that instead of stakeholders' participation, the experience of IPHH in the research area has been characterized by 'popular' participation (see the previous chapter 2.2.3). Actually in the research area, participation in logging practices

(IPHH) could raise both local government revenue and local people's income (see the next chapter 6). However, the other people must reap negative impacts of IPHH due to forest resources degradation.

Besides Forestry Minister Decree 541/2002, Government Regulation 34/2002 on Forest Arrangement and Forest Management Planning was also rejected in Tebo regency (research area) and some other regencies in Jambi. The head of Tebo regency released an official letter of objection 522/789/DINHUT/2002⁵ sent to the chair of the National Parliament, Supreme Courthouse, and Minister of Internal Affairs and Regional Autonomy. Tebo regency refused the afore mentioned government regulation because of the following arguments:

- Government Regulation 34/2002 did not follow the spirit of decentralization and contradicted the substances of the Regional Autonomy Law 22/1999 and the Government Regulation 25/2000. The Regional Autonomy Law 22/1999 stated that the region has all government authorities except defense and security, judicature, foreign affairs, monetary and fiscal, and religion.
- The substance of government regulation is very centralist. This means that the authority of central government, particularly of the Ministry of Forestry, is too dominant. In practice, this regulation could not be implemented because after regional autonomy all Regional Forestry Administrations (deconcentration agencies) were liquidated into regency.
- The high rate of forest degradation occurred because the regency did not receive a full authority to manage its own forests. Therefore, the regency of Tebo resisted the Government Regulation 34/2002 and officially requested a judicial review by the Supreme Court.

The Jambi Forestry Office made the opposite arguments in responding with the Government Regulation 34/2002 (interview with Mr. B. Maryanto⁶). According to the forestry official of Jambi province, Government Regulation 34/2002 is not contrary either to Regional Autonomy or to Government Regulation 25/2000. The following table 5.1 presents the legal arguments supporting Government Regulation 34/2002.

Table 5.1. The Supporting Legislations Concerning The Government Regulation 34/2002

Legislations	Contents
Regional Autonomy Law 22/99: 7	(1) "Regional Authorities shall cover the authorities in all fields of governance, except authorities in the fields of international policies, defence and security, judicature, monetary and fiscal, religion and authorities in other fields ". (2) "Authorities in other fields as intended in paragraph (1) shall cover the policies on national planning and macro national development control, ... natural resources utilization as well as strategic high technology, conservation and national standardization".
Regional Autonomy Law 22/99: 9	(1) "The authorities of Provinces as Autonomous Regions shall include the authorities in the field of inter-Regency and Municipality governance, as well as the authorities in other certain fields of governance". (2) "The authorities of Provinces as Autonomous Regions shall also include the authorities that are not or not yet able to be conducted by Regency Regions and Municipal Regions". (3) "The authorities of Provinces as Administrative Regions shall cover the authorities in the field of governance delegated to Governors as Government representatives".
Regional Autonomy Law 22/99: 11	(1) "The authorities of Regency Regions and Municipal Regions shall cover all governance authorities other than authorities excluded in Article 7 and set forth in Article 9". (2) "Governance field that must be performed by Regency Regions and Municipal Regions shall include public works, health, education and culture, agriculture, communication, industry and trade, capital investment, environment, land, co-operative and manpower affairs".
Regional Autonomy Law 22/99: 12	"Further regulation on the provisions as intended in Article 7 and Article 9 shall be stipulated with Government Regulation".
Government Regulation 25/2000	"... concerning Government Authority and the Provincial Authority as an Autonomous Region".

- From the above table one can see that according to the Regional Autonomy Law, the authority of the regency involved all government authorities except some other policies. The authorities that must be decentralized to the regencies are the authorities in the following fields: infrastructure, health, education, industry, trade and investment, environment, agriculture, cooperative, and labour. As presented

in table 5.1 the regency does not have the government authorities in defense and security, judicature, foreign affairs, monetary and fiscal, religion and authority in other sectors. The forestry sector is one of 'the other sectors', to which is given the authority to manage natural resources.

- The province has the government authorities of the natural resources management, which lie in the inter-regencies and involving forests. As mentioned previously, the authority of the regency includes all government authorities besides the exceptions. The Regional Governance Law also states that it needs the further implementing legislations, which are ordered by government regulation.
- As per its title, the Government Regulation 25/2000 is only adjusted to the central government and the province. It is clearly stated in the legal explanation that the authority over the regency does not exist in this regulation. Regarding these arguments, the forestry officer holds that Government Regulation 34/2002 is not contradictory to Regional Autonomy Law and other Government Regulation. Therefore, the implementation of this regulation is a must.

Both cases show how the struggle for authority between center and region has occurred in Jambi. Generally, it indicates that the struggle for authority in the forestry sector occurs due to a number of differences in central and regional preferences for forest resources management. The following table 5.2 shows the different preference, in forest management between central government, i.e. Ministry of Forestry on one side, and regional government on the other side.

Table 5.2. The Differences of Preference between Center and Regions towards Forest Resources Management

No.	Field of Authority	Preference	
		Ministry of Forestry	Regional Government
1.	The arrangement of forestlands	It must be conducted by Ministry of Forestry (MOF)	MOF should only define a procedure. However, the regions conduct the arrangement of forestlands.
2.	Change of forest function	MOF disposes the procedure and the enactment for any changing of forest function.	MOF should only dispose a procedure. The enactment for any forest conversion should be the authority of the regions.
3.	The establishment of the forest management unit	MOF directs the criteria of the establishment of the forest management unit, as well as the authority to establish the forest management unit in protected forest and conservation forest.	MOF directs the criteria of the establishment of the forest management unit, but the establishment of forest management units in production forest, protected forest, and conservation forest belongs to the regions.
4.	The license for forest utilization in production forest and protected forest.	The license for more than 10,000 hectares of forest concessions is given by MOF; license for a smaller one can be obtained in the regions.	All licenses of forest concession and other type of utilization should be decentralized to the regions.
5.	The license for wildlife breeding and utilization.	MOF has authority to enact the criteria and operational procedure.	All licenses of wildlife utilization should be decentralized to the regions.
6.	The administration of the wider distribution of flora and fauna.	Central government, i.e. MOF should administer the wider distribution of flora and fauna.	The authority for any distribution of flora and fauna should be in the regions.
7.	The enactment of forestry taxes.	Central government has authority to enact the amount of tax basis for timber and non-timber.	Regional government has authority to enact the amount of tax basis for non-timber forest product.

Source: Ministry of Forestry and Estate Crops (2000) cited in Warta Fahutan (2000)

Table 5.2 describes the general preferences of center and region in forest resources management. In reality, however, the problem or preferences will vary from place to place. Certain problems in Jambi province or in Tebo regency, for instance, perhaps do not occur in other regions. Conversely, a serious problem in one region may be not found in Jambi. It may also be that some regions have the same or similar problems, but have different solutions.

5.2.2. Weakening of the State and Implications for Forest Policy in Jambi

As a consequence of regional autonomy, the role of the central government in forestry matters has tended to weaken. Accordingly, local governments kept a more significant role in many forestry matters on the absence of central government. However, at present, local governments cannot well fulfill this new role due to limitations in both quality and quantity of local forestry officials, ambiguity of regulations, lack of technical guidelines, and the absence of law enforcement. It leads to a weakening of state that cause a chaotic situation in forest management (see box 5.1; compare also Paddock 2004). The following section will discuss in more detail the weakening of the state, which is divided into two parts. The first part outlines the problem of institutional choice in forest management, while the second part discusses the ambiguity and tendency of Indonesian forest policy.

5.2.2.1. Weakening of the State: A Problem of Institutional Choices in Forestry

As mentioned previously, regional autonomy has shifted many authorities over forestry matters from the central to the local government. This decentralization policy was expected to lead forest management in a better way since for a long time, the top-down approach of the centralized government created distance between planning and implementation. During the centralized era, forestry policies were usually planned by high-level bureaucrats of the Forestry Department in Jakarta; thus, the policies were often not relevant to the field conditions. Furthermore, Yuniati (2000:21) told that the participation seemed symbolic; a serious mechanism of participation has almost never been created that might cause a serious bias in practical implementation.

Following the theory of social capital presented in the previous chapter 2, there are some institutional forms that could be chosen as an appropriate institution for forest management. The suitability of the each form depends on the state capability and the level of social capital. The following table 5.3 explains the influence of the state capability and social capital on institutional choice in managing forest resources.

Table 5.3. Influence of State Capability and Social Capital on Institutional Choice and Its Constraints in Indonesian Situation

State Capability	Social Capital			
	Low		High	
	Institution	Constraints	Institution	Constraints
Low	Private sector under contractual agreement	Ambivalence of regulation and lack of monitoring	Community Based Management	Various interests of people
High	Public Sector Management	Mismanagement and limited profit	Co-Management	Lack of coordination and of trust

Source: own representation, adopted from Birner and Wittmer 2000b

All forms of the above institution have been used to manage Indonesian forests. The public sector management has been practiced in managing Java forests, especially teak, since the Dutch administration enacted the Forest Regulation 1865 or in Dutch '*Boschreglement 1865*'⁷. Since the independence of the Republic of Indonesia, the management of Java forests has been directed by the state forest enterprise i.e. Perum Perhutani. After the enactment of Government Regulation 21/1970 concerning forest concession, state and private concessions have had opportunity to manage natural forests outside Java. In the mid nineties many private forest concessions which had bad performance were given to, or shared with, the state enterprises (Ministry of Forestry Decree 62/Kpts-II/95; see also Nurrochmat 1995). However, due to relatively low capability and quantity of state enterprise staffs, the state enterprises could not manage their forests sustainably. Furthermore, because of large social obligations and the corrupt practices of staffs, most of the state enterprises have had a limited benefit and have tend to bankrupt. The situation in the conservation forests that were managed and controlled by the state is similar.

Lack of personnel, tools, and capability associated with poor enforcement lead to a massive destruction of conservation forests. Regarding the factual situation, therefore, public sector management has failed to manage forests effectively.

The private sector started the operation in managing forest resources through a twenty-year forest concession after the enactment of Government Regulation 21/1970. The enactment of this regulation concerning forest concession was a regulative instrument of the Basic Forestry Law 5/1967, the Foreign Investment Law No.1/1967 and the Local Investment Law 6/1968⁸ intended to generate national income. Due to economic reasons and political support, the number of private forest concessions rapidly increased from 34 units in 1969 to more than 500 units in the mid 1980s, which covered more than 50 million hectares of forests. In the mid nineties, the licenses of many private forest concessions were cancelled due to various reasons, such as violation at the regulations or poor performance in managing the forest sustainably (see Nurrochmat 1993 and Nurrochmat 1995).

When the access of local people to forest resources was limited or prohibited, there were a number of conflicts with local people. This meant that generally large-scale private concessions were socially unacceptable. After regional autonomy, the private sector still had priority to manage forests but now it is dominated by local actors through the operation of 100 hectares logging licenses (IPHH) given by the Regency Head. The results, however, are not better than before. Forests have been degraded as the result of over-exploitation. As suggested by Birner and Wittmer (2000b) by the previous table 4.3 'the private sector under contractual agreement' such as HPH and IPHH is the best alternative in the situations of low capability of state and low social capital. However, due to the ambivalence of regulations and lack of monitoring, this choice has practically destroyed the Jambi forests.

Following the spirit of political reform associated with the fall of the Suharto Government, there were immense pressures to make major reforms to forest policy, including a strong emphasis on recognition of the needs of local people. By 1998-1999, the Forestry Minister⁹ promoted 'co-management' by forming a hybrid share of forest concession among state enterprises and local community institutions, i.e. by strongly supporting cooperatives. There was an assumption that local participation would flow in the form of standardized cooperative arrangements, despite the risks

that cooperative arrangements would probably not be appropriate in some or even many situations. Referring to the previous table 4.3, a (hybrid) co-management could be successful when there is both high state capability and high social capital. However, the state capability by 1998-1999 was in the lowest level due to political transition. The level of social capital differs from place to place, but generally people had a poor trust with cooperatives. Simon (2000:135) holds that it is important to develop a mechanism to secure people's rights to the forests and to empower local institutions (involving cooperatives) to manage forests to improve the economic well being of the people. To work, cooperatives need to be appropriate to a variety of situations such as cases where voluntary groups of farmers were involved in timber production or where traditional shifting cultivators were involved in regulating farming on individual plots through existing social arrangements. Cooperatives might work in some cases, but would be problematic in others. Thus, the national policy of co-management associated with cooperatives seems difficult to implement successfully.

Community-based forest management could be conducted in the forests where the people have more or less the same purpose and the same manner to manifest their interests. It could be practiced not only by traditional communities, but also by more educated or modern communities that have the same concerns to the forests. In Indonesia, particularly Jambi, however, the community-based forest management has been mostly practiced in a traditional community, where customary forest is one of the common forms. However, not all traditional communities could keep their customary forests sustainably. Such as occurred in the research area, a different preference for benefits among the community members, illegal logging from the neighboring villages, or unclear legal authority given to the customary community may have caused destruction of customary forests. The wish of some community members to convert community forest to the more attractive economic plantation is a challenge to the sustainability of community based forest management (see Nurrochmat 2001:19)¹⁰. Alam Sumatra (2001) reported the case of the destruction of 754 hectares of a customary forest in Sei Manau, Merangin, Jambi, because of illegal logging practices. The practices of illegal logging occur due to an ambiguity of legislation in devolving the authority to the customary community to control their forests¹¹. Learning from those experiences, therefore, no form of institution can be

said to be the best choice in managing forest resources because each place has specific socio-economic and ecological characteristics, as well.

5.2.2.2. Forest Policy Implication: Ambiguity and Tendency

Ambiguity of Indonesia's Forestry Commitment

A hasty transition from a centralized to a decentralized system leads to the ambiguity of policy implementation, resulting in difficulties in implementing national policy consistently. The Indonesian government expressed commitments to bring production forests under sustainable management by 2000, but the situation in the forests was different. According to the World Bank (2001a), the ambiguity of laws, widespread social unrest in forest communities, and continuing patterns of inadequate planning, lack of consultation, and collusion and corruption in forestland conversion were undisputable evidence that Indonesia's forest management may be not sustainable.

Although in the era of regional autonomy there is a greater opportunity to actuate a better local forest management, there are still many obstacles to empower regional government. The low level of education, democratization euphoria, social unrest and local political actions such ethnic policy are serious obstacles (see box 5.1, 5.2, 5.3). Moreover, the issues of customary and traditional rights of indigenous people may also still become a big problem, particularly proving the validity of claims of customary rights by local people. Failure to overcome this problem can cause other problems, such as secure land tenure arrangements.

Forest policy implementation faces serious obstacles not only in the research area, but also at the national level. In the country today, there is no consistency between policy implementation, national policies and international commitments. The distance between normative commitments and the real situation is very far. Integration and intersectoral planning policy are also still a big problem in Indonesia. Sectoral egoism and corruption cause difficulties in achieving integration and intersectoral planning of all public sector policies. As a result, political commitments are very difficult to implement. Table 5.4 describes in more detail the disparity between normative commitments and factual situation in Indonesia.

Table 5.4. Political Commitments and Factual Situation in Indonesia

No	Self Commitments	Factual Situation*
1	Moratorium on converting forestland	Continuation of converting forest land, mainly into farmland or palm-oil plantation
2	Close debt-ridden industries	Difficult because of the problems of high unemployment
3	Stop illegal logging	Only lip service, because lack of law enforcement and high demand for timber industry
4	Restructure timber industry	Difficult to execute, because of sectoral egoism and government earnings
5	Recalculate natural resources	Natural resources degradation is much faster than recalculation process
6	Reforestation and adjustment of industrial capacity	Corruption of reforestation funds, lack of coordination and transition of fiscal authority to the local government
7	Decentralize forestry management	Lack of technical guidelines and weakness of law enforcement
8	Develop a national forestry program	Lack of coordination; not based on the real situation
9	Combat forest fires	Lack of tools, large areas of forest, and socio-economic disincentives
10	Rearrange land tenure rights	Lack of technical guidelines, weakness of law enforcement and socio-economic pressures
11	Recalculate forest resources	Forest loss and degradation due to fire and illegal logging are faster than recalculation process
12	Improve forest management system	Problems with technical guidelines, lack of good examples in the forest management system, illegal logging and social problems

** Own representation adopted from Ekayani and Nurrochmat (2003:119)*

The above political commitments will not become realistic without enforcing the law consistently as well as making intersectoral and integral actions. As with the World Bank (2001a), the forestry conditional ties, i.e. laws and regulations in Indonesia, presently have only limited impact due to:

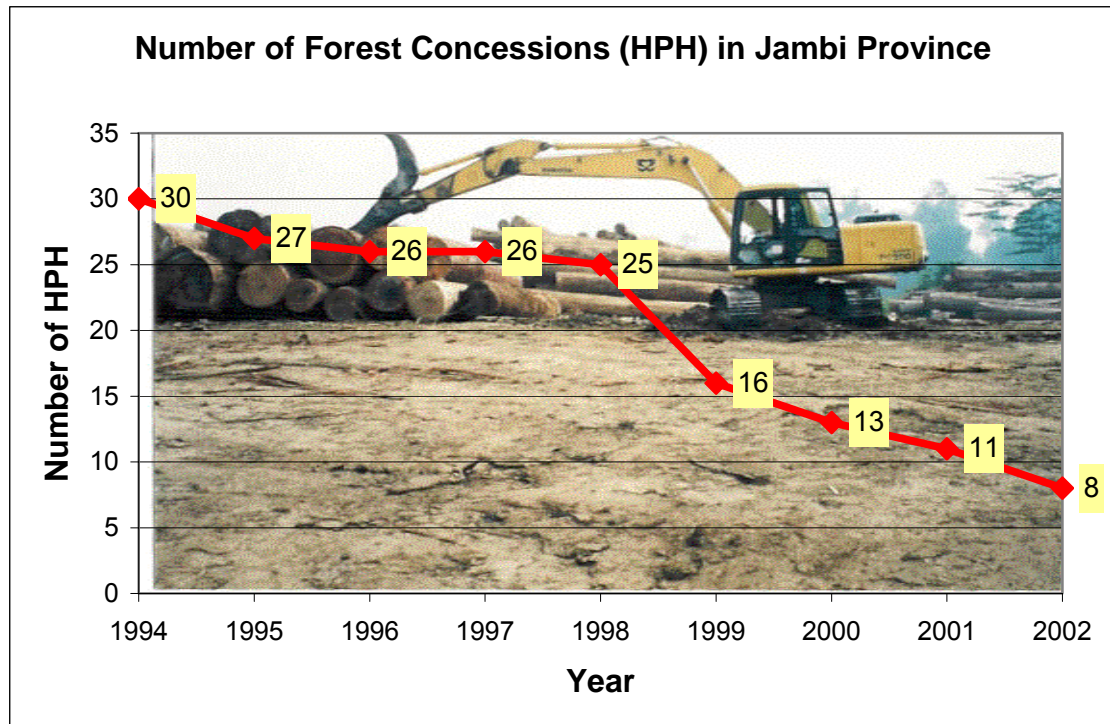
- corruption and strong vested interests among stakeholders;

- political instability (from 1998 to 2004 Indonesia has had five Presidents and eight Ministers of Forestry; rapid decentralization is taking place); and
- inappropriate policy interventions and forest reform priorities.

Tendency of Forest Management in Jambi

In the early period of the new order administration, the Indonesian government targeted the forestry sector as one of the most important sources of foreign exchange. Large-scale forest exploitation has been practiced since the early 1970s, through legal institutions so called HPHs (forest concessions). For 35 years Indonesia has witnessed considerable growth in wood production, processing and export. Wood is obtained mainly from natural forests and the Indonesian forests are being logged at a rate of 40 million m³ per year (World Bank 1995 *quoted in* Sunderlin and Resosudarmo 1996). In order to achieve higher added value, Indonesia's government made efforts to promote forest industries and lifted a regulation of log export's ban in the mid 1980s. This effort was successful and placed Indonesia as a market leader of the world plywood producers by the end of 1980s.

After regional autonomy, there has been a tendency for local people or local institutions to have more significant roles in managing and utilizing forests, replacing the role of the large-scale forest concessions related to Jakarta. Instead of large-scale forest concessions, small-scale forestry business operated by local companies -private or groups- played a strong role in Jambi. Figure 5.1 shows that the number of forest concessions in Jambi province tended to decrease continuously in the recent period.



Source: Jambi Forestry Office (2001) and Ministry of Forestry (2003), own data processing and own photograph

Figure 5.1. Number of Large-Scale Forest Concession in Jambi 1992-2002¹²

A drastic decrease in forest concessions occurred in the year 1998 to 1999, where many large-scale forest concessions faced some serious problems in operating their business in the current situation. They had no strong political backup anymore and suffered from lack of both security and financial assistance. Many of them have been closed or operate under very difficult situations. Due to these reasons, the motivation of forest concession workers flagged, leading to ineffective management practices and far from sustainable forest management. In the year 2002, there are only eight large-scale forest concessions that formally operated in Jambi. At national level, number of forest concessions decreased from 580 in 1992 to 270 units in the year 2002 (Ministry of Forestry 2003).

The following figure shows the condition of the nursery of a forest concession before and after political reform.



Source of photos: documentation of PT. DER 1996 (left) and Nurrochmat 2002 (right)

Figure 5.2. The Condition of a Nursery of a Forest Concession Before and After Regional Autonomy (at the same location)

The above figure shows a contrasting view of the nursery in the same location of a forest concession in the years 1996 and 2002. Some interviewed workers said that they have less motivation in the current situation due to lack of working environment security, less incentives, and less monitoring from forestry department after regional autonomy. Before regional autonomy, monitoring was usually conducted by forestry staff from province and even by senior forestry officers, of the central forestry department.

After regional autonomy, many practices of small-scale timber business grew in Tebo regency, while the monitoring and judicial actions were conducted ineffectively or not at all (see the following box. 5.1. Illegal Loggers, Police, and Foresters Surrounding the Bukit Tiga Puluh National Park).

Box 5.1. Illegal Loggers, Police, and Foresters Surrounding the Bukit Tiga Puluh National Park

From the 'Kota Jambi' the capital of Jambi Province, it takes 4-5 hours by car to reach 'Muara Tebo' (the capital of Tebo Regency). The research sites are located in the three villages surrounding the Bukit Tiga Puluh National Park (TNBT). In the dry season, to reach the location requires only 1-2 hours by car from Muara Tebo. However, accessibility is very difficult in the rainy season -it takes more than 24 hours to reach the same location. No public transportation serves to the forest villages in the boundary of TNBT, so to reach there one should rent a car or go together with the goods vehicles like 'pick-up' as well as logging trucks.

A dozen sawn timber industries (sawmills) could be seen along the roads between Muara Tebo and TNBT. The closer to the research site, the more sawmills could be seen. It surprised me and I took my camera to get a picture of sawmill. The driver looked panicked and asked me, "Please don't take any picture to the sawmill without permission because last month a car was burned here because taking picture". I hurried to close my camera and this situation made me pessimistic to get more information about illegal logging practices -although later on I received direct access to information about illegal logging and illegal sawmills (see box 5.2).

I stayed in the Base Camp of PT. DHE which located below the boundary of TNBT. This place is an ideal location to observe the transportation of illegal logging through the corridor (road) of TNBT. It could be observed more than 20 mini-logging trucks passed there everyday. Assuming that each truck has a capacity 4 cubic meters, at least 80 cubic meters of illegal logs were removed from the forests daily in the boundary of TNBT only from the one side of roads. The illegal logging operated at all time, even in the day and in view of the police (about 8-10 policemen stay in the base camp PT. DHE). I asked one of the policemen, "Why don't you make any action to stop illegal logging that occurs in front of you?" He answered, "Our task is only to preserve base camp, both assets and persons. Illegal logging is not our responsibility." The other policeman said, "Combating illegal logging has a very high risk. Now illegal loggers don't fear police anymore, even if we give a warning shot. On the other hand, we must be careful to shoot them because of a 'human right' movement".

Forest concession holders have the same attitude with the police, although most illegal logging practices were conducted in the concession area. Pak ES a forester in the base camp PT. DHE said, "we always worry when the forestry department tries to combat illegal logging because people think that we are behind the operation." Furthermore his colleague pak SW said, "In the last two years, hundred of people demonstrated and destroyed this base camp because we asked the illegal loggers to move their operation outside our trial area of TJTI (Line Cutting and Replanting System). As migrants, we are very afraid at such a terrible situation." Both foresters looked hopeless facing the current situation in their job. (Tebo regency, September- October 2002).

The chaotic situation in the forests after regional autonomy such as was presented in the previous box 5.1 indicates that the local authority has very weak capacity to take over the responsibility in forest management. As is principally mentioned in chapter

2, Fisher *et al* (2000:x) holds that meaningful devolution requires both that local managers (be the local government units or local communities) have the capacity to manage forests and that those with current authority to make management decisions are prepared to transfer that authority. He also thought that "...it would be naïve to think that all people with control over resources use their power only for the common good. No doubt some people wish to retain their power over resources for their own benefit. On the other hand, many resource managers are reluctant to devolve authority because they genuinely fear the outcome of uninformed management."

Therefore, a major prerequisite for meaningful decentralization and devolution is the building of levels of trust in local management. It can be seen implicitly from key person interviews, that trust is one of the most prominent issues in the implementation of regional autonomy in the research area. It is essential to increase trust between foresters and communities, as well as within communities, to build local capacities to achieve effective local (forest) management. Moreover according to Fisher *et al* (2000:x), it is also essential that arrangements include safeguards (checks and balances). However, decentralization and devolution approaches should not simply allow forest departments to set and police the rules, and judge community performance. Forest departments should also be answerable to the communities, perhaps through third parties, special tribunals or other mechanisms. Conversely, the communities should be also responsible for their forest management performance according to existing regulations.

5.2.3. Strengthening Local Political Capital and Tenurial Conflicts in Jambi

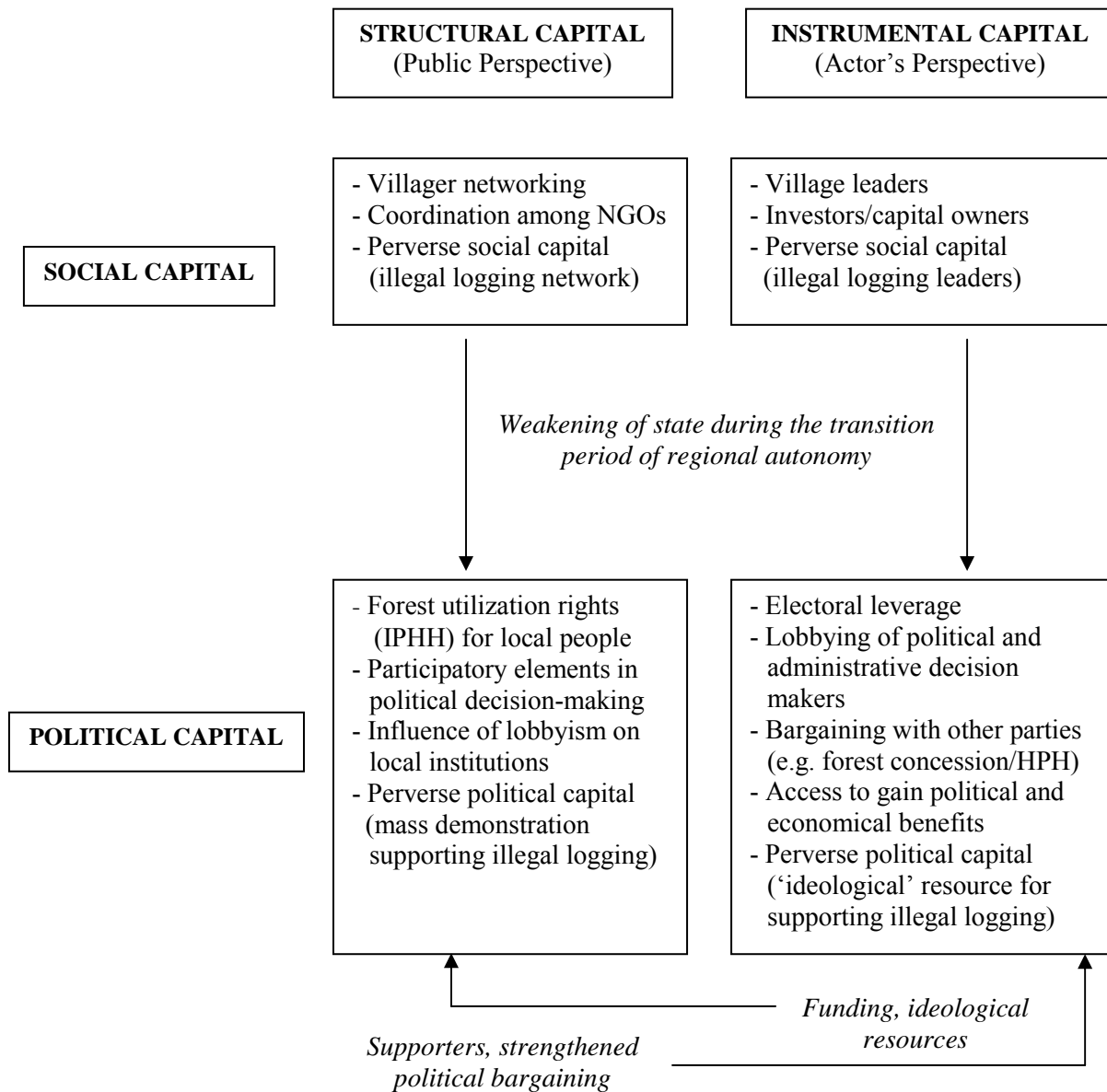
This section is structured into two parts. The first part will present the existence of social capital and political capital in the sample villages, the story behind the field research, and it will discuss the transformation of social capital into political capital. The second part presents the tenurial conflicts, particularly, as they are related to forestry in Jambi.

5.2.3.1. Transformation of Social Capital into Political Capital in the Research Area

As mentioned previously, social capital is an important concept that has often been used in the recent study of common property, collective action, and natural resources management. This section proposes to analyze local institutions or groups, both formal and informal, which exist in the sample villages, and analyze how local communities can use social capital to achieve political objectives, referring both to the individual or actor's perspective (Bourdieu approach) and to the social perspective (Putnam approach).

To analyze the transformation of social capital into political capital, it is necessary to distinguish between instrumental capital and structural capital. Instrumental political capital defined as the resources that actors can use to influence policy formation processes and realize outcomes in their interests. While structural political capital is used in public perspective and refers to variables of the political system which condition the actors' possibilities to accumulate instrumental political capital and to use it effectively (see chapter 2).

Figure 5.3 shows the dynamics of social and political capital in Jambi, which explain the relation between structural capital and instrumental capital and possibilities of transformation of social capital into political capital.



Source: own representation, inspired by Birner and Wittmer (2000a)

Figure 5.3. The Dynamics of Social Capital and Political Capital in Jambi

It is difficult to make an analysis of social capital using to only Bourdeau's approach or only Putnam's approach. Analysis of actor perspective and social perspective cannot be used 'head to head'; a combination of both analyses is needed. In the case of Jambi province, and perhaps also in many of Indonesia's regions, there is usually a mutual dependency between instrumental and structural capital.

The existence of an NGO leader for instance, depends on his supporting members and the performance of his NGO or his NGO's network. Conversely, whether an NGO or NGO's network plays an important role in the political decision-making process is more or less influenced by capacity and capability of the NGO's leader.

Social hierarchy as well as social network are the most important factors and should first of all be understood to analyse social capital. However, it is not a simple task to get information about social hierarchy and social network, particularly in relation to forestry activities (timber business) in the research area. Some approaches are needed to build trust with and among keypersons in the village (see box 5.2. Approaching Key Persons and Gaining Trust: A Story behind the Research).

Box 5.2. Approaching Key Persons and Gaining Trust: A Story Behind the Research

On October 10th, 2002 together with my enumerator Mr. Ahmad Muzakir, I visited the House of the Village Head in Suo-Suo. There we met pak AG, the chairman of the village representatives (Ketua LPM), pak MDL, a moslem leader (Imam of Village Mosque), and pak WP, an informal leader. Due to their low educational background, it was not easy to ask them directly about their perceptions of the new government system of regional autonomy. Therefore, we discussed firstly the performance of the present regency government from their perspectives. They told me that generally they are very satisfied with the present regency government's performance except in one matter -the worsened condition of the public roads connected to other villages and the regency capital. They also told about progressive development in their village and showed us a beautiful mosque in front of the Kepala Desa's house. Pak MDL said proudly, "last week pak Bupati (regency head) has officially opened this mosque. We are very glad for our new mosque because it is one of the most beautiful mosques in the regency and even perhaps in Jambi." Some colorful flags for the opening ceremony of the mosque still flew, when I came there.

When I asked him about the source of funds for the wonderful development in their village, pak MDL said that the village people collected funds together by themselves, named in Indonesian 'dana swadaya'. Then pak WP and pak AG informed me that since two years (after regional autonomy) it has been easier to collect funds because village people have better opportunity to utilize their forests and many village sawmills have been developed in their village. When I asked about the capital owners of the sawmills, they only smiled and said, "they mostly belonged to (ethnic) Chinese" – it is commonly recognized that Indonesian business mostly operated by or connected with ethnic Chinese, although later on pak WP stated that, in the current situation, the sawmills not only belong to the ethnic Chinese, but are also owned by some local elites as well as village leaders.

After discussion and the mosque visit, pak WP asked me to visit his house which is located about two kilometers from the Kepala Desa's house. Pak WP is a migrant from Central Java and came to the village in the 1970s. The village people regard him as an informal leader (the older) because he introduced them to 'modern' agriculture. Surprisingly, pak WP has a sawmill beside his house. He was very happy about my visiting because we come from the same ethnicity (Javanese) and therefore he trusted me and gave me all the information I need. Pak WP is the most important person that made it possible for me to collect further data about the illegal logging network in the village. Pak WP has had a friendship with pak AG, the chairman of village representatives, for a long time. Pak AG is the father, both of pak SF, the village head, and pak MDL, the moslem leader. So, those village elites have strong relationships each other and therefore have high social capital individually and a good network, as well.

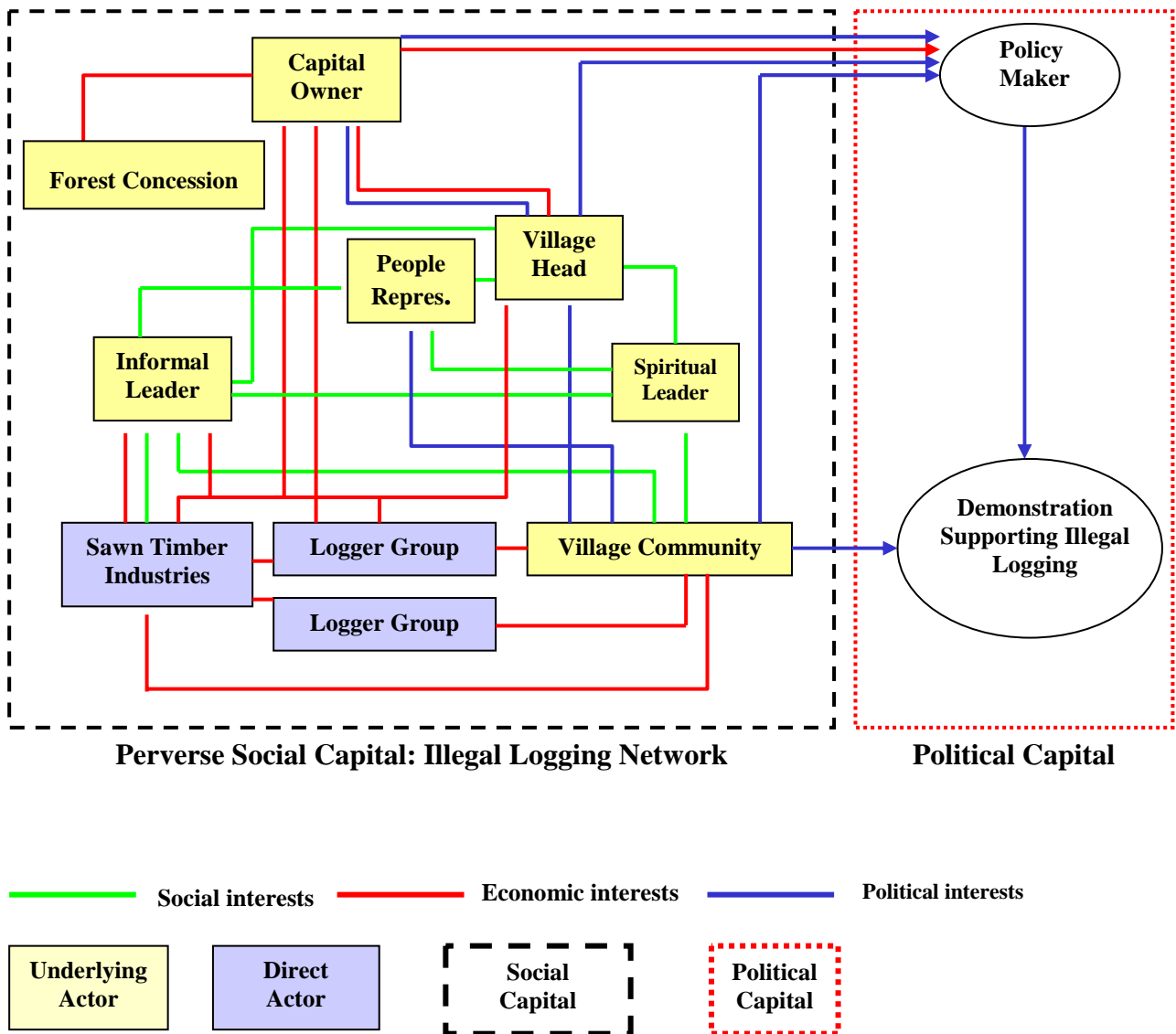
After visiting pak WP's house, we could get information easily. We could go to the jungle together with illegal loggers and have access to village sawmills. Besides pak WP, the key person in PT. DHE also gave us opportunity to visit a large scale sawmill as well as a log-pond, and to look at the logging practices on the border of Bukit Tiga Puluh National Park.

The transformation of social capital into political capital could be observed in the research area of Tebo regency. As is common in rural Indonesia, social capital also exists in the sample village, such as groups of neighboring households, youth groups, religion groups, or village representative groups. After political reform, some people in those villages formed logging groups, mostly illegal. Usually illegal logging groups have strong linkage with sawn timber industries. Therefore, the logging groups and sawn timber industries could be categorized as the 'direct actors' of illegal logging network (see figure 5.4).

Besides the 'direct actors', the illegal logging practices could exist and even grow in the research area due to support from the 'underlying actors'. According to the interview with some foresters and illegal loggers, many sawn timber industries in Tebo regency belong to or are financially supported by some local political elites associated with local entrepreneurs (capital owners) and village leaders. The illegal logging groups can grow fast because both village leader and most forest village people support it without any significant opposition from people groups in the villages or from forest concessions. Most village people support illegal logging practices because it is indisputable evidence that income from the forest –mainly from illegal logging- contributes significantly to the household income and that the prosperity of people is going to be better (see chapter 6). Figure 5.4 shows that the capital owners (local entrepreneurs and political elite), forest concession, village leaders (village head, village representatives and informal leaders), and village community are categorized as the 'underlying actors' of illegal logging networks. The 'underlying actors' are not easy to implicate in the illegal logging practices, but their role exists and is even important in supporting or at least not opposing illegal logging.

The 'illegal logging network' among direct and underlying actors is the evidence of the existence of perverse (negative) social capital in the sample villages (compare Rubio 1997). Furthermore, the needs of local people associated with the social, economic and political interests of local elite resulted in strong political power. A mass demonstration supporting illegal logging for instance, is one of the empirical evidence of the existence of the perverse political capital in the research area (see box 5.3. Illegal Logging Network and Perverse Political Capital in Tebo Regency). It means that in the research area perverse social capital has been transformed into

perverse political capital. The following figure 5.4 shows the process of transformation of perverse social capital into perverse political capital in the research area.



Source: own representation

Figure 5.4. Transformation of Social Capital into Political Capital in the Research Area

The transformation occurs not only in the public perspective (structural capital) but also in the actor's perspective (instrumental capital). Presently a village leader has stronger bargaining in the decision-making process, such as giving approval for

operation of sawn-timber industry, and has access to economic benefits through 'village timber fees'.

Box 5.3. Illegal Logging Network and Perverse Political Capital in Tebo Regency

As a part of my research, I have planned to go to the research villages surrounding the Bukit Tiga Puluh National Park (TNBT) last August 2002. Since it is not easy to reach this location, I asked a forester in PT. DHE Jakarta (the closest forest concession to TNBT) for the trip arrangement. Although I have been ready to go there, she suggested me to postpone my trip because the situation in the field was not conducive at the time due to mass demonstration opposing the operation combating illegal logging named 'Operasi Wanalaga', conducted by forestry department and police. After two weeks, she informed me that the situation was better and I went to the field at the mid September 2002.

As presented previously in the box 5.2, the illegal loggers groups have connection with local elites –village leaders, local entrepreneurs, and local political actors. Pak ES –forester in base camp PT. DHE - told me that there are at least 15 sawmills surrounding Bukit Tiga Puluh National Park (TNBT). According to the data from Tebo Forestry Agency (Dishut Tebo) and the Tebo Agency for Industry, Trade, and Cooperative (Disperindagkop Tebo), totally there are 108 sawmills registered in Tebo regency. However, some key persons from NGO WARSI, Jambi Forestry Agency, and forester PT. DHE estimate that the total number of sawmills included the illegal ones could be double as the official data. They also told that the illegal sawmills (and illegal logger groups) could exist because of financial support from the capital owners, strong political 'back-up' from local political actors, and -it is also important- no opposition from (and even supported by) forest-village community.

*The action to combat illegal logging such as 'Operasi Wanalaga' conducted surrounding the Bukit Tiga Puluh National Park (TNBT) could not be implemented successfully because of strong opposition from local elite as well as local people. Pak ES (forester PT. DHE) told that about a week after starting the 'Operasi Wanalaga', there was a heat-massive demonstration against the operation. The situation was worse and the both parties –Wanalaga's team and demonstrators asked to the Bupati (regency head) as the mediator. A 'compromise' has been gained. The Wanalaga's team must stop the operation, and logging operations could be continued except the area within TNBT. It indicates that the 'illegal logging network' has created a strong political capital. The strong political capital of the illegal loggers forces the Bupati to look the 'people aspiration' rather than law enforcement. It seems no other choice for him because combating illegal logging has a higher political risk due to three reasons: first, against the 'people aspiration' associated with their political back-up supporting illegal logging means loss of votes for the next election. Second, he will get less political support in the regency parliament and third, the regional revenue will decrease. In our interview, the Bupati said that he decided to make the requirement's license for both IPHH (100 hectares logging license) and sawmill as simple as possible in order to minimize 'illegal logging' and 'illegal sawmills'. For reforestation, he has planned to plant a commercial tree species of 'Gold Teak' (fast growing *Tectona grandis*) in order to get support from people and receive more income for the regency. This decision is probably true in the current local politics and social context, but the sustainability is questionable related with the limitation of forest resources and the suitability of the 'Gold Teak' to be cultivated in Tebo regency as stated by Dr. B. Irawan -the botanical expert of the University of Jambi.*

5.2.3.2. Forest as the Victim of Tenurial Conflicts in Jambi

This part presents the tenurial conflicts that occurred in Jambi following the political reform and regional autonomy as well. Soon after political reform in 1998, tenurial conflicts in the research area have been arising both in the forested area and in plantations. The following table 5.5 shows some tenurial conflicts in Jambi Province during two years (1998-2000) and implications of those conflicts for Jambi forests.

Table 5.5. Tenurial Conflicts and Their Implication for Jambi Forests

No	Problem	Implication for Forests
1.	Village community in Bukit Paku, Batanghari closed farm road of company PT. ISS. They prosecuted 200 hectares of company's estate-lands, because the community held that the lands are theirs.	Regency government has proposed to convert forestlands of ex PT. IFA into oil-farm for the community and is considering cooperating with LGC IPB to manage the rest forests.
2.	Community of 6 villages in Tanjung Jabung prosecuted 974.5 hectares of company farmlands because it was indicated to be an unfair land measurement in the past.	Regency government has proposed to convert forestlands of ex PT. IFA into oil-farm for the community. The regency government has also planned a community forestry program in cooperation with LGC IPB.
3.	Local community occupied 3,356 hectares farmlands of transmigrants in Kuamang Kuning, Bungo and Merangin. Due to this action, the transmigrants asked for compensatory lands.	Regency government canceled land allocation for company PT. RAL and, as compensation, this company has been allowed to harvest timber with land clearing system (IPK).
4.	Community in the village Empang Benao demanded 3,000 hectares of estate-lands of PT. KDA, 270 hectares have been claimed as customary right.	Regency of Merangin and Sarolangun offered 1,500 hectares of forests to be converted as community farmlands and formed a fact-finding commission to prove the existence of customary right.

Table 5.5. Continued

5.	1,800 households in the district of Tungkal Ulu sued PT. DAS to give back his farmlands to the community because of unfair compensation.	To solve this problem, 4,000 hectares from production forests of PT. Inhutani and 3,500 hectares from other companies will be converted to the community farmlands.
6.	Village community in Tanjung Katung demanded 10,593 hectares from the area of forest concession PT. KS to be converted to palm-oil plantation in collaboration with PT. BSS.	Governor of Jambi asked to the central government to release those forests to be converted as farmlands (oil-palm plantation)
7	Local people in the village of Embacang Gedang occupied more than 3,000 hectares of farmlands from 1,062 households of transmigrants in Kuamang Kuning VI, XIII, and XIV.	848 hectares of forestlands of PT. RAL would be converted into farmlands and the rest would be requested from other companies.
8	Overlapping 417 hectares of farmlands of transmigrants in Lubuk Napal with the area of state forest concession PT. INH.	Province government made a coordination meeting and suggested to the Department of Transmigration that they request a part of the area of PT. INH (state forest company) be converted into farmlands for transmigrants.
9	Transmigrants prosecuted land certificate for his settlement, 395 hectares in S. Karang and 395 hectares in S. Butang which are belonged to timber estate company PT. WW and PT. WN.	Jambi Forestry Office asked to the governor of Jambi to request Minister of Forestry release those production forests to be converted to a settlement area.

Source: Jambi Forestry Office (2001:79-89)

In the forested area, the frequent arenas for conflict are the national parks such as are found in the Bukit Tiga Puluh National Park (TNBT) and protected forests surrounding the park. In the research area, the small farmers, poachers, and illegal loggers have long encroached upon protected areas, some of which have been illegally converted into agricultural plantation.

The phenomenon of increasing illegal logging and forest encroachment in the research area cannot be separated from Indonesia's political transition. Since 1998, when freedom of expression was respected, people, through social networks such as village people representatives (LMD), household groups or NGOs, have had more opportunity to participate in decision-making process in the local context. This means that local people have political capital. This political capital, however, sometimes causes perverse impacts on the natural resources, such the presence of illegal logging networks in the sample villages surrounding the Bukit Tiga Puluh National Park.

Besides illegal logging, the previous table 5.5 shows that forest encroachments have also increased dramatically after regional autonomy in Jambi. Since regional autonomy, large-scale plantations and local people have taken over thousands of hectares of forest. Thus, a large area of forest has been converted into plantation, causing a decreasing number of Jambi forests (see figure 6.15). In the research area, however, encroachment, illegal logging, and poaching in protected areas within and surrounding Bukit Tiga Puluh National Park (TNBT) have not caused too much violent conflict. The fact is not surprising due to the simple reason that such activities are mostly unopposed by TNBT's officials, police, or other government agencies (see the previous box 5.3).

Table 5.5 also indicates that besides in the forests, the tenurial conflicts were also frequent in plantations. The rapid development of oil palm plantations (*Kebun Sawit*) and industrial timber plantations (HTI) in Jambi led to hostile relations with local communities. Generally tenurial conflicts in Jambi such as those in table 5.5 occurred between local community on one side and transmigrants, forest concessions (HPH), timber estate (HTI) and plantation estates (*Perkebunan*) on the other. In a smaller number of cases, tenurial conflicts in Jambi also occurred between transmigrants and companies or among local communities.

As with stated by a member of the Regional House of Representatives, one of the reason for the conflict in Jambi is that land on which local communities have long standing claims and are often growing tree crops or harvesting non-timber forest products are allocated to a company without consulting the community.

The previous table 5.5 has indicated that forests often became a victim of the scramble for lands in Jambi. It shows that the solution of the tenurial conflicts in Jambi mostly made the forests the victims by giving converted forestlands as compensation for conflicted lands.

NOTES:

¹ Indonesia is a large archipelagous country with more than 13,000 islands. There were many separatism movements soon after the independence of the Republic of Indonesia 1945-1955. After the political reform of 1998, the separatism movements or idea of independence were also sounded in some Indonesian provinces such as Aceh, Riau, East Kalimantan, Sulawesi, Maluku, and Papua (Tadjoeddin 2003:12-39). Due to this reason, devolving authority to the provinces has higher political risks rather than to regencies.

² According to Government Regulation 21/1970, the Governor has the authority to give license for extraction of timber and non-timber forest products for the area less than 100 hectares, named HPHH. However, on January 1st, 1989, the Central government withdrew this authority through the telex of Minister of Internal Affairs to all governors of the Republic of Indonesia (Saman *et al* 1993). After regional autonomy, again, regional government i.e. regency, has the authority to give licenses for forest concessions not more than 100 hectares (IPHH).

³ Personal interviews with senior officers in the Jambi Forestry Office.

⁴ The political agreement was signed by the Governor of Jambi and the Chair of the House of Representatives of Jambi Province, all Regency Heads and all Chairs of the Regency's House of Representative in the province of Jambi i.e. Tebo, Sarolangun, Bungo, Muaro Jambi, Merangin, Batang Hari, Kerinci, Tanjung Jabung Barat, Tanjung Jabung Timur and Kota Jambi in the Office of Governor of Jambi on April 25th, 2002.

⁵ On July 22nd, 2002, the Regency Head of Tebo sent a letter no. 522/789/DINHUT to the National House of Representatives, Supreme Courthouse, and Minister of Internal Affairs and Regional Autonomy to ask for a judicial review of Government Regulation 34/2002.

⁶ Mr. B. Maryanto is a senior forestry officer in Jambi province. He prepared '*telaah staf*' as a contra arguments for the political agreement of regional governments against Government Regulation 34/2002 (25th of April 2002).

⁷ The first Forestry regulation in Indonesia was the '*Boschreglement*' 1865, then revised by '*Boschreglement*' 1874, 1897, 1913, and '*Boschordonantie*' 1927 that were enacted by Dutch

administration (Salim 1997). Forestry Law 5/1967 is the first regulation on forestry, since the independence of the Republic of Indonesia, 17th of August 1945. This law has been replaced by Forestry Law 41/1999.

⁸ In sixties, Indonesia was in deep economic crisis and then political and social crisis in the 1965. In March 1966, the President of Soekarno gave the power and authority to General Soeharto to hand over the presidency. General Soeharto formed a new government, named '*Orde Baru*' (new order). The new order regime made all efforts to generate country income, mainly through exploitation of natural resources, including forests both from foreign exchange, i.e. by enactment of Law 1/1967 to invite foreign investors, and Law 6/1968 to raise local investment (Nurrochmat 2000).

⁹ Dr. Muslimin Nasution, the Minister of Forestry and Estate Crops at the time (1998-1999) has a strong supporter of cooperatives. To avoid the monopolistic structure in forestry business, he rearranged forest concessions by stated Minister Decree 728/Kpts-II/1998, limiting maximum extent of a group of forest concession to 100,000 hectares in a province (except Province of Papua maximum 200,000 hectares) and 400,000 hectares in Indonesia. Many forest concessions were redistributed to the cooperatives. In the sense of fairness this is a good policy, but it caused the fragmentation and massive exploitation of forests.

¹⁰ Due to economic reasons, some Community Forest '*Kemenyan*' in the North Tapanuli has been converted into coffee plantation. It is a 'rational choice' since the price of coffee during economic crisis is high (Nurrochmat 2001). Oil palm plantation have the most favorite choice in dealing with forest conversion in Sumatra and Kalimantan, besides rubber and agricultural crops.

¹¹ In 1993, the customary community of Village Pangkalan Jambu, District Sei Manau, Regency of Merangin, Jambi received 754 hectares of customary forest by Regency Head Decree 225/1993. Unfortunately, there was an unclear border between customary forest and Kerinci Seblat National Park. The practices of illegal logging destroyed some area, mainly the borders of Kerinci Seblat National Park involving the customary forest of Village Pangkalan Jambu. Due to an unclear legal basis, the customary community could not defend their forests from illegal loggers.

¹² In 2001, only 11 from 14 forest concessions in Jambi had permission for logging, called RKT (Jambi Forestry Office 2001:32). According to the statistical data of the Ministry of Forestry (2003), there are only eight forest concessions operated in Jambi in the year 2002. However, based on an interview with a Camp Manager of PT DHE, there are only two forest concessions in Jambi, which actually operate in 2002: PT. Asia Logs and PT. DHE.

6. Socio-Economic and Environmental Impacts: Case of Tebo Regency - Jambi

6.1. Socio-economic Impacts

The following section will discuss the impacts of regional autonomy on regional income, per capita income, income disparity, as well as on households economy. Although the ideal analysis should compare the situation 'with' and 'without' regional autonomy, it is very difficult to conduct such a study, since the other factors such as economic and political crisis occurred simultaneously. The 'second best' is to analyse the impacts of regional autonomy by contrasting the situation 'before' and 'after' regional autonomy.

6.1.1. Income Growth and Poverty Rate

Regional Autonomy Law was enacted in 1999, but '*de jure*' it was officially implemented two years later, i.e. since January 2001. The Regional Autonomy and Fiscal Balance Laws have given opportunities to the resources-rich regions to increase their revenue. Tebo regency, for instance, gained Original Regional Income (called 'PAD') Rp 3.9 million in the year 2000. In the year 2001, the original income was Rp 8.9 million, an increase of 128% over the year before (Dispenda Tebo 2002). Regional autonomy has also shifted the income structure of the regencies. The most common fiscal instrument to increase regional income is '*retribusi daerah*' (regional fees), which are assessed mainly by extracting natural resources. Contribution from the regional fee was only 5% in 2000, but by 2001 these fees contributed to 82% of the regency's original income (table 6.1).

Table 6.1. Original Income of Tebo Regency

No	Source of Income	Amounts (million rupiahs)			
		2000	Share	2001	Share
1.	Taxes*	149.56	4%	101.13	1%
2.	Regional fees**	194,46	5%	7,317.98	82%
3.	Dividend ***	0	0%	514.27	6%
4.	Others ****	3,563.50	91%	976.59	11%
	Total	3,907.52	100%	8,912.97	100%

Source: *Dispenda Tebo (2002)*

Notes:

* Tax is defined as a payment obliged for a person or institution to (regional) government without direct compensation by following regulation, e.g. taxes for advertising, hotel, restaurant, etc (*Dispenda Tebo 2002*).

** Regional Fee ('retribusi daerah') is defined as a payment to regional government as a compensation for goods or services received by a person or institution, e.g. 'retribusi daerah' for parking, market facility, timber cutting ('retribusi IPHH'), etc. (*Dispenda Tebo 2002*).

*** Dividend received from Regional Enterprises/BUMD (*Dispenda Tebo 2002*).

**** Revenue from other sources.

Besides raising Original Regional Income (PAD), the regional budget (APBD) of Tebo regency has also increased about 73% from Rp 81 billion in the year 2001 to more than Rp 140 billion in 2002 (Tebo Regency 2002). According to BPS Bungo-Tebo (2001), the average Per Capita Income (PCI) increased from Rp 2.13 million in 2000 to Rp 2.38 million in 2001, an increase of about 12% over the previous year and an increase of almost 43% over per capita income in 1998 (before regional autonomy). Assuming on annual inflation rate of 10%, the 'real' purchasing power of people in Tebo regency increased about 2% annually after regional autonomy. The following table 6.2 shows the growth of some economic indicators of Tebo regency after regional autonomy.

Table 6.2. The Growth of Some Economic Indicators of Tebo Regency

Indicator	Year	Growth
Regency Original Income (PAD) ^a	2000/2001	128%
Regency Budget (APBD) ^b	2001/2002	73%
Per Capita Income (PCI) ^c	2000/2001	12%
Inflation Rate ^d	2001	10%

^a 2000-2001 (*Dispenda Tebo 2002*)^b 2001-2002 (*Tebo Regency 2002*)^c 2000-2001 (*BPS Bungo-Tebo 2001*)^d Inflation rate of Jambi 2001 (*BPS Jambi 2001a*)

The following table 6.3 shows that the poverty rate in Indonesia after regional autonomy is generally still worse compared to the situation before the economic crisis (before 1997), but it is better than the situation in the peak of economic crisis 1998-1999. Since Tebo regency was only established in 1999, there is no data on the poverty rate before 1999. However, the poverty rate in Tebo regency after regional autonomy is slightly worse, although the average per capita income is higher. This refers to the higher disparity of income among the communities (see chapter 6.1.2.2).

Table 6.3. Poverty Rate Before and After Regional Autonomy

	Forest Villages ^a	Tebo Regency ^b	Indonesia ^c
Before regional autonomy (Before Economic Crisis)*	No data	No data	15.7%
Before regional autonomy (Peak of economic crisis)**	No data	16.3%	27.1%
After regional autonomy***	13%	18.1%	23.0%

Sources: (a) own survey 2002, (b) BPS Bungo-Tebo 2000-2001, (c) World Bank 2001b ¹

Notes:

* Indonesian economic crisis began at the end of 1997 (data 1996)

** Peak of Indonesian economic crisis was in 1998-1999 (data 1999)

*** After regional autonomy (data 2000-2001).

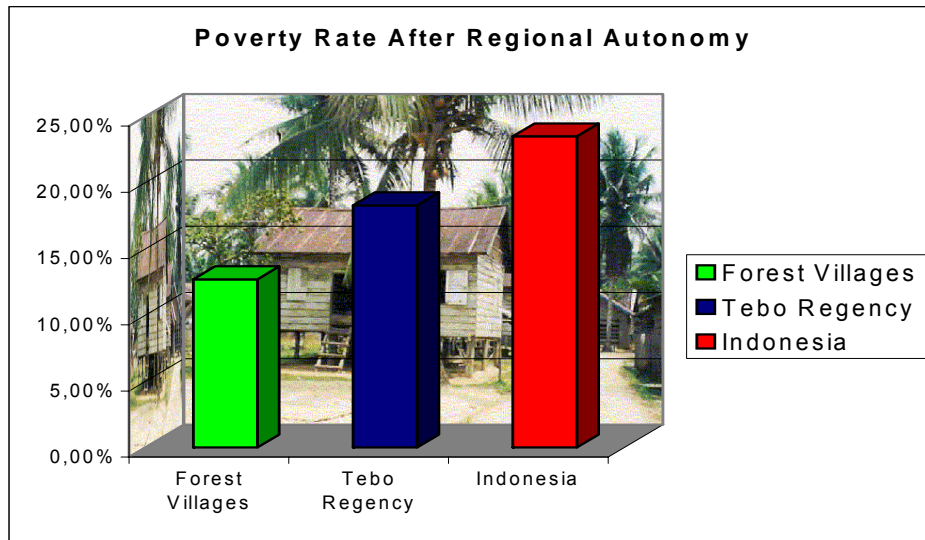


Photo: Nurrochmat (2002)

Figure 6.1. Poverty Rate in Forest Villages, Tebo regency and Indonesia After Regional Autonomy ²

Figure 6.1 shows that the poverty rate of the three sample villages (Suo-Suo, Teluk Langkap, and Muara Kilis) is lower than that of the regency of Tebo and of overall Indonesia, as well. Regarding Sajogjo's poverty line, only less than 13% of people in the three forest villages live 'under poverty line'³, while in Tebo regency 18% of people live below the minimum prosperity standard (BPS Bungo-Tebo 2001); on average, about 23% of people in Indonesia still live in very difficult situations or under the poverty line (World Bank 2001b).

6.1.2. Benefits and Losses from Forestry Sector

A simpler administrative procedure and closer public services in the era of regional autonomy are the key arguments for a higher investment in Tebo regency. Figure 6.2 shows that the procedure to build sawn-timber industries is very simple. Local leaders –village, district and regency heads- have important roles in approving sawn-timber licenses, since most procedures to get licenses were conducted in the regency.

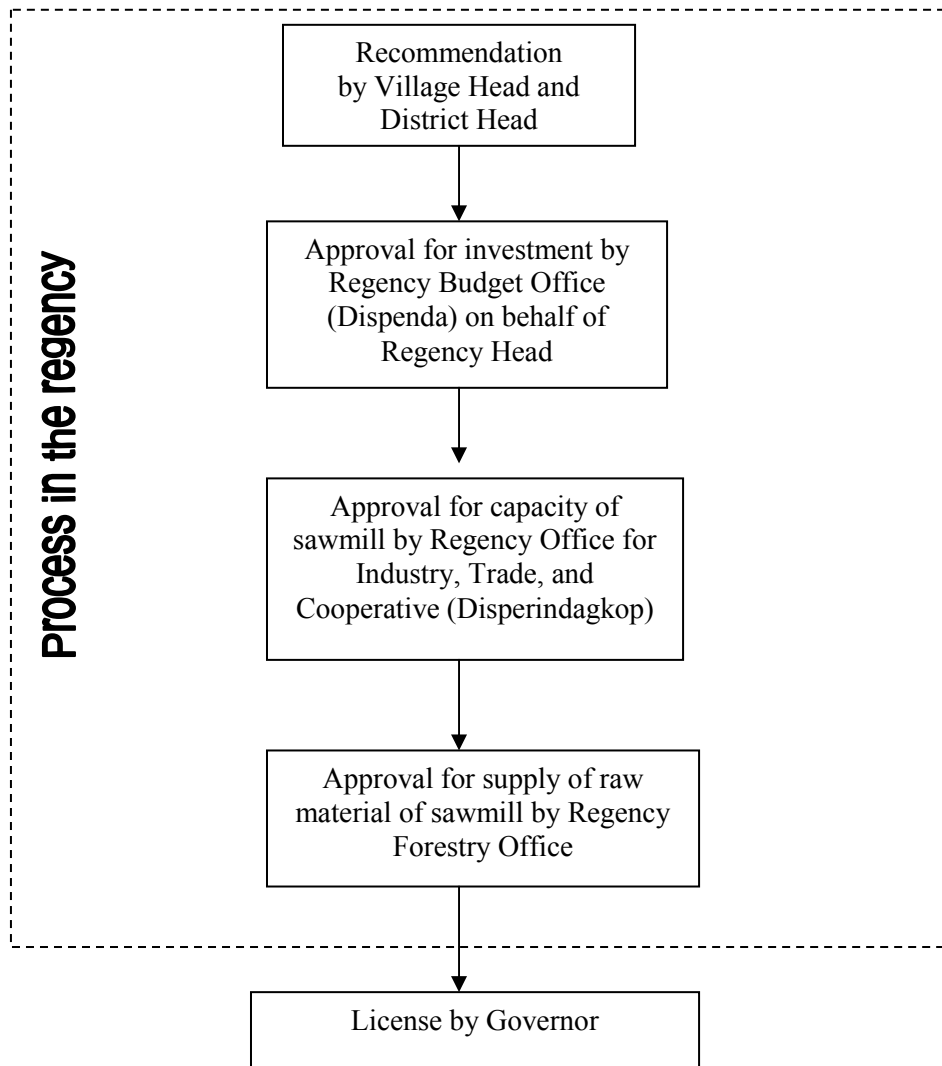


Figure 6.2. The Procedure to Get Permission for the Sawn-timber Industry⁴

Forestry decentralization was implemented ‘*de jure*’ (Law 41/1999) two years before regional autonomy (2001). ‘*De facto*’ many forestry authorities shifted to the regions soon after ‘*reformasi*’ in 1998, through the operation of local logging licenses as well as the growing number of sawn-timber industries. Although according to central regulation it is not allowed to develop more sawn-timber industries (negative list of investment), the number of sawn-timber industries or sawmills in Tebo regency increased rapidly from only 7 units in 1996 and 12 units in 1998 to 108 units of sawmills in 2002 (figure 6.3). These numbers reflect only the legal sawmills that are registered in the Tebo regency office of trade, industry, and cooperative (Disperindagkop Tebo 2002) –not the illegal ones.

Since illegal logging is uncontrollable, however, the real number of sawmills is larger than the registered ones and the production capacity of the sawn-timber industries is also much higher than it would otherwise seem.

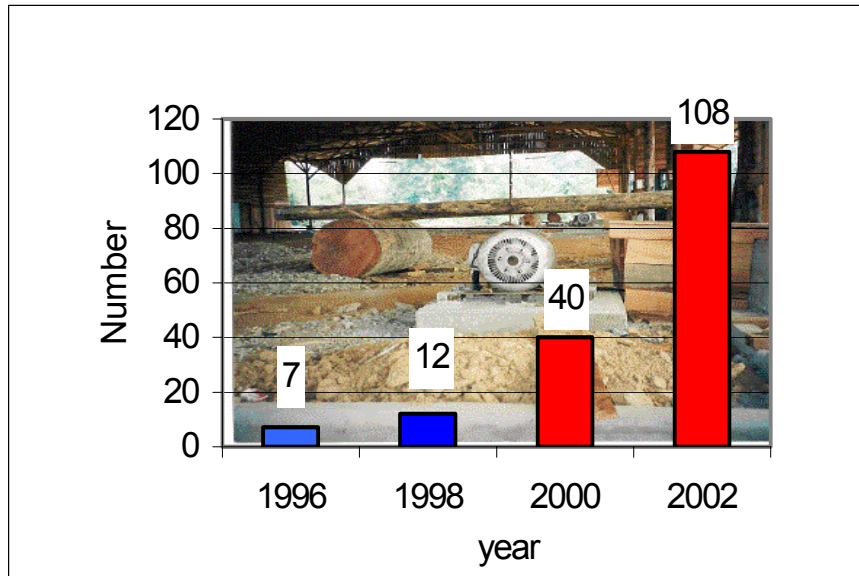


Photo: Nurrochmat (2002)

Figure 6.3. Number of Sawmills in Tebo Regency 1996-2002 ⁵

It is very difficult to count with certainty the amount of illegal logs in Tebo regency. However, the number of illegal logs could be estimated by comparing maximum production capacity of all timber industries in Tebo regency and the registered logs (logs with taxes) taken from the data of Tebo Forestry Office. A rough calculation of the portion of illegal logs is very surprising, showing that more than 80% of logs supplied to the timber industries in Tebo regency could be coming from illegal logging (figure 6.4).

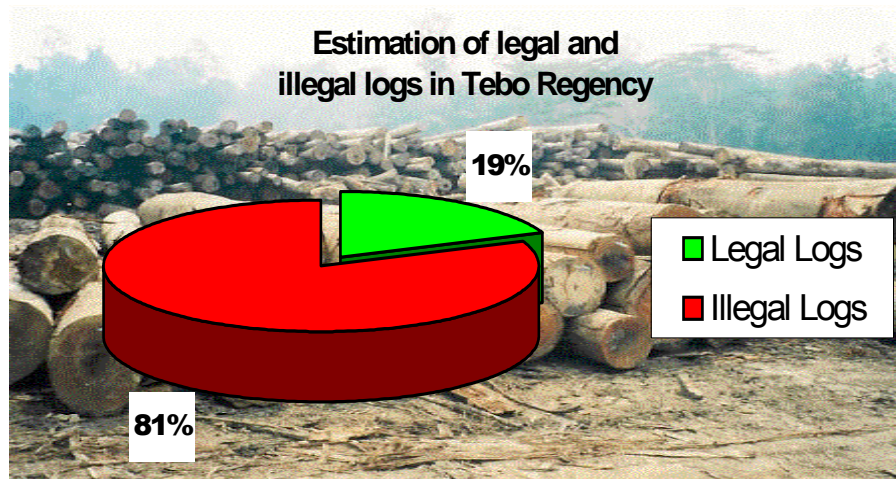


Photo: Nurrochmat (2002)

Figure 6.4. Estimation of Legal and Illegal Logs in Tebo Regency⁶

Table 6.4 shows an estimate of legal and illegal logs in the Indonesian timber market. The estimated proportion of illegal logs supplied to timber industries in Tebo regency is higher than in Jambi province and in the nation taken as a whole. A larger gap between sustainable supply and potential demand occurs due to the increasing number of sawn-timber industries in Tebo regency. Consequently, the gap is mainly fuelled by illegal logging, which leads to over-exploitation of forest resources. Beside the problem of excess demand, a combination of limited forest guards, lack of coordination, ineffective regulations, and bribery practices may also be accelerating forest degradation.

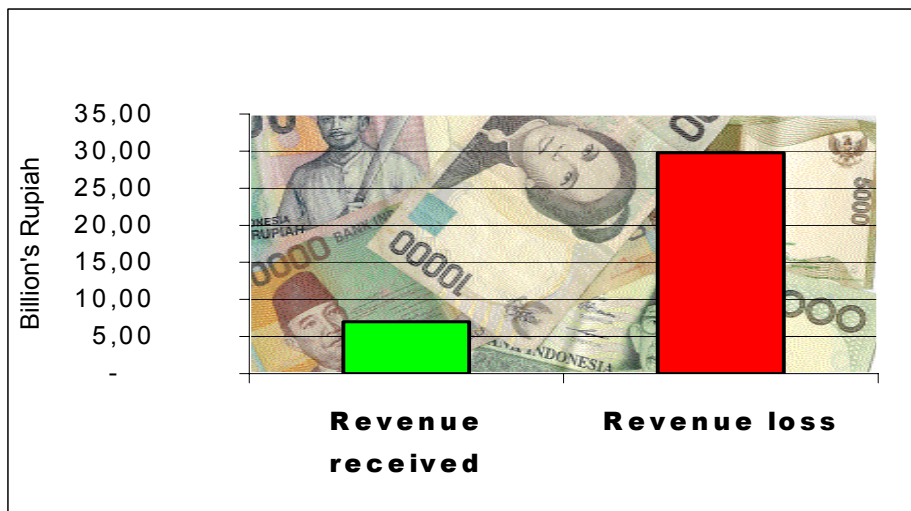
Table 6.4. Estimation of Legal and Illegal Logs in Tebo regency, Jambi Province and Indonesia Before and After Regional Autonomy

	Before Regional Autonomy		After Regional Autonomy	
	Legal logs (%)	Illegal logs (%)	Legal logs (%)	Illegal logs (%)
Tebo regency	no data	no data	19	81 ^a
Jambi province	no data	no data	27	73 ^b
Indonesia	55-61	39-45 ^c	25-35	65-75 ^d

^a own estimation; ^b WARSI⁷; ^c Faculty of Forestry IPB (1997), *Down to Earth* (1999)⁸

^d Matthews (2002), Paddock (2004)⁹

Because of widespread illegal logging, Tebo regency has lost a potential income of almost Rp 30 billion (approx. US\$ 3.3 millions) annually from regional fees (retribusi daerah) of timber. Figure 6.5 shows the actual revenue from regional timber fees that have been received and the estimation of the revenue loss.



Source: own estimation

Figure 6.5. Actual Revenue and Estimation of Revenue Loss from Regional Timber Fees in Tebo Regency¹⁰

Illegal logging causes not only the revenue loss of the regions, but also decreases national revenue. At the national level, Indonesia has lost more than US\$ 3.7 billions in state revenue annually due to illegal logging activities (liputan6 2003c; Schroeder-Wildberg and Carius 2004:8). Further discussion on the complex phenomenon of illegal logging in Indonesia particularly in Jambi is presented in the section 6.2.1.

6.1.3. Income Disparity

Implementation of regional autonomy logically has two major implications for the regional development. On the one hand, it is undeniable that regional autonomy offers a large opportunity to the regencies rich in natural resources to increase their regional revenue. On the other hand, regional autonomy will cause a larger income disparity between the rich and the poor regencies and influence the income disparity

of people. Measuring income disparity is very important in understanding whether the prosperity has been distributed equally, not only in the term of 'government units' by measuring disparity of GDRP among regencies, but also income disparity at the grassroots level by measuring distribution of per capita income of people in the three sample villages.

6.1.3.1. Distribution of GDRP among Regencies

The amount of the regency's Growth Domestic Regional Product (GDRP) varies from 5.1% to more than 21% of the total amount of GDRPs in Jambi province (table 6.5). Besides the richness of natural resources, other factors such as infrastructures, accessibility, and human resources are also important for increasing regency income.

Tabel 6.5. Range of Disparity of GDRP between the Richest and the Poorest Regencies in Jambi Province

Term	Range of Disparity		Distance
	Richest Regency	Poorest Regency	
Amount of GDRP (Rupiah)	2,006,823,000,000	473,891,000,000	4.2 x
Portion from GDRP Jambi	21%	5.1%	

Source: BPS Propinsi Jambi (2003), own data processing

The above table shows that the GDRP of the richest regency (Jambi Township) is more than four times higher than the poorest one (Tebo regency). Furthermore, the disparity of GDRP can be measured by calculating the Gini Coefficient. The following table 6.6 describes the distribution of GDRP among regencies in Jambi province. This table also shows that the value of the Gini Coefficient among regencies' GDRP is only 0.23. The income disparity is categorized as 'high', if the value of the Gini Coefficient is more than 0.5, while the values between 0.4 and 0.5 are categorized as 'moderate', and the value below 0.4 is 'low' disparity (Ministry of Forestry 2000). The disparity of GDRP among regencies in Jambi province is less than 0.4 or in the 'low' category. It means that the GDRP in Jambi province are relatively well distributed over regencies.

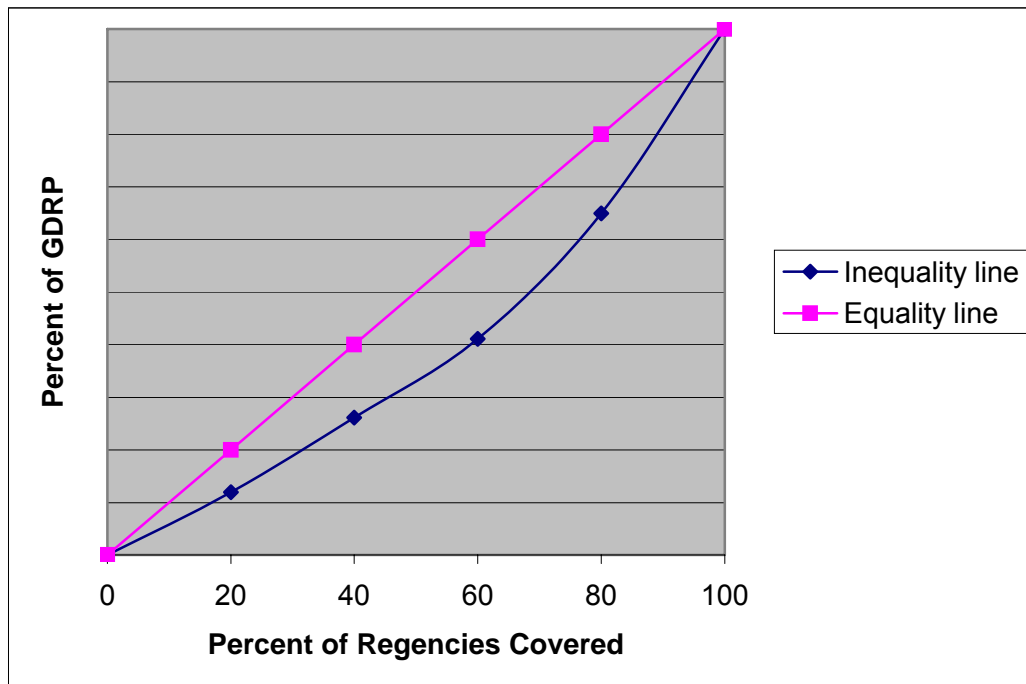
Table 6.6. Distribution of GDRP among Regencies in Jambi Province

Year	Gini Coeff.	Percentage share of GDRP				
		Lowest Quintile	Second Quintile	Third Quintile	Fourth Quintile	Highest Quintile
1998	0.21	12.2%	14.3%	16.1%	23.4%	34.0%
1999	0.22	11.9%	14.7%	15.5%	23.2%	34.7%
2000	0.23	11.6%	14.4%	15.1%	22.7%	36.2%
2001	0.22	12.0%	14.2%	14.9%	23.8%	35.1%

Source: own data processing, data BPS Jambi (2000 and 2001)

The distribution of GDRP in 2001 can be more clearly explained by projecting the percentage share of each quintile to a curve, the so called Lorenz Curve (figure 6.6). It shows that the slope is relatively flat, the flatter the slope the better distribution. It is still difficult to compare the distribution of GDRP before and after regional autonomy, since there are only data from a limited period of time available after regional autonomy.

The values of the Gini Coefficient in 1998, 1999, 2000, and 2001 are only slightly different. Therefore, due to the 'stable' values of Gini Coefficient it cannot be said that the inequality of GDRP among regencies after regional autonomy is worse than before. However, data from a longer period of time are needed to prove whether regional autonomy has led to higher inequality among regencies.



Source: own data processing, data BPS Propinsi Jambi (2003)

Figure 6.6. Lorenz Curve of GDRP among Regencies in Jambi Province 2001

According to the data for 2001 in the previous table 6.5, the distribution of GDRP among regencies in Jambi based on the income classes is relatively well distributed, where the richest quintile received 35.1% of total GDRP of Jambi province and the lowest quintile received 12.0%. Regarding the results, it may be said that in term of 'government unit', financial sharing among regencies in Jambi province is good. However, a good GDRP's distribution among 'government unit', is not automatically parallel with good distribution of per capita income of people. The following section will discuss the distribution of per capita income of the grassroots level.

6.1.3.2. Distribution of Per Capita Income

Besides analyzing the disparity at the level of 'government units' by measuring distribution of GDRP among regencies, it is also important to measure income distribution at the household level. This research measured the income disparity of people in the three sample villages close to and around the forests: Suo-suo, Teluk Langkap, and Muara Kilis.

Table 6.7 shows that income distributions in those villages are very unequal. In the village of Suo-suo, per capita income of the richest is about 330 times higher than the lowest income. In the village of Teluk Langkap and Muara Kilis, income distribution is better than in Suo-suo, even though the disparity between the richest and the poorest is still very high.

Tabel 6.7. Range of Disparity of the Highest and Lowest Income in the Forest Villages of Tebo Regency

Village	Range of Income Distribution		Distance	Mean	Std. Dev
	Highest Annual Income (Rp/capita/year)	Lowest Annual Income (Rp/capita/year)			
Suo-suo	50,136,000	151,818	330 x	3.4E+06	6.55E+06
Teluk Langkap	19,650,000	522,857	38 x	3.7E+06	4.10E+06
Muara Kilis	21,124,800	336,000	63 x	3.5E+06	3.92E+06

Source: primary data, n=200

The following table 6.8 shows the percentage distribution of per capita income in each quintile and the value of the Gini Coefficient of per capita income in three sample villages. It shows that the value of the Gini Coefficient of per capita income in the village of Suo-suo is 0.51, a high disparity of income. In the village of Teluk Langkap and Muara Kilis, the income disparities is categorized at the moderate level since their Gini Coefficients are in between 0.4 and 0.5. The average Gini Coefficient of per capita income in the three villages is 0.47. Surprisingly, those values are worse than the Gini Coefficient at the national level, which is only 0.32 (World Bank 2001b).

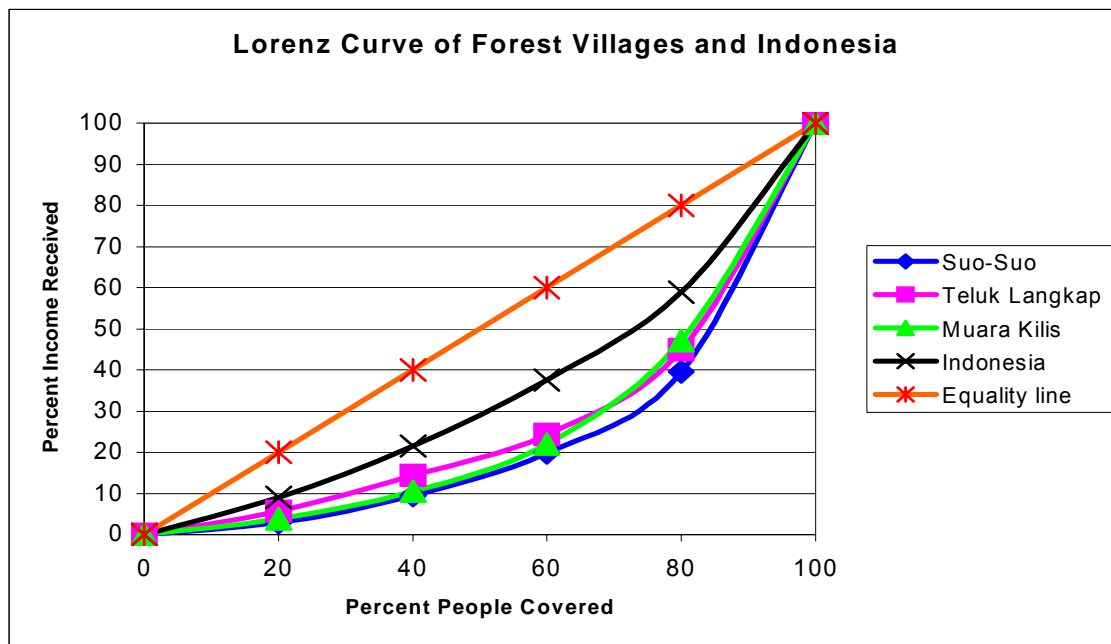
Tabel 6.8. Distribution of Income According to Income Classes in Tebo Forest Villages and Indonesia

	Gini Coeff.	Percentage share of income				
		Lowest Quintile	Second Quintile	Third Quintile	Fourth Quintile	Highest Quintile
Suo-Suo	0.51	2.9%	6.5%	10.4%	19.8%	60.4%
Teluk Langkap	0.44	5.7%	8.6%	9.9%	20.7%	55.1%
Muara Kilis	0.47	3.9%	6.6%	11.5%	25.2%	52.8%
Average*	0.47	4.2%	7.2%	10.6%	21.9%	56.1%
Indonesia **	0.32	9.0%	12.5%	16.1%	21.3%	41.1%

* primary data, own data processing; ** World Bank (2001b) ¹¹

The above table 6.8 shows the situation of forest villages, where on average the highest quintile, the 20% richest people, received more than 56% of total income, while only 44% of income was distributed to the remaining 80% of the people. This means that the large part of benefits from forest resources exploitation has been gained mainly by small groups of people (table 6.7 and 6.8). According to interviews with some sawmill owners,¹² they usually invest some of their benefits from logging to build small sawmills, buy trucks for logging and renting, or diversify their business by having a small outlet for selling daily needs or foods. Therefore, it is not surprising that the people who gain many benefits from the forest (logging), usually also get more benefits from other sources. The result, income disparity between the poor and the rich in the forest villages, tends to be higher.

The comparison of income disparity between the forest villages and the average of Indonesia is clearly described in the following figure 6.7. This figure shows that the Lorenz Curve of Indonesia is closer to equality line than Lorenz Curve of the three villages.



Sources: villages, primary data (2002); Indonesia, World Bank (2001b), own data processing

Figure 6.7. Lorenz Curve of Forest Villages Community in Tebo Regency

The success of regional autonomy cannot merely determined by good income distribution in terms of regional governance units i.e. GDRP, which is usually used by bureaucrats or politicians, but also, most importantly, by measuring income disparity among households. Measuring inequality of income at the households level is important because the household's disparity is not always parallel with the disparity at the governance unit level.

As was explained before, after regional autonomy local elite groups, who have capital and access to power, shifted significantly to fill the role of national companies in exploiting Jambi forests. This led to the consequences that income disparity at the local level, e.g. in the villages, was higher than before. According to interviews and observations on the research site, social jealousy can be avoided if the majority of people are satisfied with their present living condition, or in other words, they experience more prosperity. As long as people feel that their prosperity is better than before, usually income disparity will not usually provoke larger problems such as social unrest.

6.1.3.3. Household Economy

This section analyses the results of household surveys in the three sample villages. Some variables used in this analysis were human capital indicators of respondents (age class, productive-age, and household size), welfare indicators (household income, poverty rate, prosperity, and household type), and relation of respondent to forest (working time in the forest, harvesting timber, extracting non timber, absolute annual household income from forest, and portion of income sharing from forest to the household income). The following table 6.9 presents the description of the socio-economic variables of respondent used in this section.

Table 6.9. Description of the Socio-Economic Variables of Respondents

Variables	Variable Definition
<i>Human Capital Indicators</i>	
AGECLASS	1 if the age of the respondent < 30 years, 2 if 31-40, 3 if 41-50, 4 > 50
AGEPROD	1 if the respondent in the productive age (not more than 50 years), 0 otherwise
HHSIZE	Number of household members
<i>Welfare Indicators</i>	
HHINCOME	Total household income in Rupiahs
POVLIN	1 if percapita income upper poverty line, 0 otherwise
PROSPERI	1 if the respondent feels his prosperity is better, 0 otherwise
HOUSETYP	1 if the house is non permanent, 2 if the house is semi-permanent, 3 if the house is permanent
<i>Relation to Forests</i>	
FORSTIME	Frequency of visits to forest per month (in days)
TIMBER	1 if the respondent harvests timber, 0 otherwise
NONTIMBR	1 if the respondent harvests non-timber, 0 otherwise
INCOFORS	Absolute annual household income from forestry activities
FORSHARE	Portion of income from forestry to the household income

The socio-economic analysis in this section uses nominal, ordinal and scale variables. The descriptive statistic of each variable is shown in the table 6.10 below.

Table 6.10. Descriptive Statistics of Socio-Economic Characteristics of Respondents

Variables	Minimum	Maximum	Mean	Std. Deviation
<i>Human Capital Indicators</i>				
AGECLASS	1	4	1.80	1.02
AGEPROD	0	1	0.90	0.30
HHSIZE	1	11	4.47	2.34
<i>Welfare Indicators</i>				
HHINCOME	1,237,000	200,544,000	13,905,000	27,473,524
POVLIN	0	1	0.86	0.35
PROSPERI	0	1	0.70	0.46
HOUSSETYP	1	3	1.36	0.63
<i>Relation to Forests</i>				
FORSTIME	0	27	15.90	11.22
TIMBER	0	1	0.67	0.47
NONTIMBR	0	1	0.09	0.29
INCOFORS	0	200,544,000	7,397,234	18,249,652
FORSHARE	0	1	0.59	0.44

Source: own survey, n=200

The analyses will be structured in three parts. The first part of this section will discuss the income structure of the household and its income dependency on forest. The second part discusses the distribution of benefits taken from forest utilization and the third part contains the probit analysis concerning the variables related to the rural poverty.

Socio-Economic Overview, Income Structure and Dependency on Forest

The average income of people in the three sample villages is about Rp 3.5 million per capita per year, which is far above the poverty line (320 kg rice equivalent or Rp 800,000 per capita per year at the current rate). However, a large number of people

are still live in semi-permanent or non-permanent houses, while only less than 10% of them have a permanent house.

Most households have a high dependency on the forests as an important source of income. In the village Suo-suo, the village closest to the forest, more than 78% of the household income comes from the forests, by selling forest products, particularly timber. In the village Teluk Langkap, forests contributed to 44% of household income and in Muara Kilis, 38% of household income comes from the forests. It may be said that the closer the villages to the forests, the higher the dependency of household income on the forests (table 6.11).

Table 6.11. Sources of the Household's Income

Sources of Income	Villages			Average (%)
	Suo-suo (%)	Tlk Langkap (%)	Muara Kilis (%)	
Farm	14.5	25.6	35.8	25.3
Forests	78.0	44.2	38.6	53.6
Others	7.5	30.2	25.6	21.1

Source: own survey, n=200 households

The following figure 6.8 shows that in all income strata, forest contributed to more or less half of household income. This shows that generally all types of households, from the poorest to the richest, have a strong income dependency on forest. However, this figure indicates that the poor people (low income and middle income) have a stronger dependency (51% to 67%) on forest than the rich (46%). This may be explained by the fact that the rich usually have more alternative sources of income, since they invest some benefits from forest to the other business activities such as trading or services.

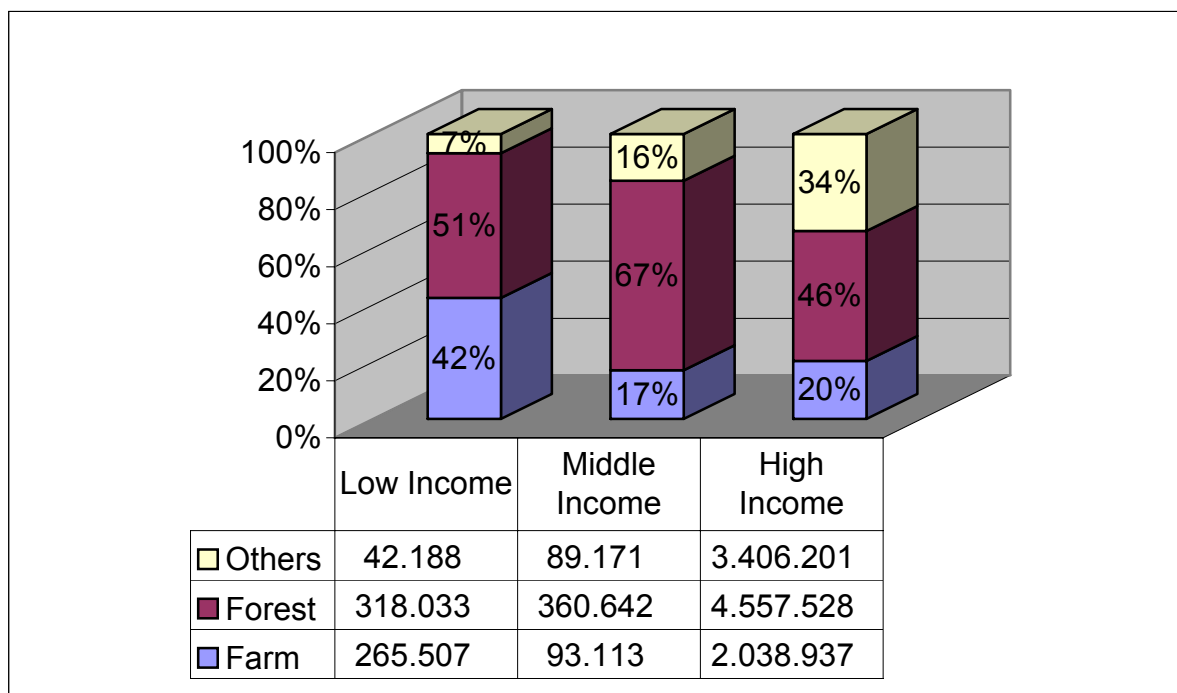


Figure 6.8. Level of Income, Percentage and Absolute Contribution of Income Sources to Per Capita Income

The following table 6.12 shows the selected variables as they are related to the portion of income contributed to the household from the forest (FORSHARE) in the three sample villages. This table shows that, in linear regression model, the poverty rate (POVLIN) has a negative coefficient related to dependent variable of FORSHARE. It indicates that people that live below the poverty line generally have stronger dependency on forest due to a bigger portion of forestry sharing in their household income. Moreover, the negative coefficient of prosperity (PROSPERI) gives a stronger argument for the higher dependency of the poor on forest rather than the rich.

Table 6.12. Variables Related to the Portion of Forestry Income Sharing

Variables	Coefficients	Std. Error	T-ratio
(Constant)	0,188	0,067	2,800***
AGEPROD	8,536E-02	0,046	1,858*
HHSIZE	-1,962E-02	0,006	-3,309***
POVLINE	-0,101	0,041	-2,438**
HHINCOME	1,692E-10	0,000	0,317
FORSTIME	2,624E-02	0,003	8,530***
TIMBER	0,227	0,073	3,129***
NONTIMBR	0,108	0,046	2,345**
PROSPERI	-7,617E-02	0,030	-2,565**
HOUSETYP	-1,985E-02	0,024	-0,841

Linear regression, dependent variable: FORSHARE, n=200, R-square=0.855

*** significant at 1% level, ** significant at 5% level, * significant at 10% level

Regarding the results of statistical analysis presented in the above table, it may be seen that the portion of income sharing from forest (FORSHARE) has a positive relation to the working time in the forest (FORSTIME) and to contribution from timber (TIMBER) as well as non-timber (NONTIMBR). It is logical that the longer the people work in the forest, the bigger the income contribution from forests, both from timber and non-timber. The village people usually harvest only timber, while some groups of people live closer to and within the forest, such as traditional tribes of 'Kubu' and 'Talangmamak' who also collected non-timber forest products (NONTIMBR) like honey, fruits, sap, or herbal medicines.

The influence of age class (AGECLASS) to the portion of income sharing from forest (FORSHARE) is not significant (see appendix 2). However, instead of age class the productive age of respondent (AGEPROD) influences significantly to FORSHARE. It may be explained that because forest utilization such as logging is hard work, this activity is mostly conducted by productive age people (AGEPROD), while the old usually work in the farm close to their house or choose another job outside of the forest such as farming, selling as well as temporary jobs. Table 6.12 also indicates that FORSHARE has the opposite response to household size (HHSIZE). The more family members, the less the portion of income from forest they have.

The Distribution of Benefits from Forest

According to the previous figure 6.8, one has to keep in mind that the analysis of the portion (percentage) of income is different, when measured against absolute income. Measuring the portion of income from forest is used to analyse the dependency of people or groups on forest, while information about the absolute income from forest is relevant to understanding the distribution of benefits taken from forest utilization. The previous figure 6.8 clearly indicates that in the term of absolute contribution, the rich get more benefit from forest (in average Rp 4,557,528 per capita annually) much higher than the poor (Rp 318,033 per capita annually). The following table 6.13 shows that the absolute benefits from forest (INCOFORS) are significantly influenced by the level of income (HHINCOME). It means that the richer the people, the bigger the absolute benefits taken from the forests.

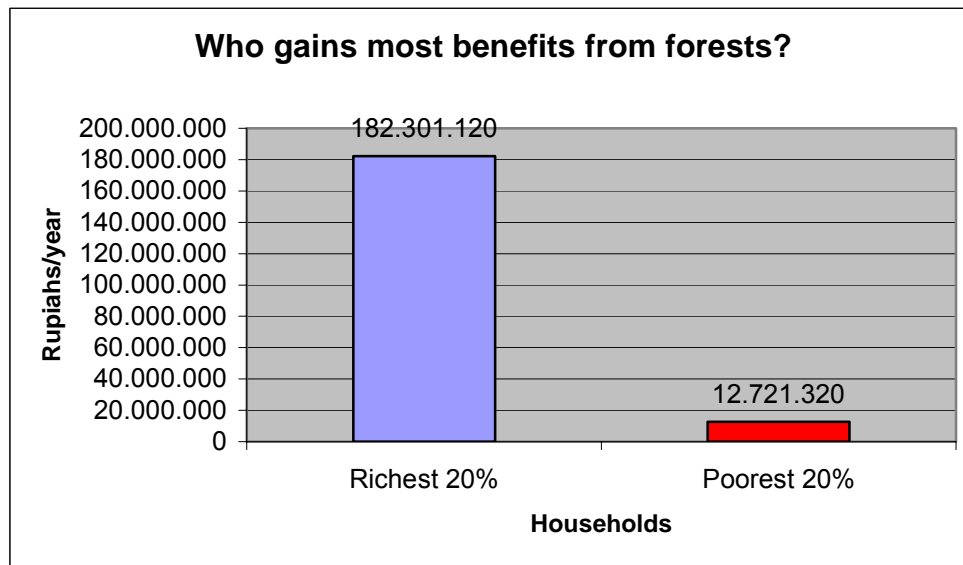
Table 6.13. Variables Related to the Absolute Benefits from Forest

Variables	Coefficients	Std. Error	T-ratio
(Constant)	-4082195,146	2577333,130	-1,584
HHINCOME	0,475	0,032	14,784***
FORSTIME	159893,456	213151,548	0,750
HHSIZE	-711125,865	443669,644	-1,603
TIMBER	7052688,351	4942304,924	1,427
NONTIMBR	255903,963	3231073,800	0,079
AGECLASS	424826,809	1036468,888	0,410

Linear regression, dependent variable: INCOFORS, n=200, R-square=0.568

**** significant at 1% level, ** significant at 5% level, * significant at 10% level*

The following figure 6.9 shows that only small group of people, the richest 20%, gain the most benefits from forest, while the 20% poorest people received for fewer benefits. The richest group gain total per capita benefits from forest of more than Rp 180 million annually. On the other hand, the poorest group only get less than Rp 13 million annually or only less than 8% of what the richest group gained from forests.



Source: primary data, n= 200

Figure 6.9. The Distribution of Benefits from Forest in the Sample Villages

Probit Analysis Concerning Rural Poverty

A probit model is used in this section to determine the variables relating to and influencing to rural poverty in the three sample villages. The dependent variable POVLINE in the estimated model signifies the poverty level of the interviewed household. As presented in the previous table 6.8, '1' indicates that the per capita income of the interviewed household is above the poverty line and '0' otherwise.

The explanatory variables are divided into the productive age of respondent (AGEPROD), household size (HHSIZE), portion of income sharing from forest (FORSHARE), time for working in the forest (FORSTIME), extracting non-timber (NONTIMBR), and house type (HOUSETYP). The following table 6.14 presents the result of probit analysis with POVLINE as a dependent variable.

Table 6.14. Probit Analysis of Variables Related to the Poverty Level

Variables	Coefficient	Std Error	Coeff./SE
AGEPROD	1,32889	0,43026	3,08858***
HHSIZE	-0,33355	0,07398	-4,50871***
FORSHARE	-1,62807	0,88666	-1,83619*
FORSTIME	0,06489	0,03455	1,87823*
NONTIMBER	0,59885	0,54732	1,09415
HOUSETYP	1,14003	0,42065	2,71020**

Probit analysis, dependent variable: POVLIN, n=200

**** significant at 1% level, ** significant at 5% level, * significant at 10% level*

The above table indicates that the poverty level (POVLIN) in the three sample villages is influenced significantly by several factors: productivity of age (AGEPROD), household size (HHSIZE), and working time in the forest (FORSTIME). The result of probit analysis show that the largest group to live under to poverty line is the old. This means that the people older than 50 years old (unproductive age) find it very difficult to experience more prosperity (above the poverty line) by using the opportunities after regional autonomy. The household size influences also the poverty level. The more family members, the lower the probability to escape from poverty. Furthermore, the result of the probit analysis also indicates that the probability of the household to escape poverty will be bigger by taking longer time for working in the forest.

The probit analysis also indicates that the house type (HOUSETYP) can be used as one of the key indicators of the poverty level in the three sample villages. The permanent house indicated that the household staying there lived above the poverty line. By contrast, the poorer households usually stay in the semi-permanent or non-permanent houses. This result will be useful in identifying the poverty level in further research in the sample villages, particularly by rapid rural appraisal.

The above table 6.13 shows that the higher income sharing from forest (FORSHARE) could be not used as an indicator for liberating people from poverty. According to the results of the probit analysis, FORSHARE even has an opposite direction with poverty level (POVLIN). As mentioned previously, the high portion of

income sharing from forest (FORSHARE) is not parallel with absolute benefits received from forest (see the previous figure 6.8 and table 6.12).

6.1.4. Perceptions Toward Implementation of Regional Autonomy

6.1.4.1. Perception Concerning Participation in Forest Management

This research views participation as one of the important factors that should be evaluated in the implementation of regional autonomy particularly in the forestry sector. According to DFID (1999) the various approaches to forest management have underlined the importance of participation as a means of improving equity, effectiveness and sustainability. The challenge is now to identify and operationalise the most appropriate form of participation in any given situation. This research tries to understand whether participation is better after regional autonomy by conducting interviews with various stakeholders at the different levels of government. Table 6.15 shows the perception of stakeholders in the center, province, and regency towards people's participation after regional autonomy.

Table 6.15. Perception Concerning Participation after Regional Autonomy

Perceptions	Tebo Regency (%)	Jambi Province (%)	Central Institution (%)
We find that participation after regional autonomy is better	100	50	75
We find that participation after regional autonomy is the same	0	50	25
We find that participation after regional autonomy is worse	0	0	0

Source: primary data from interviews, n=24 institutions

The above data indicate that most stakeholders perceive that participation in the era of regional autonomy improved. All respondents in the regency perceive that, with regional autonomy, participation is better than before --both in the process of decision-making and controlling tasks of government through the more active role of the people's representatives in DPRD (regency house of representatives). Better participation of local people in the regency development process is also indicated by the involvement of local people in managing natural resources through 100 hectares

logging licenses (IPHH) and large number of sawn-timber industries that mostly belonged to local people. However, half of the interviewed stakeholders in Jambi province perceive that there is no significant difference of participation before and after regional autonomy. Regarding their opinion, not all 'active roles' of people's representatives in DPRD, demonstration, or popular involvement in natural resources management could be categorized as 'true participation' i.e. the participation due to the real needs of people. They hold that instead of the real needs of people, many practices of participation are influenced by a third party, particularly by the socio-economic and political interests of the local elite. Interestingly, although they lose a lot of powers by regional autonomy, most respondents at central level mean that participation is much better in the current situation. According to them, some 'perverse participations' can occur since the people, are just learning to live under a democracy.

It is a difficult task to conduct a high level of participation i.e. degree of citizen control of Arnstein level (see chapter 2) in Indonesia particularly in the research area because of the lack experience concerning citizen control during more than thirty years of centralized system under a new order government. Before Indonesia's regional autonomy most local participation in forest management occurred at the lower levels of Arnstein's ladder (non-participation or degree of tokenism). The head of Tebo regency said that a meaningful role of people in decision-making about forest resources were rare in the past. With regional autonomy large number of authorities in managing forest resources have been devolved to the regions i.e. Tebo regency and even to the forest community (see chapter 2 Arnstein's ladder participation - degrees of citizen power).

DFID (1999) holds that participation in certain program tends to be greater when it can increase employment or other locally valued benefits, the case of IPHH in the research area fits with the statement. Offering opportunity to participate in forest management through IPHH has been supported by most people around the forests because most of them have high dependency of income from forest products especially timber. They seek benefits from the forestry business by participating in logging practices or developing small-scale sawmills. However, participatory approaches such as involving people in formulating the forest management plan of

IPHH for instance tend to symbolic only, i.e. exist on paper, but are not realized in the practice of IPHH. Therefore, popular participation through IPHH cannot improve sustainability of forest management. The damaged forests after logging practices of IPHH on the research site could easily be seen.

6.1.4.2. Perception Concerning Socio-Economic Condition after Regional Autonomy in the Three Sample Villages

Regarding the results of interview, about 59% of respondents in the village Suo-suo perceive that their prosperity after regional autonomy is better than before. In the village Teluk Langkap, 87% respondents perceive increased prosperity and in the village Muara Kilis 75% respondents also believe they are more prosperous after regional autonomy. On average more than 70% of respondents perceive increased prosperity after regional autonomy, while only less than 30% of them feel the opposite situation. The following table 6.16 shows the perception of respondents concerning their prosperity after regional autonomy.

Table 6.16. Regional Autonomy and Prosperity of People in the Three Sample Villages

Perceptions	Villages			Average
	Suo-Suo	Tlk Langkap	Muara Kilis	
We perceive our prosperity is better after regional autonomy	57 (59%)	45 (87%)	38 (75%)	73%
We perceive our prosperity is not better after reg. autonomy	40 (41%)	7 (13%)	13 (25%)	27%

Source: own survey, n=200 respondents (Suo-Suo 97, Tlk Langkap 52, Muara Kilis 51)

The following table 6.17 presents the result of chi-square test about perception of respondents in the three sample villages towards their prosperity after regional autonomy.

Table 6.17. Chi-Square Test about the Perception of Respondents in the Three Sample Villages towards their Prosperity after Regional Autonomy

Values	Observed N	Chi-Square	df	Asymp. Sig
0	60			
1	140			
Total	200	32***	1	0.000

*Source: own survey, n=200, 0=not better, 1=better, *** asymp. significant at 1% level*

The result of the chi-square test shows a significant difference between the both values of the measured variables. It means that generally people in the three sample villages perceive increased prosperity after regional autonomy.

However, it is also important to understand the background of the rest of the people who did not believe they were more prosperous after regional autonomy. Evidences from the household survey in the three sample villages indicated that there are two groups of people who did not gain the economic benefits after regional autonomy:

- First, the old people who could not get any benefits from timber exploitation. According to the household survey, 70% respondents in the age class 4 (older than 50 years), categorized as of an unproductive age with respect to logging activities, perceived that their prosperity after regional autonomy is not better. It may be explained by the fact that their income usually comes only from their small farm, where since the economic crisis, all prices of goods and services increased while their income remained relatively constant. Due to this situation, their purchasing power has decreased.
- Second, the migrant workers in a large-scale forest concession (HPH) 100% perceived that their prosperity after regional autonomy was worse. Since the implementation of regional autonomy, the role of small-scale forestry business operated by local people has shifted significantly the role of large-scale forest concessions. Many forest concessions are collapsing or operating in less than ideal condition.

Compared to the situation at the national level, a recent survey conducted by Kompas (2003) reported that more than 73% of respondents in the regions (outside

Jakarta) think that with regional autonomy the economic situation is better than before such as those presented in the following table 6.18.

Table 6.18. Perceptions about Economic Situation in the Regions After Regional Autonomy

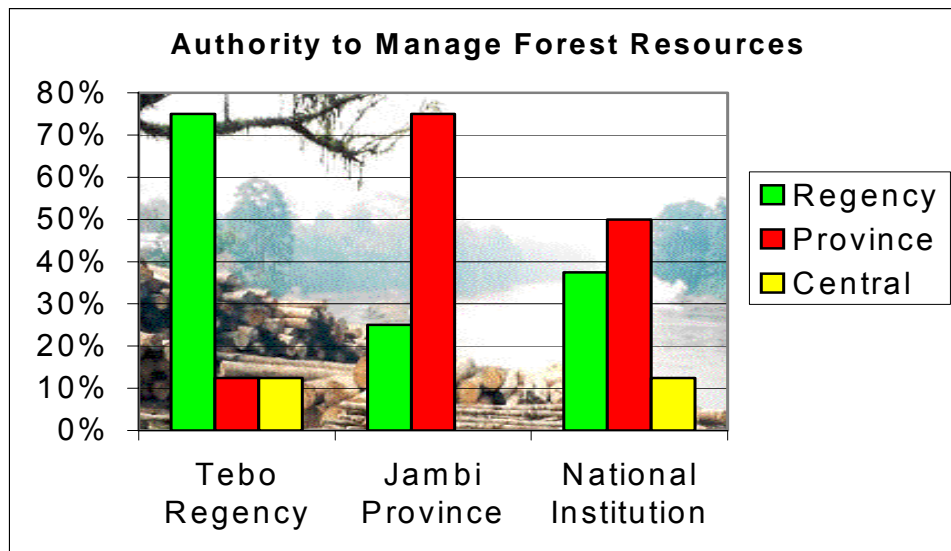
Perceptions	Jakarta (%)	Regions (%)
The economic situation after reg. autonomy is generally better	59	73
No comment	5	4
The economic situation after reg. autonomy is generally worse	36	23

Source: Kompas (2003a)¹³, n=888 respondents

The above table indicates a common phenomenon that after regional autonomy the economic situation in the regions is generally better because of generating greater regional revenue from natural resources utilization as well as increasing investment.

6.1.4.3. Perception Concerning Authority over Forest Management in Jambi

As explained previously, decentralization and its usual accompanying concepts like participation and co-management generally hold prospects for increasing proximity to clients, appreciating local ownership, reducing transaction costs, increasing equity, and enhancing sustainability. According to the interviews (see figure 6.10) most respondents agree that devolving authority over forest management to the region (province or regency) is needed. They argue that adequately managing large forest lands on thousands of islands, such as in Indonesia, by centralized government is nearly impossible because of budgetary constraints, lack of institutional capacity, and local specifics both environmental and socio-cultural. Discourses concerning regional autonomy usually do not discuss the idea of decentralization, i.e. devolving authority to the region, but debate on which level of government and to what kind of authorities it should be devolved (see chapter 5). Figure 6.10 shows perceptions of respondents toward authority to manage forest resources.



Source: primary data, photo: Nurrochmat (2002)

Figure 6.10. Perceptions toward Forest Management Authority

Since the enactment of Regional Governance Law 22/1999 and the renewal of Basic Forestry Law 5/1967 by Forestry Law 41/1999, there has been a fundamental shift in many areas of forestry matters from centralized planning by government agencies to more participatory approaches. It is intended to give more attention to local needs and take into account the interests of local people.

The previous chapter has argued that although containing promising elements, decentralization does not guarantee sustainable forest management. This research shows that decentralization as well as devolution are complex processes and in themselves not sufficient to ensure sustainability. According to the key person interviews, one of the major reasons mentioned in opposition to decentralization is the lack of capacity of the decentralized entities. Devolution has also very serious limitations at the local level, when authority is devolved to the local elite groups or to the 'wrong' people that have only a limited capacity to manage large forest areas. Moreover, it appears that devolution in the research area has been and is implemented in biased way because of financial motivations. In the research area of Tebo regency, devolution in forest management, such as authority to hand out 100 hectares logging licenses or IPHH (see chapter 5), has implied some negative consequences. Practically, IPHH were given to the local elites and could be given in

an unlimited number. The practice of IPHH is uncontrollable since there is no clear limitation number of licenses to be handed out by the regency head. According to the interviews with NGO WARSI and some other key persons, as well as observation in the research area, which holds that the uncontrollable nature of IPHH associated with illegal logging practices, corruption, ambiguity of regulations, and lack of law enforcement resulted in massive forest degradation in Jambi province.

According to the household interviews in the three sample villages of the research site, public opinion towards the implementation of regional autonomy is mostly positive due to more opportunity to utilize their natural resources resulting in more prosperity for local people. However, as was observed in the field, the ambiguity of regulations and absence of law enforcement led to the consequence that natural resource has been treated as an open access property. This situation correspond to Hardin's thesis of the tragedy of the commons, i.e. natural resources will be threatened if they are open access (Hardin 1968).

Actually, most people on the research site have poor environmental awareness, and it is very difficult to revive such awareness since the direct impact of forest degradation does not afflict the people who exploit forests. Flood, for instance, usually inundates a lowland, not in the upland where forest degradation usually occurs. Some reports indicated that the high rate of forest degradation caused big floods in Jambi province (WALHI 2003; Media Indonesia 2003).¹⁴ Although big floods have occurred in many places, the wild exploitation of forests is still continued. Ironically, the interviewed people of the research site said that they are not too worried about floods because of a simple reason, "we stay on the upland while the flood usually occurs in the lowland."

6.2. The Impact of Regional Autonomy on Forest Resources in Jambi

Besides the positive impacts, decentralization in forestry holds a number of perhaps illusory and unkept promises. As explained previously in chapter 2, decentralization is also not immune from capture by personal or group interests and manipulation. Anderson (2000:12) holds that decentralization does not mean that local communities or groups magically have the capacity for sustainable forest

management. Lack of skills, conflicts of interest, increased population, marketization and political change such as regional autonomy can also influence forest management.

The growing practices of illegal logging and larger degraded forests in the research site of Jambi province as well as Tebo regency provide a refutable evidence that removal of central control over natural resources to regional authorities during the process of decentralization led to virtually no control at all, due to the ambiguous and contradictory regulations (see the previous chapter 5.2.1 and box 5.1). Thus, the transition towards decentralization effected a serious problem in some aspects that involved environmental aspects such as forest resources degradation. The following part will discuss a complex phenomenon of illegal logging and forest resource degradation in Indonesia as well as in the research area post decentralization.

6.2.1. Illegal Logging in Indonesia Post Decentralization

Illegal logging became one of the most serious problems after regional autonomy in Indonesia. Illegal logging has a clear impact, forest degradation. However, the term of illegal logging itself has various meanings. Illegal logging defined by Smith (2002) is used to refer to timber harvesting-related activities that are inconsistent with national or sub-national laws. The term could be extended to a broader meaning involving illegal and corrupt practices in the entire ranged activities from wood harvesting and transport, to industrial processing and trade. Illegal cutting of restricted species, or over the allowable limit, or before the concession or license is active are examples of illegal acts. Other types of illegal activities include under-reporting the amount cut, false reporting of the species harvested to avoid higher taxes, the illegal transport of timber, and the poaching of wildlife in areas opened up by timber-cutting. One of the most common causes of illegal logging is corruption that can occur at many levels, from the issuance of licenses and concessions to local law enforcement.

In Indonesia, illegal logging appears to account for a major portion of raw material for wood industries. Illegal timber harvesting is a major threat to global forest resources and has serious negative economic, environmental and social impacts. It is difficult to find exact numbers of illegal logging, but the various illegal and corrupt activities

and their accompanying tax evasion are estimated to cost Rp 83 billions or about US\$ 8 millions per day in foregone government revenues (World Bank 2001a; Gatra 2004). In total, the loss of US\$ 3 billion per year in unpaid taxes and royalties is four times what the government spends on the forestry sector and twice what it spent on subsidized food programs (Baird 2001 *quoted in* Smith 2002; Kompas 2003e). The availability of illegally harvested wood also decreased the profitability of legally harvested timber and the industries that depend upon it.

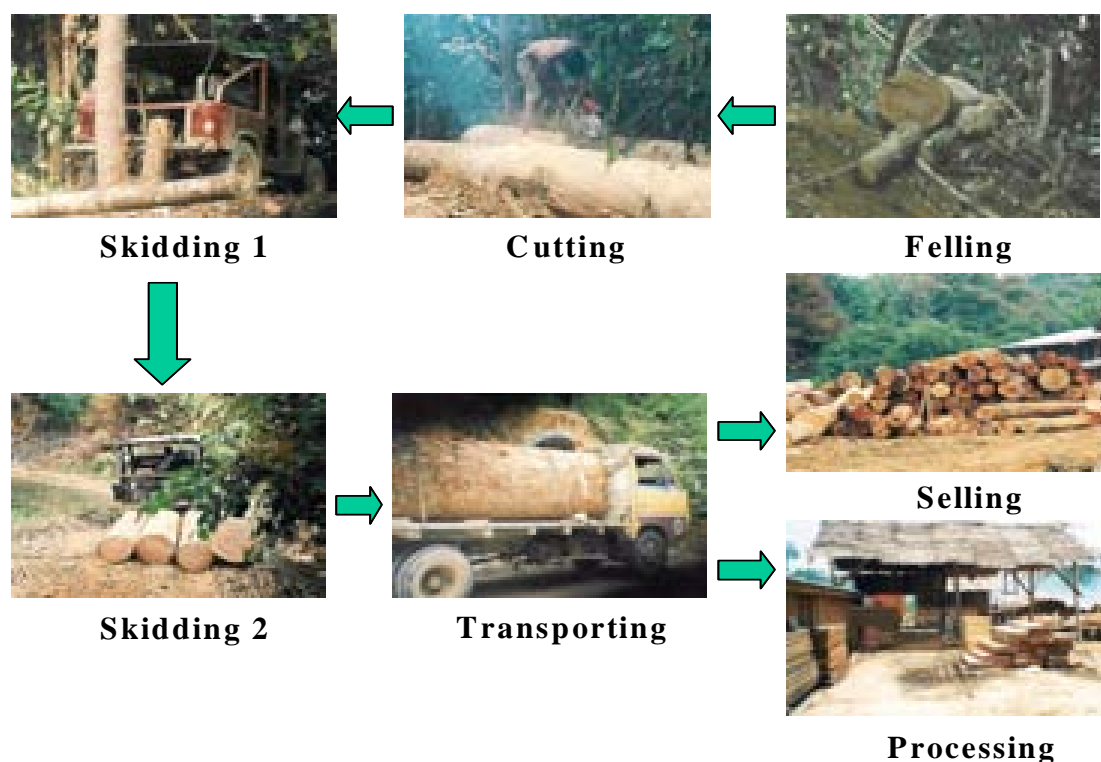
The lack of reliable data is due to the fact that corrupt and illegal activities are conducted in secret and often in remote regions and are therefore inherently difficult to quantify. The interviewed forestry officers in Jakarta and Jambi said that the range of illegal activities that can take place is great, making detection and monitoring difficult and placing a heavy burden on law enforcement agencies, which often lack the necessary capacity. As mentioned previously, due to economics reasons such as maximizing regional budgets, it is not difficult to find a large area of degraded forests in the research site caused by over-exploitation of forest resources involving destruction of protected forest areas. According to WFC (1997) *in* Yeom and Chandrasekharan (2002), besides large destruction in production forests, an estimated 38% of national parks and conservation areas and 46% of protection forests in Indonesia have already been degraded. The ecological fallout of illegal logging is reflected in the erosion of biodiversity and environmental values. In this case of over exploitation of natural resources, regional government tends to get high short-term revenue. The sustainable management, however, is more or less only political rhetoric.

At the level of normative commitments, such as laws, regulations, and official statements, almost all of the suggestions from the World Bank (and other international donors) have been followed by Indonesian government, but the problem of forest resources degradation has remain to be serious. The explanation from Dauvergne (1993) is useful in understanding the phenomena under focus. Dauvergne holds that the causes of deforestation and forest degradation in Indonesia should be seen more comprehensively. Therefore, it is important to use a political explanation to understand the phenomena of deforestation in Indonesia. The process that leads to deforestation in Indonesia cannot be fully understood without

examining how Indonesian politics and the attitudes of decision makers, with support from the international system, shape and drive the various factors which contribute to deforestation. Such an approach might be able to explain why forest degradation is high in Indonesia while at the same time government issues many commitments for sustainable forest management.

6.2.2. Socio-economic and Political Dimensions of Illegal Logging in Tebo Regency

It is not easy to curb illegal logging in Tebo regency. As mentioned previously a rough estimation of the number of illegal logs in Tebo regency is about four times higher than the legal one. Figure 6.11 shows the practices of illegal logging in Jambi province.



Photos: Nurrochmat and Muzakir (2002)

Figure 6.11. Practices of Illegal Logging in Jambi Province

The problem of illegal logging has many dimensions. It is a complex phenomenon related not only to the environment, but also to socio-economic and political aspects (see the previous box 5.3). The following box 6.1 shows that illegal logging is not a

local problem of Jambi but also a serious problem at the national level following the government transition.

Box 6.1. Illegal Logging and Government Transition in Indonesia

Illegal logging is a prominent issue not only in Jambi province (see box 5.1 and 5.3), but also in many Indonesia's regions. EIA (2001) stated, "The sprawling archipelago of Indonesia exemplifies the disastrous impact of rampant illegal logging. With an illegal logging rate far in excess of legitimate log production, a huge processing industry reliant on illicit supplies, and systemic corruption, virtually all the country's remaining forest areas including protected areas have been invaded by loggers".

The Environment Minister Nabiel Makarim said, "At least 75% of the logging is illegal but the weak central government, plagued by graft, is powerless to stop it. "If this goes on for seven or eight years," he said, "we won't have any more forest." ... "Even the country's 376 national parks and conservation areas have fallen victim to the illegal harvest. Nearly every park has been assaulted by chainsaws, officials say, some so severely that they are no longer viable as nature preserves. Much of the illegal logging is carried out by large concerns in cahoots with officials in government and the military. Loggers are usually employed by syndicates that provide the chainsaws and tell them where to log" (Paddock 2004).

The rate of logging has escalated dramatically since President Suharto was forced to step down in 1998. The new central government under B.J. Habibie, Abdurrahman Wahid and Megawati Sukarnoputri has granted greater autonomy to regional officials, and some have opened forests to logging, reaping the profits themselves. "Since we got democracy in 1998, the deforestation has become much faster," the environment minister said. "So people are asking the question, is democracy bad for the environment?" (Paddock 2004)

As presented previously in the box 5.3 an alliance inspection team of police, military and the forestry department named '*Operasi Wanalaga*' took action for fighting illegal logging around and within the Bukit Tiga Puluh National Park in the middle of 2002. The inspection, however, could not be well conducted because of heated opposition and protest from local people. Both parties, the inspection team and illegal logger groups, asked the regency head for serve as the 'mediator' to formulate the solution. The regency head faced a difficult dilemma: disregard illegal logging and lose forest resources or decide to continue combating illegal logging with a consequence that there might be exploding social unrest. He finally decided to stop the inspection to avoid a larger conflict (personal interview with ES¹⁵ 2002). It is clear this decision was made by political calculation. As a political actor, it is logical that the regency head take a safe policy with respect to his constituents, rather than continue to combat illegal logging.

According to the interviewed key persons (Forestry officers and NGOs: WARSI, Gita Buana, YP2M), there are several causes of illegal logging in Indonesia:

- The large expansion of wood processing capacity especially sawmills, established legally and illegally, far exceeds the capacity of the forest to produce wood raw material in a sustainable manner.
- The high profitability and at the same time low risk of illegal operations due to the ambiguities in the laws (misinterpretation, overlapping and even contradictory laws), insufficient staff for crime detection, dereliction of duty and conflict of interest on the part of enforcement staff (see box 5.1), inadequate cooperation among law enforcement agencies, and delays in judicial action.
- Corruption to get personal benefits as well as political interests. In Tebo regency many cases of illegal logging were not judicially processed due to bribery practices of the law enforcement actors (interview with ES, a forester in the base camp close to the Bukit Tiga Puluh National Park).
- Other contributory factors are deficiencies in forest concession management, inefficiencies in wood processing, rural poverty and unemployment, as well as tenurial conflicting land-use policies (see the previous chapter 5).

6.2.3. Forest Resources Degradation in Jambi

Forest resource degradation is one of the most significant consequences of regional autonomy in Jambi. A combination of numerous practices of illegal and legal logging intended to provide raw material for timber industries, and forest conversion into farmland or estate crops, e.g. palm-oil plantation, have degraded the quantity and quality of forests. In Jambi the quantity of forests decreased drastically soon after regional autonomy. Figure 6.12 shows that in 1999 more than 400,000 hectares of Jambi forests disappeared only in a year, mostly by converting forests into other land-uses. Since 1999, conversion forests could not be found anymore in Jambi forest classifications. Furthermore, over-exploitation of Jambi forests continued in the remaining production forests and even in the national parks, e.g. in the year 2000, 2,645 m³ were lost from Kerinci Seblat National Park through illegal logging practices (Balai TNKS *in* Alam Sumatra 2001). The following figure 6.12 shows that the size of Jambi forests sharply decreased from the year 1999 to 2002 and may continue until present.

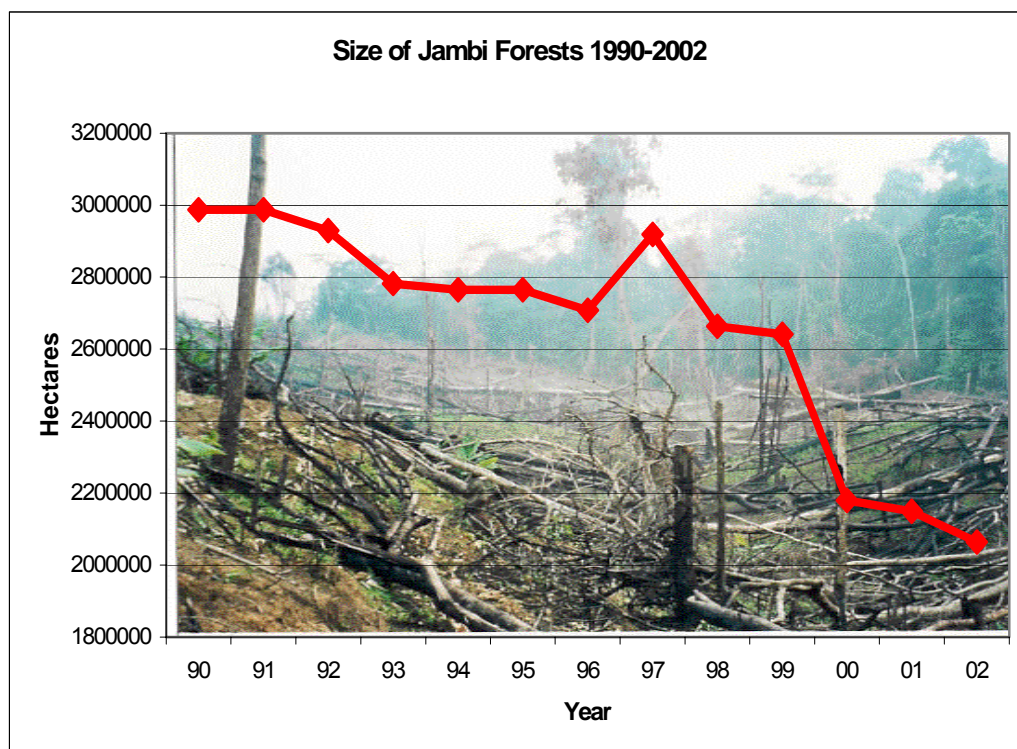


Photo: Nurrochmat (2002)

Figure 6.12. Decreasing Size of Jambi Forests¹⁶

Compared to the situation before the regional autonomy, the annual rate of forest loss in Jambi province sharply increased from 1.29% (1990-1999) to 7.28% (1999-2002). It is estimated that by 2010, the rest of Jambi's forests will be only about 880,000 hectares in the protected and conservation forests. This means that the Jambi production forests will be disappear in the near future, if there is no serious action to combat illegal logging (see appendix 8). The phenomenon of increasing deforestation occurred not only in Jambi, but also in most parts of Indonesia. According to Matthews (2002) the rate of forest loss in Indonesia has been accelerating. On average, about 1 million ha per year were cleared in the 1980s, rising to about 1.7 million ha per year in the first part of the 1990s. Since 1996, deforestation appears to have increased to an average of 2 million ha per year. Indonesia's lowland tropical forests have been entirely cleared in Sulawesi and are predicted to disappear in Sumatra by 2005 and Kalimantan by 2010 if current trends continue. By 2010, Papua is likely to be the only part of Indonesia with any significant areas of undisturbed natural forest. Table 6.19 shows the annual deforestation rate before and after regional autonomy both in Jambi province and in Indonesia. Regarding the data presented in the following table, the current annual deforestation rate in Indonesia is lower than in Jambi province. However, it cannot simply be concluded that the situation in the overall Indonesia is better than in Jambi province. The lower rate of deforestation is not only a reflection of a better condition of forests, but reflect the fact that forests had already degraded.

Table 6.19. Annual Forest Lose Before and After Regional Autonomy

	Annual Forest Lose	
	Past	Current
Jambi Province*	1.29%	7.28%
Indonesia**	1.73%	2.04%

* Data BPS Jambi 2001 and Jambi Forestry Office 2002, own data processing (before and after 1999);

** Matthews 2002 (data before and after 1996)

Besides a decreasing number of forests, the quality of Jambi forests were also degraded. Some parts of Jambi forests are actually not forests anymore. On average, only 57% of the formal forests (named also permanent forests, the area legally stated by the government as forest) are really forested area (factual forests).

The remaining ones, however, have become imperata-lands or grasslands, farmlands, estate crops, roads, and even housing. The following figure 6.13 shows the difference number between formal and factual forest in Jambi province.

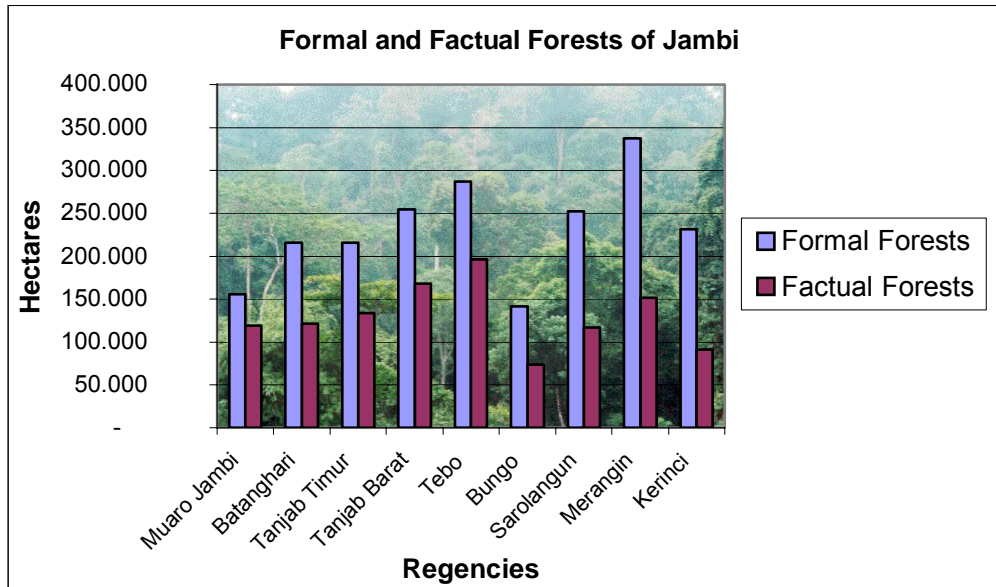


Photo: Nurrochmat (2002)

Figure 6.13. Formal and Factual Forests in Jambi Province ¹⁷

It is interesting to understand why non-forested area can be described as (formal) forests. The argument is not simply to explain, since the changing category of 'forest' is not only a technical matter, but also relates to politic and economic issues. Many interest groups of businessmen, politicians, or local leaders always try to convert the status of forests into other land-used categories. Every year, thousands hectares of formal forests (including non-forested area of the formal forests) in Jambi have been converted into farmlands, settlements, and other land-uses. Foresters, environmentalists, and people who are concerned for the sustainability of forests strongly endeavor to keep the non-forested area (of formal forest) as a forest category. It is a fortification to defend the remaining forests from the 'aggression' of the idea of land-conversion, since the laws cannot prevent the forests from illegal logging, forests encroachments, and other illegal practices in the present situation. By keeping the formal status of those non-forested areas as the forests category, there is a hope to conduct reforestation whenever the social and political situation allows.

6.2.4. Regional Autonomy and Factors Influencing Forest Degradation in Jambi

Forest resource degradation in Jambi is resulted from a complex process involving various agents and is influenced by a number of causes. As a new system, regional autonomy has implied changes for some roles of agents and causes of forest degradation. This chapter will discuss some relevant factors influencing forest degradation and identify which factors affected the process. There are some agents of forest degradation in Indonesia (Matthews 2002:25), most of them are also relevant to factual situation in Jambi:

- Transmigrants
- Forest concession holders
- Illegal loggers
- Oil-palm, pulp and timber plantation developers
- Forest fire setters
- Shifting cultivators
- Developers of mines, road and infrastructure
- Poachers of flora and fauna

Transmigrants.

Indonesia is a large archipelagous country with more than 200 million people. The problem is not only due to the huge number of people, but also unequal dispersion of people because most people live in Java, Madura, and Bali. Therefore, the Indonesian government introduced a transmigration program. This program relocated people from the densely populated islands of Java, Madura, and Bali to the outer islands since the 1960s. Besides official government programs, there is also 'spontaneous' transmigration that is the movement of people looking for greater economic opportunity or who move for other reasons. In Jambi more than 78,000 hectares of forests has been converted into settlements and agricultural lands for transmigrants (Ministry of Forestry 2001). At the national scale, the Ministry of Forestry estimates that the transmigration program was responsible for nearly 2 million hectares of forest clearance. Besides some positive impact in equalizing population density and accelerating better quality of human resources, the

transmigration program also created some negative impacts such as tenurial conflicts and social disharmony between local people and transmigrants, which occurred in some places of Jambi province (see chapter 5), but were not found in the three sample villages of Tebo regency.

Poor performance of forest concession holders.

According to forest function's category (TGHK), more than half of Indonesia's forests are allocated for timber production on a selective felling basis, mostly through forest concessions (HPH). Forest concessions have been operated since 1970s and the practices are generally poorly supervised, resulting in over-exploitation of many production forests. This is the most common argument of the interviewed persons in Tebo regency for opposing HPH. This argument is supported by the data that nearly 30 percent of surveyed forest concessions are degraded forests (Matthews 2002:23). With regional autonomy the number of HPH in Jambi decreased drastically (see the previous figure 5.1) and their role has been replaced by 100 hectares logging licenses (IPHH) that are given by regency heads. In the research area, however, the performance of IPHH was clearly not better, even worse, than HPH because most IPHHs' holders focus only on the short-term benefits and are not able to manage forests in a sustainable way.

Illegal loggers.

With regional autonomy the government of Tebo regency made all efforts to raise the regional income by supporting new investments in the timber industries, mainly sawmills (see figure 6.3). Sawmills' capacity was higher, while on the other hand there was a limited number of logs from sustainable supply ('Annual Allowable Cut' based on the concept of harvesting 'increment'). Illegal logging was the 'solution' to excess demand for logs. As explained previously, illegal logging practices drastically increased in Tebo regency as well as in Jambi province, due to local political and economic interests associated with absence of law enforcement.

Oil-palm, pulp and timber plantation developers.

Oil-palm and other estate crops' plantations are the other important factors that have caused deforestation in Jambi. With regional autonomy, there has been a tendency to convert production forests in Jambi into oil-palm or other crops plantations. This province is one of a number of areas where the newly empowered regional government is pushing for major expansion in palm oil plantations. The governor of Jambi has announced plans to develop a million hectares of oil palm in the province by the year 2005 (Down to Earth 2001).

In Jambi province, about half a million hectares of forests had disappeared by 1999-2000, mostly converted into oil-palm plantations. The conversion of forestlands led to more serious problems, since many plantations' developers did not really develop plantations because they only want to gain benefits from extracting timber through land clearing licenses (IPK). The conversion of forests into oil-palm plantation is not only a local phenomenon, but could be seen also at the national level. Nearly 7 million hectares of Indonesian forests had been approved for conversion to estate crop plantations by the end of 1997 (Matthews 2002:23) and, in total, 30 million hectares of forests are asked to be converted into plantation (Suara Pembaruan 2003). Matthews estimates that only 4 of the 7 million hectares of the cleared forestlands actually were converted to oil-palm or other plantations, while another 3 million hectares of cleared forestlands were lying idle. In Tebo regency, it is difficult to find the exact number of 'the idle land' of the cleared forestlands intended for plantations, but such could be easily seen in many places.

Forest fire setters.

Due to a relatively simple mechanism and low cost operation, fire is commonly used for land preparation of oil-palm or other plantations in Indonesia and is practiced by both large-scale plantation owners and by local communities. Burning practices can lead to uncontrolled wildfires of unprecedented extent and intensity. In Tebo regency, the burned forestlands for plantation are easily found along the roads surrounding Bukit Tiga Puluh National Park.

According to the Minister of Environment, Jambi province is one of the high-risk areas for forest fire by 2003 besides West Kalimantan (Detikcom 2003a). At the national level, Matthews (2002:24) reported that more than 5 million hectares of forest burned in 1994 and another 4.6 million hectares burned in 1997-1998. The increasing number of forest conversion by regional autonomy has also increased the potential for forest fires.

Shifting cultivators.

Shifting cultivation is the other important factor influencing forest degradation in the remote area of Jambi province. Shifting cultivation is a land-use system, in which a tract of land is cultivated until its fertility diminishes, when it is abandoned until it is restored naturally (The Collins English Dictionary 2000). Generally, shifting cultivators are defined as the farmers who undertake cultivation of annual crops on fields in the forest to which they do not have rights, without fixed location. Shifting cultivation could be considered as an early state in the evolution of agricultural systems that are usually practiced by traditional communities.

In Tebo regency particularly surrounding Bukit Tiga Puluh National Park, shifting cultivation is still practiced by tribes of Kubu and Talang Mamak. This practice was sustainable in the past because of low population density. Nowadays due to a higher population, the fallow period is shorter and the sustainable shifting cultivation is difficult to practice. In the current situation, shifting cultivation encompasses more than just subsistence or food crops like cassava or paddy-rice but also other commercial plantations such as coffee or rubber. Logging activities, both legal and illegally, have been facilitating entry and clearing by shifting cultivators. Therefore since the rate of illegal logging is higher, the practices of shifting cultivation will be also higher with regional autonomy.

Developers of mines, road and infrastructure.

Conflicts of interest between mining companies and those fighting for sustainable development and the environment were the subjects of heated discussions at the

House of Representative and several ministries in the middle of 2003. The conflict was caused by the mining industry that was pushing the government to grant exemptions to Forestry Law 41/1999, which prohibits opencast mining in protected forests. The mining companies, which had made huge investments, protested the Forestry Law and subsequent decisions as they ran contrary to the contracts they had signed with the government. A ministerial meeting at the office of the Coordinating Minister for Economic Affairs reportedly approved the plan to allow 15 mining companies to resume operating in protected-forest areas (Kalmirah and O'Neill 2003; Mariani and Witoelar 2003). The influence of the new mining policy on the protected forests in Jambi in the current situation cannot be easily known, but since this province has large protected forests, then the problem will potentially arise. The regional government of Jambi has less influence in mining matters because most policies on mining are made by the central government.

During field research, mining activity in the protected forest was not (yet) found. However, roads and bridges could be found in the protected forests and even in the Bukit Tiga Puluh National Park. These roads improved access for illegal loggers to conduct their activities. Although the main road to the Bukit Tiga Puluh National Park has been closed by the forestry department, the practice of illegal logging surrounding and within the national park are still continued (interview with NGO WARSI and field observation).

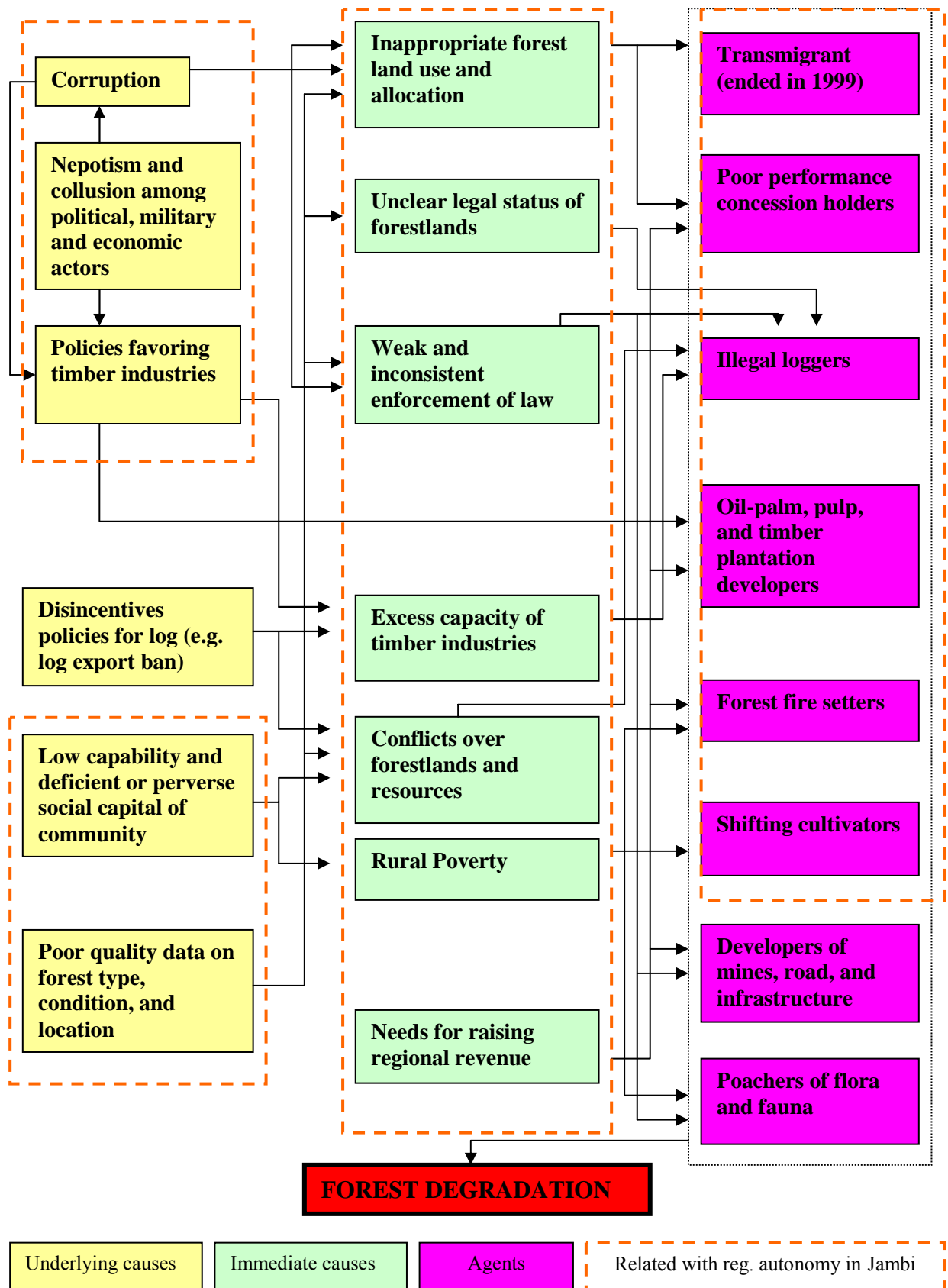
Poachers of flora and fauna.

Poaching of flora and fauna can decrease biodiversity and could also degrade the habitat of flora and fauna in Jambi. In Tebo regency, poaching activities are practiced by traditional tribes of Kubu and Talang Mamak living in and around the Bukit Tiga Puluh National Park for several reasons such as for customs, for traditional medicine, or for generating income. Illegal poaching and trading of endangered species could threaten biodiversity, but unfortunately there is no reliable data about the scale of forest's disturbance caused by illegal poaching in Jambi as well as in Tebo regency. According to the interview poaching has been conducted by traditional communities for long time and is not influenced by regional autonomy.

As was discussed in the previous chapter, regional autonomy can be seen as a large system that accelerates the intensity of deforestation and increases the extent of degraded forestlands particularly due to the ambiguity of regulations, absence of law enforcement, low capability of human and instrumental resources, lack of inter-governmental coordination, and local political and economic interests. Adopting the approach given by Matthews (2002:25), there are many immediate causes of forest degradation and deforestation in Jambi, such as inappropriate forest land use and allocation, unclear legal status of forestlands, weak and inconsistent law enforcement, excess capacity of timber industries, conflict over forest resources and lands, rural poverty, and needs for raising regional income.

Those immediate causes associated with the underlying causes such as practices of corruption, collusion and nepotism, inappropriate forestry policies, poor quality data, and low capability of human resources as well as low (or perverse) social capital accelerated the process of forest resources degradation and deforestation.

Figure 6.14 describes the relation between agents and causes (immediate and underlying) in a complex process of forest resource degradation and deforestation in Indonesia.



Source: adopted from Matthews (2002:25), reinterpreted by the author.

Figure 6.14. Causes and Agents of Forest Degradation in Jambi

As described in the figure 6.14, although it is often difficult to prove, corruption, collusion, and nepotism are among of the most important underlying causes of deforestation in Jambi. The process that leads to deforestation in Jambi as well as in Tebo regency cannot be fully understood without examining how local politics and the attitudes of decision makers contribute to deforestation (see box 5.3). Deforestation in the research area is largely the result of a corrupt political and economic system, with policies that favor IPHH and sawmills that regard natural resources as a source of revenue to be exploited for political ends and personal gain. Formation of perverse social capital, i.e. illegal logging network, and its transformation into political capital such as the village people's demonstration supporting illegal logging and the near absence of actions to combat illegal logging, are evidences of how the corrupt political and economic system has influenced deforestation in the research site. Besides those causes, poor-quality data on forests is also an important underlying causes accelerating deforestation.

Policy on the log export ban in the mid 1980s is the other important reason for growing large-scale timber industries, particularly plywood industries. This policy has caused greater excess demand for logs because the capacity of the timber industry is much higher than the sustainable supply of logs. The log export ban is a central policy; therefore, this policy affects not only the research area but also the national as a whole.

NOTES:

¹ The author divides the situation before regional autonomy into two periods, i.e. before and after the Indonesian economic crisis, to give a better description of the poverty rate over the periods. Data of poverty rate in Indonesia may differ from one report to another depending on the raw data sources and method used.

² Per Capita Income of people in the forest villages were collected by own survey (2002) in the three villages of Suo-suo, Teluk Langkap, and Muara Kilis (n=200). Data of Per Capita Income in Tebo regency is taken from families categorized below minimum prosperity (BPS Bungo-Tebo 2001). Data of Per Capita Income in Indonesia is based on the report of the World Bank (2001). The last data from BPS (2003) reported that the poverty rate in Indonesia has decreased to 17.4% and in Jambi 12.7%.

³ Sajogjo's poverty line concept is a scientific method to measure poverty in Indonesia. People are categorized 'under poverty line' if their per capita income is less than the amount of 320 kg rice equivalent.

⁴ Personal interview with forestry officer and sawmill owner in Tebo, related regulation: GR 25/2000, GR 34/2002, Minister of Industry and Trade Decree 590/1999, Minister of Forestry Decree 6884/2002.

⁵ Data 1996-2000 were taken from Alam Sumatra (2001) and the recent data from Disperindagkop Tebo (2002); own data processing.

⁶ Own estimation based on capacity of timber industries (Disperindagkop Tebo 2002) and data of logs production and regional taxes (Tebo Forestry Office 2002).

⁷ WARSI is a conservationist NGOs' networks in Sumatra, data were collected by personal interview in the year of 2002 with Mr. Rudi Syaf, Executive Director of WARSI

⁸ Faculty of Forestry IPB (1997) estimated that in 1995 there were deficits of 24.3 million m³ of logs since the log's demand based on the total capacity of wood industries was 54 million m³ while the legal log's supply from HPH (Forest Concessions) and IPK (Timber Harvesting License) was only 29.7 million m³. Assuming that there were no other alternatives of log's supply, it may be estimated that the deficit of logs (45%) was coming from illegal sources. Down to Earth (1999) estimated a lower rate for illegal logs. According to a study conducted in 1997-1998 by the Indonesia-UK Tropical Forests Management Programme (ITFMP), there was a 32.6 million m³ gap between legal log production totals (51.5 million m³) and demand from the wood processing industry (84.1 million m³). This shortfall of 32.6 million m³ (39%) can only be met by illegal logging.

⁹ There are some estimaties concerning the rate of illegal logging in Indonesia post decentralization. Matthews (2002:36) calculated that Indonesia's total legal log supply in 2000 was about 20 million m³. However, demand from timber industries was 55-60 million m³; thus the excess demand was met by 35-40 million m³ illegal logs. Illegal logging accounted for about 65% of Indonesia's total logs supply. Schroeder-Wildberg and Carius (2004:8) estimated that 73% of the total of timber production in Indonesia is considered illegal. Financial losses of illegal logging and illegal trade are estimated up to US\$ 3.7 billion annually. The highest estimation of the rate of Indonesia's illegal logging stated by The Minister of Environment Nabel Makarim. He estimated that at least 75% of the logging is illegal (Paddock 2004).

¹⁰ Own estimation, processed using the data collected from Disperindagkop Tebo and Tebo Forestry Office.

¹¹ Data taken from the World Development Indicators, the percentage share of income or consumption.

¹² Pak WP said that since regional autonomy his prosperity has been better. His two sons participated in logging activities and since also have had two lines of sawmills besides pak WP's house for over a year. From the benefits of timber business, pak WP's sons could buy two logging trucks. Besides supporting their logging activities, both logging trucks were also rented to generate more income. Pak WP's familiy has also a '*warung*' -small outlet sells daily needs and foods. The strategy to diversify income sources by investing some benefits from timber activities likes pak WP's family was also found during my visit in the forest village.

¹³ Data collected at December 2002 with random sampling in Jakarta and other cities that are Yogyakarta, Surabaya, Medan, Palembang, Samarinda, Manado and Makassar (Kompas 2003c).

¹⁴ Floods in Sumatra are caused by high rate of deforestation (WALHI 2003; Media Indonesia 2003).

¹⁵ Mr. ES is a camp manager of a forest concession near the boundary of Bukit Tigapuluh National Park. During the field research in 2002, he shared some ideas and valuable information concerning recent forest management, resources condition, social conflicts, and local political dynamics to the author.

¹⁶ Data taken from BPS Jambi (2002) dan Jambi Forestry Office (2002), own further data processing.

¹⁷ Data adopted from 'the forest area database' of Jambi Forestry Office (2002), own further data processing.

7. Discussions and Confirmation of Hypotheses

7.1. Discussions

This chapter is divided into two sections. The first section will discuss the strengths, weaknesses, opportunities, and threats of regional autonomy in Jambi. It will also discuss the findings of the research in terms of the overall aspects that were presented in chapters 5 and 6, within the context of a certain political framework (chapter 3) related to the theoretical concepts given in the chapter 2. The second section of this chapter will discuss whether the findings of this research confirm the hypotheses (chapter 2).

7.1.1. Strengths, Weaknesses, Opportunities, and Threats of Regional Autonomy in Jambi

Regional autonomy presents huge opportunities and has a number of strengths, even as it, at the same time, poses some threats and has various weaknesses.

As with the theoretical explanation in chapter 4, carrying out the analysis using the Strength, Weakness, Opportunity, and Threat (SWOT) framework helps the decision maker to formulate a better policy, and it may also help in finding the greatest opportunities to implement an optimal and effective policy.

The following table 7.1 indicates some strengths, weaknesses, opportunities and threats of regional autonomy in the case of Jambi province.

Table 7.1. SWOT Analysis of Regional Autonomy in Jambi Province

<u>Strength</u>	<u>Opportunity</u>
<ul style="list-style-type: none">▪ Follows the spirit of reform and sense of fairness.▪ Fulfills the popular demand of the most regions.▪ Is supported by the majority of stakeholders.▪ Has a strong legal basis.	<ul style="list-style-type: none">▪ Strong sense of belonging towards their own resources on the part of local government and people.▪ Easier for people to participate in the decision-making process.▪ Offers more powerful tool to improve public service delivery.▪ More transparent and more accountable governance.
<u>Weakness</u>	<u>Threat</u>
<ul style="list-style-type: none">▪ Lack of coordination between central, province and regency governments.▪ Lack of technical guidance and ambiguity of some regulations.▪ Low quality and quantity of human resources in most regions.▪ Regional egoism and sectoral egoism.	<ul style="list-style-type: none">▪ Over-exploitation of natural resources due to a higher regional budget.▪ Devolution to the 'wrong people'▪ Corruption, collusion, and nepotism at the regency.▪ Political instability vertically and/or horizontally.

Source: own representation

Strengths.

Regional autonomy is one of the most important products of political reform, which fulfills popular demand and follows a sense of fairness. In Jambi, and particularly in Tebo regency, regional autonomy has a steady position in the political arena since it has a strong legal basis and is supported by regional government and the people (see chapter 3). These strengths form an important basis for implementing regional autonomy effectively.

Weaknesses.

Interviews and field observation show that regional autonomy contains some weaknesses such as lack of coordination between central government and regions, as well as among regions, and high regional egoisms (see appendix 4). Absence of some technical guidance, ambiguity and sometimes also contradictory regulations

are serious weaknesses in the early steps of regional autonomy in Jambi. Moreover, limited quantity of qualified human resources is also a serious problem in Tebo regency. To implement regional autonomy effectively, all efforts to cope with those weaknesses are a must.

Opportunities.

Summarizing the result of interviews, regional autonomy offers a number of opportunities for a better system than centralized government because of several reasons. First, local government and people have a strong sense of belonging towards their own resources; second, people can participate more easily in the decision-making process; and third, regional autonomy offers more powerful tool to improve public service delivery (see appendix 4-6). Moreover, regional autonomy also holds promise for a more transparent and more accountable governance of Tebo regency. However, those opportunities will afford advantages if and only if government and people develop a common understanding to achieve long-term development objectives.

Threats.

Interviews and field observation find that rising problems of corruption, collusion and nepotism in the regions are the consequence of shifting authorities from the central government to the regions. As is easily seen in the research site, environmental degradation is another serious threat of regional autonomy because of over-exploitation for increasing regional revenue and absence of law enforcement. Regional autonomy can also create bias when certain authorities, for instance forest utilization, devolved to the inappropriate entities such as local elites or capital owners through regional policies favoring IPHH and sawmills in Tebo regency. Sometimes decentralization policies such as regional autonomy threaten national interests and create political instability because of disagreement and lack of consensus among various stakeholders. When not favourable to local interests, some central policies were refused in Jambi province as well as in Tebo regency (see chapter 5). Furthermore, according to the interviews and observation in the research site, there

are a number of problems facing the implementation of regional autonomy at the operational stage:

- Redeployment of staff and the sharing of assets, roles and responsibilities from central government to Jambi province and then Tebo regency.
- Contracts, concessions and other activities spreading over several regencies, e.g. conflict of borders and authorities between the regency of Tebo and Bungo, or between provinces, e.g. management of Bukit Tiga Puluh National Park between the province of Jambi and Riau.
- Investment in forest plantations in Tebo regency, particularly related to the authority to allocate forestlands and to permission for timber utilization right (IPK) from clear-cutting activities.
- The settling of land claims and tenurial disputes in Jambi province (see chapter 5).
- Responsibility for curtailing illegal logging in Tebo regency (see previous box 5.1 and 5.3).

7.1.2. Findings Concerning Overall Aspects of Regional Autonomy in Jambi

As ‘big bang’ decentralization¹, regional autonomy has large consequences for the various aspects of governance in Jambi province as well as in Tebo regency. This part discusses the impacts of regional autonomy on the some aspects of governance:

- regional income,
- social aspects,
- bureaucracy,
- law,
- natural resources, and
- public accountability.

The following table 7.2 describes the empirical situation in Jambi province particularly in Tebo regency, after regional autonomy.

Table 7.2. Empirical Situation after Regional Autonomy in Jambi

No.	Indicators	Situation
1.	Regional income a. Regency Original Income (PAD) b. Regency Budget (APBD) c. Per Capita Income (PCI)	better better better
2.	Social a. Prosperity of people b. Income disparity c. Social conflict	better worse worse
3.	Bureaucracy a. Public administrative service b. Public infrastructure inter-regions c. Coordination among governances	better worse worse
4.	Law a. Consistency of law b. Law enforcement c. Internalization	worse worse worse
5.	Natural resources a. Access of local people to natural resources b. Natural resources degradation c. Conflict over natural resources	better worse worse
6.	Public accountability a. Participation b. Transparency c. Corruption, collusion, nepotism	better better worse

Source: own representation

Regional income.

Regarding regional income, evidence from the research area indicated in chapter 6 shows that regional autonomy has positive impacts on some income indicators involved with regency original income (PAD), regency budget (APBD) and Per Capita Income (PCI). The findings follow the theory mentioned in chapter 2, such as the one coined by Ribot (2002:5) that with decentralization economic and managerial efficiency is believed to increase. The relevant factor that fits with the finding is that decentralization benefits from local resources and can contribute to local development by providing local communities with material and revenues.

Social aspects.

According to chapter 6, most respondents perceive that their prosperity improved with regional autonomy. However, larger income disparities became a serious problem following the implementation of regional autonomy. Compared to the theoretical concept in chapter 2 that decentralization is key for equity, justice, and efficiency (Ribot 2002:3), the finding suggests in the opposite. However, the finding could be better understood using the explanation given by Agrarwal and Ostrom (1999:13) that development has always been a multi-faceted goal, which sometimes pits goods such as growth and equity against each other.

Some evidence in the research area also indicated that soon after regional autonomy, social conflicts, both vertical (people and government) and horizontal (among people) had arisen (see chapter 5). The finding follows the argument (Fisher *et al* 2000:viii) that the political dynamics and conflicts of interest concerning decentralization occurred because there was much disagreement as to whether natural resources should be handed over to the lower authority and to which entity. Furthermore Hussein and Montagu (2000) hold that frequent changes in the government system like transition from centralization to decentralization cause political instability, such as hostility the bureaucracy to local levels, problems in budget allocation, and crises of confidence in public sector institutions.

Bureaucracy.

Regional autonomy has improved some aspects of bureaucracy such as public administrative services. Most respondents expressed their satisfaction with the closer and better information access of some public services. Following the theoretical concept in chapter 2, devolution involves the transfer of authorities from the central government to the local government or local user, and is concerned with the distribution of power, resources, and administrative capacities (Agrarwal and Ostrom 1999:13). This means that regional autonomy as a format devolution has shifted the public services closer to the people.

However, most respondents complain about worse public infrastructures such as roads and bridges after regional autonomy especially in the remote area or surrounding the regency border. This finding corresponds to Gunning (2003:21-22) that one of the negative consequences for the (more) democratic system in the regency is inefficient of bureaucracy. He holds that sometimes a democracy is not efficient for many reasons. One of those reasons is that "...the elected officials often have an incentive to act against the electorate either by shirking their duties or by outright fraud and corruption."

The following figure 7.1 shows some examples of the poor conditions of roads and bridges in the remote area of Jambi province.



Photos: Nurrochmat (2002)

Figure 7.1. Poor Conditions of Public Infrastructures in the Research Area

The facts also show that during the era of centralized governance, regions had very limited authorities because almost all tasks of regional offices were conducted in the frame of deconcentration duties. Because of the centralized government's setting, usually the regional governments such as Tebo regency had poor government facilities. Therefore, with regional autonomy there is evidence that the regional government of Tebo regency tended to prioritize government facilities such as new office buildings and vehicles rather than develop or maintain public infrastructures in the remote areas. Some respondents also said that regional autonomy causes a lack of coordination among regencies, between regencies and province, and between regency and central government (see chapter 5). The finding does not follow the theoretical concept coined by Ribot (2002:5) that "decentralization is believed to increase effectiveness of coordination and flexibility among administrative agencies..." This research found that relation among neighboring regions of Tebo were worse during regional autonomy due to socio-economic or political interests such as border conflicts².

Law.

Regional autonomy has had some negative impacts such as inconsistency of laws, absence of law enforcement and lack of internalization. As explained before, with

regional autonomy there are some ambiguities and inconsistencies between central and regional regulations. Krott and Bloetzer give an interesting explanation of such phenomenon (Krott 1999:187). They hold that most of the regional plans are formulated in a very general or even contradictory manner. A political reason for weak goal-setting is well-known: the simple fact that powerful users of forestlands are strongly opposed to binding decisions in public plans because they can fulfill their user interests best without additional regulations.

Since the implementation of regional autonomy, many new regulations have been produced. However, with regional autonomy people do not understand some of the new regulations because of poor internalization. Furthermore, ambiguity of laws associated with lack of personnel and corruption practices caused absence of law enforcement. Le Billon (2000:798) explains such phenomena by noting that in the transition countries, political instability could result from the individual actors' maneuvers to improve their position in an unstable political environment characterized by a breakdown of law, institutions and even customary rules of social behaviour.

Natural resources.

Regional autonomy gives better opportunity for local people in Jambi to manage their natural resources. However, in Jambi province as well as in Tebo regency, natural resources degraded faster after regional autonomy due to over-exploitation. The situation after regional autonomy indicates that there are more conflicts over natural resources. In Jambi province, tenurial conflicts have occurred in some places between local people and migrants or companies (see chapter 5). Authority over natural resources has also triggered conflicts among two or more regencies, e.g. border conflicts between the regency of Tebo and Bungo. The finding fits the explanation given by McCarty (2000:121) and Matthews (2002:xii) that following Indonesia's regional autonomy, a combination of the existence of property claims, competing authority systems (between center and region and among regions) and short-term interest in generating income caused the conservation policies to be ineffective.

Public accountability.

There is evidence that with regional autonomy people's participation in the decision-making process and in managing natural resources is better than before (see the previous chapter 5). Most respondents also feel that regional autonomy increased transparency of governance. This finding follows the theoretical concept held by Ribot (2002:5) that "...by bringing public decision making closer to the citizenry, decentralization is believed to increase public-sector accountability and therefore effectiveness". However, regional autonomy actually could not decrease the practices of corruption, collusion, and nepotism. Many people said that with regional autonomy corruption, collusion, and nepotism are the same as before and even worse³. The research findings of increasing public accountability but also simultaneously increasing corruption seem contradictory. However, it may be understood by considering the fact that following regional autonomy, law enforcement was very weak and even absent in the research area. Explanation given by Le Billon (2000:798) is that in the transition countries, such Indonesia, it offers more possibility for political actors to break the law to achieve their personal interests. Furthermore, correspond to Gunning (2003:21-22), democracy without law enforcement often increases corruption practices in government officials.

7.2. Confirmation of Hypotheses

This section compares the research's findings and the hypotheses stated in chapter 2 and discusses whether the findings confirm the hypotheses.

Hypothesis 1. Regional autonomy will create better public administrative services in the region but cause more political instability, particularly concerning forest management

Regional autonomy is one part of the political reform agenda that are insisted on regions. A number of government authorities have shifted from the central government to the regions has led to more transparent and effective regional administrative services (see the previous table 7.2, no. 3a and 5b). Moreover, Fiscal Balance Law 25/1999 has given the regions a greater portion of financial sharing from the benefits of natural resources utilization and has effected higher regional

budgets (table 7.2, 1b). However, regional autonomy also created regional egoism, which led to poor coordination between the central government and regions (province and regencies) and among regions (table 7.2, 3c) that led to, for instance, the poor condition of public infrastructures between regions (table 7.2, 3b). Regional autonomy has also inspired the regions to produce many regional regulations, many of which did not confirm to higher laws. It caused not only difficulties in law internalization, but also created ambiguity of law, poor law enforcement and even larger social conflict (table 7.2, 2c and 4a,b,c). Therefore, these findings confirm the first hypothesis that regional autonomy will create better public administrative services in the region but cause more political instability.

Hypothesis 2. Regional autonomy will increase regional income but create larger income disparities both among regencies and within forest village communities.

It is an indisputable fact that with regional autonomy regency original income, per capita income, and the prosperity of people in the research site are better than before (table 7.2, 1a,c and 2a). Income disparity among the regencies is relatively stable, but the disparity among the people within the three sample villages tended to be worse (table 7.2, 2b). These findings confirm the second hypothesis, where regional autonomy will increase regional income but create larger income disparities within forest village communities. However, the stable value of the Gini Coefficient of the GDRP among the regencies shows that the second hypothesis, particularly the larger income disparity among the regencies in Jambi after regional autonomy, is not confirmed (compare Tadjoeeddin *et al* 2001).

Hypothesis 3. Regional autonomy will give more opportunity for local people to manage and utilize forest resources.

With regional autonomy a number of authorities in the forestry sector have been devolved to the regions i.e. authority to hand-out small scale logging licenses (IPHH) and to give permission to build new sawn timber industries (sawmills). Local people have wide access to manage forest resources through IPHH and get more benefits by operating and further processing timber as at a sawmill. Most of the IPHHs and

sawmills are operated by local people. Moreover, the regional government of Tebo reGENCY holds significant authority in managing the forests and people through their representatives in the local parliament could participate actively in the decision making process. Therefore, the third hypothesis that regional autonomy will give more opportunity for local people to manage and utilize forest resources is confirmed with the factual situation in the research site (see table 7.2, 5a).

Hypothesis 4. Regional autonomy will reduce forest degradation due to the greater responsibility of regional governments as well as local people towards the sustainability of their own forest resources.

Regional autonomy shifted a huge amount of authority to the regions and offered a larger opportunity for local people to participate in managing forest resources (table 7.2, 6a). It should have increase a sense of belonging and responsibility of both local government and people for the sustainability of their own forest resources. The research findings, however, do not confirm the fourth hypothesis that regional autonomy will reduce forest degradation due to a greater responsibility of regional government as well as local people. Facts in the research area show that the higher 'sense of belonging' to their forest resources was not automatically parallel with the stronger responsibility of both regional government and local people in managing forest resources sustainably.

Conversely, instead of a long-term orientation, the 'sense of belonging' was dominated by a short-term orientation, characterized by a regional, local or personal 'egoism' aimed at generating as high as a regional income as possible or at increasing per capita income. The 'sense of belonging' also created high tension in the struggle for control over natural resources among regions and among people (table 7.2, 5c). These situations, combined with corruption, collusion and nepotism in the region (table 7.2, 6c) effected massive forest degradation (table 7.2, 5b).

NOTES:

¹ GTZ called regional autonomy in Indonesia 'big bang decentralization'. Some major findings of the preliminary results of the survey conducted by Directorate General for Regional Autonomy are, first, that money-politics has a strong influence in the election process of regional heads. Second, sector departments tend to by-pass the Governor as a representative of the central government and work directly with the technical agencies at the provinces and regencies. Third, there is a tendency to formulate new regional regulations with the intention to increase revenue without considering higher-level regulations. Fourth, personnel management tends to become exclusive primordialism (local ethnic egoism). Fifth, the eseloneering of regional government positions is regarded as problematic due to the increase of eselon II positions. Fifth, only a small portion of the regional revenue is used to finance public services (Decentralisation News 2003).

² According to the interviewed keyperson in Bappeda Jambi, the Land-Use Planning of Jambi Province (RTRWP Jambi) cannot be executed due to some border conflicts among some regencies. In the research site, the border conflicts occurred between Tebo regency and Bungo regency. Previously Bungo and Tebo were one regency named the regency of Bungo-Tebo. In 1999 the regency was fragmented into two regencies i.e. Bungo regency and Tebo regency. In fact, the fragmentation of the regency is not simple. When this research was conducted at the end of 2002, the border conflicts between both regencies still existed, due to the struggle for authority over some natural resource area.

³ Kompas (2003a) reported that 50.2% of respondents (n=888) said that after regional autonomy corruption, collusion and nepotism are still bad and even worse.

8. Conclusion and Policy Recommendation

8.1. Conclusion

Regional autonomy is one of the most important items of the political reform agenda, which influences natural resources as well as forest resource management. Regional autonomy is a 'big bang' decentralization, which occurs in an instant and provides the region with wide authority over almost all governance matters, except defense and security, foreign affairs, fiscal and monetary policies, judicature, religion, and some other strategic policies.

This research analyzed both normative and positive aspects of regional autonomy in order to evaluate the impacts of regional autonomy on political dynamics, socio-economics, and forest resources degradation in the case of Jambi province. As a normative consideration, regional autonomy is recognized as improving information flow and making decision more efficient. However, Indonesia's regional autonomy is not really animated by the consciousness of central government on the normative advantages of decentralization and linked more closely to the result of positive conditions rather than to normative considerations. Due to a short preparation for a huge transfer of authority, it is not surprising that many 'holes' are found in operationalizing this policy because Regional Autonomy Law was enacted without complete technical guidance. The regulative instruments following Regional Autonomy Law such as government regulations, minister decrees, as well as regional regulations were often overlapping or even contradiction.

As a newly introduced system, regional autonomy has changed many practices of governance, including the relation between the central government and the regions, as well as the relation among the regions. In the research area of Jambi, the changing system has affected the political and social dynamics both in the government and community. At the government level, the new system has created

some incompatibilities between central and regional policies. Related to the forestry sector, the regional government of Jambi province and all regencies within the province rejected the central policy concerning the cancellation of regional government authority to give out permission for small scale logging licenses (IPHH). The regional regulation on IPHH superseded the central regulation. However, province and regency government do not always have the same meaning in responding to central regulation. Government Regulation on Forest Arrangement for instance, was refused in Tebo regency but fully accepted by the government of Jambi province.

Regional autonomy influences not only the dynamics of government relations, but also changes the dynamics of community. Greater community participation both in controlling government policies and in the decision-making process is a positive impact of regional autonomy. Conversely, regional autonomy has also contributed to larger social conflicts in Jambi province. Greater intensity of conflicts between forest concessions, estate plantations, or transmigrant and local communities as well as among local communities can be noted as a negative impact of the regional autonomy in Jambi.

Strengthened political capital of the local community is the other impact of regional autonomy in Jambi and has both positive and negative sides. The positive impact is the larger access of local community to their own natural resources. However, it has also created a negative side, such as perverse social and political capital of the illegal logging networks found in the research site.

Regional autonomy has also influenced the socio-economics of Jambi due to the greater authority of the local government to generate more income. Original Regional Income (PAD) of Tebo regency increased 128% after regional autonomy. The Regional Budget (APBD) of the regency also increased about 73% in 2002. Per Capita Income (PCI) is also growing about 12% annually. This means that generally the economic growth of Tebo regency improved after regional autonomy.

Regional autonomy does not influence significantly the income distribution among regencies in Jambi. The value of the Gini Coefficient of Gross Domestic Regional Product (GDRP) among regencies is relatively constant before and after regional

autonomy. It may be said that in terms of government level, regional autonomy does not cause a larger income disparity. However, the result is different at the community level. In the three sample villages, the income disparity between the richest and the poorest household is very high – the income of the richest is 330 times higher than that of the poorest. The average value of the Gini Coefficient of those villages is 0.47 and means that the income disparity is worse compared to the disparity at the national level, which is only 0.32.

An increasing number of timber industries particularly sawmills, in Tebo regency from only 12 units in 1998 to more than 100 units in 2002 is also a result of regional autonomy. The greater investment in timber industries accelerated the economic growth of the regency. However, the increasing number of timber industries also caused the number of illegal logging to spiral upward. It is estimated that 81% of logs in Tebo regency and more than 70% of logs in Jambi province come from illegal sources. Due to widespread practice of illegal logging, it is estimated that Tebo regency loses nearly US\$ 3.3 million in revenue annually.

A combination of high-rate logging, both legal and illegal, absence of law enforcement, and lack of political will of the local government for long-term development resulted larger and faster deforestation in Jambi. The annual rate of forest loss in Jambi sharply increased from 1.29% before regional autonomy to 7.28% after regional autonomy. The quality of Jambi forests was also highly degraded, where only 57% of the formal forests are actually forested area. The remaining ones became grasslands, farmlands, estate crops, roads, or housing, among other things.

Finally, it may be said summary that, in general, regional autonomy in Jambi improved some aspects, such as Original Regional Income (PAD), Regional Budget (APBD), Per Capita Income (PCI), the prosperity of people, public administrative service, access of local people to natural resources, participation and transparency. However, some other aspects, such as income disparity, social conflict, public infrastructure between regions, coordination among governances, consistency of laws, law enforcement, internalization, natural resources degradation, conflict over natural resources as well as corruption, collusion and nepotism, are worse after regional autonomy.

8.2. Policy Recommendation

A newly introduced governance system such as regional autonomy needs integrated planning and should consider gradual implementation. However, it would be very difficult to revise or implement the present regional autonomy gradually because it would cause a massive and heated protest from regional governments as well as from most people. Therefore, the second best plan is set forth as follows:

1. Completing and reordering regulative instruments concerning regional autonomy.

Completing regulative instruments is the first and the most important step to implementing regional autonomy more effectively. Besides producing complementary regulations as well as technical guidance, this step also involves 'reordering' regulations. Reordering regulations could begin with making an inventory of all regional regulations, and then adjusting them to the higher laws. It is not an easy task since thousands of regional regulations have been produced in the provinces as well in the regencies. Nevertheless a serious effort should be conducted to complete regulative instruments and to reorder the regional regulations in order to avoid misinterpretation and ambiguity of laws.

2. Creating 'incentive-disincentive' mechanisms in the implementation of forestry decentralization.

The second recommendation is creating incentive and disincentive mechanisms. Law 25/1999 on Fiscal Balance only orders the financial distribution between the central government and regions and among regions. This law, however, does not consider the rewards and punishment associated with the region's fulfillment of its obligations.

In the case of this Fiscal Balance Law, for instance, it is only stated that the region will receive 80% from the '*Provisi Sumber Daya Hutan*' (Royalty of Forest Resources). The condition of forest resources, whether they have been well managed or not, is thus not considered, though it is a very important indicator of the seriousness of the commitments and efforts of the region to fulfill obligations to keep the sustainability of forest resources.

Therefore, a regulative instrument on 'incentives and disincentives' in the context of the evaluation mechanism is needed, as a complementary regulation, to ensure that regional autonomy is implemented in the right way.

3. Creating better coordination between governments and enforcing law consistently.

Enforcing law consistently is a compulsory and urgent task for the improved implementation of regional autonomy because the present actions of law enforcement, particularly in the research site, are inconsistent and ineffective. In Jambi, law enforcement could not be done consistently, because of the ambiguous and even contradictory character of laws. Furthermore, lack of coordination between the central government and province, province and regency as well as among the regencies often became a serious obstacle for the ineffective law enforcement in Jambi. To make coordination work and law enforcement become more effective, it is important to reorder regulative instruments and create mechanism for reward and punishment.

4. Avoiding generalization of forest management systems and making of plans for long-term development.

Any generalized decisions of institutional form in forest management such BUMN (state forest management), HPH (large scale private forest management), HPH patungan (hybrid private-state forest management), IPHH (small scale forest management conducted by private or cooperative) tend to be implemented bias. Regional autonomy offers more opportunity for the region to choose the best forest management system as well as institution based on the specific local conditions. However, the experience of Tebo regency with local forest management institution such as IPHH did not show better results, and even caused massive forest degradation due to an orientation towards maximizing short-term personal benefits and generating more regional income. Moreover, the IPHH also created a high income-disparity in the forest village community. Therefore, a specific forest management system should not be decided partially but should also consider long-term development objectives that involve social, economic, as well as ecological aspects.

5. Providing more alternative sources of income and giving more attention to the disparity among people.

To reduce forest degradation, it is important to search for alternative income sources to timber. Modern agriculture should be introduced to the forest village community to substitute slash and burn agriculture and to decrease dependency on timber. Nature recreation can be chosen as one of the sustainable alternatives sources to regional income and can increase the prosperity of the forest village community. Instead of timber, non-conventional (potential) income sources such as “Carbon Trading” should be considered to provide future regional income.

Special care must be taken in maintaining a bias to the poor section of the forest village community. It is important to note that income disparity at the level of government is not always parallel with income distribution among people. Therefore, any evaluation concerning regional autonomy should also consider measuring the disparity among people, in addition to considering income distribution between governments. The poor should be encouraged to participate in any income generating opportunities to achieve a fairer distribution of income; simultaneously, an intensive social extension program should be given to improve the capability and motivation of the poor.

SUMMARY

Indonesia shifted from a centralized to a decentralized government system with the enactment of the Regional Governance Law 22/1999, also called the Regional Autonomy Law. This research not only discusses the implications of Indonesia's regional autonomy for political, social and economic matters, but it also deals with shifting authority over natural resources particularly forest management.

The objectives of the research are as follows: first, to study the concepts of Indonesia's regional autonomy according to scientific considerations and existing regulations in relation with forestry decentralization; second, to analyse political dynamics and conflicts of interest among various stakeholders concerning forestry decentralization; third, to evaluate the consequences of regional autonomy for socio-economic and forest resources in a selected research area; and, fourth, to learn about constraints and opportunities of Indonesia's present regional autonomy and to discuss the implications for improved forest policies.

This research includes both desk and field study. The desk study was conducted by exploring the legal basis of regional autonomy according to the hierarchy of legislations and looking for the relations and consistencies among them. The field study was carried out by key person interviews and household surveys. Key person interviews were conducted at three levels of government: Jakarta (centre), Jambi (province), and Tebo (regency), while the households surveys were done in the three sample villages of Tebo regency that are Suo-Suo, Teluk Langkap, and Muara Kilis.

The analyses are divided into three parts. The first part focuses on the political dynamics and conflicts of interest following regional autonomy, particularly relating to forestry decentralization. The results of the study show that there are some cases of the struggle for authority over forest resources that occur between central government and regional government (province and regency). Due to ambiguity of regulations, some tenurial conflicts extant in Jambi province resulted in a large conversion of forestlands.

The second part of the analysis is primarily based on the results of the household survey in the three sample villages. According to the household survey, there is clear evidence that Per Capita Income of people was higher after regional autonomy. The interviewed people mostly believe that their prosperity is better rather than before. Moreover, most people are also satisfied with the greater opportunity for participating in, managing, and utilizing forest resources through small scale logging license named IPHH as well as through the opportunity for expanding sawn-timber industry. The number of sawn-timber industries in Tebo regency spiraled upward from 7 to 108 during the five last years. These situations resulted from the combination of people seeking personal benefits and local government's maximizing regional income. The results of the research show that the Original Regional Income (PAD) and Regional Budget (APBD) of Tebo regency are much higher after regional autonomy. However, besides the growing income, the results of the research in the three sample villages also show a higher income disparity among people.

The impact of regional autonomy on forest resources degradation is the third part of the analysis. The results of the research show that a strong 'perverse' social capital, i.e. illegal logging network, exists in the research area. The illegal logger groups have significant bargaining power to influence the decision-making process in the local context. A mass demonstration supporting illegal logging, for instance, has forced the regency head to stop the inspection team from combating illegal logging in the forests within and around the Bukit Tiga Puluh National Park. It indicates that in the research area the illegal logging network ('perverse' social capital) has been transformed into 'perverse' political capital.

In Tebo regency, it is estimated that the illegal logs contribute to more than 80% of logs' supply. The research also shows that the deforestation rate in Jambi has increased from the average of 1.3% per year to 7.3% annually after regional autonomy. The higher rate of deforestation in the research area after regional autonomy is the result of the combination of the existing 'perverse' political capital, ambiguity of regulations, and lack of law enforcement.

ZUSAMMENFASSUNG

Das zentralistische Regierungssystem in Indonesien ist seit dem Erlass des Regionalregierungsgesetzes 22/1999, dem so genannten Regionalautonomiegesetz, zu einem dezentralisierten Regierungssystem umstrukturiert worden. Die vorliegende Arbeit setzt sich nicht nur mit der Implikation des Regionalautonomiegesetzes in Indonesien auf politischer, sozialer und wirtschaftlicher Ebene auseinander, sondern auch mit den veränderten Autoritätsstrukturen im Forstmanagement.

Das Hauptziel der Studie ist die Untersuchung der Konzepte der Regionalautonomie Indonesiens unter Berücksichtigung der existierenden Regulierungen besonders im Hinblick auf die Dezentralisierung der Forstwirtschaft. Hier schließt sich eine Analyse der politischen Dynamik und der Konflikte zwischen den verschiedenen Interessensgruppen an. Anschließend sollen die Folgen der Regionalautonomie für die Sozioökonomie und die Forstressourcen in einem ausgewählten Forschungsgebiet evaluiert werden. Eine weitere Aufgabe der Studie ist es, die Hemmnisse und Chancen der Regionalautonomie in Indonesien darzustellen und die Implikation für eine verbesserte Forstpolitik zu diskutieren.

Das Forschungsvorhaben wurde methodisch in zwei Schritten durchgeführt und umfasste eine Literaturrecherche und eine Feldstudie. In der Literaturstudie wurde die Rechtsgrundlage der Regionalautonomie und die gesetzliche Hierarchie analysiert und im Hinblick auf deren Beziehung und Zusammenhang ausgewertet. Die Feldstudie wurde auf der Basis von Experteninterviews und einem Haushaltsurvey durchgeführt. Die Experteninterviews wurden auf den drei Ebenen, der Regierung, d.h. Jakarta (zentral), Jambi (Provinz), und Tebo (*Regency*/ Regierungsbezirk) geführt. Der Haushaltsurvey umfasste drei Beispieldörfer im Tebo Regierungsbezirk, d.h. Suo-Suo, Teluk Langkap, und Muara Kilis.

Die Analyse ist in drei Teile untergliedert. Der erste Teil konzentriert sich auf die politische Dynamik und die Interessenskonflikte der Regionalautonomie, besonders im Zusammenhang mit der Dezentralisierung der Forstwirtschaft. Die Ergebnisse der Studie zeigen, dass einige Fälle von Machtkonflikten über die Nutzung der

Forstsressourcen zwischen der zentralen und der regionalen Regierung vorhanden sind. Dies schließt die Gebiete der Provinz und des Regierungsbezirks ein. Aufgrund der Zweideutigkeit des entsprechenden Gesetzes treten Konflikte in der Landnutzung auf, die in einer Konvertierung des Forstlandes resultieren. Der zweite Teil der Analyse beschreibt die Ergebnisse des Haushaltsurveys in den drei Beispieldörfern. Hier kann festgehalten werden, dass das Pro-Kopf-Einkommen der Einwohner nach der Einführung der Regionalautonomie eindeutig höher ist. Die interviewten Personen nehmen größtenteils wahr, dass sich ihr Wohlstand verbessert hat. Außerdem zeigte sich ein Großteil der befragten Personen mit dem erleichterten Zugang zur Holznutzung zufrieden, der durch Holzeinschlagslizenzen, so genannte IPHH, ermöglicht wurde. Zudem konnte auch die Bauholz-Säge-Industrie verstärkt aufgebaut werden. Die Zahl der Bauholz-Industrie Betriebe im Tebo Regierungsbezirk hat sich in den letzten fünf Jahren vervielfacht, nämlich von ehemals 7 Betrieben auf 108 Betriebe. Diese Effekte resultieren aus der Kombination der Wohlstandsinteressen und der Regionalpolitik für die Einkommensmaximierung. Die Ergebnisse der Analysen zeigen, dass das Regionaleinkommen (PAD) und das Regionalbudget (APBD) des Tebo Regierungsbezirks nach der Regionalautonomie stark angestiegen sind. Es wird jedoch auch deutlich, dass außer dem wachsenden Einkommen in den drei Beispieldörfern auch größere Einkommensunterschiede in den Haushalten auftreten.

Der Einfluss der Regionalautonomie auf die Forstdegradierung ist Gegenstand des dritten Teils der Analyse. Die Ergebnisse weisen hier eine starke „negative“ Entwicklung des sozialen Kapitals aus, die durch ein illegales Abholzungsnetzwerk im Forschungsgebiet deutlich wird. Die illegalen Holzfäller-Gruppen befinden sich in einer starken Position, um den Entscheidungsprozess auf lokaler Ebene zu beeinflussen. Als Beispiel sei hier eine Massen-Demonstration für die illegale Abholzung angeführt, die den Regierungsbezirkleiter veranlasst hat, ein Inspektionsteam einzusetzen, das die illegale Abholzung in der Umgebung des Bukit Tiga Puluh Nationalparks kontrollieren sollte. Dies zeigt, dass in dem Forschungsgebiet das illegale Abholzungsnetzwerk („negatives“ soziales Kapital) in ein „negatives“ politisches Kapital umgewandelt worden ist.

Nach Schätzungen in dem Tebo Regierungsbezirk beträgt der Anteil des illegal eingeschlagenen Rundholzes mehr als 80% des Gesamtrundholzeinschlages. Die Analyse zeigt auch, dass die Abholzungsrate in Jambi nach der Regionalautonomie im Durchschnitt von 1,3% pro Jahr auf 7,3% jährlich angestiegen ist. Diese Entwicklung der Abholzungsrate im Forschungsgebiet nach der Einführung der Regionalautonomie ist das Ergebnis der Kombination des existierenden „negativen“ politischen Kapitals, der Gesetzes-zweideutigkeit, und einer fehlenden Strafverfolgung für die illegale Abholzung.

REFERENCES

- Abdellatif, A.M, 2002. Good Governance and Its Relationship to Democracy and Economic Development. Global Forum III on Fighting Corruption and Safeguarding Integrity, Seoul.
- Agrarwal, A and E. Ostrom, 1999. Collective Action, Poverty Rights, and Devolution of Forest and Protected Area Management. Workshop in Political Theory and Policy Analysis. Indiana University, Bloomington, IN.
- Ahyani, M.M.I, 2003. Peserta Pemilu 2004 Diperkirakan Kurang dari 20 Parpol. Detikcom 17/06/2003. www.detik.com.
- Akca, A, 2000. Forest Inventory. Institute of Forest Management and Yield Sciences. Faculty of Forest Science and Forest Ecology. Georg-August University, Göttingen.
- Alam Sumatra, 2001. Sawmill: Tabel Sawmill Legal dan Illegal Tahun 1996-2000. Alam Sumatra, Volume I No:2/September 2000. WARSI. Jambi.
- Alm, J And R. Bahl, 1992. Decentralization in Indonesia: Prospects and Problems. Department of Economics, The School of Policy Studies, Georgia State University.
- Anderson, J, 2000. Four considerations for decentralized forest management: subsidiarity, empowerment, pluralism and social capital. In: Enters, T, Durst, P.B and M. Victor (eds). Decentralization and Devolution of Forest Management in Asia and the Pacific. FAO and RECOFTC Report N.18 and RAP Publication 2000/1. Bangkok, Thailand.
- Anggoro, K, 2004. Perish the false hope of real military reform. The Jakarta Post. Indonesia Outlook 2004 – Political, The Journal of Indonesia Today 24/05/2004. Jakarta.
- Anonymous, 2002. Explore Indonesia. General Information about Jambi Province. <http://www.jipi.com/inatourism/jambi/>
- , 1996. Governance: A Working Definition. The Governance Working Group of the International Institute of Administrative Sciences. In: The Global Development Research Center. <http://www.gdrc.org/u-gov/work-def.html>. Download 07.04.2004.
- Asiamaya.com, 2003. Map/Peta Indonesia. Sumatera. Province of Jambi. PT. Asiamaya Dotcom Indonesia. <http://www.asiamaya.com/peta/jambi.htm>
- Banerjee, A.K, 1997. Decentralization and Devolution of Forest Management in Asia and the Pacific. Asia-Pacific Forestry Sector Outlook Study Working Paper Series. Working Paper No: APFSOS/WP/21. FAO Regional Office for Asia and the Pacific, Bangkok.
- Banerjee, A, Campbell, G, Cruz, M.C.J, Davis, S.H, and A. Molnar, 1997. Participation in Forest Management and Conservation. Paper No. 019, April 1997. Social Development Department Papers. Participation Series. The World Bank.
- Bappeda Propinsi Jambi, 2000. Rencana Tata Ruang Wilayah (RTRWP) Kabupaten Tebo. Laporan Kompilasi Data. Bappeda Propinsi Jambi. Jambi.

- Barber, C.V, Johnson, N.C., and E. Hafild, 1994. Breaking the Logjam: Obstacles to Forest Policy Reform in Indonesia and the United States. World Resources Institute. New York.
- Barnett, C.C, Minis, H.P and J. Van Sant, 1997. Democratic Decentralization. Research Triangle Institute. USAID.
- Barro, R. J, 1996. Democracy and Growth. Journal of Economic Growth. Vol 1 (1996). Kluwer Academic Publisher.
- Beetham, D, 1992. Liberal Democracy and the Limits of Democratization. Political Studies special issue. vol.40/1992. Blackwell.
- Birner, R, 2001. Analytical Methods in the Social Sciences. Institute of Rural Development. Georg-August University, Göttingen.
- Birner, R and H. Wittmer, 2000a. Converting Social Capital into Political Capital. How do local communities gain political influence? A theoretical approach and empirical evidence from Thailand and Columbia. Paper submitted to the 8th Biennial Conference of the International Association for the Study of Common Property (IASCP). Institute of Rural Development. Georg-August University, Göttingen.
- , 2000b. On the "Efficient Boundary of the State". A Transaction Cost Economics Approach to the Analysis of Decentralization and Devolution in Natural Resources Management. The XXIV. International Conference of Agricultural Economist. Berlin.
- Booth, J.A and P.B. Richard, 1998. Civic Society, Political Capital, and Democratization in Central America. The Journal of Politics. Vol. 60, No 3, August 1998, Pp. 780-800. The University of Texas Press, Austin.
- Bourdieu, P, 1992. Ökonomisches Kapital – Kulturelles Kapital – Soziales Kapital. In: Die verborgenen Mechanismen der Macht – Schriften zu Politik und Kultur 1, VSA-Verlag, Hamburg.
- BPS Bungo-Tebo, 2000. Tebo Dalam Angka 1999. Badan Pusat Statistik Kabupaten Bungo-Tebo. Muara Bungo.
- BPS Bungo-Tebo, 2001. Buku Saku Tebo Dalam Angka 2000. Bappeda Kabupaten Tebo kerjasama dengan Badan Pusat Statistik Kabupaten Bungo-Tebo. Muara Tebo-Muara Bungo.
- BPS Propinsi Jambi, 2000. Provinsi Jambi Dalam Angka 1999. Badan Pusat Statistik Propinsi Jambi. Jambi.
- , 2001. Provinsi Jambi Dalam Angka 2000. Badan Pusat Statistik Propinsi Jambi. Jambi.
- , 2002. Provinsi Jambi Dalam Angka 2001. Kerjasama Badan Pusat Statistik Propinsi Jambi dan Bappeda Propinsi Jambi. Jambi.
- Brady, N, 2002. Striking a Balance: Centralised and Decentralised Decisions in Government. Treasury Working Paper Series, No. 02/15. New Zealand.
- Bryman, A, 2001. Social Research Methods. p. 264-483. Oxford University Press.

- Buising, T, 2000. A Century of Decentralisation. Decentralise: Easy to say, Difficult to do. Inside Indonesia No. 63, July - September 2000.
<http://www.insideindonesia.org/edit63/buising4rev.htm>. Download 01/09/2003.
- Cassel, C and Symon, G, 1995. Qualitative Methods in Organizational Research. A Practical Guide. SAGE Publications. London.
- Casson, A, 2000. Decentralisation of Policy Making and Administration of Policies Affecting Forests and Estate Crops in Kotawaringin Timur. CIFOR. Bogor.
- , 2001. Decentralisation of Policy Making and Administration of Policies Affecting Forests and Estate Crops in Kutai Barat, East Kalimantan. CIFOR. Bogor.
- Chisholm, A, 1988. Sustainable Resource Use; Uncertainty, Irreversibility and Rational Choice. Agricultural Economics Discussion Paper 1/88. La Trobe University. Bundoora, Victoria, Australia.
- Coleman, J, 1990. Foundations of Social Theory. Cambridge, MA: Belknap.
- , 1988. Social Capital in the Creation of Human Capital. American Journal of Sociology 94 (supplement): p 95-S120.
- CPRC, 2003. Political Capital : Defining Political Capital. Chronic Poverty Research Center.
<http://idpm.man.ac.uk/cprc/CPToolbox/Politicalcapital.htm>. Last updated November 2003. Download 11/04/2004.
- Dauvergne, P, 1993. The politics of Deforestation in Indonesia. Pacific Affairs, Volume 66, Issue 4 Winter 1993/1994. Pacific Affairs University of British Columbia.
- Decentralisation News, 2003. Ministry of Home Affairs Presents Results of Monitoring Activities. Issue No. 41. 21 February 2003. GTZ. Jakarta.
- Detikcom, 2003a. Pemerintah Fokuskan Kalbar dan Jambi Rawan Kebakaran Hutan. 11 Juni 2003. www.detik.com.
- , 2003b. Indonesia Peringkat 6 Negara Terkorup. Selasa, 07 Oktober 2003. www.detik.com.
- DFID, 1999. Resources Management. Key Issues in Decision Making.
http://www.keysheets.org/green_6_participation_inforest_management.html
- Disperindagkop Tebo, 2002. Data Industri Perkayuan Kabupaten Tebo s/d September 2002. Poster pada Pameran Pembangunan HUT Kabupaten Tebo ke-3. Disperindagkop Kabupaten Tebo. Muara Tebo.
- Dispenda Tebo, 2002. Perkembangan PAD Kabupaten Tebo. Leaflet HUT Kabupaten Tebo ke-3. Dispenda Kabupaten Tebo. Muara Tebo.
- Down to Earth, 2001. Oil palm investments opposed. Down to Earth No. 49, May 2001.
<http://dte.gn.apc.org/49OP.htm>.
- EIA, 2001. Timber Trafficking. Illegal Logging in Indonesia, South East Asia and International Consumption of Illegally Sourced Timber. Indonesia's Illegal Logging Epidemic. Environmental Investigation Agency (EIA) - Telapak Indonesia.
<http://www.salvonet.com/eia/old-reports/Forests/Reports/timber/timber05.html>.

- Ekayani, M and Nurrochmat, D.R, 2003. Sustainable forest management policy in Indonesia: A serious problem of ambivalence. In: Birner, R, Nurrochmat, D and S. Rosyadi (Eds). Sustainable development: socio-economic and environmental problems. Focused on Indonesian cases. Cuvillier Verlag. Göttingen.
- Elster, J, 1983. Sour grapes: studies in the subversion of rationality. Cambridge University Press. Cambridge, UK.
- Encyclopedia Indonesia, 2003. Economy. The Columbia Electronic Encyclopedia, 6th ed. Columbia University Press. <http://www.infoplease.com/ce6/world/A0920786.html>
- Enters, T and J. Anderson, 2000. Rethinking the Decentralization and Devolution of Biodiversity Conservation. In: Enters, T, Durst, P.B and M. Victor (eds). Decentralization and Devolution of Forest Management in Asia and the Pacific. FAO and RECOFTC Report N.18 and RAP Publication 2000/1. Bangkok, Thailand.
- Faculty of Forestry IPB, 1997. Kemungkinan Impor Log untuk Kebutuhan Industri Dalam Negeri Melalui Pendekatan Makro Ekonomi. Fakultas Kehutanan IPB. Bogor.
- Fisher, R.J, 2000. Decentralization and Devolution in Forest Management: A Conceptual Overview. In: Enters, T, Durst, P.B and M. Victor (eds). Decentralization and Devolution of Forest Management in Asia and the Pacific. FAO and RECOFTC Report N.18 and RAP Publication 2000/1. Bangkok, Thailand.
- Fisher, R.J, Durst, P.B, Enters, T and M. Victor. 2000. Overview of Themes and Issues in Devolution and Decentralization of Forest Management in Asia and the Pacific. In: Enters, T., Durst, P.B and M. Victor (eds). Decentralization and Devolution of Forest Management in Asia and the Pacific. FAO and RECOFTC Report N.18 and RAP Publication 2000/1. Bangkok, Thailand.
- Gatra, 2004. Kerusakan Hutan, Litbang Dephut: Kerugian Senilai Rp 83 Miliar/Hari. Gatra.com Kamis, 22 April 2004 14:46. <http://www.gatra.com/artikel.php?id=36265>
- GDRC, 2004. Defining Urban Governance. The Global Development Research Center. <http://www.gdrc.org/u-gov/governance-define.html>. Download 07.04.2004.
- Gleason, G, 2004. Collective Action Theory. Lecture Notes. Political Science and Public Administration, University of New Mexico, Albuquerque. <http://www.unm.edu/~igleason/notes/topic3.html>
- Glück, P, 1999. National Forest Programs – Significance of A Forest Policy Framework. Formulation and Implementation of National Forest Programmes. Vol I: Theoretical Aspects. EFI Proceedings No. 30, 1999.
- Government of Indonesia, 1967. Undang Undang Nomor 5 Tahun 1967 tentang Pokok Pokok Kehutanan. Jakarta.
- , 1998. Peraturan Pemerintah Republik Indonesia Nomor 62 Tahun 1998 Tentang Penyerahan Sebagian Urusan Pemerintahan di Bidang Kehutanan Kepada Daerah. Jakarta.
- , 1999a. Peraturan Pemerintah Republik Indonesia Nomor 6 Tahun 1999 Tentang Pengusahaan Hutan dan Pemungutan Hasil Hutan pada Hutan Produksi. Jakarta.

- , 1999b. Undang Undang No. 41 Tahun 1999 Tentang Kehutanan. Jakarta.
- , 1999c. Undang Undang No. 22 Tahun 1999 Tentang Pemerintahan Daerah. Jakarta.
- , 1999d. Undang Undang No. 25 Tahun 1999 Tentang Perimbangan Keuangan Antara Pemerintah Pusat dan Daerah. Jakarta.
- , 2000a. Peraturan Pemerintah No. 25 Tahun 2000 Tentang Kewenangan Pemerintah dan Kewenangan Propinsi Sebagai Daerah Otonom. Jakarta.
- , 2000b. Peraturan Pemerintah Nomor 104 Tahun 2000 tentang Dana Perimbangan. Jakarta.
- , 2000c. Peraturan Pemerintah Nomor 105 Tahun 2000 tentang Pengelolaan dan Pertanggungjawaban Keuangan Daerah. Jakarta.
- , 2000d. Peraturan Pemerintah Nomor 107 Tahun 2000 tentang Pinjaman Daerah. Jakarta.
- , 2000e. Peraturan Pemerintah Nomor 129 Tahun 2000 tentang Persyaratan Pembentukan dan Kriteria Pemekaran, Penghapusan, dan Penggabungan Daerah. Jakarta.
- , 2001a. Peraturan Pemerintah Nomor 20 Tahun 2001 tentang Pembinaan dan Pengawasan atas Penyelenggaraan Pemerintahan Daerah. Jakarta.
- , 2001b. Peraturan Pemerintah Nomor 39 Tahun 2001 tentang Dekonsentrasi. Jakarta.
- , 2002a. Peraturan Pemerintah Nomor 34 Tahun 2002 tentang Tata Hutan dan Penyusunan Rencana Pengelolaan Hutan. Jakarta.
- , 2002b. Peraturan Pemerintah Nomor 35 Tahun 2002 tentang Dana Reboisasi. Jakarta.
- Governor of Jambi Province, 1999. Keputusan Gubernur Jambi Nomor 108 Tahun 1999 tentang Pembagian Kawasan Hutan di Propinsi Jambi. Jambi.
- Gunning, J.P, 2003. Understanding Democracy: An Introduction to Public Choice. Nomad Press. Taiwan.
- Hanggono, A and E.S.Q. Hadipramono, 2000. Untuk Aktivis Reformasi. In: Hanggono and Hadipramono. Kumpulan Peraturan Tentang Otonomi Daerah. PT. Pradnya Paramita. Jakarta.
- Hardin, G, 1968. The Tragedy of The Commons. Science. Vol. 162. 13 December 1968. www.sciencemag.org. 1243-1248.
- Hardin, R, 1982. Collective Action. Johns Hopkins University Press. Baltimore, MD.

- Head of Tebo Regency, 2002. Tanggapan Terhadap Peraturan Pemerintah Nomor 34 Tahun 2002. Surat Bupati Tebo Nomor 522/789/DINHUT/2002 tanggal 22 Juli 2002. Muara Tebo.
- Henkel, H and R. Stirrat, 2001. Participation as Spiritual Duty; Empowerment as Secular Subjection. In: Cooke, B and Khotari, U (Eds). Participation, The New Tyranny? Zed Books. London – New York.
- Hicks, A and J. Misra, 1993. Two Perspectives on the Welfare State: Political Resources and the Growth of Welfare in Affluent Capitalist Democracies, 1960-1982 In: American Journal of Sociology, Vol. 99 (3), pp. 668-710.
- Huntington, S.P, 1991. The Third Wave Democratization in the Late Twentieth Century. University of Oklahoma Press. Norman and London.
- Hussein, K and S. Montagu, 2000. Hill Agricultural Research Project (HARP) Nepal-Lessons for the Policy, Institutions and Processes Dimensions of the Sustainable Livelihoods Approach. PIP Papers. DFID-IDS. <http://www.livelihoods.org/pip/pip/harppol.html>
- ICG, 2003. Indonesia: Managing Decentralisation and Conflict in South Sulawesi. ICG Asia Report No. 60 18 July 2003. Jakarta/Brussels.
- Jambi Forestry Office, 2001. Data Pokok Dinas Kehutanan Propinsi Jambi. Pemerintah Propinsi Jambi. Dinas Kehutanan. Jambi.
- , 2002. Database Kawasan Hutan Provinsi Jambi. Sub Balai Inventarisasi dan Perpetaan Hutan Provinsi Jambi. Jambi.
- Kalmirah, J and I. O'Neill, 2003. Mining should never be banned in protected forest. The Jakarta Post. The Journal of Indonesia Today. 04/08/2003. Jakarta.
- Kartodihardjo, H, 1999. Belenggu IMF dan World Bank. Hambatan Struktural Pembaharuan Kebijakan Pembangunan Kehutanan di Indonesia. Pustaka Latin-World Resource Institute. Bogor.
- Kirk, M and D. Mai, 1997. Methods for Empirical Research. Lecture Notes. CetSAF Göttingen and Institute of Cooperation in Developing Countries. Philips-University. Margburg.
- Knox, A and R. Meinzen-Dick, 1999. Workshop Summary of Collective Action, Property Rights and Devolution of Natural Resources Management – Exchange of Knowledge and Implication for Policy. Proceeding of the International Conference in Puerto Azul, the Philippines. DSE. Feldating, Germany.
- Kompas, 2002. Industri Kayu Liar Berkembang Pesat di Jambi. 20/08/2002. KCM. www.kompas.com.
- , 2003a. Jajak Pendapat Kompas tentang Dua Tahun Otonomi Daerah. Ekonomi Membaik KKN Memburuk. Rubrik Nasional, 06/01/2003. Kompas. Jakarta.
- , 2003b. Dua Tahun Otonomi. Upaya Merebut Kewenangan. Rubrik Nasional, Kilas Peristiwa 22 Maret 2002. 06/01/2003. Kompas. Jakarta.
- , 2003c. Jajak Pendapat Kompas. Dua Tahun Setelah Otonomi Daerah. 06/01/2003. Kompas. Jakarta.

- , 2003d. Amien Rais: Membasmi Illegal Logging Tergantung Keberanian Presiden. 06/07/2003. KCM. www.kompas.com.
- , 2003e. Berantas "Illegal Logging", Dephut Alokasikan Rp 25,5 Miliar. 25/07/2003. KCM. www.kompas.com.
- , 2003f. Indonesia Negara Terkorup Nomor Enam di Dunia. 07/10/2003. Jakarta. KCM. www.kompas.com.
- Krott, M, 1999. Political Dynamics of Regional Forestry Planning – Experiences of Central European Countries and Lessons for National Forest Programmes. Formulation and Implementation of National Forest Programmes. Vol I: Theoretical Aspects. EFI Proceedings No. 30, 1999.
- Leicht, K and J.C. Jenkins, 1998. Political Resources and Direct State Intervention: The Adoption of Public Venture Capital Programs in the American States, 1974-1990 In: Social Forces, Vol 76 (4), pp. 1323-1345.
- Levi, M, Cook, K.S, O'Brien, J.A and H. Faye, 1990. Introduction: The Limits of Rationality In: The Limits of Rationality, edited by Cook, K.S and M. Levi. Chicago University Press.
- Liputan6, 2003a. Enam Kabupaten di Jambi Kebanjiran. 05/05/2003. www.liputan6.com.
- , 2003b. Air Bah di Jambi Meninggi. 06/05/2003. www.liputan6.com.
- , 2003c Indonesia-Malaysia Memperketat Pengawasan Hutan. 18/06/2003. www.liputan6.com.
- Litvack, J, Ahmad, J and R. Bird, 1998. Rethinking Decentralization in Developing Countries. The World Bank. Washington, D.C.
- Manktelow, J, 2003. SWOT Analysis. Understanding Strengths, Weaknesses, Opportunities and Threats. http://www.mindtools.com/pages/article/newTMC_05.htm. Download 08.04.03.
- Mariani, E and R. Witular, 2003. Mining in protected forests under fire. The Jakarta Post. The Journal of Indonesia Today. Business and Investment. 19/06/2003. Jakarta.
- Maryanto, B, 2002. Tanggapan atas surat Sekda Muara Sabak terhadap tanggapan PP. No. 34 Tahun 2002. Telaah Staf, Kasubdin Bina Usaha dan Produksi Dinas Kehutanan Propinsi Jambi. Jambi.
- Matthews, E, 2002. The State of the Forest: Indonesia. Forest Watch Indonesia, Bogor, World Forest Institute, and Global Forest Watch, Washington, D.C.
- McCarthy, J.F, 2001. Decentralization, Local Communities and Forest Management in Barito Selatan. CIFOR. Bogor.
- Media Indonesia, 2003. Lingkungan: Pemkab Langkat Harus Tanggung Jawab Kerusakan Hutan. Media Indonesia Online. Selasa, 04/11/2003. www.mediaindo.co.id
- Meinzen-Dick, R and A. Knoxx, 1999. Collective Action, Property Rights and Devolution of Natural Resources Management. A Conceptual Framework. Proceeding of the International Conference in Puerto Azul, the Philippines. DSE. Feldating, Germany.

- Ministry of Forestry, 1996. Tata Guna Hutan Kesepakatan. Directorate General of Forest Inventory and Land Use (Ditjen INTAG). Jakarta.
- , 1998. Keputusan Menteri Kehutanan dan Perkebunan Nomor 728/Kpts-II/1998 tentang Luas Maksimum Pengusahaan Hutan dan Pelepasan Kawasan Hutan Untuk Budidaya Perkebunan. Jakarta.
- , 1999. Dinamika Proses Lahirnya Undang Undang Republik Indonesia Nomor 41 Tahun 1999 tentang Kehutanan. Departemen Kehutanan dan Perkebunan. Jakarta.
- , 2000. Keputusan Menteri Kehutanan Nomor 05.1/Kpts-II/2000 tentang Kriteria dan Standar Perijinan Pemungutan Hasil Hutan pada Hutan Produksi Alam. Departemen Kehutanan. Jakarta.
- , 2000b. Pedoman Survey Sosial Ekonomi Kehutanan Indonesia. Penerbit PSSEKI. Bogor.
- , 2002a. Keputusan Menteri Kehutanan Nomor 541/Kpts-II/2002 tentang Pencabutan Keputusan Menteri Kehutanan Nomor 05.1/Kpts-II/2000 tentang Kriteria dan Standar Perijinan Pemungutan Hasil Hutan pada Hutan Produksi Alam. Departemen Kehutanan Jakarta.
- , 2003. Statistik Kehutanan 2002. Departemen Kehutanan RI. Jakarta.
- Mitra, S.K, 1992. Power, Protest and Participation: Local Elites and the Politics of Development in India. Routledge. London and New York.
- Niemela, J.S, 1993. Marketing oriented strategy concept and its empirical testing with large sawmills. Lawa Forestalia Fennica 240. The Society of Forestry in Finland – The Finnish Forest Research Institute. Helsinki.
- Nurrochmat, D.R, 1993. Dilema Pencurian Kayu. Harian Kompas. Jakarta.
- , 1995. HPH Patungan dan Prospek Pengembangannya. Harian Bisnis Indonesia dan Makalah Seminar COTE-AISEC Fakultas Ekonomi UI, Jakarta.
- , 2000. Kebijakan Ekonomi Kehutanan, Suatu Telaah Kritis. Lab. Politik Ekonomi dan Sosial Kehutanan. Fakultas Kehutanan IPB. Bogor.
- , 2001. Dampak Krisis Ekonomi dan Moneter Terhadap Usaha Kehutanan Masyarakat Kemenyang di Tapanuli Utara. In: Darusman, D. (Ed.), 2001. Resiliensi Kehutanan Masyarakat di Indonesia p. 72-97. Debut Press, Yogyakarta.
- Paddock, R.C, 2004. Unkindest Cuts Scar Indonesia. As illegal logging eats away at the archipelago's land, the animals whose habitat is sacrificed bite back at the hand that wields the chainsaw. Los Angeles Times, January 2, 2004.
- Parker, A.N, 1995. Decentralization: The Way Forward for Rural Development? World Bank, Washington DC.
- People Consultative Assembly, 1998a. Ketetapan Majelis Permusyawaratan Rakyat Republik Indonesia Nomor XI/MPR/1998 tentang Penyelenggara Negara Yang Bersih dan Bebas Korupsi, Kolusi, dan Nepotisme. Jakarta.

- , 1998b. Ketetapan MPR RI Nomor XV/MPR/1998 Tentang Penyelenggaraan Otonomi Daerah; Pengaturan, Pembagian, dan Pemanfaatan Sumber Daya Nasional yang Berkeadilan; serta Perimbangan Keuangan Pusat dan Daerah Dalam Kerangka Negara Kesatuan Republik Indonesia. Jakarta.
- , 2000a. Ketetapan MPR RI Nomor III/MPR/ Tahun 2000 Tentang Sumber Hukum dan Tata Urutan Peraturan Perundang-Undangan. Jakarta.
- , 2000b. Ketetapan MPR RI Nomor IV/MPR/2000 Tentang Rekomendasi Kebijakan Dalam Penyelenggaraan Otonomi Daerah. Jakarta.
- , 2002. Undang-Undang Dasar Negara Republik Indonesia Tahun 1945 dan Perubahannya dalam Satu Naskah. Diolah oleh Redaksi Kompas dari Naskah UUD 1945, Perubahan Pertama, Kedua, Ketiga dan Keempat. Jakarta.
- Potter, L and S. Badcock, 2001. The Effect of Indonesia's Decentralisation on Forests and Estate Crops: Case Study of Riau Province, the Original Districts of Kampar and Indragiri Hulu. CIFOR. Bogor.
- President of the Republic of Indonesia, 2000a. Keputusan Presiden Nomor 49 Tahun 2000 tentang Dewan Pertimbangan Otonomi Daerah. Jakarta.
- , 2000b. Keputusan Presiden Nomor 84 Tahun 2000 tentang Perubahan atas Keputusan Keputusan Presiden Nomor 49 Tahun 2000 tentang Dewan Pertimbangan Otonomi Daerah. Jakarta.
- , 2000c. Keputusan Presiden Nomor 151 Tahun 2000 tentang Perubahan Atas Keputusan Presiden Nomor 49 Tahun 2000 Tentang Dewan Pertimbangan Otonomi Daerah Sebagaimana Telah Diubah dengan Keputusan Presiden Nomor 84 Tahun 2000. Jakarta.
- , 2001. Keputusan Presiden Nomor 131 Tahun 2001 tentang Dana Alokasi Umum Daerah Propinsi dan Kabupaten/Kota Tahun Anggaran 2002. Jakarta.
- Putnam, R, Leonardi, R and R. Y. Nanetti, 1993. Making Democracy Work: Civic Transition in Modern Italy. Princeton University Press. Princeton, NJ, USA.
- Putnam, R, 1995. Bowling Alone: America's Declining Social Capital. Journal of Democracy Volume 6, Number 1: 65-78. January 1995. The Johns Hopkins University Press.
- Regional Government of Jambi Province, 2002. Kesepakatan Bersama antara Pemerintah Propinsi Jambi dan Ketua DPRD Propinsi Jambi dengan Pemerintah Kabupaten/Kota dan Ketua DPRD Kabupaten/Kota dalam Propinsi Jambi tentang Pungutan dan Bagi Hasil Pendapatan Asli Daerah dari Sektor Kehutanan, Perkebunan dan Perikanan tanggal 25 April 2002. Kantor Gubernur Jambi. Jambi.
- Regional Government of Tebo Regency, 2001. Peraturan Daerah Kabupaten Tebo Nomor 21 Tahun 2001 tentang Ijin Pemungutan Hasil Hutan. Pemerintah Kabupaten Tebo. Muara Tebo.
- , 2001. Peraturan Daerah Kabupaten Tebo Nomor 24 Tahun 2001 tentang Retribusi Hasil Hutan. Pemerintah Kabupaten Tebo. Muara Tebo.

- Ribot, J.C, 2002. Democratic Decentralization of Natural Resources: Institutionalizing Popular Participation. World Resources Institute.
- Rubio, M, 1997. Perverse Social Capital: Some Evidence From Colombia. *Journal of Economic Issues*, Vol. 31, No. 3 September 1997, pp. 805-816.
- Rutström, E.E, 1991. The Political Economy of Protectionism in Indonesia. A Computable General Equilibrium Analysis. The Economic Research Institute. Stockholm.
- Salim, H.S, 1997. Dasar Dasar Hukum Kehutanan. Penerbit Sinar Grafika. Jakarta.
- Saman, E, Hutapea, A and Wailayatiningsih, 1993. In: Nurjaya, I.N (Ed). Politik Hukum Pengusahaan Hutan di Indonesia. WALHI. Jakarta.
- Scott, J, 2000. Rational Choice Theory. In: Browning, G, Halcli, A., Hewlett, N, and F. Webster (Eds). *Understanding Contemporary Society: Theories of The Present*. Sage Publications. <http://privatewww.essex.ac.uk/~scottj/socscot7.htm>
- Sharma, R.A, 1996. Analytical techniques for social forestry evaluation : a review. *Indian Forester Journal*, ed. April 1996. India.
- Simon, H, 2000. Reformasi and its Effects on Forest Management Policies in Indonesia. In: Enters, T., Durst, P.B., and M. Victor (eds). *Decentralization and Devolution of Forest Management in Asia and the Pacific*. FAO and RECOFTC Report N.18 and RAP Publication 2000/1. Bangkok, Thailand.
- Smith, W, 2002. The Global Problem of Illegal Logging. *Tropical Forest Update* Vol. 12 No. 1, 2002. ITTO, Yokohama.
- Sunderlin, W.D and I.A.P. Resosudarmo, 1996. Rates and Deforestation in Indonesia: Towards a Resolution of the Ambiguities. Occasional Paper No. 9 Dec 1996. CIFOR. Bogor.
- Tadjoeddin, M.Z, Suharyo, W.I and S. Mishra, 2001. Regional Disparity and Centre-Regional UNSFIR. Jakarta.
- Tadjoeddin, M.Z, 2003. Anatomy of Social Violence in the Context of Transition: The Case of Indonesia 1990-2001. In: Birner, R, Nurrochmat, D and S. Rosyadi (Eds). *Sustainable development: socio-economic and environmental problems. Focused on Indonesian cases*. Cuviller Verlag. Göttingen.
- Tebo Forestry Office, 2002. Penerimaan Retribusi Sektor Kehutanan s/d September 2002. Poster pada Pameran Pembangunan. HUT Kabupaten Tebo ke-3. Dinas Kehutanan Kabupaten Tebo. Muara Tebo.
- Tebo Regency, 2002. Derap Tebo Membangun. Media Informasi dan Komunikasi. Edisi Ketiga, Juli 2002. Bagian Humas Setda Tebo. Muara Tebo.
- The Collins English Dictionary, 2000. Harper Collins Publishers. World Reference.com. <http://www.wordreference.com/english/definition.asp?en=shifting+cultivation>
- Tijs, S, 2003. Introduction to Game Theory. Hindustan Book Agency. Green Park Extension, New Delhi. India.

- Transparency International, 2003. Transparency International Corruption Perceptions Index 2003. Levels of corruption in 133 countries.
<http://www.transparency.org/cpi/2003/cpi2003.en.html>.
- USAID, 2002. Foreign Aid in the National Interest: Promoting Freedom, Security, and Opportunity. U.S. Agency For International Development. Washington, D.C.
- WALHI, 2003. Banjir: Penebangan Liar Penyebab Bencana Bohorok. Liputan6 04/11/2003. www.liputan6.com.
- Wall, E, Ferazzi, G and F. Schryer, 1998. Getting Goods on Social Capital. Rural Sociology, Vol. 63, No. 2, June 1998. pp. 300-302.
- WARSI, 2003. Warung Informasi Konservasi. Conservation Information Forum.
<http://www.warsi.or.id>
- Warta Fahutan, 2000. Matrik Perbedaan Preferensi Dephutbun dan Daerah. Laporan Gugus Tugas Kelembagaan Kehutanan Dalam Rangka Desentralisasi. Departemen Kehutanan. In: Warta Fahutan IPB. Bogor.
- Wollenberg, E, 1998. A conceptual framework and typology for explaining the outcomes of local forest management. Journal of World Forest Management 1998, Vol. 9, pp. 1-35. The Journal of Forest Policy. AB Academic Publishers. UK.
- World Bank, 1996. Reflections: what is participation? The World Bank Participation Sourcebook. <http://www.worldbank.org/wbi/sourcebook/sb0100.htm>
- , 2001a. Indonesia: Environment and Natural Resource Management in a Time of Transition. World Bank, Washington DC.
- , 2001b. World Development Indicators. National Development Indicators. Distribution of income or consumption. World Bank, Washington DC.
- , 2004. What is Governance? Arriving at a common understanding of "governance". The World Bank. <http://www1.worldbank.org/mena/governance/Issues-KeyQuestion.htm#top>. Download 07.04.2004
- , 2004a. Decentralization, Democracy Opening Opportunities for Legal Reform at the Local Level World Bank Report Cites New Opportunities to Enhance Justice for The Poor. Press Release, February 18, 2004. World Bank Office Jakarta.
- World Resources Institute, 2003. Information Resources. The Forests of Indonesia. <http://www.worldforestry.org/wfi/WF-indo.htm>
- Yeom, F.B.C and C. Chandrasekharan, 2002. Achieving sustainable forest management in Indonesia *in* Tropical Forest Update Vol. 12 No. 1, 2002. ITTO, Yokohama.
- Yuniati, S, 2000. The Challenges of Developing Community Based Forest Management in the New Indonesia. Asia-Pacific Community Forestry (APCF) Newsletter, Volume 13 No.1 February/March 2000.
- Zey, M, 1998. Rational Choice Theory and Organizational Theory: A Critique. Sage Publications. Thousand Oaks-London-New Delhi.

APPENDICES

Appendix 1. Regulative Instruments Related to the Regional Governance Law

Table Ap.1. Regulative Instruments Related to the Regional Governance Law 22/1999

Type of Regulative Instruments	Article (Paragraph)
Other laws	6(40), 80(4), 82(1), 117
Government regulations	5(3), 5(4), 6(3), 10(4), 12, 59, 83(2), 86(4), 91(3), 112(2), 119(2)
Presidential decree	64(2), 115(6)
Regional regulation	66(6), 67(6), 68, 82(2), 84, 86(1,2), 87(1,3), 93(2), 97, 111(1), 120(2)
Decree of Regional House of Representative	17(4), 18(2), 19(2), 20(3), 21(4), 24, 31(3,5), 32(4), 38(2), 50(1)
Other regulations	13(2), 15, 17(1), 42(4), 46(4), 68(2), 72(1), 75, 76, 77, 80(3), 81(3), 86(6), 87(1,3), 88(2), 92(3)

Sources: Regional Governance Law 22/1999

Appendix 2. Variables Related to the Portion of Forestry Income Sharing

Table Ap. 2. Variables Related to the Portion of Forestry Income Sharing

Variables	Coefficients	Std. Error	T-ratio
(Constant)	0,276	0,063	4,364***
AGECLASS	-2,496E-02	0,016	-1,573
HHSIZE	-1,573E-02	0,007	-2,310**
POVLINE	-8,730E-02	0,040	-2,174**
HHINCOME	1,902E-10	0,000	0,355
FORSTIME	2,581E-02	0,003	8,266***
TIMBER	0,239	0,073	3,265***
NONTIMBR	0,108	0,046	2,351**
PROSPERI	-8,032E-02	0,031	-2,633***
HOUSETYP	-1,513E-02	0,024	-,628

Linear regression, dependent variable: FORSHARE, n=200, R-square=0.855

**** significant at 1% level, ** significant at 5% level, * significant at 10% level*

Appendix 3. List of Institution and Interviewed Key Persons

Table Ap. 3. List of Institution and Key Person in Qualitative Interviews

Institution	Position of Key Person	Number of Key Person
Tebo Regency		
1. Regency Government	Regency Head	1
2. House of Representative	Chair and Commision members	3
3. Regency Forestry Office	Chair and Head of Sub-Office	2
4. Regional Dev. Planning Board	Head of General Affairs	1
5. National Land Agency Tebo	Head of Agency	1
6. Forest Concession	Camp Manager and Forester	2
7. Sawmill Owners	Owners	2
8. Village Leaders	Village Heads, Informal Leaders	7
	and Spiritual Leaders	
Jambi Province		
1. Province Government	Ass. Executive Secretary	1
2. House of Representative	Vice Chair and Commision members*	9
3. Province Forestry Office	Head of Program Divisions	2
4. Regional Dev. Planning Board	Exec. Secretary and Head of Economic Div.	2
5. University of Jambi	Dean of Agricultural Faculty	1
6. Forestry Company	Chief Executive Officer	1
7. Nature Conservation Agency	Chair and Head of Division	2
8. Local NGOs	Director of "Gita Buana" and	2
	Vice Director of "YP2M"	
Central Institution		
1. Director General Reg Autonomy	D.G. Regional Autonomy	1
2. Ministry of Forestry	Minister Advisor	1
3. Forest Concession Association	Head of Socio-Economic Division	1
4. Forest Management Expert	University scientist (IPB)	1
5. Forest Policy Expert	University scientist (IPB)	1
6. Political Expert	University scientist (IIP)*	1
7. Law Administration Expert	University scientist (UI)*	1
8. National NGO	Executive Director of WARSI	1

Notes:

* Data collected from a panel discussion

Appendix 4. Perception of the Interviewed Stakeholders in Tebo Regency towards Regional Autonomy

Table Ap. 4. Interviewed Stakeholders in Tebo Regency and their Perceptions Concerning Regional Autonomy

No.	Subjects of question	Forestry Official	Reg.Dev.Planning Board
1.	Internalization process	good	good
2.	Authority towards forest resources should be given	regency	regency
3.	Institution to manage forest resources	private	private
4.	Portion of income according to the present laws	more to regions	approved
5.	Determinant factor to subsidiary	original income	extent of region
6.	Participation in decision making process	better	better
7.	Regional autonomy in fact	decent. authority	prospering people
8.	Main purposes of regional autonomy	public services	public services
9.	Opportunity for sustainable forest resources	optimistic	optimistic
10.	Main obstacle in regional autonomy	human resources	human resources
11.	Important factor to success of regional autonomy	law enforcement	law enforcement
12.	Suggestion to improve regional autonomy	good governance	respons. democracy
13.	Satisfied with the present regional autonomy	less satisfied	less satisfied

No.	Subjects of question	Regency Government	House of Representative
1.	Internalization process	very good	good
2.	Authority towards forest resources should be given	regency	regency
3.	Institution to manage forest resources	regency-enterprises	regency-enterprises
4.	Portion of income according to the present laws	more to regions	more to regions
5.	Determinant factor to subsidiary	original income	original income
6.	Participation in decision making process	better	better
7.	Regional autonomy in fact	prospering people	prospering people
8.	Main purposes of regional autonomy	decent. authority	public services
9.	Opportunity for sustainable forest resources	optimistic	moderate
10.	Main obstacle in regional autonomy	human resources	human resources
11.	Important factor to success of regional autonomy	human resources	law enforcement
12.	Suggestion to improve regional autonomy	good governance	good governance
13.	Satisfied with the present regional autonomy	less satisfied	satisfied

Appendix 4. Continued

No.	Subjects of question	National Land Agency	Forest Company
1.	Internalization process	<i>less</i>	<i>less</i>
2.	Authority towards forest resources should be given	<i>center</i>	<i>province</i>
3.	Institution to manage forest resources	<i>state-enterprises</i>	<i>private</i>
4.	Portion of income according to the present laws	<i>approved</i>	<i>approved</i>
5.	Determinant factor to subsidiary	<i>original income</i>	<i>original income</i>
6.	Participation in decision making process	<i>better</i>	<i>better</i>
7.	Regional autonomy in fact	<i>prospering people</i>	<i>prospering people</i>
8.	Main purposes of regional autonomy	<i>prospering people</i>	<i>public services</i>
9.	Opportunity for sustainable forest resources	<i>pesimistic</i>	<i>pesimistic</i>
10.	Main obstacle in regional autonomy	<i>human resources</i>	<i>human resources</i>
11.	Important factor to success of regional autonomy	<i>law enforcement</i>	<i>law enforcement</i>
12.	Suggestion to improve regional autonomy	<i>better coordination</i>	<i>good governance</i>
13.	Satisfied with the present regional autonomy	<i>moderate</i>	<i>less satisfied</i>

No.	Subjects of question	Sawmill Owners	Village Leaders
1.	Internalization process	<i>good</i>	<i>good</i>
2.	Authority towards forest resources should be given	<i>regency</i>	<i>regency</i>
3.	Institution to manage forest resources	<i>private</i>	<i>private</i>
4.	Portion of income according to the present laws	<i>more to regions</i>	<i>more to regions</i>
5.	Determinant factor to subsidiary	<i>no comment</i>	<i>original income</i>
6.	Participation in decision making process	<i>better</i>	<i>better</i>
7.	Regional autonomy in fact	<i>prospering people</i>	<i>prospering people</i>
8.	Main purposes of regional autonomy	<i>public services</i>	<i>public services</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>optimistic</i>
10.	Main obstacle in regional autonomy	<i>capital</i>	<i>capital</i>
11.	Important factor to success of regional autonomy	<i>public services</i>	<i>public services</i>
12.	Suggestion to improve regional autonomy	<i>good governance</i>	<i>good governance</i>
13.	Satisfied with the present regional autonomy	<i>satisfied</i>	<i>satisfied</i>

Note: the perceptions were collected from personal views of the interviewed persons and did not represent a formal statement of the institution. Sometimes, it was necessary to conduct interviews with more than one key person in an institution and the perceptions might be different, even contrary. In this case, the perception presented here was chosen from the more relevant person or the stronger arguments.

Appendix 5. Perception of the Interviewed Stakeholders in Jambi Province towards Regional Autonomy

Table Ap. 5. Interviewed Stakeholders in Jambi Province and their Perceptions Concerning Regional Autonomy

No.	Subjects of question	Province Government	House of Representative
1.	Internalization process	<i>moderate</i>	<i>moderate</i>
2.	Authority towards forest resources should be given	<i>province</i>	<i>province</i>
3.	Institution to manage forest resources	<i>multi actors</i>	<i>co-management</i>
4.	Portion of income according to the present laws	<i>more to regions</i>	<i>approved</i>
5.	Determinant factor to subsidiary	<i>original income</i>	<i>large of region</i>
6.	Participation in decision making process	<i>still</i>	<i>better</i>
7.	Regional autonomy in fact	<i>prospering people</i>	<i>political purposes</i>
8.	Main purposes of regional autonomy	<i>public service</i>	<i>prospering people</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>moderate</i>
10.	Main obstacle in regional autonomy	<i>inconsistency of law</i>	<i>political will</i>
11.	Important factor to success of regional autonomy	<i>Law enforcement</i>	<i>law enforcement</i>
12.	Suggestion to improve regional autonomy	<i>good governance</i>	<i>consistency of law</i>
13.	Satisfied with the present regional autonomy	<i>less satisfied</i>	<i>less satisfied</i>

No.	Subjects of question	Forestry Official	Reg.Dev.Planning Board
1.	Internalization process	<i>moderate</i>	<i>moderate</i>
2.	Authority towards forest resources should be given	<i>province</i>	<i>regency</i>
3.	Institution to manage forest resources	<i>co-management</i>	<i>private</i>
4.	Portion of income according to the present laws	<i>approved</i>	<i>more to regions</i>
5.	Determinant factor to subsidiary	<i>number of people</i>	<i>number of people</i>
6.	Participation in decision making process	<i>better</i>	<i>still</i>
7.	Regional autonomy in fact	<i>decent. authority</i>	<i>political purposes</i>
8.	Main purposes of regional autonomy	<i>prospering people</i>	<i>prospering people</i>
9.	Opportunity for sustainable forest resources	<i>pesimistic</i>	<i>pesimistic</i>
10.	Main obstacle in regional autonomy	<i>inconsistency of law</i>	<i>human resources</i>
11.	Important factor to success of regional autonomy	<i>human resources</i>	<i>consistency of law</i>
12.	Suggestion to improve regional autonomy	<i>good governance</i>	<i>better coordination</i>
13.	Satisfied with the present regional autonomy	<i>not satisfied</i>	<i>less satisfied</i>

Appendix 5. Continued

No.	Subjects of question	University of Jambi	Forest Company
1.	Internalization process	<i>moderate</i>	<i>less</i>
2.	Authority towards forest resources should be given	<i>regency</i>	<i>province</i>
3.	Institution to manage forest resources	<i>state-enterprises</i>	<i>co-management</i>
4.	Portion of income according to the present laws	<i>approved</i>	<i>more to rregions</i>
5.	Determinant factor to subsidiary	<i>original income</i>	<i>number of people</i>
6.	Participation in decision making process	<i>better</i>	<i>still</i>
7.	Regional autonomy in fact	<i>political purposes</i>	<i>political purposes</i>
8.	Main purposes of regional autonomy	<i>prospering people</i>	<i>decent. authority</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>pesimistic</i>
10.	Main obstacle in regional autonomy	<i>human resources</i>	<i>human resources</i>
11.	Important factor to success of regional autonomy	<i>law enforcement</i>	<i>law enforcement</i>
12.	Suggestion to improve regional autonomy	<i>better coordination</i>	<i>revise reg. Auton. Law</i>
13.	Satisfied with the present regional autonomy	<i>moderate</i>	<i>less satisfied</i>

No.	Subjects of question	Nature Conserv. Agency	Local NGOs
1.	Internalization process	<i>less</i>	<i>less</i>
2.	Authority towards forest resources should be given	<i>province</i>	<i>prov, dep. on function</i>
3.	Institution to manage forest resources	<i>private</i>	<i>co-management</i>
4.	Portion of income according to the present laws	<i>approved</i>	<i>more to regions</i>
5.	Determinant factor to subsidiary	<i>depend on situation</i>	<i>original income</i>
6.	Participation in decision making process	<i>better</i>	<i>still</i>
7.	Regional autonomy in fact	<i>decent. authority</i>	<i>political purposes</i>
8.	Main purposes of regional autonomy	<i>public services</i>	<i>public services</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>moderate</i>
10.	Main obstacle in regional autonomy	<i>human resources</i>	<i>hmn res & nepotism</i>
11.	Important factor to success of regional autonomy	<i>law enforcement</i>	<i>law enforcement</i>
12.	Suggestion to improve regional autonomy	<i>better coordination</i>	<i>consistency of law</i>
13.	Satisfied with the present regional autonomy	<i>moderate</i>	<i>less satisfied</i>

Note: the perceptions were collected from personal views of the interviewed persons and did not represent a formal statement of the institution. Sometimes, it was necessary to conduct interviews with more than one key person in an institution and the perceptions might be different, even contrary. In this case, the perception presented here was chosen from the more relevant person or the stronger arguments.

Appendix 6. Perception of the Interviewed Stakeholders in the Central Institutions towards Regional Autonomy

Table Ap. 6. Interviewed Stakeholders in the Central Institutions and their Perceptions Concerning Regional Autonomy

No.	Subjects of question	D.G Regional Autonomy	Forestry Department
1.	Internalization process	<i>good</i>	<i>less</i>
2.	Authority towards forest resources should be given	<i>regency</i>	<i>cent, dep on function</i>
3.	Institution to manage forest resources	<i>multi actors</i>	<i>state enterprises</i>
4.	Portion of income according to the present laws	<i>approved</i>	<i>approved</i>
5.	Determinant factor to subsidiary	<i>according to laws</i>	<i>depend on situation</i>
6.	Participation in decision making process	<i>better</i>	<i>better</i>
7.	Regional autonomy in fact	<i>decent. authority</i>	<i>political purposes</i>
8.	Main purposes of regional autonomy	<i>public services</i>	<i>prospering people</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>pesimistic</i>
10.	Main obstacle in regional autonomy	<i>political situation</i>	<i>regional egoism</i>
11.	Important factor to success of regional autonomy	<i>right policy</i>	<i>law enforcement</i>
12.	Suggestion to improve regional autonomy	<i>evaluation</i>	<i>revise reg. Auton. Law</i>
13.	Satisfied with the present regional autonomy	<i>satisfied</i>	<i>less satisfied</i>

No.	Subjects of question	Forest Concession Assoc.	Forest Mng. Expert
1.	Internalization process	<i>moderate</i>	<i>less</i>
2.	Authority towards forest resources should be given	<i>province</i>	<i>prov, dep on functions</i>
3.	Institution to manage forest resources	<i>multi actors</i>	<i>co-management</i>
4.	Portion of income according to the present laws	<i>approved</i>	<i>more to regions</i>
5.	Determinant factor to subsidiary	<i>depend on situation</i>	<i>depend on situation</i>
6.	Participation in decision making process	<i>better</i>	<i>better</i>
7.	Regional autonomy in fact	<i>prospering people</i>	<i>various</i>
8.	Main purposes of regional autonomy	<i>public services</i>	<i>optimizing governance</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>moderate</i>
10.	Main obstacle in regional autonomy	<i>human resources</i>	<i>anarchy & corruption</i>
11.	Important factor to success of regional autonomy	<i>law enforcement</i>	<i>law enforcement</i>
12.	Suggestion to improve regional autonomy	<i>decentralizing fiscal</i>	<i>respon. democracy</i>
13.	Satisfied with the present regional autonomy	<i>less satisfied</i>	<i>not satisfied</i>

Appendix 6. Continued

No.	Subjects of question	Forest Policy Expert	Political Expert
1.	Internalization process	<i>good</i>	<i>good</i>
2.	Authority towards forest resources should be given	<i>reg, dep on functions</i>	<i>regency</i>
3.	Institution to manage forest resources	<i>state-enterprises</i>	<i>depend on situation</i>
4.	Portion of income according to the present laws	<i>approved</i>	<i>approved</i>
5.	Determinant factor to subsidiary	<i>according to laws</i>	<i>according to laws</i>
6.	Participation in decision making process	<i>better</i>	<i>still</i>
7.	Regional autonomy in fact	<i>various</i>	<i>prospering people</i>
8.	Main purposes of regional autonomy	<i>prospering people</i>	<i>public services</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>moderate</i>
10.	Main obstacle in regional autonomy	<i>corruption</i>	<i>lack of law</i>
11.	Important factor to success of regional autonomy	<i>respons. government</i>	<i>political will</i>
12.	Suggestion to improve regional autonomy	<i>participation</i>	<i>good governance</i>
13.	Satisfied with the present regional autonomy	<i>moderate</i>	<i>moderate</i>

No.	Subjects of question	State Adm. Law Expert	National NGO
1.	Internalization process	<i>moderate</i>	<i>less</i>
2.	Authority towards forest resources should be given	<i>province</i>	<i>prov, dep. on function</i>
3.	Institution to manage forest resources	<i>depend on situation</i>	<i>multiactors</i>
4.	Portion of income according to the present laws	<i>more to regions</i>	<i>more to regions</i>
5.	Determinant factor to subsidiary	<i>depend on situation</i>	<i>original income</i>
6.	Participation in decision making process	<i>better</i>	<i>still</i>
7.	Regional autonomy in fact	<i>prospering people</i>	<i>political purposes</i>
8.	Main purposes of regional autonomy	<i>public services</i>	<i>public services</i>
9.	Opportunity for sustainable forest resources	<i>moderate</i>	<i>moderate</i>
10.	Main obstacle in regional autonomy	<i>consistency of law</i>	<i>human res & nepotism</i>
11.	Important factor to success of regional autonomy	<i>public services</i>	<i>consistency of law</i>
12.	Suggestion to improve regional autonomy	<i>revise reg. auton. law</i>	<i>better participation</i>
13.	Satisfied with the present regional autonomy	<i>less satisfied</i>	<i>not satisfied</i>

Note: the perceptions were collected from personal views of the interviewed persons and did not represent a formal statement of the institution. Sometimes, it was necessary to conduct interviews with more than one key person in an institution and the perceptions might be different, even contrary. In this case, the perception presented here was chosen from the more relevant person or the stronger arguments.

Appendix 7. Estimation of Annual Illegal Logging in Tebo Regency

Table Ap. 7.1. Capacity of Timber Based Industries in Tebo Regency 2002

Industry	No. of Unit ¹	Capacity per unit ² (m ³ /year)	Total Capacity (m ³ /year)	Efficiency ³	Logs input (m ³ /year)
Veneer	1	60.000	60.000	0,80	75.000
Moulding	10	2.750	27.500	0,39	71.429
Palet	21	5.500	115.500	0,55	210.000
Sawntimber	87	5.500	478.500	0,55	870.000
Total	119	73.750	681.500		1.226.429

¹ Data Disperindagkop Tebo until September 2002

² Maximum capacity for sawntimber in regency level is 6000 m³/year, in Tebo Regency max 5.500 m³/year (Disperindagkop 2002)

³ Assumption according to personal interview with Disperindagkop, forestry officer, and forestry company

Table Ap.7.2. Regional Taxes (“retribusi daerah”) of Logs in Tebo Regency 2002

Received (Rp/year)	Tax Unit (Rp/m ³)	Logs with “retribusi” (legal) (m ³ /year)
7.000.000.000	60.000	116.667

Source: Tebo Forestry Office (until September 2002)

Table Ap.7.3. Estimation of Annual Illegal Logging and Loss of Retribution in Tebo Regency

Logs Input to Industry Max Capacity	Logs Input to Industry 50% capacity ¹	Logs with “retribusi”	Logs without “retribusi”	Regional Earnings loss from “retribusi”
(m ³ /year)	(m ³ /year)	(m ³ /year)	(m ³ /year)	(Rp/year)
1.226.429	613.214	116.667	496.547	29.792.837.143
Annual logs volume	100%	19%	81%	

¹ moderate estimation

Appendix 8. Forecasting the Size of Jambi Forests 2001-2010

Table Ap. 8. Estimation Models of the Size of Jambi Forests 2001-2010

Year	Total Jambi Forests (Hectares)			
	Model-1 Ann def 1.29%	Model-2 Ann def 7.28%	Model-3 Regression-a	Model-4 Regression-b
2001	2.573.424	2.270.576	2.399.279	2.471.748
2002	2.540.227	2.105.278	2.344.668	2.295.664
2003	2.507.458	1.952.013	2.290.057	2.119.580
2004	2.475.112	1.809.907	2.235.446	1.943.496
2005	2.443.183	1.678.146	2.180.835	1.767.412
2006	2.411.666	1.555.977	2.126.224	1.591.328
2007	2.380.556	1.442.702	2.071.511	1.415.244
2008	2.349.846	1.337.673	2.017.002	1.239.160
2009	2.319.533	1.240.290	1.962.391	1.063.076
2010	2.289.611	1.149.997	1.907.780	886.992

Notes:

Model-1: estimation based on the annual deforestation rate of 1.29% (using average data before regional autonomy)

Model-2: estimation based on the annual deforestation rate of 7.28% (using average data after regional autonomy)

Model-3: estimation based on the linear regression model $y = -34329x + 3E+06$ (using data time series before regional autonomy)

Model-4: estimation based on the linear regression model $y = -176084x + 3E+06$ (using data time series after regional autonomy)

Appendix 9. Comparison between Formal and Factual Forests in Jambi

Table Ap. 9. Comparison between Formal and Factual Forests in Jambi 2002

No.	Regency	Formal Forests*	Forested Area	Factual Forests**
1.	Muaro Jambi	155.260	0,7678	119.208
2.	Batanghari	215.936	0,5643	121.853
3.	Tanjab Timur	216.020	0,6185	133.608
4.	Tanjab Barat	254.217	0,6613	168.114
5.	Tebo	286.784	0,6848	196.390
6.	Bungo	141.957	0,5199	73.804
7.	Sarolangun	252.378	0,4621	116.624
8.	Merangin	337.715	0,4501	152.006
9.	Kerinci	231.575	0,3937	91.171
10.	Jambi City	-	-	-
	Total	2.064.342	0,5681	1.172.777

Source: Jambi Forestry Office (2002). *Forested Area and Covered Lands by Regencies in Jambi Province 2002*

* Formal forest is permanent forest legally established by the Ministry of Forestry

** Factual forest is the actual forested area in permanent forest

Appendix 10. Forest Area by Function in Jambi Province

Table Ap. 10. Forest Category according to its Function (TGHK) in Jambi 1990-2002

Year	Production Forest (Ha)	Protected Forest (Ha)	Rec and Jungle (Ha)	Conversion Forest (Ha)	Total Forests (Ha)
1990	1.436.244	181.244	642.944	726.944	2.987.376
1991	1.436.244	181.244	642.944	726.944	2.987.376
1992	1.436.198	181.244	642.944	668.424	2.928.810
1993	1.436.244	181.244	642.944	521.253	2.781.685
1994	1.429.245	181.244	642.944	511.474	2.764.907
1995	1.429.245	181.244	642.944	511.474	2.764.907
1996	1.429.245	181.244	642.944	454.466	2.707.899
1997	1.436.244	181.244	877.244	423.275	2.918.007
1998	1.336.634	161.654	741.144	423.275	2.662.707
1999	1.349.194	191.134	679.124	421.674	2.641.126
2000	1.312.190	191.130	676.120	-	2.179.440
2001	1.278.700	191.130	679.120	-	2.148.950
2002	1.232.352	172.215	659.775	-	2.064.342

INDEX

A

accountability 14, 17, 23, 24, 25
accountable governance 170, 171
actors' perspective 46
actual revenue 129
amendment of national constitution 43
aspiration for fairness 21
authority 13, 14, 15, 19, 21, 23, 29

B

bad governance 27, 28
Basic Forestry Law 65
biodiversity 2, 9
bribery practices 128, 157
bureaucracy 20, 24, 26, 28, 173, 176

C

centralization 15, 20, 46
centralized administrations 58
central government 45, 46, 55, 56, 57, 58, 62, 69, 71, 171, 172, 176, 177, 180, 183
centralized system 1, 19, 20, 31
central regulation 127
clean governance 43, 45
collective action 43, 68
collusion 103
co-management 29, 43, 102, 150
Community Based Resources Management 29
common property 68, 69
conflicts of interest 19, 88, 175
concession holders 64
conservation 55, 65, 68, 154, 159
conversion forest 62, 63, 70, 74
corruption 21, 26, 45, 103, 104, 105, 152, 153, 167, 169
corruption, collusion, nepotism 170, 174
customary forests 103
customary rights 89, 104

D

decentralization 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 28, 29, 31, 35, 41, 42, 46, 43, 45, 46, 47, 48, 49, 56, 57, 59, 69, 71, 85, 86, 87, 88, 90, 91, 92, 94, 99, 105, 111, 150, 151, 152, 153, 172, 175, 177, 179, 183, 186
decision-making process 170, 171, 179
decentralization laws 46
decentralized system 87, 103
decentralized institutions 58
deconcentration 14, 56, 57, 62
deforestation 20, 28, 89, 155, 159, 163, 166, 167, 169
degree of participation 31
delegation 13
democracy 20, 22, 25, 26, 27, 44, 146
democratic government 24, 27
democratization 43, 44
demonstration 43, 146, 169
developing countries 1, 2, 3, 19, 36, 43, 69
devolution 14, 19, 20, 22, 28, 29, 31, 111, 151, 170, 177
Dutch administration 100
Dutch Indies 45, 46

E

ecological characteristics 103
economic crisis 124, 125, 149, 169
economic growth 26
economic indicators 122
effectiveness 17, 34, 45
effective policy 169
efficiency 16, 17, 23, 35, 43
empowerment 68
environmental management 19, 35
equity 16, 20, 34, 35, 42
estate crops 89

F

financial supervision 61
fiscal and monetary policies 183
fiscal balance 47, 55, 57, 59, 61
Fiscal Balance Law 187
forest allocation 68
forest categories 72
forest concessions 74, 89, 98, 100, 101, 102, 107, 109, 116, 121, 122, 123, 162
forest conversion 103, 158, 164
forest degradation 47, 72, 128, 152, 153, 155, 161, 164, 166
forest dependent communities 89
forest fires 164
forest guards 128
forest management 19, 20, 21, 22, 27, 28, 29, 34, 35, 47, 55, 56, 89, 90, 91, 96, 98, 99, 100, 102, 103, 105, 107, 110, 111, 187
forest management systems 72, 187
forest ownership 34, 72
forest resources 19, 33, 34, 35, 47, 69, 71, 72, 88, 89, 90, 92, 93, 96, 99, 100, 101, 103, 105
forest resource management 183
forest resources degradation 183
forestry decentralization 19, 126
Forestry Law 62, 63, 64, 65, 66, 67, 68, 69, 88, 93, 101, 151, 165
forestry policies 99

G

Gini Coefficient 131, 132, 134
good governance 22, 24, 25, 27
government earnings 63
government regulation 47, 63, 93, 94, 95, 96, 100, 101, 123
government services 15
government system 20, 22
Gross Domestic Regional Product 71
guided democracy 47

H

hierarchy of legislation 71
household survey 79, 82, 149

household income 137, 138, 139, 140
household economy 121
House of Representative 53, 54, 64
human capital 26, 41, 137
human resources 170, 171

I

illegal logging 27, 103, 104, 105, 116, 122, 127, 128, 129, 130, 152, 153, 154, 155, 156, 157, 158, 159, 161, 163, 165, 166, 169
illegal logs 127, 128, 155
incentive and disincentive mechanisms 186
income dependency 138, 139
income disparity 121, 130, 131, 133, 135, 136, 174, 180
indigenous people 89, 104
infra-resources 45
infrastructures 176, 177, 180
institutional dimensions 57
instrumental resources 45
institutional capacity 150
institutional choice 99, 100
instrumental capital 112, 118
internalization 178, 180
international commitments 104
intersectoral planning 104

J

Jambi 69, 73, 74, 75, 76, 79, 81, 82, 85, 87, 88, 89, 90, 92, 93, 94, 96, 99, 102, 105, 106, 107, 111, 112, 113, 119, 121, 122, 123, 128, 129, 130, 131, 133, 146, 152, 153, 155, 159, 160, 162, 163, 164

K

key person interviews 79

L

lack of coordination 170
land-clearing scheme 74
large-scale enterprises 19

large-scale forest concessions 149
 large-scale plantation owners 164
 law codification 71
 law enforcement 152, 153, 154, 157,
 163, 166, 171, 174, 178, 179, 180
 legal sawmills 127
 legal basis of regional autonomy 71
 legal crises 71
 legal system 21
 limited production forest 62, 63, 74
 local communities 17, 19, 22, 29, 43,
 89, 92, 102, 111, 112, 122, 123,
 152, 164
 local government 53, 57, 87, 88, 89,
 99, 170, 171, 176, 181
 local knowledge 17
 local people 88, 89, 90, 93, 101, 102,
 104, 106, 116, 122
 local specifics 150
 logging concessions 63
 logging licenses 126, 146, 151, 162
 Lorenz Curve 132, 133, 135, 136

M

macroeconomic stability 57
 market economy 26
 marketization 90
 maximum production capacity 127

N

national budget 61, 62
 national constitution 51, 56
 national parks 154, 158
 national revenue 69
 national sovereignty 44
 natural resources 19, 21, 29, 35, 36,
 37, 40, 43, 47, 69, 84
 natural resources management 2, 10,
 44, 49, 88, 96, 112, 146
 nature conservation 62, 63
 new order 45, 47
 NGOs 4, 53, 64, 67
 NGO's network 114
 non-timber forest products 123
 normative commitments 104, 154

O

original regional income 121, 122
 over-exploitation 128, 154, 158, 162,
 170

P

palm oil plantations 163
 participation 14, 19, 22, 24, 25, 27, 29,
 31, 33, 34, 35, 36, 47, 88, 93, 100,
 102, 145, 146, 147, 150, 174
 participatory forestry 34
 per capita income 121, 122, 124, 130,
 133, 134, 140, 144, 169, 174, 175
 perverse political capital 117
 perverse social capital 169
 plantation estates 123
 political analysis 44
 political bargaining 44
 political capital 22, 44, 45, 46, 71, 111,
 112, 116, 117, 122, 169
 political change 43
 political crisis 121
 political dynamics 19, 175, 183
 political education 46
 political instability 20, 21, 47, 170
 political interests 44, 146, 157
 political parties 21
 political reform 43, 44, 45, 48
 political reform agenda 183
 political rights 27
 political sciences 44, 45
 political stability 25
 political will 20, 28
 poor regencies 130
 post reform 43, 44, 45, 47
 poverty line 125, 137, 139, 140, 144,
 145
 poverty rate 124, 125, 137, 140, 169
 pre-colonial period 45
 private sector 101
 privatization 14, 15
 production forests 92, 103, 121, 154,
 158, 159, 162, 163
 property rights 59, 67, 68, 72
 prosperity of people 174
 protected forest 62, 63
 provincial regions 56

public administrative services 174, 176, 180
public infrastructure 174
public perspective 41, 45, 46
public sector 14, 17, 21
public service 170, 171

Q

qualitative research 79
quantitative research 82
questionnaire 79

R

rational choice 22, 37, 38, 40
rational planning 19
reforestation 59, 63
reformasi 43, 44
regency budget 124, 174
regency original income 174
regency regions 56
regional egoism 170
regional autonomy 15, 16, 43, 44, 45, 46, 49, 50, 51, 55, 56, 57, 69, 71, 79, 82, 83, 84, 85, 86, 87, 89, 92, 94, 99, 101, 103, 106, 109, 110, 111, 119, 121, 122, 123, 124, 125, 126, 130, 132, 136, 144, 145, 146, 147, 148, 149, 150, 152, 153, 158, 159, 161, 162, 163, 164, 165, 166, 169, 170, 171, 172, 173, 175, 176, 177, 178, 179, 180, 181, 183, 184, 185, 186, 187, 188
regional disparity 21
Regional Governance Law 88, 96
regional governments 55, 57, 58, 59
Regional House of Representatives 123
regional income 121, 163, 166, 173, 175, 180, 181, 182, 188
regional preferences 15
regional timber fees 129
regular production forest 63
representative democracy 26
resource mobilization 57
revenue loss 129, 130
rewards and punishment 186
right forest 68, 69
rural communities 34, 79, 82

rural economy 90

S

sample villages 125, 130, 134, 137, 139, 140, 143, 144, 145, 148, 149, 152, 162
sawn-timber industries 89, 116, 126, 127, 128, 146
sectoral egoism 170
shifting cultivation 164
short-term economic interests 2
short-term personal benefits 188
small scale logging licenses 184
snowball method 79
social capital 22, 40, 41, 42, 43, 44, 45, 46, 71, 100, 102, 111, 112, 113, 114, 116
social perspective 112, 113
social conflicts 44, 174, 175
social welfare 44, 50, 51
socio-economics 71, 82, 84, 183, 184
socio-political function 43, 44
state administration system 55, 56
state forest 67, 68, 69
stratified random sampling 82
structural capital 112, 113, 118
struggle for authority 71
Sumatra 69, 73
supremacy of justice 43, 44
sustainable forest management 151, 153, 155
sustainable resources management 21, 36

T

Tebo 73, 75, 76, 81, 82, 83, 87, 88, 90, 93, 94, 99, 109, 116, 117, 121, 122, 123, 124, 125, 126, 127, 128, 129, 131, 147, 151, 153, 155, 157, 162, 163, 164, 165, 166, 169
tenurial conflicts 89, 112, 119, 122, 123
timber estate 73, 74, 121, 122
timber market 128
traditional community 53
tragedy of the commons 36, 40
transaction costs 17, 25, 43
transmigrants 162

transparency 174
tropical forest 74

U

under poverty line 125
unitary state 56, 57

V

village community 71, 82

W

weakening of the state 71
wealthy region 69
welfare indicators 137

Curriculum Vitae

DODIK RIDHO NURROCHMAT. Born in Ponorogo, East Java, Indonesia on March 29, 1970. After finishing his high school at SMA Negeri 1 Ponorogo (1989), he studied Forestry at the Department of Forest Management, Bogor Agricultural University (IPB) Indonesia. In 1991-1992 he was a president of the Forestry Student's Senate at IPB, Indonesia. He was also a member of the National Board of Sylva Indonesia (1992-1994), assistant representative of the International Forestry Student Association (IFSA) for the Asian Pacific Region (1992-1994) and chairman of the first Congress of ASEAN Forestry Student Association (AFSA) in 1993.

He attained his university degree (*Sarjana Kehutanan* / Dipl. Forst) from IPB in 1994. After finishing his university degree, he worked in a group of the Forestry Company in Jakarta (1994-1995). From 1995 to 1996 he was a consultant of quality management system ISO 9000 for timber industries. From 1997-1999 he continued his study in a Master's program at the Institute of Forest Economics, Georg-August University of Goettingen and from 2001-2005 was a Ph.D student at the Institute of Forest Policy and Nature Conservation at the same university. During his study in Germany, he was also a chairman of the Indonesian Student Union (PPI) in Goettingen (2001-2002).

In January 2005, he attained his Ph.D degree in Forest Policy from the University of Goettingen. He is currently a lecturer at the Laboratory of Forest Policy, Economics and Social, Faculty of Forestry IPB Bogor, Indonesia. He married to Meti Ekayani and has two children, Andhika Akbar Nurrochmat and Nugraha Akbar Nurrochmat.

A number of his articles have been published in scientific media, news, and magazines. He contributed a chapter to a book "*Resiliensi Kehutanan Masyarakat di Indonesia*" – *The Resilience of Community Forestry in Indonesia* (Debut Press, 2001) and was co-editor of two books: *Sustainable Development: Socio-economic and Environmental Problems* (Cuvillier Verlag, 2003) and *Poverty Alleviation: Concepts and Experiences* (Cuvillier Verlag, 2004). His most recent book is *Strategi Pengelolaan Hutan* – *The Strategy of Forest Management* (Pustaka Pelajar, 2005).