

A Future Resource Curse in Indonesia: The Political Economy of Natural Resources, Conflict and Development

Abstract

The paper addresses two main questions: First, to what extent is the current international literature on resource conflicts relevant to Indonesia? Second, to what extent have natural resources factored into different types of conflict in Indonesia and what channelling mechanisms are in place? The paper also seeks to identify relevant policy implications for Indonesian development practitioners and policy-makers. This paper identifies four channelling mechanisms linking natural resource abundance and conflict: economic disruption, institutional failure, growth failure and relative deprivation. Natural resources play different roles and varying importance in the four actor-based categorisations of conflict explored in this paper: separatism, the state vs. community, company vs. community and inter-communal groups. The relationships can be direct or indirect. Separatism and inter-communal violence are the most severe types of conflict in contemporary Indonesia. On separatism, feelings of relative deprivation among indigenous peoples in four resource rich provinces against the rich were a commonly identified factor: termed herein as 'the rage of the potentially rich.' For inter-communal conflict, natural resources can be a trigger or proximate cause of conflict, the underlying structural cause of conflict, or provide a context by which inter-communal violent conflicts take place. In short, grievance matters. The paper concludes by pointing to three arguments drawn from research findings: (i) the possibility of a resource curse in the four natural resource rich provinces studied, (ii) the utilitarian reasons for private business to combat poverty through innovate strategies for managing natural resources and (iii) the need during policy-making to consider the changing positions of group's relative to one another at sub-national levels.

Mohammad Zulfan Tadjoeeddin

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A Future Resource Curse in Indonesia: The Political Economy of Natural Resources, Conflict and Development

By Mohammad Zulfan Tadjoeuddin²

1. Introduction

1.1 Motivation

The volume of studies of conflict has grown considerably in Indonesia within the past decade, in particular, following the significant increase in the incidence of violent conflict during the first few years of the country's transition toward democracy.³ Similar to other parts of the world, in the early stages, conflict studies were dominated by the historical, cultural and political approaches used by the relevant social scientists, with rather less emphasis being placed on multi-disciplinary development perspective – including economics. In fact, there are socio-economic factors which do play a role in causing conflict in Indonesia.⁴ Nevertheless, in Indonesia in general, it seems that these aspects are relatively under-studied, compared with cultural and historical perspectives. One such factor is the relationship between the presence of significant natural resource endowments and the incidence of conflict, since Indonesia is regarded as a country rich in such resources.

Internationally, how natural resource wealth is linked to conflict has been widely debated.⁵ Both, large-N cross country statistical analyses and small-N country case studies have been carried out. Such studies have resulted in significant global policy implications, such as aid priority for post civil war countries to break the conflict trap and the Kimberley Process regulating the global diamond market. However, Indonesia is very much not in the picture, with Ross (2003) being one of the exceptions, which is mainly due to the relatively low frequency and magnitude of

² I am grateful to Frances Stewart, Rachael Diprose, Mansoob Murshed, Graham Brown, Yvan Guichaoua and Luca Mancini for helpful comments and suggestions.

³ The start of the transition was marked by the forced resignation of President Suharto in May 1998 and the subsequent fall of the military backed authoritarian regime (New Order). The first free democratic multiparty parliamentary election in the past 44 years was held in the following year. In the same year, a radical big bang –and rather chaotic—decentralisation process that hands over power to hundreds of local administrative government units was initiated. Decentralisation was perceived as an inseparable part of the demand for democratisation. In 2004, the second free democratic parliamentary election and the first direct presidential election were undertaken. In 2005, the first direct elections of heads of local administrations – regent, mayors, and governors — were pursued in hundreds of districts and dozens of provinces. Yet, due to problems embedded in and arose from those stages; it seems that, the country's passage towards a mature and stable democracy is till a long way to go.

⁴ Few such studies on Indonesia include Tadjoeuddin, Suharyo and Mishra (2001), Ross (2003), Mancini (2004), Baron, Kaiser and Pradhan (2004) and Tadjoeuddin and Murshed (2006).

⁵ See for examples, among others, collections of scholarly articles in the August 2005 special issue of the *Journal of Conflict Resolution*, and the following two volumes: Bannon and Collier (2003) and Bellantine and Nitzschke (2005).

episodes of the contemporary civil war in Indonesia compared with those in both African and South Asian countries.⁷ Furthermore, by international standards, Indonesia is regarded as one of the few countries in the world that had avoided the resource curse phenomenon (Rosser 2004).

However, this does not mean that the role of natural resources in contemporary conflicts in Indonesia is not important, for the following reasons. First, the feeling of injustice felt by people living in four natural resource rich provinces (Aceh, Papua, Riau and East Kalimantan) on how the revenues derived from their regions have been used by the central government is regarded as one of key drivers behind the contemporary separatist sentiments that arose in Indonesia in late 1990s. The issue was very much related to how natural resource rents were distributed across regions (Tadjoeddin *et al* 2001). Second, ethno-communal conflicts (like the ones in Kalimantan, Central Sulawesi and Maluku) are often associated with the extraction of particular types of natural resources, see Klinken (2006), Wilson (2005) and Peluso and Harwell (2001) for examples of this. Third, the more routine forms of conflict and violence, notably inter village/group brawls, company vs. community conflicts, even state vs. community conflicts, are frequently linked to disputes over natural resources or their related regulations.

One perspective contends that conflict should be considered as an integral part of the development process, since development itself is an inherently conflictual process, which has to be transformed through the development process itself in order to achieve positive, non-violent outcomes.⁸ This establishes a foundation for positioning conflict within the broad cross-disciplinary development discourse

The development economics literature prior to the late 1980s is often referred to for its claims that natural resources are good ingredients for development.⁹ However, later research demonstrated that rich natural resource endowments are more likely to result in a curse – rather than a blessing – in the form of negative development outcomes including poor economic performance, non-democracy and civil war.¹⁰ It seems that the current available studies on the issue on Indonesian are rather piecemeal. Therefore, this study intends to bring all the previous studies together

⁷ Compared with the Maoist insurgency in the Kingdom of Nepal which has claimed more than 13,000 lives in a decade or the Sri Lankan civil war between the Sinhalese-controlled government and Tamil rebel group which has reached more than 65,000 death tolls in two decades, the Indonesian three decade long civil war in Aceh that claimed some 15,000 lives is less severe. In term of population size, Indonesian, a country of 220 million people, is much far bigger than Nepal or Sri Lanka, which have 26 million and 19 million population respectively.

⁸ See among others Lederach (1995, 1997), Gleditsch et al. (2003). For evidence on this in Indonesia, see Barron, Diprose and Woolcock (2006).

⁹ See for examples Lewis (1955), Rostow (1961) and Belasa (1980).

¹⁰ See for examples Auty (1993, 2004), Sachs and Warner (1995, 1999), Collier and Hoeffler (2004) and Ross (2001a).

into a more cohesive analysis of the interplay between natural resources and conflict within a development context in Indonesia.¹¹

Unlike in most of the resource curse and resource conflict literature, where natural resources mainly refer to high valuable point-source resources such as oil, gas, diamond, and other minerals, this paper gives natural resources a wider interpretation. In addition to the above, they include timber, agriculture land, plantation, fishery resources, etc.

1.2 Objectives

Given the above motivation, this research has the following objectives: first, to determine to what extent the current discourse in the international literature on resource conflicts is relevant for Indonesia; second, to explore to what extent natural resources have factored in different types of conflict in Indonesia and what the channelling mechanisms were; and third, to consider the key policy implications for Indonesian development practitioners and policy makers.

1.3 Approach

The approach used in this study is based both on a review of international literature on the links between natural resources and conflict, and on Indonesia-related research on conflict and economic development, as the two are rarely available in a single piece of work. Broad patterns of contemporary conflicts in Indonesia are the point of departure for this study through the development of a conflict typology which is useful for considering the possible roles – direct or indirect – of natural resources in each conflict type by looking at what the international literature on natural resource and conflict says about the transmission mechanisms at work. Then we examine the mechanisms/channels applicable in the Indonesia cases. Specific attention to the role of natural resources in conflict does not mean that other factors are unimportant. Instead, this approach is relevant for exploring the specific theme of natural resources and conflict.

The rest of the paper is organised as follows. Section 2 briefly discusses the current literature on the link between natural resources and conflict. Section 3 reviews the role of natural resources in the economic development of Indonesia, particularly during the New Order period of government between 1966 and 1998. Section 4 explains macro patterns of conflict in Indonesia as a dependent variable. It is an outcome indicator in which natural resources, as an independent variable, are going to explain. Section 5 deals with the possible role played by natural resources in varieties of conflict in Indonesia. The last section concludes.

¹¹ The more ambitious objective of the current endeavour is to conduct a comparative study on natural resources and conflict in three resource rich countries – which covers three continents in the global South – namely Indonesia, Nigeria and Bolivia. This paper is a first step by looking at the issue in a single country, i.e. Indonesia.

2. The Link: A Simple Framework for considering the link between Natural Resources and Conflict

The study of the link between natural resources and conflict results from the fact that many countries with an abundance of natural resource endowments have experienced violent internal conflict, in which severe civil war occurs, although this is not the case for all resource dependent countries.¹² Such incidences of violence have led to the investigation (systematic large-N or in-depth case studies) of why the presence of natural resources might create a context for, be an underlying cause for, or act as a trigger for conflict. Such a discourse has to be placed within the previously established literature on the natural resource curse hypothesis that draws links between natural resource abundance, on one hand, and bad macroeconomic outcomes, on the other.

2.1 The resource curse hypothesis

To begin with, let's briefly review the literature on the resource curse hypothesis. Although there are resource rich countries that have benefited from their natural wealth, the latest state of inquiry contends that on average, natural resource wealth leads to bad development outcomes. As Auty (1993:1) contends, "a growing body of evidence suggests that a favourable natural resource endowment may be less beneficial to countries at low and mid-income levels of development than the conventional wisdom might suppose." Pioneering cross-country empirical evidence on that was put forward by Sachs and Warner (1995) who find that resource rich countries, measured by ratio of natural resource exports to GDP, tended to grow relatively slowly.¹⁴ More recent empirical work on this by Mavrotas, Murshed and Torres (2006) suggests that a point source type natural resource endowment retards institutional development measured by both governance and democracy, which in turn hampers growth prospects. Accounts of the natural resource curse phenomenon are available for many countries, with Nigeria providing possibly the most dramatic example of the resource curse (Bevan, Collier and Gunning 1999; Sala-i-Martin and Subramanian 2003).¹⁶ Within the resource curse framework, the central investigation is into the relationship between resource dependence, as one of the independent variables, and macro-development outcomes (in particular, growth failure) as the dependent variable. Adopting a similar framework, the central focus on growth consequences of resource dependence has been expanded into other socio-political development consequences, such as lack of democracy (Ross 2001) and civil war (Collier and Hoeffler 2004).

The literature has established several channelling mechanisms connecting resource dependence with growth failure. Figure 1 depicts, in a simplified manner, all the possible mechanisms identified in the literature. Persistent growth failure, which is the crudest measurement of bad economic outcomes, is on the right side and resource abundance is on the left. Arrows connect the two through at least three transmission mechanisms presented in boxes in the middle part of Figure 1. Conflict

¹² Botswana and Norway are clear examples. To some extent, Indonesia is also considered within the same box.

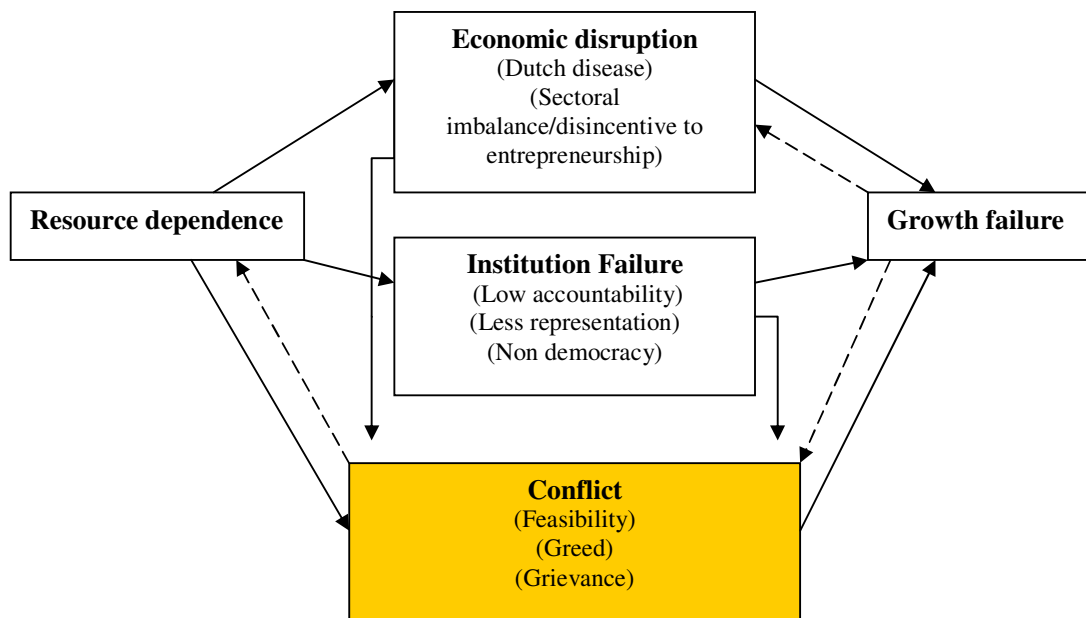
¹⁴ This highly influential empirical work then is followed by a series of its up-dated versions, i.e. Sachs and Warner (1997, 1999, 2001).

¹⁶ For examples are Gelb (1988), Karl (1997), Wood (1999), and Auty (1993, 2001).

is only one of them, while others are economic disruption and institutional failure. Under each mechanism, several processes are at work. In fact, theoretically (and intuitively) speaking, there might be inter-dependencies among them and reverse causality between (i) dependent and independent variables, (ii) the channelling mechanisms and the dependence variable, and (iii) the channelling mechanism and the independent variable.¹⁷ Theoretically speaking, every causal direction seems possible. Arrows indicate all the possibilities.

The initial resource curse literature only considered the economic disruption as the channelling mechanism. However, later developments in the literature on the subject have also emphasized institution failure and conflict in addition to economic disruption. Therefore, I would call the simplified framework of resource dependence and growth failure presented below an ‘augmented’ resource curse (inspired by the famous terminology of augmented Washington consensus by Rodrik (2002)).

Figure 1. ‘Augmented’ resource curse



The first channelling mechanism linking resource dependence and growth failure is through economic disruptions, which consists of at least two economic processes, namely Dutch disease and sectoral imbalance/disincentive to entrepreneurship. Dutch disease refers to economic disruption in the form of de-industrialisation or de-agriculturalisation (in accordance with what is the tradable sector in the economy) originating from the large inflow of foreign currencies from natural resource exports.¹⁸

¹⁷ For examples, Collier and Hoeffler (2004) put income as an independent variable to civil war, while Murdoch and Sandler (2002) and Collier (1999) did the reverse. Both are valid according to each way of logical framework.

¹⁸ The term of Dutch disease was coined in 1977 by *The Economist* (26 November) to describe the decline of the manufacturing sector in the Netherlands after the discovery of natural gas in North Sea in the 1960's. The classic economic model describing Dutch disease was developed by Corden and Neary (1982). Indonesia is one of the few countries to avoid the Dutch Disease in the developing world (Gelb and Glassburner 1988) and countries like Norway have avoided it in the developed world.

A substantial increase in the price of minerals can cause resource misallocation via the mechanism of relative prices. The exchange rate may appreciate, crowding out traditional agricultural or manufacturing sector exports. Domestic price changes encourage output and investment in non-traded activities. There is a switch from internationally traded goods to non-traded goods. See Neary and Wijnbergen (1986), as well as Sachs and Warner (1999, 2001) on this. Over time the economy's productive sectors weaken and skills as well as experience in those areas are permanently lost (Krugman 1987). Rent-seeking types of economic activity, fostered by the high rents derived from natural resources-related economic activities, create a disincentive for economic agents to engage in more productive type of economic activities, and since a resource boom lowers returns to entrepreneurship relative to rent-seeking, entrepreneurship falls. Therefore there would be a change in the allocation of human capital with a boom and the loss of productive human capital or talent through the rent-seeking process (Baland and Francois 2000).

The second channel concerns institutional failure. Mavrotas, Murshed and Torres (2006) find that a point-source type natural resource endowment impedes institutional development measured by both governance quality and democracy level, which in turn hinders growth. Resource rich countries that impose low taxes tend to have less representative and accountable governments through the logic of no representation without taxation (Ross 2004). Their polities are also more likely to be less democratic (Ross 2001a), while democracy has been argued to be positively associated with growth (Robinson 2006). Furthermore, Ross (2001b) argues that there tends to be institutional breakdown due to negative government responses to the resource boom's positive revenue shocks.

As regards the third channel, conflict, two important avenues can be identified, namely motive and feasibility. Regarding motive a distinction is often made between grievance and greed (Murshed 2002). These can be interpreted in terms of individual or group motivation. Grievance is a motivation based on a sense of injustice in the way a social group is treated, often with a strong historical dimension. The justice seeking motivation potentially appears when a group of indigenous people are denied the benefit of their region's resource wealth. Greed is an acquisitive desire similar to that motivating crime, although in the case of civil war often on a much larger scale. Moreover, for crime it acts almost entirely through its impact on individual motivation, while for civil war, groups may aim to acquire resources through war. Natural resource abundance offers the potential for riches among individuals and groups, and consequently it is likely to increase the salience of the greed motive. Collier and Hoeffler (2004) conclude that the greed motive dominates the grievance motive, by arguing that the availability of lootable natural resources creates an appetite for rebel groups to launch an insurgency and the finance with which to do so. Their use of primary commodity exports as a proxy for lootable natural resources has been strongly criticized, for example, by Fearon and Laitin (2003) and Fearon (2005). Moreover, Ross (2004) argues that their finding on the role of primary commodities in civil war is not robust. One should note that nobody would claim that these motives are entirely separate in practice, and motives often change during the course of war. Beyond greed and grievance as the motivation, later inquiries have emphasized feasibility. It is argued that where rebellion is feasible it will occur, regardless of prevailing motivations (Collier and Hoeffler 2006a). The key proxies for feasibility are the share of primary commodities in GDP, the proportion of young males in the population and mountainous terrain. Conflict, in turn, results in growth failure (Collier, 1999; Murdoch and Sandler, 2002).

Apart from focusing on the greed motivation of belligerence groups to capture natural resources, one should also note the role played by greedy behaviour of different

groups in neighbouring countries or sympathetic governments leading to an engagement in internal conflict in a particular country for 'greed' reasons, besides ideological ones. Examples of this are the involvement of neighbouring countries (such as Angola, Zimbabwe, Namibia, Libya, Sudan, Chad and Sudan) in the Democratic Republic of Congo's (DRC) civil war and the roles played by the US and Soviet Union during the Cold War in supporting different parties in countries internal conflicts.

Different types of natural resources, namely whether they are point-source or diffuse, lootable or unlootable, lead to different impacts on conflict. Point-source unlootable resources such as oil, gas and deep-shaft minerals are prone to secessionist movements due to the grievances of local people when they get fewer benefits from the resource extractions in their area (Ross 2003). Lootable natural-resource rents, such as alluvial diamonds in the case notably of Angola, Congo Democratic Republic and Sierra Leone, can result in contests over the right to control these, some of which take the form of warfare, and criminality and corruption in other instances. Diffuse resources, like opium in Afghanistan and Columbia, can create war lord economies that prolong conflict duration.

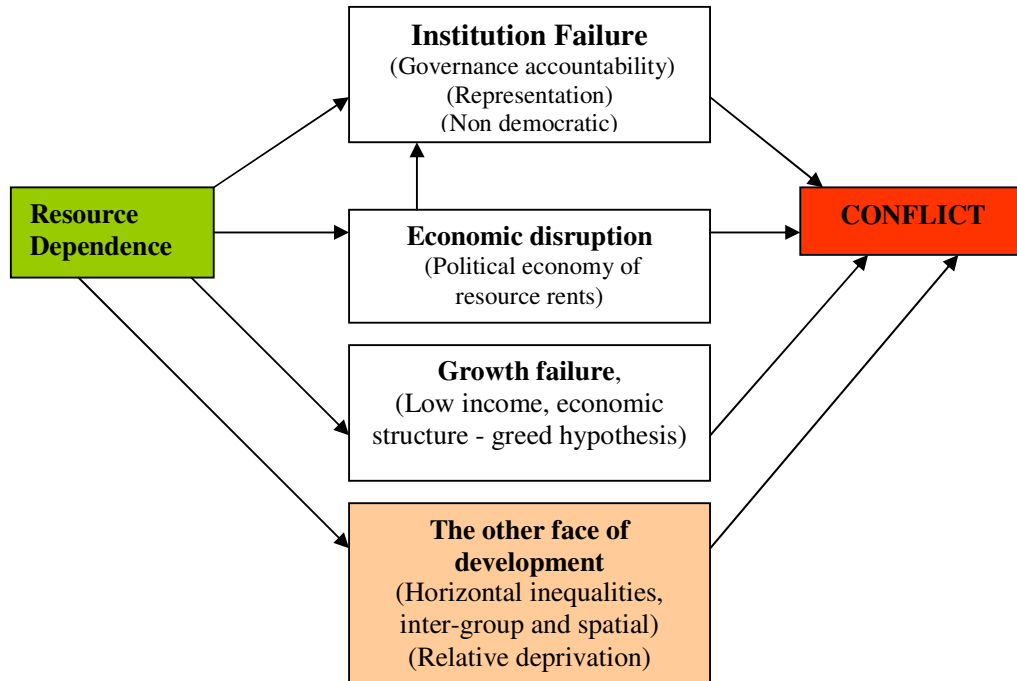
Returning to the central theme of the resource curse hypothesis, the latest studies on the subject reveal there is no such resource curse. In line with the latest quest for the deep determinants of growth and prosperity, it is argued everything depends ultimately on institutions.¹⁹ Whether resource abundance might result in a blessing or a curse depends on what kinds of institution are in place: good or bad. Mehlum, Moene and Torvik (2006a, 2006b) theoretically and empirically argue that natural resource abundant countries include both growth losers and growth winners, and the main difference between the successful cases and the cases of failure lies in the quality of their institutions. In polities with 'grabber friendly' institutions, more natural resources push aggregate income down, while in those with producer friendly institutions more natural resources increase income. Eric Ng (2006) finds that empirical evidence shows that natural resource abundance per se is not a 'curse' for either the level or growth of GDP. Resource abundance is insignificantly related to the growth rate of GDP but positively correlated to the level of GDP.

2.2 Focussing on the links between resources and conflict

The simplified resource curse picture presented above can be modified or re-arranged, as shown in Figure 2, again, in a very simple framework. It should be noted that all variables listed in the model are linked to each other to different degrees and often with causal relationships working in both directions; therefore, endogeneity is present. Arrows show the suggested direction of causality. A new box is added as a transmission mechanism, namely unintended consequences of resource extraction that are 'embedded' in the development processes. The new box consists of horizontal inequalities (both inter culturally formed groups and inter-spatial) and relative deprivation, which are highly inter-related.

¹⁹ On the latest quest on the role of institution to achieve growth and prosperity, see Rodrik, Subramanian and Trebbi (2004) and Acemoglu, Johnson and Robinson (2005)

Figure 2. A simplified framework on resource dependence and conflict



Institutional failure (shown in the middle of the first box) may result from resource dependence as a result of various processes, such as lack of accountability (Ross 2004), low level of democracy, high reliance of patronage politics (Ross 2001a) and the presence of rent-seeking and rent seizing-behaviour (Ross 2001b).²⁰ Yet strong and well functioning institutions are required by a country or a society to be able to manage conflict peacefully. For example, it has been commonly suggested that democracy is an important mechanism of non-violent conflict resolution.

With respect to the political economy of resource rents, capturable resource rents can lead to rent seeking behaviour. Revenues and royalties from oil or mineral resources are much more readily appropriable than the income flows from agricultural commodities. Increases in the availability of resource rents following a boom in their world prices can increase the appetite for resource rents amongst certain individuals or groups within society. This is known as a 'voracity' effect (Lane and Tornell 1996), or the 'rentier' effect (Ross 2001a), and it can instigate serious diversion from normal productive activities. Entrepreneurs may choose to become corrupt rent-seekers rather than engage in the ordinary business of production (Murphy, Shleifer and Vishny 1991; Torvik 2002; Mehlum, Moene and Torvik 2006a). This itself constitutes a conflict prone situation leading to institutional damage which in turn leads to conflict.

The manner in which resource abundance may lead to growth failure has been explained in the previous sub-section; as argued in Collier-Hoeffler's (2004) model, growth failure itself, together with low income and dominance of primary commodities

²⁰ Rent seizing is more damaging than, and different from, rent-seeking. Rent-seekers seek rents, while rent-seizers seek rights to allocate rents to others. Compared to rent-seeking, rent-seizing damages institutions more and is socially much more unproductive (Ross, 2001b).

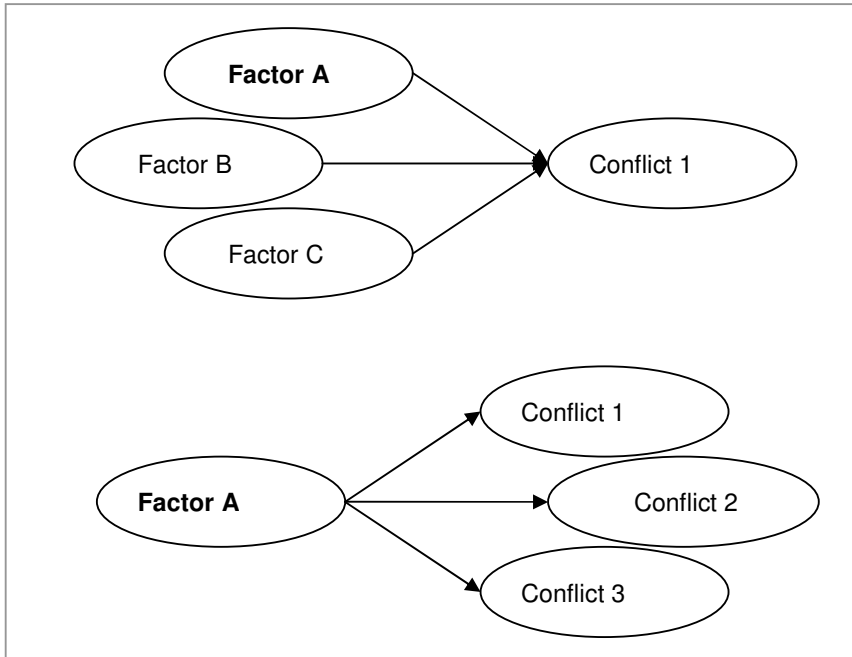
in the economy – all taken together as proxies for greed – better explains the onset of civil war. But they disguise another set of variables that represent grievance.

Let us turn now to the newly added channelling mechanism in the bottom middle box. Stewart (2000, 2001, 2004) argues that the presence of severe horizontal inequalities – economic, social and political – can be a key driver of violent conflict and even civil war. Events in previously or currently troubled societies provide examples of this. One thinks of Tamil-Sinhalese inequalities in Sri Lanka, Catholic-Protestant in Northern Ireland, Hindu-Muslim in India, White-Black in South Africa and the US, etc. The key process at work is relative deprivation experienced by particular groups or regions over time in the course of socio-economic and political development which is embedded in and a (supposedly unintended) output of the development itself. The deprivation can be the primary force behind the discontent (Gurr, 1970). By the same token, one might also consider similar processes, namely group marginalisation and exclusion. In contrast to Collier and Hoeffler's argument that emphasizes a 'greed' motivation in conflict, the logic of horizontal inequality and relative deprivation are more relevant to the 'grievance' explanation. Furthermore, Stewart argues for policies to correct horizontal inequalities and to deal with relative deprivation as a key element in development policies, which so far have been neglected. We should note that while the greed/grievance hypothesis of Collier and Hoeffler primarily relates to *individuals*, the horizontal inequalities explanation refers to grievances, and sometimes greed, among *groups*.

2.3 Adapting the framework

The framework depicted in Figure 2 will be used to explore the role played by natural resources as an independent variable in various types of conflict in Indonesia as the dependent variable, with the mechanisms linking the two forming the intervening variables. This should not be taken to imply that natural resources are the only independent variable that might affect conflict – of course there are other independent variables – but the focus of this paper is on natural resources. Furthermore, in this paper, there are varieties of conflict according to actor-based categorization. The relationships between natural resources and other independent variables and varieties of conflict are depicted in Figure 3. If factor A is natural resources, hypothetically speaking, others might be man-made resources, access to justice or governance services, etc. While conflict types may follow the actor-based categorization that is explain below.

Figure 3. Varieties of factors and conflicts



3. Natural Resources in Indonesia's Development

3.1 The natural resource based development

The extraction of natural resources played an important role in financing the economic and social developments of the New Order period.²¹ The founding financial pillars of the New Order economy were oil, gas, mining and forestry (timber). These provided the easiest way for the country to increase its revenues, particularly since it was once among the world's poorest countries. The exploitation of natural resources significantly intensified after Suharto came to power in 1966/67. The president was quick to realize the potential for development of the country's abundant timber, oil, gas and mineral reserves. Realizing that large-scale (and quick) resource extraction could be performed only with the involvement of foreign companies, in the first year of his presidency (1967), he enacted three important laws on (i) foreign investment, which provided a clear procedure for foreign operations in Indonesia along with generous tax concessions for foreign companies,²² (ii) forestry, which put all forests under the control of the state, and (iii) mining, which allowed for all lands within the Republic to be used for mining (Resosudarmo 2005). All these arrangements made the exploitation – and often abuse – of natural resources widely feasible.

The types of natural resources that played an important role in Indonesia's economic development were mainly oil, gas, timber, plus other key mining products (copper, tin, nickel, etc). However, the first three contributed the largest share. During the

²¹ As Professor Emil Salim, one of the architects of New Order economy and a long standing Suharto's cabinet minister, once wrote, 'Indonesian's development has been heavily dependent on natural resource extractions' (Salim 2005: xxi).

²² During Sukarno's time, there was a rigid procedure for foreign investment. He once told his oldest daughter Megawati – later the first female president of Indonesian – that he would not allow foreigners to exploit the country natural resources (oil, gas and mining) but would wait for Indonesian students studying abroad to come back with their acquired knowledge to manage the resources (Kwik 2006).

1970s, several major foreign oil companies became involved in oil extraction.²³ During this period, oil was the country's main export commodity and a major source of government revenue. In the 1980s, the role of oil as a source of revenue declined while that of other natural resource commodities, such as liquid natural gas (LNG), timber and minerals, increased. By the mid 1990s, Indonesia had become the world's largest exporter of LNG and plywood, the second largest producer of tin (after China), the third largest exporter of thermal coal (after Australia and South Africa), and the third largest exporter of copper²⁴ (after the US and Chile). The country also produced a significant quantity of gold, nickel, and forest products other than hardwood and plywood. In 1990s, oil and gas accounted for approximately 30% of the country's total exports, mineral and related products accounted for 19% and forest products 10% (Resosudarmo 2005).

Oil and gas are concentrated in Riau, East Kalimantan and Aceh. In Riau, in 1973, the US controlled PT Caltex Pacific Indonesia, under a production sharing agreement with the state oil company Pertamina reached 1 million barrels a day of crude oil production. The province has produced tin and bauxite since the 19th century. In 1924, the first team from Standard Oil of California arrived in Riau. Then in 1930, NV Nederlandshe Pacific Petroleum Company (subsequently Caltex) was formed. During 1940-44, the Sebang, Duri and Minas oil fields were opened, and in 1952, the first Minas crude oil was exported (Esmara 1975b). The Dutch oil company, Shell, has been exploiting oil in East Kalimantan. Crude oil was first discovered near Balikpapan in 1900s. By 1928, two-thirds of Indonesia's crude oil production came from the Shell operations in this region (Pangestu 1989). In November 1971, Huffco made another giant discovery of natural gas at Badak in Bontang, East Kalimantan and in August 1977 President Suharto officially opened the first LNG production facility in Bontang (Seda 2005). Mobil Oil (now Exxon Mobil) discovered natural gas in Lhoksukon, Aceh Utara, in October 1971. Six years later, in 1977, PT Arun – a joint venture involving Pertamina, Mobil Oil and the Japanese consortium Jilco – commenced production (Dawood and Sjafrizal 1989).

Timber is the next most important natural resource.²⁵ Exports of logs boomed in the 1970s followed by booms in plywood exports in the 1980s and 1990s, and pulp and paper in more recent years. Forest products were Indonesia's most important non-oil and gas exports from the 1970s up until the 1990s, when they were challenged by the textile industry (Hill 2000). At its peak in 1989, the forest product sector accounted for almost 15% of total exports and 30% of industrial exports. Taking advantage of this timber wealth, the Suharto regime began to build an oligarchy through the highly centralised allocation of large-scale 20 year forest concessions

²³ Mobil Oil (now Exxon Mobil) discovered natural gas at Arun, North Aceh, in October 1971. In the following month, November 1971, Huffco made another giant discovery of natural gas at Badak in Bontang, East Kalimantan. President Suharto officially opened the first LNG production facility at Bontang in August 1977 (Seda 2005), while Caltex and Shell already had been exploiting oil in Riau and East Kalimantan respectively.

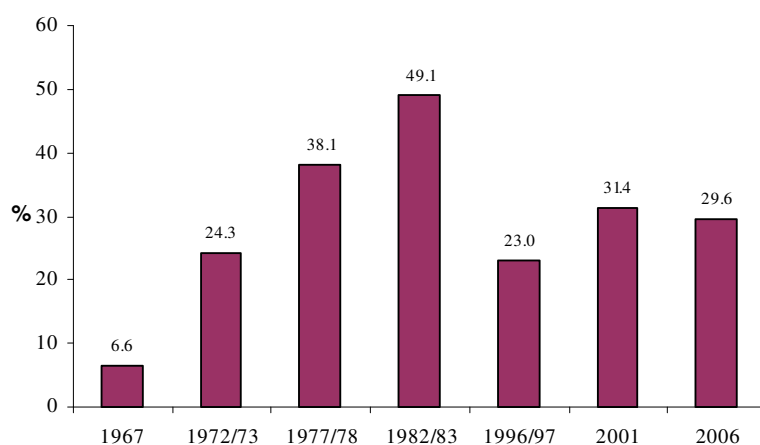
²⁴ This mainly refers to the copper production of the US owned mining company Freeport McMoran in Papua. See Soehoed (2004) for a comprehensive history of the company's operation in Indonesia since 1960s.

²⁵ During the previous regime (Sukarno's Old Order), timber emerged as an economically and politically significant commodity in outer islands. Timber concession became an important item of the list of reward for political cooperation. Initially such rewards were extended to ruling elites and other locally influential individuals in exchange for their alliance with emerging political parties. Subsequently, politically motivated rewards were used to pacify disgruntled military personnel in revolt-prone regions as well as to remunerate Indonesia's civil government and armed forces in the regions (Obidzinski 2005).

(*Hak Pengusahaan Hutan*–HPH).²⁶ By the end of 1990s, up to 585 HPHs had been allocated covering some 60 million hectares of Indonesia’s 144 million hectare-forest estate (Gellert 2005). All were made without prior knowledge of the millions of people living around the concession areas.

However, over time, the importance of natural resources as a form of revenue generation for the state has been declining, particularly the share of domestic government revenue derived from oil and gas. In fiscal year (FY) 1967, the contribution of oil and gas to domestic revenue was only 6.6%. It rose to 49% in FY 1982/83, and then declined to 23% in FY 1996/97 just before the East Asian financial crisis (Figure 4). Mining’s contribution to national GDP has also been declining (Figure 7 below). Similar trends appear to be occurring in the forestry sector.

Figure 4. Percentage of oil and gas revenue to domestic revenue



Source: World Bank data

The collapse of the New Order might also be seen as the end of the natural resource era in Indonesian’s development. In April 2005, the chief executive of PT Caltex Pacific Indonesia, which pumps half of Indonesian oil, said that without new investments, Indonesia would probably end up as a net importer of oil in 2006.²⁷ Due to global concern for the environment, such as the incidence of forest fires and the high rates of deforestation, Indonesia has been under high international scrutiny and pressure to control forest destruction and exploitation. Furthermore, the stocks of other mineral products have also been seriously depleted.

However, the New Order undeniably succeeded in providing the conditions for significant improvements in the country’s socio-economic development with a relatively low (vertical) inequality according the Gini measure of household consumption, which in fact has been widely acknowledged as a success story by the international community (Word Bank 1993; ADB 1997). Between the 1960s and around the mid 1990s (just before the crisis), average per capita income more than quadrupled, the poverty head count dropped from 70% to only 13%, the infant

²⁶ To mention a few key groups, among others are Barito Pacific, Djajanti, Kalimantan, Alas Kusuma, Kayu Lapis Indonesia, Hutrindo and the state-owned Inhutani, etc.

²⁷ *Energy Bulletin*, 13 April 2005, available at <http://www.energybulletin.net/5320.html>, accessed 26 November 2006.

mortality rate dropped from 159 to 49 per thousand live births, the adult illiteracy rate fell from 61% to 14% and the Gini coefficient was broadly stable, varying between 0.32 and 0.35,²⁸ which is low by international standards. Much of the credit is due to the role of government revenue derived from extracting national resources as well as other government policies, in spreading social services widely, putting resources into agriculture and providing the infrastructure and macro-economic policies that encouraged expansion of labour-intensive industry. However, as Booth (2000) concludes, despite declining poverty, problems of poverty and relative deprivation were still serious in the final years of the Suharto regime since, for example, government expenditures on upper secondary and tertiary education were still skewed to the better off and any increase in such expenditures was unlikely to benefit the poor.

During the first oil boom period (1973-79), the huge oil windfall was accompanied by favourable developments in non-oil exports. Timber and coffee exports increased in volume, while world prices for rubber, palm oil, and tin rose substantially between 1973 and 1974 and for coffee in 1977. Although, there were instances of inefficient use of the oil revenues (for example the Pertamina scandal), several good policies were in place at the time of the oil boom. First, development expenditures rose substantially (from 5.8 percent to 11.4 percent), while the increase in the share of routine expenditures in GDP was modest (from 8.6 percent in 1972/73 to 11.5 percent in 1979/80). Second, investment in agriculture increased significantly, which was primarily used to develop and rehabilitate irrigation networks and to extend the area devoted to rain-fed rice crops by reclaiming swampland. The share of government development expenditure allocated to agriculture development rose from 7.7% (in 1973/74) to 14.6% (in 1978/79), while, the corresponding figure in Nigeria, for example, was only 2%. Third, the sudden increase in oil revenue also led to a large increase in social expenditure, mainly for irrigation, rural water supply, and schools (Bevan, Collier and Gunning 1999). For instance in the first half of 1974, more than 5,000 primary schools, one in every sub-district, were as part of a crash program of investment (Arndt 1974).

Table 1 summarises what happened to the real sector of the economy during the New Order. The overall long term GDP growth was impressive. Manufacturing grew more rapidly and over time contributed an increasing share to the economy. By 1991 manufacturing's contribution to GDP for the first time exceeded the contribution of the agricultural sector. However internal weaknesses that have been embedded in the economy partly explain the severity of the crisis the country experienced in 1998 and the slow economic recovery in the subsequent years. The output of the manufacturing sector was not very competitive in the regional market due to weak technical progress and heavy reliance on labour intensive industries, and the country has been facing fierce competition from countries like China and Vietnam. Indonesia has low industrial technological capability which is reflected in the low percentage of its high technology manufactured exports, as compared to those of the other East Asian countries (Thee 2006).

Table 1. Economic growth and transformation in Indonesia, 1965-97

	Average annual growth rate (%)			% of GDP	
	1965–	1980–90	1990–97	1965	1997

²⁸ See UNDP, BAPPENAS and BPS (2001).

	80				
GDP	7	6.1	7.7	—	—
Agriculture	4.3	3.4	2.8	51	16
Manufacturing	12	12.6	10.8	8	26
Services	7.3	7	7.2	36	41

Source: Thee (2006)

In sum, natural resource revenue was partly used for agricultural development (fertilizer subsidies, irrigation and other agriculture infrastructure), basic education and health (*SD Inpres* (*Sekolah Dasar*/primary school) and *Puskesmas* (*Pusat Kesehatan Masyarakat*/community health centre)), and policies toward the development of an industrial base (mainly in the textile and footwear industries).²⁹ Other benefits from oil and timber were enjoyed by corrupt businessmen in collaboration with government officials in an oligarchic relationship of businessmen, bureaucrats and the military (see Pertamina scandal under Ibnu Soetowo, the rise of the timber tycoon, etc).

3.2 The other face of development

Despite New Order's achievements, the economic development also resulted in series of (unintended) side effects, especially deprivation and marginalisation, the two issues to which we now turn.

First, it has been argued that the long standing low and stable record of vertical inequality according to the consumption Gini measure is a myth. Sudjana and Mishra (2004) argue that, in fact, the level of inequality in Indonesia has been much higher and rising according to measures of asset inequality and industrial concentration; while the late 1990s economic crisis disproportionately hit the poor creating a new social division, which contributed to the significant eruption of violence in many parts of the country after the crisis.³⁰ Furthermore they criticize the national socio-economic surveys (*Susenas*) from which the Gini has been derived for underestimating the incomes of higher income groups. The *Susenas* tend to exclude a high proportion of high income households that cannot be reached by the enumerators, and even when such data are obtained, they are often treated as outliers and excluded.

Second, quite a few groups in Indonesian society have been marginalised for various reasons. They include, for example, the Dayaks in Kalimantan,³¹ and native Papuans and tribal groups in Riau. Dayaks in the mid-1990s were relatively poor compared with the 1960s when they enjoyed the richness of their forests, the place where they previously had their cultural, social and economic lives. Furthermore, they had also been politically deprived. A similar situation was faced by the indigenous Papuans. They have been declining as a proportion of the Papuan population, due to the incoming of migrants. Now they make up just over half the population, the other half consists of settlers from other parts of Indonesia.³² The majority of native Papuans live in rural areas with a traditional way of life, limited

²⁹ For example, such development was absent in Nigeria where oil was discovered in mid 1960 (See Bevan, Collier and Gunning 1999).

³⁰ As Amartya Sen has rightly warned that 'united when we grow, but divided when we fall', in his Singapore lecture on the East Asian crises (Sen 1999).

³¹ See for examples HRW (1997) and Davidson (2002).

³² ICG (2002), citing the estimate made by the provincial governor Jacobus Solossa.

economic and social infrastructure and far from modern economic life. Many native Papuans are still living in a stone-age civilisation relying on hunting and gathering. Migrants who dominate the urban areas are the main beneficiaries of the growth of the modern sectors of the economy (Manning and Rumbiak, 1989).

In other resource-rich regions, indigenous people have experienced relative deprivation in relation to the richness of their land (Tadjoeddin et.al., 2001) and the living standards of the increasing number of migrant groups (Brown, 2005).

4. The Dependent Variable: Macro Pattern of Conflict in Indonesia

4.1 How to categorize conflict

How can one best describe a broad macro pattern of conflict in Indonesia?³³ Amongst various alternatives, the simple main actor based approach to categorizing conflict might be a good starting point as this to some extent determines the conflict issues at play. In this paper we consider three main conflict-actors: the state, the community and private sector (corporation/business, including state-owned enterprises). There are four broad categories of conflict: (i) separatism/centre-regional conflict, (ii) state vs. community, (iii) company vs. community, and (iv) community vs. community.³⁴ It should be noted that (i) and (ii) are two variations of conflict between the state and community. Separatism involves a strong community attachment to a particular region with an aspiration to secede from the state, while for the state vs. community category, secessionist sentiments do not exist.

However, the four actor-based categories of conflict deliberately do not list other possibilities (if we consistently consider the three main actors), namely: (a) state vs. state (inter-state organisations); (b) company vs. company, and (c) state vs. company. The reason is not that such conflict is totally absent in Indonesia – in fact they do exist.³⁵ Focusing on the former four categories and excluding the three categories that only involve the state or corporations is due to the relative importance of the other categories in the Indonesian context in terms of the frequency and severity of conflict; these categories pose a significant risk of outbreaks of violence, while the categories only involving the state or corporations do not.³⁶ The relative absence of violence in category (a) to (c) is mainly because the actors involved can more easily achieve a negotiated settlement, compared with conflict in the categories which involve the community.³⁷

³³ Conflict should not always contain violence. However, violent conflict usually indicates a more severe situation.

³⁴ This categorization for the Indonesian context was first proposed by Tadjoeddin (2002).

³⁵ Consider the following avenues: (a) dispute between two district governments over the border of their regions, or dispute between central government and regional government over revenue sharing; (b) dispute between two companies over rights in exploiting natural resources; and (c) dispute between a local government and a company (or a group of companies) over tax burden or retribution.

³⁶ There are cases of violence among state agencies, such as clashes between the army and the police, but their frequency and fatalities, over time and cross regions, are less severe compared with the four categories.

³⁷ The division is clear. Conflicts involving the community are more likely to turn into violence while those without community involvement are not, since negotiated settlement can be more easily achieved in the latter groups. This is evident in the UNSFIR Indonesia collective violence database (1990-2003). Why this is so? What is different with community as an actor in conflict compared with the other two actors—the state and company—which makes them

4.2 Actor-based categorization

Each category can now be elaborated according to the actor-based approach. Such a categorization mainly refers to contemporary (since late New Order) patterns of conflict in Indonesia, but some categories, such as state vs community conflicts and separatist conflict can be traced back through the entire Suharto period, as well as through the previous Sukarno administration.

Separatism/centre-regional conflicts: This category refers to conflict between the central government and sub-national (regional) entities (it may include the regional government) including the communities within the regions, in which the regional entities voice secessionist sentiments (strongly or lightly) or at the very least demands for much more autonomy. The obvious examples are Aceh and Papua provinces (with significant organized violence involving rebel groups), and the lesser known separatist sentiments in Riau and East Kalimantan (without rebel groups). The last two provinces have voiced a demand for independence (Riau) and a request for a federal government (East Kalimantan). However, the case of the four regions rich in natural resources can all be grouped into the category of centre-regional conflict – although varying in degree and severity. The four provinces were not only indicating separatism sentiment, but they are also the only resource rich provinces in Indonesia. The recently introduced scheme of revenue sharing with fiscal decentralization was very much motivated by rising tensions in the regions when the country embarked on its democratic transition.

State vs. community conflicts: This category refers to conflicts (in many instances involving violence) between the state and community, with the latter expressing their protest or dissatisfaction towards the state without any separatism motives.

Company vs. community conflicts: This is conflict between companies and communities, which often involves communities living near the area where the company is operating or employees of the company. This type of conflict is chiefly related to problems in industrial relations and issues regarding local land acquisitions by the companies, poor resource management policies, and destruction of the local environment by the company's activities.³⁸

Community vs. community (inter-communal) conflicts: This is conflict between community groups. Ethno-communal conflict is the severest form as the cleavages are related to the mobilisation of communal groups based on ascribed identities, such as religion, religious stream, ethnic/tribe, caste, etc. The risk of ethno-communal conflict turning violent is extremely high. Other forms of inter-communal violent conflict are vigilante violence and inter group/village brawls that do not play on ethno-communal sentiments.

less likely to cooperate in a negotiated settlement for a dispute? Three possible inter-related explanations are in order. First is the problem of collective action (Olson, 1965) with the community which is more diverse in terms of individual members and interests, and prone to free rider problem, while the opposite conditions apply to the state and private sectors. Second is due to differences in time preference that in turn affect discount rate. Community would tend to have shorter time preference and higher discount rate and the other two actors have the opposite characteristics, while the success of negotiated settlement requires longer time preference with lower discount rate. Third is due to difficulties in building trust within the community and trust of the community to the state and businesses. Furthermore, at community level ethnic and religious sentiments become important factors.

³⁸ See also Diprose (2004).

4.3 Form-based categorization

Another approach to describe the broad pattern of conflict is according to the form of conflict. The following categorizations can be observed, namely: (f1) demonstrations, (f2) riots, (f3) group clashes/attacks, (f4) pogroms, (f5) vigilantism, (f6) group brawls, and (f7) terror. The differentiation is not completely exclusive, and some overlap is likely.

The classification of violent incidents is often very complicated, and very different from, for example, separating gold from copper, where one would definitely end up with 100% confidence on which is gold and which is copper. Consider the May 1998 riot in Jakarta as an instance. It started with a demonstration and then turned into riots. A clear anti-Chinese character of the riots can be recognized, but it may also be characterized as a pogrom, since elements within the army were alleged to have orchestrated the riot. Another example is Sidel's (2006) analysis of the evolution of religious violence in Indonesia since the early 1990s, in which a conflict evolves from riot to pogrom, and then to terror.

5. The Mechanisms: Resource as a Card in Conflicts and How It Works

In this section, the actor base categorization of conflict in Indonesia is used as the entry point; then the framework presented in part 2 is applied to see how natural resources play a role in generating conflict in Indonesia. Each of the conflicts described above are considered.

5.1 Centre-regional conflicts: The rage of the potentially rich

The focus here is on the troubled relationship between the central government and the four regions rich in natural resources: Aceh, Papua, Riau and East Kalimantan.³⁹ To varying degrees, they have posed a secessionist challenge to the central government.

The levels of conflict in these regions differ considerably. Aceh had the highest level of conflict since both political and military wings of rebel organisation were present in a clear case of a civil war which ended in 2005. The Papuan conflict could be considered as an intermediate case. Although both political and military wings of rebel group are there, there has been no civil war according to the commonly agreed definition.⁴⁰ Compared with Aceh, the secessionist movement in Papua has been significantly weaker since it is fragmented and less organized, partly because it has to deal with animosities among hundred of tribal groups; and it has no charismatic leaders to unite the community (like Hasan Tiro or Daud Beureuh in Aceh) or a strong diaspora community to provide support. Its military wing *Organisasi Papua Merdeka* (OPM-Free Papua Organisation) has only been able to launch sporadic violence directed against Indonesian army/police, foreign companies, and migrant

³⁹ The paper considers each of them as a province, referring the situation before splitting. Now, Riau and Papua have been formally split into two provinces each.

⁴⁰ Civil war, according to the definition commonly agreed by scholars in this field, takes place when an identifiable rebel organization challenges the government militarily and the resulting violence results in more than 1,000 combat-related deaths, with at least 5 percent on each side (Collier et al., 2003).

groups, rather than a full-scale civil war. The centre-regional conflicts in Riau and East Kalimantan can be considered minor since no rebel groups exist and only relatively minor secessionist sentiments have been put forward. The second Riau People Congress (KKR-*Kongres Rakyat Riau*) held in Pekanbaru, January 2000, issued a decree calling for Riau independence, separate from Indonesia.⁴¹ In a roughly similar tone, in November 1999, the provincial parliament of East Kalimantan officially issued a decree (no 25/1999) demanding a federal state for Indonesia. The demands from these two regions were the climax of growing secessionist sentiments in the regions, also present in other regions, following the fall of Suharto in mid 1998. The conflict and other characteristics of the four provinces are summarised in Table 2.

Compared with Aceh and Papua, why was the level of conflict significantly lower in Riau and East Kalimantan? The answer lies in the absence of any history of independence, or of military abuses, charismatic leaders, and significant diaspora communities

There were no serious political consequences of these demands in Riau and East Kalimantan. But, they occurred in the period when the renewed rebel movements in Aceh and Papua were on the rise. These all happened when the strength and the confidence of the state in Indonesia was at its worst in the country's history,⁴² after the fall of the authoritarian New Order regime, which created a fear of Balkanisation in Indonesia. The country had just lost its youngest province, East Timor, following the United Nations' organised referendum in August 1999. As a response, under a strong donor pressure, the government of Indonesia passed a set of laws on regional autonomy (Law no 22 and 24/1999) which served as the basis for a radical big bang decentralisation in the country.

Table 2. The four rich regions: characteristics of resources and conflicts

Provinces	Main resources	Level of conflict	Manifestation of conflict
Aceh	Natural gas, timber	High	<ul style="list-style-type: none"> ▪ Well articulated secessionist political movement ▪ Significant violent insurgency by an organised rebel group (GAM)
Papua	Oil, copper, gold, natural gas, timber	Medium	<ul style="list-style-type: none"> ▪ Fragmented and poorly articulated secessionist political movement ▪ Minor violent insurgency by a less organised rebel group (OPM)
Riau	Oil, natural gas, minerals, timber	Low	<ul style="list-style-type: none"> ▪ Minor political secessionist sentiment

⁴¹ The first Riau People Congress was held on 31 January - 2 February 1956 that demanded the creation of Riau as a separate province. At that time, Riau (together with the current West Sumatra and Jambi provinces) was part of the province of Central Sumatra with Bukittinggi as its capital city. The arguments of the case of independence for Riau can be seen in Rab (1999). In May 2005, in a meeting in Pekanbaru, a group of prominent Riau figures officially asking for a special autonomy status for Riau, like in Aceh and Papua. They include former cabinet minister, retired army general, former governor, senator, head of Malay Customary Council (*Lembaga Adat Melayu*), head of a university student association, NGO and youth leaders and high rank provincial bureaucrats (*Media Indonesia*, 5 May 2005).

⁴² See Tadjoeidin (2002) for a brief discussion on an evolutionary shifting pattern of the strength and weaknesses of the state *vis-à-vis* the society in Indonesia.

East Kalimantan	Oil, natural gas, minerals, timber	Low	▪ Minor political secessionist sentiment
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Indonesia: The 4 Resource Rich Provinces

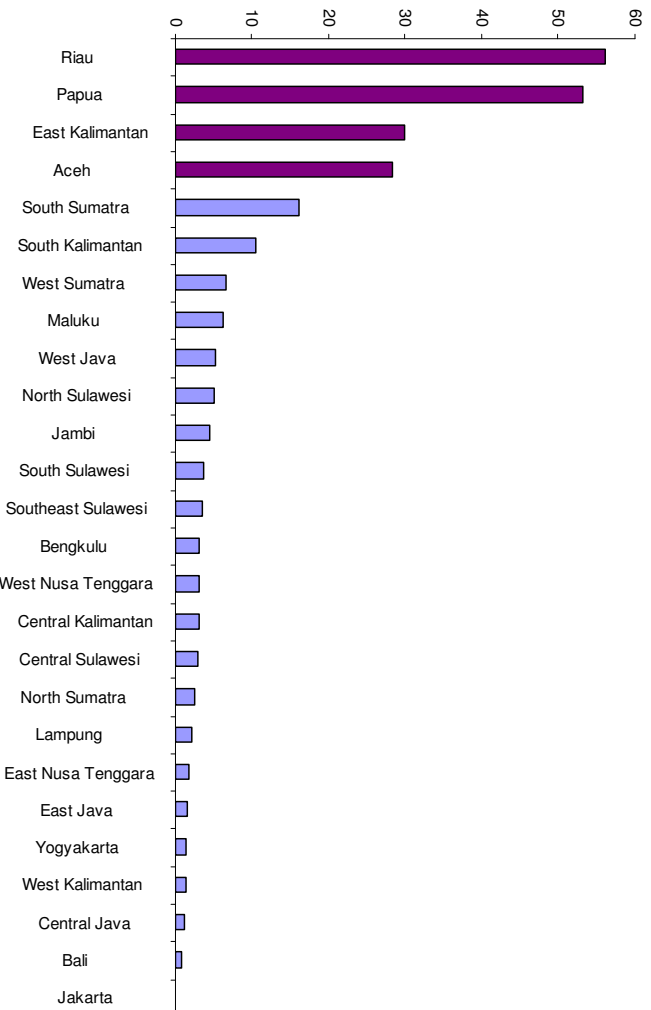


How rich are the four regions? In each province, the per capita regional GDP is much higher than national average. Nationally the ratios of local household consumption expenditure to GDP are relatively small, averaging at 0.32.⁴³ Regions with higher per capita GDP have lower expenditure to GDP ratios (see Figure 5). The ratios for the four resource rich provinces are as follows: Aceh (0.19), Papua (0.18), Riau (0.16), and East Kalimantan (0.11). The contribution of mining (oil, gas and minerals) to GDP explains the high figures for regional GDP per capita. The four provinces have the highest mining contributions in their provincial GDP (Figure 6). However, overtime the share of mining in regional GDP has declined, similar to the trend in the country as a whole (Figure 8). But, this is not the case for Papua, where the share of mining in regional GDP still slightly increased between 1983 and 1996.

Figure 5. Per capita GDP and expenditure of Indonesia's provinces 1996 (current prices)

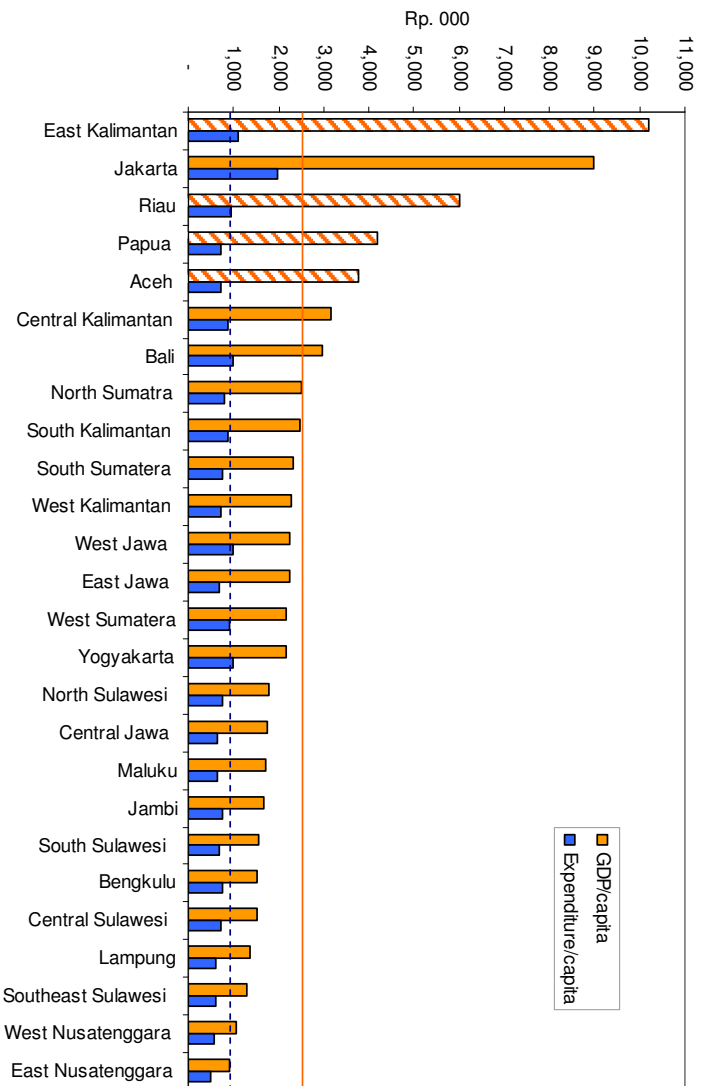
Lines denote the country's average values

⁴³ The expenditure covers more than 300 items of household consumption including food and non food items, which include clothing, housing, health, education, transportation, recreation, etc.



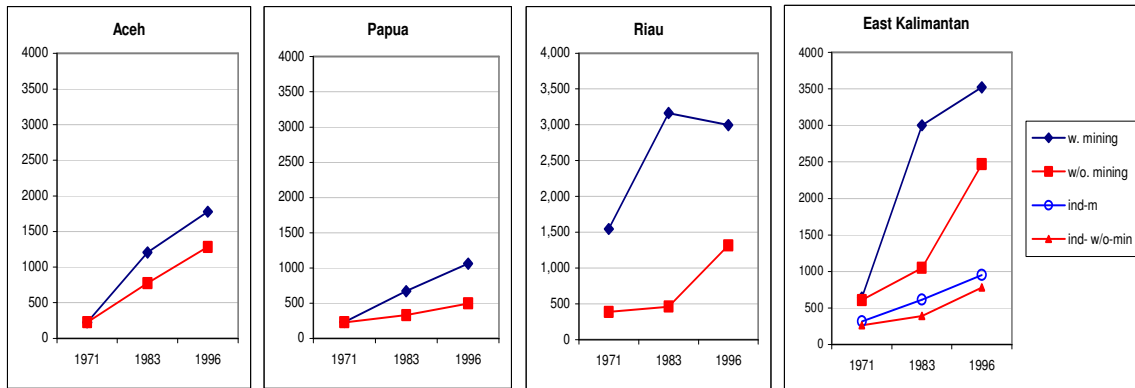
Source: Draws on data obtained from Resosudarmo and Vidyattama (2006).

Figure 6. Percentage of mining contribution in provincial GDP, 1996



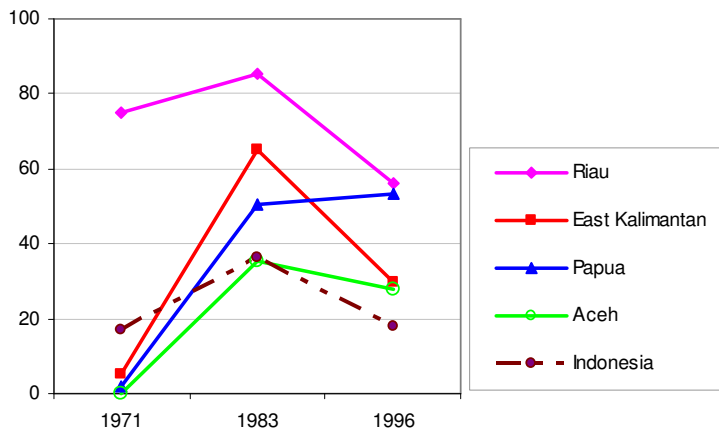
Source: BPS-Statistic Indonesia data

Figure 7. Per capita GDP of the four provinces, 1971, 1983 and 1996 (1983 prices, Rp. 000)



Source: Draws on data obtained from Resosudarmo and Vidyattama (2006).

Figure 8. Share of mining GDP, 1971, 1983 and 1996 (%)



Source: Author's calculation based on data in Resosudarmo and Vidyattama (2006).

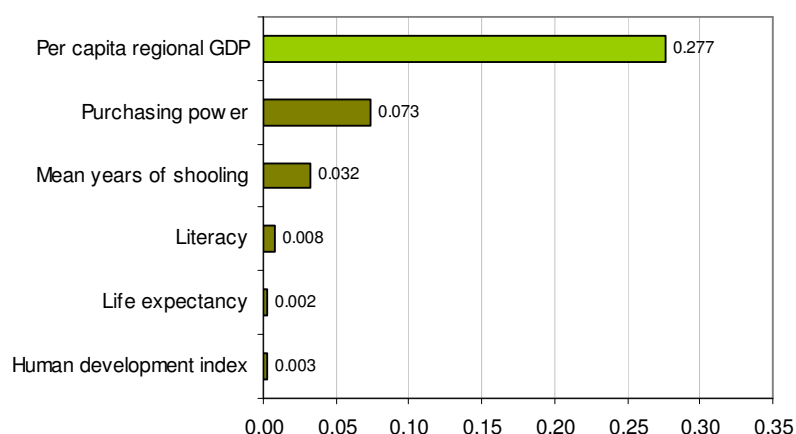
One explanation for the common driver behind secessionist sentiment in the four rich regions is the phenomenon of 'aspiration to inequality'.⁴⁴ This refers to the demands of the rich regions for a degree of community welfare which corresponds to their relatively high regional prosperity. This could be described as a situation of 'the rage of the potentially rich.' Regional prosperity may or may not result in community welfare. Therefore, the differentiation between the two has to be clearly highlighted. The former refers to regional output represented solely by Gross Domestic Product (GDP) measure which calculates productive capacity or added values in monetary term derived from a region or geographical unit (district, province or country) in a year, while the latter points to the welfare indicators of people actually living in the

⁴⁴ The term was first put forward by Tadjoeidin *et al.* (2001).

⁴⁶ Often, GDP measure has no relation with local people. Take the case of foreign direct investment (FDI) in mining sector in Riau as an example. A bulk of income derived from the economic activities in particular year would belong to the foreign investors as the return for

region.⁴⁶ The measurements of community welfare include consumption expenditure and indicators of health, education, and poverty – in short all human development measures. Overtime, the levels of inter regional income (Regional GDP) inequality have been substantial, mainly because oil, gas and key minerals are concentrated in a few regions.⁴⁷ But, in terms of community welfare, the degrees of inter-regional inequality have also been extremely low,⁴⁸ which is due to the success of the New Order equalisation policies (Tadjoeddin et al., 2001).⁴⁹ Figure 9 indicates the L-index measurements among districts, with regional output inequality almost four times higher than regional expenditure inequality. This contrasts with neighbouring country Thailand, for example, where the L-index figure of its regional output inequality is 0.43, and expenditure inequality is 0.40. Compared to the distribution of regional output, Figure 9 also shows the much more even distribution of education, health and HDI. Furthermore, Tadjoeddin *et al.* (2001) conclude that there is virtually no correlation across regions between community welfare indicators and the regional prosperity measure.

Figure 9 Regional inequalities of regional prosperity and community welfare, 1996. L-index measure.



Note: L-index is a measure of, in this case, inter-district inequality of the relevant indicators. Higher index means higher inter-district inequality.

Source: Tadjoeddin et al. (2001: 288)

their investments, but all would be accounted as added value derived from Riau and contribute to Riau GDP in that year.

⁴⁷ Other studies also discover a similar finding, for examples; see Esmara (1975a), Akita and Lukman (1995) and Resosudarmo and Vidyattama (2006).

⁴⁸ According vertical inequality measure, the Gini index of Indonesian household consumption was stable around 0.31-0.35 during the course of New Order high growth, which is low by international standard. Therefore, given the New Order high growth rate, Indonesia was regarded as a country achieving high growth with low level of inequality (World Bank, 1996) and the inverted-U-shaped Kuznets hypothesis between income and inequality is not valid for Indonesia (Arief, 1998; Birdsall et al., 1995).

⁴⁹ Under a centralized system, the central government collected all revenues from natural resources and made equal distribution across regions, mainly in forms of agriculture development and basic social expenditures (basic education and health).

The aspirations to inequality are a response to the people's first-hand experience of their community welfare being reduced to, or even lowered below, the national average, even though their regions are rich in natural resources. See the following realities presented in Table 3: Despite the fact that the regions are extremely rich compared to the country as a whole (column 2), they are deprived. In term of household purchasing power, they are in worse situation, where all regions have a lower purchasing power compared to the national average (column 3). More strikingly, even the richest districts the provinces (Aceh Utara in Aceh; Fak-Fak in Papua; Bengkalis and Kepulauan Riau in Riau)⁵⁰ have lower household purchasing power than the average in their respective provinces. Furthermore, in 1996, in term of poverty head count measure, Aceh, Riau and East Kalimantan were poorer compared with their situations two decades earlier in 1976 (see column 4 and 5) and the poverty rate in Papua was three times higher than the national average.⁵¹

Table 3. Regional prosperity and community welfare

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Provinces (Districts)	Per capita GDP 1996	Purchasing power (PPP) 1996	Poverty 1976 ^{a)}	Poverty 1996	Poverty 1999	HDI 1996	HPI 1998
Aceh	142	98.1	27	96	63	102	125
(Aceh Utara)	350	96.2	n.a	115	75	103	130
Papua	170	96.5	n.a	318	233	89	124
(Fak-Fak)	1616	91.5	n.a	367	241	97	114
Riau	241	98.5	61	95	60	104	128
(Bengkalis)	435	96.6	n.a	101	73	103	140
(Kepulauan Riau)	283	96.1	n.a	71	42	101	88
East Kalimantan	404	99.8	12	73	86	105	82
Indonesia (=100)	100	100	100	100	100	100	100
Real figures			40.1	13.3	23.5	67.7	25.2

^{a)} Poverty head count by provinces taken from Islam and Khan (1986).

Source: Author's calculation based on BPS-Statistic Indonesia data

How can one express the aspiration to inequality in measurable terms? The welfare gap can be used as a proxy. It measures the gap between regional prosperity and community welfare. Per capita GDP is used as the single measure of the regional prosperity. But for community welfare, there are several options. Let's take

⁵⁰ Aceh Utara is where all Aceh natural gas reserve exploited by the US Exxon Mobil are located and one of GAM stronghold areas. Fak-Fak is where the US Freeport McMoran Copper and Gold Inc has being operating since late 1960s. Bengkalis is where the majority of Riau's oil fields are located. Now, the three districts have been split into several districts each. Kepulauan Riau has some off-shore oil fields and is where the US Exxon Mobil controlled and newly discovered natural gas reserve in Natuna is located. Kepulauan Riau has become a new province separated form Riau since 2004.

⁵¹ In the case of Aceh, for example, actually nearly two decades ago Dawood and Sjafrizal (1989) had put a similar concern. Although by 1985 Aceh together with Riau and East Kalimantan had been the largest three provinces contributing to Indonesia's export, 'but benefits to local economy have been much smaller and cost benefit calculus more problematic, perhaps ironically one of the most staunchly independent regions, long in conflict with the central government, is now subsidizing that government and the rest of the country.' (page).

consumption poverty (poverty head count ratio-HCR)⁵² and capability poverty (human development index-HPI)⁵³ as the proxies. Then all three indicators are indexed by putting the value of 100 for national average. But, for poverty HCR and HPI, the indices have to be used in reverse to give the measurement a positive meaning. If a region has the index above 100, it means that the region is less poor than national average. Welfare gaps are highly positive for the four regions and negative for others (Table 4).

Table 4. Welfare Gap, 1996

Provinces	Per capita GDP index (Indonesia=100)	Welfare Gap	
		HPI	Poverty HCR
East Kalimantan	404	297.3	300.2
Riau	241	148.6	140.0
Papua	170	80.3	103.6
Aceh	142	46.8	41.2
Average 4 provinces	239	143	146
Average other provinces	87	-12.5	-6.3

Source: Author's calculation based on BPS-Statistic Indonesia data.

If secessionist movements were disproportionately found in resource rich regions, does it mean that, for the Indonesian case, the greed hypothesis (loot-seeking) is superior to grievance mechanism (justice-seeking), as Collier and Hoeffler have strongly argued?⁵⁴ The short answer is no.⁵⁵ The logic of aspiration to inequality as the key driver in secessionist sentiments in Indonesia is more relevant to the grievance (justice-seeking) theory, rather than greed. Other country case studies also provide less support to greed theory. See for example the collection of country case studies sponsored by the International Peace Academy (Ballantine and Sherman 2003) which concludes that rebel's incentives for self-enrichment (greed

⁵² HCR measures the proportion of population fall below a certain poverty line. The HCR calculation is based on the national household consumption survey.

⁵³ HPI, a composite index ranges 1–100, measures deprivations in three dimensions: longevity, as measured by the probability at birth of not surviving to age 40; knowledge as measured by the adult illiteracy rate; and overall economic provisioning, public and private, as measured by the percentage of people without access to safe water, people without access to health facilities, and the percentage of children under five who are underweight.

⁵⁴ The argument of the superiority of the greed hypothesis (loot-seeking) based on the positive association between the share of primary commodity export to total export and the onset of civil war against the grievance hypothesis (justice-seeking) can be found in Collier and Hoeffler (1998, 2004, 2006), Collier (2000), Collier et al. (2003), Collier and Sambanis (2005). Greed theory emphasizes the self enrichment loot-seeking behaviour of rebel groups, usually applied to lootable natural resources such as alluvial diamond in the case of civil war in Angola and Sierra Leone.

⁵⁵ This is different with, for example, the way Kimeyi and Ndungu (2005) interpret the inter-ethnic violence in Kenya. They directly infer that conflict in resource rich area is consistent with the greed theory, since almost all regions that are well endowed agriculturally experience political violence, while districts that were less affected have low potential land (p. 144).

hypothesis) for insurgent mobilization created by access to natural resources were neither the primary nor sole cause of either separatist or non-separatist conflicts..

The sentiment of aspiration to inequality has been used as the instrument for collective mobilisations by rebel and secessionist groups. In Aceh, the ironical situation of poor people living in a rich area was frequently put forward with speakers and pamphlets commonly suggest that, if independent, Aceh would be as wealthy as Brunei, the oil-rich sultanate on nearby Borneo (Ross 2003).⁵⁶ Similar arguments were also evident in Riau and East Kalimantan (Tadjoeddin *et al* 2001).

Furthermore the greed motivation is unlikely to be found in the dynamic of rebel groups in Aceh and Papua. The first and second generations of GAM membership (1970s and 1980s) were mainly driven by ideological motives, while the huge GAM recruitment in the third generation (1999-2003) mainly came from families who had been victimized by the Indonesian military violence during 1989-1998 Martial Law, known as DOM (*Daerah Operasi Militer*).⁵⁷ Natural resource related financing only accounted for a small portion of GAM's overall revenue. The main portion derived from taxes and Acehnese diaspora's voluntary donations,⁵⁸ while other funding sources were extortion and kidnapping. In Papua, it seems that there are no accusations or reports of looting natural resources (timber or mining) committed by the rebel groups in the region, although *Presidium Dewan Papua* (PDP-Papua Presidium Council) – a newly created political wing for Papua independent movement – has been receiving funds from Freeport, a copper and gold mining company.⁵⁹ The greed hypothesis cannot be applied to Riau and East Kalimantan since there are no secessionist rebel groups in the regions, only minor political movements articulating secessionist sentiments.

In fact there are widespread accusations of greedy behaviour committed by the Indonesian army which prolongs conflict for personal economic gain. For example, McCulloch (2006) and Kingsbury and McCulloch (2006) detail military businesses in

⁵⁶ For example, in May 1989, an Acehnese religious leader coming from the neighbouring Malaysia used this argument in a preaching in a village mosque in North Aceh, talking about an armed struggle to be launched shortly. The man asked all the young men to be patient, but to be prepared to act when the time came. As Jones (1997) writes, 'The visiting religious leader used several economic and social arguments to whip the young men into a state of eager anticipation at the prospect of a glorious holy war to liberate Aceh. He said that Aceh was rich in resources but was not getting a fair deal from Jakarta. Money was not being put back into Aceh to compensate for the resources that are being taken out. If it were independent, Aceh could be as rich as Brunei and the Acehnese could live well and not have to work hard for the benefit of outsiders.'

⁵⁷ Ross's (2003) field interview finds that by mid-2000, 'children of the DOM victims' (*Anak Korban DOM*) constituted a significant corps of GAM fighters. On 30 July 2000, *The Jakarta Post* reported, that most of GAM's new recruits were children of the DOM victims.

⁵⁸ According to Indonesian intelligence sources interviewed by Schulze (2004), by 2003 GAM collected about IDR 1.1 billion (approximately USD 120,000) a month through an extensive tax system levied –called Pajak Nanggroe— on personal income, business income, and schools across the province. Funds were also collected from Acehnese living in Malaysia, Thailand, and other parts of Sumatra, often under the threat of violence (ICG, 2001a; Schulze, 2004). It is estimated that, in 2001, between 2,000 and 3,000 Acehnese lived in Malaysia, while 7,000 to 8,000 were in Thailand, Australia, Europe and North America (Gunaratna, 2001).

⁵⁹ The company pays a salary and travel expenses to Tom Beanal, who has sat on its board of commissioners since 2000 as part of a settlement between Freeport and the Amungme ethnic group, of whom Beanal is a leader. Beanal says he combines Freeport business with campaigning. The company has also paid travel expenses for the Presidium supporters (ICG, 2002).

Aceh during the conflict, while in Papua, ICG (2002) points out the direct involvement of the military in the timber business and security provision for mining companies for huge monetary reward.

The central government's response to the separatist challenge was precisely to address this 'aspiration to inequality' or 'the rage of the potentially rich' by allocating a substantial proportion of resource rents to local governments under the fiscal decentralisation law for Riau and East Kalimantan and the special autonomy laws for Aceh and Papua.

In sum, the way the natural resource rents had been managed by the central government was the driver for the secessionist sentiments through the logic of aspiration to inequality.⁶⁰ The natural resources impact is rather indirect and should be seen from a macro perspective. The logic is closely related to the notions of relative deprivation, marginalisation and exclusion that have been mentioned widely in literature, which can be found in the four rich regions, resulting in grievances. Their level of community welfare was relatively deprived in relation to their region's extremely rich natural resources. Part of the community was marginalised in comparison with the rents gained by some, and the standards of living of migrant groups; and some were excluded to enjoy better socio-economic development resulting from resource rents derived from the respective areas. Within contrast to other regions in the country, at the end of New Order period, in 1996, people in the regions were poorer than they had been three decades previously, before their natural resources were massively exploited (Table 3, columns 4 and 5).

5.2 State-community conflicts: More on political repression

Among the four actor-based categories, state-community conflict accounts for a relatively small proportion of contemporary conflict in Indonesia. According UNSFIR collective violence database, covering 14 provinces, the category is responsible for only 1.1% deaths and 11.3% incidents of all collective violence incidents in the country during 1990-2003.⁶¹ The World Bank conflict dataset covering 12 districts in two provinces (East Java and East Nusatenggara) for 2001-03 finds a much higher number of deaths, where the category was found responsible for 12.0% deaths from violent conflict,⁶² due to the relatively lower level of ethno-communal conflict compared with Maluku, Sulawesi and Kalimantan.

This is not to underestimate the significance of state-community conflict. In East Java, based-on conflict data in Diprose (2004), it is estimated that the category accounts for more than 50% of all violent and non-violent conflict incidents during 2001-03. According to qualitative accounts, state sponsored violence (akin to what is meant by state-community conflict) dominates the picture of violence during the New Order, which should be seen from the perspective of political repression by the authoritarian regime (Anderson, 2001; Abuza, 2006).

⁶⁰ Modeling aspiration to inequality and conducting an empirically investigation on Indonesian are in my future research agenda.

⁶¹ See Varshney *et al.* (2006). It is estimated that the 14 provinces, home to 72.4% of Indonesia's population, accounts for 96.4% of all deaths in non-separatist violence in Indonesia (Tadjoeddin, 2002). So far, the database has the largest area and the longest year coverage of this kind of exercise in Indonesia.

⁶² See Barron and Sharpe (2005: 11). The 12 districts covered in the World Bank dataset account for only 3.3% of Indonesian population.

It seems that natural resources play a very minor role, (directly or indirectly, in this type of violence. However, at least two possible settings for such conflict related to natural resources can be identified. First is in the case when the police/military are involved in business protection conflicting with the interests of the community.⁶³ *Second* is when state regulation of natural resources contradicts the popular interests of the community.⁶⁴

5.3 Company-community conflicts: The feeling of exclusions

This sort of conflict usually has a straightforward relation with natural resources. The most common pattern is unresolved conflicts of interest between extraction companies, (or closely related businesses) and the community living in the surrounding areas.⁶⁵ In the case of serious company-community conflict, the cleavage might overlap with state-community conflicts/clashes. Issues involved are varied and often overlap, which might include land rights, access to incomes/livelihoods, or environmental damage. Often, the feeling of (even the fact of) marginalisation and exclusion of the community in contrast to the available resources near areas where they live is the key driver of problems. All are usually closely related to the grievance of marginalized community and poor governance in managing natural resources. To get a flavour of different varieties of company-community conflicts, several examples are given below.

Land rights: Four farmers were shot dead by police in a clash involving around 1500 farmers and 200 policemen on 21 July 2003 in Kajang sub-district, Bulukumba district in South Sulawesi. Furthermore, 5 farmers were seriously wounded, 20 were arrested, dozen of houses and the field office of rubber plantation company PT London Sumatra (Lonsum) were burned.⁶⁶ The violence was the climax of a series of heightening conflict between the poor Kajang's community and PT Lonsum regarding land rights disputes which have been taken to court. The Human Rights Commission led investigation said that there were indications of human rights abuses. Farmers' demonstrations continued to take place demanding the closure of PT Lonsum in the area. With military help, in the early 1980s PT Lonsum had destroyed hundreds of community houses and their traditional farming area for the development of a rubber plantation with a 25 year HGU (*Hak Guna Usaha*- Rights to Use) issued by the government. The farmers demanded PT Lonsum to return their customary land which had been occupied by the company for nearly 25 years. This

⁶³ Here is an instance. One illegal gold miner was wounded due to police shooting on 7 December 2000 in a clash between a group of illegal miners and policemen who were patrolling the mining concession area of PT IMK in the district of Barito Utara, Central Kalimantan. The district police chief admitted that that the shooting was done since the illegal miners did not obey police warning (UNSFIR collective violence database, based on *Kalteng Pos*, 5 January 2001).

⁶⁴ Here is an instance. Around 2000 crowds of illegal miners attacked the governor office of the largest tin producer province of Bangka Belitung on 5 October 2006. Glasses were broken; doors and office facilities were destroyed. Few numbers of police could do no thing to stop the angry crowd. The rejection of illegal small holder tin miners to the local government policy to close down three biggest tin private processing plants in the region that accept crude tin from the illegal miners (*Kompas*, 6 October 2006).

⁶⁵ For example, the Bogor based Centre for International Forestry Research (CIFOR) reports that there were 356 incidents of conflict (violent and non-violent) in forestry sector during 1997-2003 –all about conflict between forestry companies and their surrounding communities. The majority of incidents were occurred in Kalimantan and Sumatra (Wulan, Yasmi, Purba and Wollenberg, 2004: 12).

⁶⁶ UNSFIR collective violence database, based on *Fajar*, 22, 23, 24 July 2003.

case shows how company-community conflict can overlap with state-community conflict when the state provides security services biased towards company interests.

Access to livelihood: Consider the following instances. First, On 27 September 2002, Lubuk Kembang Bunga Villagers in the district of Pelalawan, Riau province, took hostage six cars and two motorcycles of PT Riau Andalan Pulp and Paper employees who prohibit them from logging in the company protected green belt area. The employees who tried to release their vehicles were attacked by the villagers. In the incident, two houses were burned and two others were seriously damaged.⁶⁷ The company is one of the largest pulp mill installations in the world producing pulp and paper which is used for printing and writing papers and has a planting program for a total of more than 200,000 Ha of fast growing wood species. Second, thousands of angry gold illegal miners who operate within the concession mining area of PT Aneka Tambang, a state owned mining company, attacked the office compound of the company in Nanggung sub-district, Bogor, West Java, on 12 March 1998. Almost the entire buildings in the compound were burned. The mass anger was triggered by the death of an illegal miner shot by police when they tried to stop the illegal mining activities.

Environmental damage: On 11 April 1999, hundreds of villagers from the sub-districts of Legok and Parung Panjang in Tangerang, West Java, run amok and destroyed all office facilities of PT SAM that operate a sand (*pasir*) mining in Rumpin sub-district in the neighbouring Bogor district. The attacked was due to mass dissatisfaction with the pollution at Cimanceri River caused by the company's mining activities. A day later, the government security apparatus banned the company's mining activities.

Inter-communal conflicts: Changing relative positions

Inter-communal conflict can be differentiated into various sub-categories according to its forms. However, the following three variations are the most important. First is ethno-communal conflict which takes place when the conflict uses ethnicity and religious symbols:⁶⁸ this is considered as the deathliest form of contemporary violent conflict in Indonesia.⁶⁹ Second is group brawl which might happen along neighbourhood, village, gang or community group cleavages, but without being based on any ethnicity symbols. And the third is inter-communal vigilantism or popular justice when the masses take justice in their own hands against, usually, criminal suspects.⁷⁰ The first is also termed as 'episodic' violence, which is most likely to happen within a particular critical juncture of historical development and is highly concentrated in particular areas, while the last two are labelled as 'routine' violence which have the opposite characteristics.⁷¹

In the first instance, ethno-communal conflict has nothing to do with natural resources. One might argue that it is rooted in ancient hatreds and the problem of identity among competing ethno-communal groups. However, if one looks carefully at problems that underlie the conflict, natural resources may appear as a factor –if not the only factor—through various modalities. Among possible connections are: (a)

⁶⁷ UNSFIR collective violence database, based on *Riau Post*, 28 September 2002.

⁶⁸ Following Horowitz (1985), ethnic symbols span across ethnic, tribe, race, religious, cast, religious stream, etc, which are related to *ascriptive* identity.

⁶⁹ Deathliest means that ethno-communal violence has the highest average numbers of death per violence incident (Varshney, Panggabean and Tadjoeidin, 2006).

⁷⁰ Vigilantism can happen also within the state-community cleavage.

⁷¹ See Tadjoeidin and Murshed (2007).

as a trigger or proximate cause for conflict to take place, (b) as an underlying structural cause and (c) the exploitations of natural resources create a context in which inter-communal conflict to occur.

More precisely by looking at cases of inter-communal conflicts in Indonesia, the following two (related) avenues can be identified. *First* is fighting over natural resources, which can happen in the case of ethno-communal conflict as well as group brawls. The bloody violence between Makian Muslims and Kao Christians in Halmahera, North Maluku in October 1999 is a good example of the former where fighting over natural resource—together with the creation of a new sub-district—can be seen as the underlying causes.⁷² For the latter, consider a fight among two fishermen groups due to a dispute over a fishing area in a district in the northern coast of Central Java,⁷³ where a particular type of natural resource serves as the trigger, the proximate cause and the avenue for the conflict.

Second is fighting between two groups competing for livelihoods due to deprivation after resource exploitation. Dayak-Madurese violence in the areas in West and Central Kalimantan which used to be rich in forests is a good instance.⁷⁴ Resource (forest) depletion created a context—especially for Dayaks—for interethnic violence. The Dayaks had moved from a situation of resource (forest) rich to a situation of significant resource depletion, if not to say resource (forest) scarcity. For those who used to live in the forest and are traditionally and emotionally connected to the forest, the commercialisation of the resource has been a curse, rather than a blessing. The heedless deforestation of Kalimantan since the 1970s created feelings of frustration and anger among the marginalized indigenous Dayak people who lived in the forests. This anger was compounded by a culture clash with an immigrant group, the ethnic Madurese, which escalated into a series of violent clashes and massacres of Madurese. Neither group got almost anything from the exploitation decades ago.

⁷² The Kao-Makian clash was the first incident of the wave of Muslim-Christian violence in the province during 1999-2001. The clash was due to the dispute over the creation of a new sub-district, called Malifut, which is a split from the sub-district of Kao. Around 15 thousand people from the largely Christian inhabitants of Kao, attacked and burned down 16 villages belonging to the neighbouring (and Muslim) newly created sub-district of Malifut. The Kao said that part of Malifut belonged to them. Competition for territorial control began after a gold mine was discovered in Malifut. Many Makian people from Malifut were directly benefited as labourers at the mine. This created jealousy among the Kao. They are the native tribe who have inhabited the area for centuries, while the Makian originally came to the region as government sponsored transmigrants from the Island of Makian. The government moved them off their island in 1975 when its volcano Kie Besi threatened to erupt. As a result they became a highly mobile community, progressive and with a strong work ethic. When their homes were burned down, all the Makian fled Malifut for Ternate (Tomagola, 2001; Wilson, 2005). A report from Khairun University Ternate writes that, due to the two days violence, 14 were killed, 206 were wounded, almost 10,000 were displaced and 1,862 houses, 19 mosques were burned (UNSFIR social violence database).

However, in the case of North Maluku, natural resource—the gold mine—only has a direct relation with the October 1999 Kao-Makian clash. In the overall series of violence, like in Maluku, it seems that, the 1999-2000 episodes of Muslim-Christian violence which took place in almost the entire area of the province is not related to issue of natural resource extraction.

⁷³ In the northern coast central Java's district of Jepara, there was a brawl between traditional fishermen from the village of Demaan and trawls fishermen from the village of Wedung on 11 January 1998. The fight was due to dispute over fishing area between two fishermen groups with different fishing equipments (*Suara Merdeka*, 13 January 1998).

⁷⁴ For accounts on Dayak-Madurese violence, see Peluso and Harwell (2001) for West Kalimantan, and ICG (2001b) for Central Kalimantan. Klinken (2006) concludes that that Dayak-Madurese violence in West Kalimantan was driven by grievances over environmental degradation.

Yet 'until 1960s, the resources (forests) were almost entirely controlled by local' (Peluso and Harwell, 2001: 86). For sure they are not part of New Order originated timber tycoons who are mainly the Chinese. In these two provinces and in Kalimantan in general the native Dayaks are the least developed ethnic group.⁷⁵ Many (if not most) Dayaks feel excluded from political and economic benefit flowing from development efforts based on their region's resources. Furthermore, the two provinces are also among the poorest in Indonesia. In 1996, West and Central Kalimantan is the poorest and third poorest provinces, respectively, in the country in term of human capability poverty measure (Human Poverty Index-HPI) and West Kalimantan had the fourth lowest Human Development Index (HDI) among 26 provinces in Indonesia.

For inter group analysis, Dayak-Madurese inter-ethnic violence in Kalimantan is an interesting case. The Dayak-Madurese violence is nothing to do with widening horizontal inequalities among the two groups,⁷⁶ but it should be seen from the angle of changing relative positions⁷⁷ of groups who are located very much in the same socio-economic stratum. When Madurese settlers started to arrive in Kalimantan in 1960s, they were poor migrants leaving their poorly endowed home land, the Island of Madura, seeking a better life in the new area. At that time the Dayaks enjoyed the richness of Kalimantan's forest where they lived –which made them appear as a typical 'lazy' and introverted people. Over time, the forests were hugely depleted and Dayaks were socio-economically marginalized (also politically),⁷⁸ becoming worse off compared with their previous life, while the 'hard working' and aggressive Madurese settlers became better off. Nevertheless, they were still situated in the lower level of socio-economic status, in which competition with the Dayaks was likely. This is also one explanation why the violence was not directed against other migrant groups such as Chinese, Buginese and Javanese that are considered as part of high and middle levels of socio-economic stratum, and their economic positions were less likely to be displaced by the Dayaks. So, the depletion of the rich forests provides a context for the inter-ethnic violence through marginalization and relative deprivation mechanisms –although not as the sole factor.

The trend of changing relative positions among competing groups is also the case for Dayak-Madurese violence in Kalimantan and Muslim-Christian violence in Ambon in Maluku and Poso in Central Sulawesi (Tadjoeddin, 2003). Both widening horizontal inequalities (as in the case of Kalimantan) as well as converging horizontal inequalities (as in the case of Maluku and Poso), in terms of socio-economic and political power between the competing groups can provide the context where inter-religious or inter-ethnic violence might take place. It is not widening inter-group

⁷⁵ There is no official data on human development indicators by ethnic groups, but from readings and my casual observations of the living condition of Dayak in Kalimantan, they seems to be the least developed ethnic group. For instance, majority of Dayaks live in remote rural areas and tend to have less education compare with other ethnic groups.

⁷⁶ Stewart (2000) argues that widening horizontal inequalities between culturally defined groups can fuel internal violent conflict.

⁷⁷ Tadjoeddin (2003) puts forward the hypothesis of inter-group changing relative position as an underlying socio-economic and political context where the contemporary inter-ethnic violence in Indonesia took place.

⁷⁸ During the there decade New Order, (virtually) no Dayak assumed leadership at provincial (and district?) level in West and Central Kalimantan. It was not the case during the Old Older when Oevaang Oeray and Tjilik Riwut –both are native Dayaks— were once the Governors of West and Central Kalimantan provinces respectively (Davidson, 2002). The picture has changed since the fall of Suharto, a pair of Dayak and Malay for heads of province and district has become a common practice in the regions (Tadjoeddin, 2004), which represents what Lijphart (1999) refers as *consociational* democracy.

horizontal inequalities *per se* that matter to cause conflict, as argued by Stewart (2002), since the examples from Maluku and Poso show that converging horizontal inequalities may also result in inter-group conflicts.

The theory of greed motivation to capture lootable natural resources is also not relevant for the case of ethno-communal conflict in Indonesia. However, the greedy behaviour of military officers in conflict regions for the sake of their business and personal financial interests, like in Aceh and Papua, deserves to be mentioned. For example, in the case of Muslim-Christian violence in Poso, Central Sulawesi, the military was accused of benefiting economically from the conflict through companies operating in the region linked to them and the significant increases in military operational budgets, and therefore they had no interest in ending the conflict (Aditjondro, 2002).⁷⁹

6. Concluding Remarks

The paper has examined different roles played by natural resources in varieties of contemporary conflict in Indonesia. The summary below is divided into four items.

First, the centre-regional conflicts are closely related to how the previous natural resource rents were distributed. The key driver is 'aspiration to inequality' or in other words 'rage of the would-be rich.' The role of natural resources is indirect and should be analysed from a macro perspective and related to key Indonesian resources such as oil, gas and minerals. Back to the framework depicted in Figure 2, the newly identified channelling mechanism, i.e. horizontal inequality and relative deprivation, show the strongest role. Greed theory is irrelevant. Growth failure did not occur in the regions, or in the country. Institutional failure is rather hard to assess since there are probably no significant differences in institutional quality across regions in the country. However, the eruption in separatist violent conflict was partly due to the absence of reliable institutional channelling mechanisms for managing such disputes.

Second, it seems that the role played by natural resources in state-community conflicts is less significant. If there is any association, it derives from the state's poor management of natural resources. Better governance is the solution.

Third, on company-community conflicts, the role of natural resources is direct and obvious. The likelihood of the conflict turning into (small-scale) violence is pretty high. The issues vary, ranging from community loss of access to livelihood, disputed local land acquisitions by the companies, poor resource management policies, and destruction of local environments by companies' activities.

Fourth, the role of natural resources in inter-communal conflict can be either direct or indirect. The former is about direct face to face inter-group competition to control over particular types of natural resources, while the latter is about how the history of natural resource extraction might shift inter-group relative positions which in turn provides a context where inter-communal conflicts are likely to explode.

⁷⁹ Aditjondro (2002) mentions two examples of the business of companies linked to the military operating in Central Sulawesi. They are a black-wood (ebony) extraction company and an oil palm plantation –both are natural resources related businesses. See Aragon (2001) for an excellent account of the Poso conflict.

Given the role played by competition over nature resources in different types of conflicts, the section discusses its policy relevance in the following three parts.

6.1 For the four resource rich provinces

Policy relevance for the four provinces can be addresses in two separate but inter-related headings: 1) how newly introduced decentralisation programmes have addressed the problem of separatism, and 2) governance implications in those four provinces.

6.1.1 Decentralisation as a remedy for separatism

The main features of this policy were put forward in the following regulations. *First* are the two decentralisation laws passed in 1999 (Law No. 22/1999 on Regional Governance and Law No. 25/1999 on Fiscal Balance between the Centre and the Regions), which were fully implemented in 2001.⁸⁰ *Second* are the two special autonomy laws passed in 2001 for Aceh (Law No. 18/2001) and Papua (Law No. 22/2001), which provided greater autonomy for those two provinces that contained separatist movements. *Third* are the 2004 revisions of the previous decentralisation laws into Law No. 32/2004 and Law No. 33/2004 respectively. The former laid out the basis for direct elections of heads of provinces (Governors) and districts (Regents and Mayors). *Fourth* is the newly passed Law on Governing Aceh (LoGA): Law No. 11/2006, which is one of the stipulated clauses in the August 2005 Helsinki peace agreement made between GAM and the Government of Indonesia.

Decentralisation policies have been effective in dealing with separatist demands in both Aceh and Papua. Since the signing of the MoU peace has held in Aceh, whereas earlier decentralisation laws proved ineffective at curbing the separatist conflict.⁸¹ The Government of Indonesia has been suggested to follow similar decentralisation strategies for addressing separatist pressures Papua.⁸² Unlike Aceh, the 2001 Special Autonomy Law for Papua has effectively calmed the separatist movement. Furthermore, the 2006 direct elections for the Papuan governor opened political divisions among different factions along political and sub-regional affiliations within the province and weakened separatist sentiments (Mietzner, 2006). The provinces of Riau and East Kalimantan that posed strong demands for autonomy have been happy with the two decentralisation laws passed in 1999 and their subsequent 2004 revisions.

Decentralisation, in the sense that the central government gives greater autonomy in day-to-day governance issues and greater shares of financial allocations to sub-national entities, was initially geared towards addressing separatist sentiments during Indonesia's democratic transition following 1998. Arguably, these separatist tendencies sprang from grievances rooted in three decades of highly centralised government control during Suharto's New Order regime. Although this remains a

⁸⁰ The passing of the two Laws in 1999 by President Habibie administration were done in rush due to the disintegration threat faced by the country which was mainly posed by political developments in East Timor surrounding the 1999 referendum.

⁸¹ There were other factors that undermined decentralization as a conflict resolution mechanism: big ones are East Timor. The Gol was faced international pressures to resolve the problem in the region, at that time was one of Indonesian's 27 provinces. This fueled belief among rebel groups that they could get a similar outcome. In that kind of political backdrop decentralization was bound to fail.

⁸² This suggestion is argued in an East West Center's *Policy Studies* (Kivimaki, 2006) written by Timo Kivimaki, a Finnish political scientist who was an adviser to the former Finnish president Marti Ahtisaari during Helsinki talks between the GAM and Gol.

work in progress, results so far suggest that the initial objective of quelling secessionist conflict has been successful. Nevertheless, longer-term governance and capacity-development needs in relation to political and administrative decentralisation in the four resource-rich provinces still pose daunting challenges, as outline below.

6.1.2 Governance in the four provinces: the risk for a future resource curse

As a country of 220 million people, the natural resource era in Indonesia has gone. Its record was not bad, relatively compared with many African and Latin American countries, such as Nigeria and Bolivia, just to name a few, which have clearly performed worse than Indonesia. However, in the radically newly decentralised Indonesia, there is a potential risk that, in the next two decades or so, the country will be observing the resource curse phenomenon in its currently four richest provinces. The worry is based on the following preliminary political economy explanation.

As Collier and Hoeffler (2006) suggest that in developing countries the combination of high natural resource rents and open democratic systems has been growth-reducing. Checks and balances offset this adverse effect. Thus, resource-rich economies need a form of democracy with particularly strong checks and balances. Unfortunately this is rare: checks and balances are public goods and so are liable to be undersupplied in new democracies. In large measure this is because the institutional mechanisms to ensure such checks and balances are weak both inside the government and with civil society's ability to act as watchdogs over the government. Those oversight mechanisms which might exist are eroded by resource rents or, read differently, corrupt government behaviour and self-interested client-patron networks between government and civil society.

Let us assume each of the four rich provinces as four economic entities under the current decentralisation scheme, particularly the special autonomy status of Aceh and Papua. The current feature of Indonesia's young democracy shares the characteristic of strong electoral competition,⁸³ identity politics at sub-national levels and weak checks and balances – notably in the four resource-rich provinces listed herein.⁸⁴ The current setting of electoral competition in Indonesia would create a high discount rate for those who are in power (at district or provincial), particularly in resource rich regions. This means public officials might not be motivated to maximally utilize public funds derived from natural resources for the development of an industrial base or to spend on social development promoting people's general welfare. Instead, they would be short-sighted during five-year term in office focussing on short-term gains by allocating public funds to personal patronage networks,⁸⁵ or long-sighted insofar as promoting various forms of corruption to win future elections (e.g. on unproductive 'pork barrel' projects).⁸⁶ The ultimate goal of

⁸³ Indonesia held its first direct presidential election in 2004 and in the following year introduced direct elections for hundreds of provincial and district heads, which cannot be isolated from the neoconservative agenda.

⁸⁴ There have been massive reports on corruptions committed by local politicians and local governments at provincial and district levels since the full implementation of decentralisation in 2001.

⁸⁵ Allocating government contracts to businesses that are politically connected to those in power.

⁸⁶ This is about the populist but highly unproductive development projects, such as the two well-known but less scrutinized projects in Kutai, the richest district in East Kalimantan, namely the 'Gerbang-Dayaku's IDR 2 billion (USD 220,000) block grant per village per year since 2001 and the 'Disneyland' type recreational facilities in the district capital, which is more as a spot within the jungle.

electoral contestants thus becomes capturing public resources to distribute various rents to cronies. The major part of provincial/district funds is derived from natural resource rents under the natural resources revenue sharing scheme, not by taxing the voters/population. This creates a situation where winning politicians are less accountable to voters and voters devote less willingness/ability to scrutinize the acts of politicians in power (i.e. not much incentive since voters do not pay direct taxes). To borrow from Olson (1993), the politicians would act as 'roving bandits' under the shadow of democracy rather than as 'stationary bandits' under an autocracy.

6.2 For the companies dealing with natural resources

The private sector should engage in combating against poverty and human deprivation. Companies running business related to natural resources in areas where there are poor, deprived or marginalized communities run the risk of becoming entangled in problematic business-community relationships.⁸⁷ Introducing strategies that will help such communities move out of poverty and deprivation is good for the companies and makes the business environment safer since it addresses issues of community grievance and violent community responses to business. In Java, for example, the violence reducing impact of poverty reduction is quite substantial (Tadjoeddin and Murshed, 2007). Therefore, according to the utilitarian principle, companies should build partnerships with local communities and governments so as to address issues of poverty and human deprivation in areas they are operating. According to this logic—even using a careful business cost and benefit calculations—such contribution would have a rational basis.⁸⁸

6.3 For regions to improve inter-communal group relations

The government's socio-economic development policies at centre and sub-national levels should take into account changes in term of groups' relative position among different communal groups—a previously neglected dimension of policy-development. The risks posed by changing positions of groups will certainly differ in different regions. The immediate task should be to identify if and how changing relative positions among groups can fuel violent horizontal conflicts within society, particularly in those areas where there have already been violent inter-communal conflicts.

⁸⁷ Recall the previous instances of company-community violent conflicts.

⁸⁸ One might consider the case of the Freeport's development fund for Papua amounting 1% of its annual revenues established after the March 1996 rioting when anti-mine sentiment among different groups coalesced into what was perhaps the biggest threat to the company to this day. The mine and its mill were shut down for three days. Rioters destroyed USD 3 million of equipment and ransacked offices in Grasberg (Perlez and Bonner, 2005).

Bibliography

- Abuza, Zachary. 2006. *Political Islam and Violence in Indonesia*, Oxford and New York: Routledge.
- Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2005. 'Institutions as the Fundamental Cause of Long-Run Growth'. In Philippe Aghion and Steven Durlauf, eds., *Handbook of Economic Growth* 1(1), Amsterdam: Elsevier.
- Acemoglu, Daron; Simon Johnson, James A. Robinson and Pierre Yared. 2006. 'Income and Democracy', mimeo.
- Aditjondro, G. Junus. 2002. 'Al-Qaeda, atau Permainan Tentara? Kepentingan Militer di Balik "Konflik Antar Agama" di Poso, Sulawesi Tengah'. Available at <<http://www.geocities.com/kariu67/gja110402.htm>> (last accessed November 2006).
- Akita, Takahiro and Rizal A. Lukman. 1995. 'Interregional Inequalities in Indonesia: A Sectoral Decomposition Analysis for 1975-92', *Bulletin of Indonesian Economic Studies* 31 (2): 61-81.
- Anderson, Benedict, ed. 2001. *Violence and the State in Suharto's Indonesia*. Ithaca: Southeast Asia Program, Cornell University.
- Aragon, Lorraine V. 2001. 'Communal Violence in Poso, Central Sulawesi: Where People Eat Fish and Fish Eat People', *Indonesia* 72: 45-79.
- Arief, Sritua. 1998. *Teori dan Kebijakan Pembangunan*. Jakarta: CIDES.
- Arndt, H. W. 1974. 'Survey of Recent Developments', *Bulletin of Indonesian Economic Studies* 10 (2): 1-34.
- Asian Development Bank. 1997. *Emerging Asia: Changes and Challenges*. Manila: ADB.
- Auty, Richard M. 1993. *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London: Routledge.
- Auty, Richard M. 1994. 'Industrial Policy Reform in Six Large Newly Industrializing Countries: The Resource Curse Thesis', *World Development* 22 (1): 11-26.
- Auty, Richard M. (2004). 'Natural Resources and Civil Strife: A Two-Stage Process', *Geopolitics* 9 (1):29-49.
- Auty, Richard M., ed. (2001). *Resource Abundance and Economic Development*. Oxford: Oxford University Press.
- Baland, Jean-Marie and Patrick Francois. 2000. 'Rent-seeking and Resource Booms', *Journal of Development Economics* 61 (2): 527-42.
- Balassa, Bella 1980. *The Process of Industrial Development and Alternative Development Strategies*. Princeton: Princeton University
- Ballentine, Karen and Heiko Nitzschke, eds. 2005. *Profiting from Peace: Managing the Resource Dimensions of Civil War*. Boulder, CO: Lynne Rienner.
- Ballentine, Karen, and Jake Sherman, eds. 2003. *The Political Economy of Armed Conflict: Beyond Greed and Grievance*. Boulder, CO: Lynne Rienner.
- Bannon, Ian and Paul Collier, eds. 2003. *Natural Resources and Violent Conflict: Options and Actions*. Washington DC: World Bank.

- Barron, Patrick and Joanne Sharpe. 2005. 'Counting Conflicts: Using Newspaper Reports to Understand Violence in Indonesia', *Conflict Prevention and Reconstruction Paper No. 25*. Washington, DC: World Bank.
- Barron, Patrick, Kai Kaiser, and Menno Pradhan. 2004. 'Local Conflict in Indonesia: Measuring Incidence and Identifying Patterns,' *World Bank Policy Research Working Paper 3384*. Washington, DC: World Bank.
- Barron, Patrick, Rachael Diprose, and Michael Woolcock. 2006. 'Local Conflict and Development Projects in Indonesia: Part of the Problem or Part of a Solution?' Paper presented at the annual meetings of the American Political Science Association, Philadelphia, September 1.
- Berdal, Mats R. and David M. Malone, eds. 2000. *Greed and Grievance: Economic Agendas in Civil Wars*. Boulder, CO: Lynne Rienner.
- Bevan, David L., Paul Collier, and Jan Willem Gunning. 1999. *The Political Economy of Poverty, Equity, and Growth: Nigeria and Indonesia*. New York: Oxford University Press.
- Birdsall, Nancy, David Ross and Richard Sabot. 1995. 'Inequality and Growth Reconsidered: Lesson from East Asia', *The World Bank Economic Review* 9 (3): 477–508.
- Booth, Anne. 2000. 'Poverty and Inequality in the Soeharto Era: An Assessment', *Bulletin of Indonesian Economic Studies* 36 (1): 73-104.
- Brown, Graham. 2005. 'Horizontal Inequalities, Ethnic Separatism, and Violent Conflict: The Case of Aceh, Indonesia'. Background paper for *Human Development Report 2005*. New York: UNDP.
- Collier, Paul and Anke Hoeffler. 1998. 'On Economic Causes of Civil War', *Oxford Economic Papers* 50 (4): 563–573.
- Collier, Paul and Anke Hoeffler. 2004. 'Greed and Grievance in Civil Wars', *Oxford Economic Papers* 56 (4): 573-595.
- Collier, Paul and Anke Hoeffler. 2006. 'Testing the Neocon Agenda: Democracy in Resource-Rich Societies', mimeo, Department of Economics, University of Oxford.
- Collier, Paul and Nicholas Sambanis. 2005. *Understanding Civil War: Evidence and Analysis (Africa)*. Washington, DC: World Bank.
- Collier, Paul (1999). 'On the Economic Consequences of Civil War', *Oxford Economic Paper* 51 (1): 168-183.
- Collier, Paul. 2000. 'Doing Well Out of War'. In Mats R. Berdal and David M. Malone, eds., *Greed and Grievance: Economic Agendas in Civil Wars*. Boulder, CO: Lynne Rienner.
- Collier, Paul, Lani Elliot, Håvard Hegre, Anke Hoeffler, Marta Reynal-Querol and Nicholas Sambanis. 2003. *Breaking the Conflict Trap: Civil War and Development Policy*. Washington, DC: World Bank and Oxford University Press.
- Corden, W. Max., J. Peter Neary. 1982. 'Booming Sector and De-industrialisation in a Small Open Economy', *The Economic Journal* 92: 829-831.
- Davidson, Jamie S. 2002. *Violence and politics in West Kalimantan, Indonesia*. PhD Thesis, Department of Political Science, University of Washington, Seattle.
- Dawood, Dayan and Sjafrizal. 1989. 'Aceh: The LNG Boom and Enclave Development'. In Hall Hill, ed., *Unity and Diversity: Regional Economic Development in Indonesia Since 1970*. Oxford: Oxford University Press.

- Diprose, Rachael. 2004. 'Conflict Pathways in Indonesia: Conflict, Violence and Development Programs in East Java', mimeo. Jakarta: World Bank.
- Djalal, Dini. 2000. 'A Bloody Truce', *Far Eastern Economic Review* (5 October).
- Eric Ng. 2006. 'Is Natural Resource Abundance Beneficial or Detrimental to Income and Growth?' Paper presented at the 40th Annual Meetings of Canadian Economics Association, May 27.
- Esmara, Hendra. 1975a. 'Regional Income Disparities', *Bulletin of Indonesian Economic Studies* 11 (1): 41-57.
- Esmara, Hendra. 1975b. 'An Economic Survey Of Riau', *Bulletin of Indonesian Economic Studies* 11 (3): 25-49.
- Fearon, James D. 2005. 'Primary Commodities Exports and Civil War', *Journal of Conflict Resolution* 49 (4): 483-507.
- Fearon, James D., and David D. Laitin. 2003. 'Ethnicity, Insurgency, and Civil War', *American Political Science Review* 97 (1): 75-90.
- Gelb, Alan and Associates. 1988. *Oil Windfalls: Blessing or Curse?* New York: Oxford University Press.
- Gelb, Alan and Bruce Glassburner. 1988. 'Indonesia: Windfalls in a Poor Rural Economy'. In Alan Gelb and Associates, *Oil Windfalls: Blessing or Curse?* New York: Oxford University Press.
- Gellert, Paul K. 2005. 'Oligarchy in Timber Markets of Indonesia: From APKINDO to IBRA to the Future of the Forest'. In Budy P. Resosudarmo, ed., *The Politics and Economics of Indonesia's Natural Resources*. Singapore: ISEAS.
- Gleditsch, Nils Petter; Are Knudsen, Astri Suhrke and Henrik Urdal. 2003. 'Conflict and Development: Framework for a Proposed Research Area', mimeo. Oslo: PRIO and CMI.
- Gunaratna, Rohan. 2001. 'The structure and nature of GAM', *Jane's Intelligence Review* 13 (4).
- Gurr, Ted R. 1970. *Why Men Rebel*. Princeton, NJ: Princeton University Press.
- Hill, Hal, ed. 1989. *Unity and Diversity: Regional Economic Development in Indonesia Since 1970*. Oxford: Oxford University Press.
- Horowitz, Donald. 1985. *Ethnic Groups in Conflict*. Berkeley: University of California Press.
- Human Rights Watch. 1997. 'Communal Violence in West Kalimantan'. New York: HRW.
- International Crisis Group. 2001a. 'Aceh: Why Military Force Won't Bring Lasting Peace'. *ICG Asia Report 17*. Jakarta/Brussels: ICG.
- International Crisis Group. 2001b. 'Communal Violence in Indonesia: Lessons from Kalimantan', *ICG Asia Report 19*. Jakarta/Brussels: ICG.
- International Crisis Group. 2002. 'Indonesia: Resources and Conflict in Papua', *Asia Report 39*. Jakarta/Brussels: ICG.
- Islam, Iyanatul and Habibullah Khan. 1986. 'Spatial Patterns of Inequality and Poverty in Indonesia', *Bulletin of Indonesian Economic Studies* 22 (2): 80-102.
- Jones, Leon 1997. 'Aceh's Year of Living Dangerously', *Inside Indonesia* 49 (January-March).

- Karl, Terry L. 1997. *The Paradox of Plenty: Oil Booms and Petro States*. Berkeley, CA: University of California Press.
- Kimenyi, Mwangi S. and Njuguna Ndung'u. 2005. 'Sporadic Ethnic Violence: Why Has Kenya not Experienced a Full-Blown Civil war?' In Paul Collier and Nicholas Sambanis, eds., *Understanding Civil War* (Volume I: Africa). Washington, DC: World Bank.
- Kingsbury, Damian and Lesley McCulloch. 2006. 'Military Business in Aceh'. In Anthony Reid, ed., *Verandah of Violence: The Background to the Aceh Problem*. Singapore: Singapore University Press.
- Kivimäki, Timo. 2006. 'Initiating a Peace Process in Papua: Actors, Issues, Process, and the Role of the International Community', *Policy Studies* 25. Washington, DC: East-West Center.
- Klinken, Gerry van 2006. 'The Forest, the State, and Communal Conflict in West Kalimantan, Indonesia'. In Henk Schulte Nordholt and Ireen Hoogenboom, eds., *Indonesian Transitions*. Yogyakarta: Pustaka Pelajar.
- Kwik Kian Gie. 2006. '*50 Tahun Mafia Berkeley*' (50 Years of the Berkeley Mafia), *Rakyat Merdeka*, 19 June.
- Lane, Philip and Aaron Tornell. 1996. 'Power, Growth and the Voracity Effect', *Journal of Economic Growth* 1 (2): 213-41.
- Lederach, John Paul. 1995. *Preparing for Peace: Conflict Transformation Across Cultures*. Syracuse, NY: Syracuse University Press.
- Lederach, John Paul. 1997. *Building Peace: Sustainable Reconciliation in Divided Societies*. Washington, DC: United States Institute of Peace.
- Lewis, Arthur. 1955. *The Theory of Economic Growth*. Homewood, IL: RD. Irwin.
- Lijphart, Arend. 1999. *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven and London: Yale University Press.
- Mancini, Luca. 2005. 'Horizontal Inequality and Communal Violence: Evidence from Indonesian Districts', *CRISE Working Paper* 22, Oxford: QEH-University of Oxford.
- Manning, Chris and Michael Rumbiak. 1989. 'Irian Jaya: Economic Change, Migrants and Indigenous Welfare', in Hal Hill, ed., *Unity and Diversity: Regional Economic Development in Indonesia since 1970*. Oxford: Oxford University Press.
- Mavrotas, George, S. Mansoob Murshed and Sebastian Torres. 2006. 'Natural Resources Endowments and Recent Economic Performance', *mimeo*.
- McCulloch, Lesley. 2006. 'Greed: The Silent Force of Conflict in Aceh'. In Damien Kingsbury, ed., *Violence In Between: Security Issues in Archipelagic South-East Asia*. Melbourne/Singapore: Monash Asia Institute/Institute for Southeast Asian Studies.
- Mehlum, Halvor, Karl Moene and Ragnar Torvik. 2006a. 'Institutions and the Resource Curse', *Economic Journal* 116 (508): 1-20.
- Mehlum, Halvor; Karl Moene and Ragnar Torvik. 2006b. 'Cursed by Resources or Institutions?' *The World Economy* 29 (8):1117-1131
- Mietzner, Marcus. 2006. 'Autonomy, Democracy and Internal Conflict: The 2006 Gubernatorial Elections in Papua'. Seminar Presentation, RSPAS, Australian National University, May, 15.
- Murphy, Kevin, Andrei Shleifer and Robert Vishny. 1991. 'The Allocation of Talent: Implications for Growth', *Quarterly Journal of Economics* 106 (2): 503-30.

- Neary, J. Peter and Sweder van Wijnbergen, eds., 1986. *Natural Resources and the Macroeconomy*. Oxford: Blackwell.
- Obidzinski, Krystof. 2005. 'Illegal Logging in Indonesia: Myth and Reality'. In Budy P. Resosudarmo, ed., *The Politics and Economics of Indonesia's Natural Resources*. Singapore: ISEAS.
- Olson, Mancur. 1965. *The Logic of Collective Action*. Cambridge, MA: Harvard University Press.
- Peluso, Nancy Lee and Emily Harwell. 2001. 'Territory, custom, and the cultural politics of ethnic war in West Kalimantan, Indonesia'. In Nancy Lee Peluso and Michael Watts, eds., *Violent Environments*. Ithaca: Cornell University Press.
- Peluso, Nancy Lee and Michael Watts, eds. 2001. *Violent Environments*. Ithaca: Cornell University Press.
- Perlez, Jane and Raymond Bonner. 2005. 'Below a Mountain of Wealth, a River of Waste', *The New York Times*, December, 27.
- Rab, Tabrani. 1999. *Menuju Riau Berdaulat: Penjarahan Minyak Riau (Toward Riau Independence: The Plundering of Riau's Oil)*. Pekanbaru: Riau Cultural Institute.
- Resosudarmo, Budy P. and Yogi Vidyattama. 2006. 'Regional Income Disparity in Indonesia: A Panel Data Analysis,' *ASEAN Economic Bulletin* 23 (1): 31-44.
- Resosudarmo, Budy P., ed. 2005. *The Politics and Economics of Indonesia's Natural Resources*. Singapore: ISEAS.
- Robinson, James A. 2006. 'Economic Development and Democracy', *Annual Review of Political Science* 9: 503-27.
- Rodrik, Dani. 2002. 'After Neoliberalism, What?' Paper presented at a conference on Alternatives to Neoliberalism, Washington, DC, May, 23.
- Rodrik, Dani; Arvind Subramanian and Francesco Trebbi. 2004. 'Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development', *Journal of Economic Growth* 9 (2): 131-165.
- Ross, Michael. 2001a. 'Does Oil Hinder Democracy', *World Politics*, 53 (3): 325-61.
- Ross, Michael. 2001b. *Timber Booms and Institutional Breakdown in Southeast Asia*. Cambridge, UK: Cambridge University Press.
- Ross, Michael. 2003. 'Resources and Rebellion in Aceh, Indonesia'. Paper prepared for the Yale-World Bank project on 'The Economics of Political Violence', July, 5.
- Rosser, Andrew. 2004. 'Why Did Indonesia Overcome the Resource Curse?', *Institute of Development Studies Working Paper* 222. Brighton: IDS.
- Rostow, W. W. 1961. *The Stages of Economic Growth: A Non-communist Manifesto*. Cambridge: Cambridge University Press.
- Sachs, Jeffrey and Andrew Warner. 1995. 'Natural Resource Abundance and Economic Growth', *National Bureau of Economic Research Working Paper* 5398. Cambridge, MA: NBER.
- Sachs, Jeffrey and Andrew Warner. 1997. 'Natural Resource Abundance and Economic Growth' Revised version.' *Unpublished manuscript*. Cambridge, MA: Harvard Institute for International Development.
- Sachs, Jeffrey and Andrew Warner. 1999. 'The Big Push, Natural Resource Booms and Growth', *Journal of Development Economics* 59: 43-76.

- Sachs, Jeffrey and Andrew Warner. 2001. 'The Curse of Natural Resources', *European Economic Review* 45: 827-38.
- Sala-i-Martin, Xavier and Arvind Subramanian. 2003. 'Addressing the Natural Resource Curse: An Illustration from Nigeria', *NBER Working Paper 9804*. Cambridge, MA: NBER.
- Salim, Emil. 2005. 'Preface: Looking Back to Move Forward'. In Budy P. Resosudarmo, ed., *The Politics and Economics of Indonesia's Natural Resources*. Singapore: ISEAS.
- Schulze, Kirsten E. 2004. 'The Free Aceh Movement (GAM): Anatomy of a Separatist Organization', *Policy Studies* 2. Washington, DC: East-West Center.
- Seda, Francisia. 2005. 'Petroleum Paradox: The Politics of Oil and Gas'. In Budy P. Resosudarmo, ed., *The Politics and Economics of Indonesia's Natural Resources*. Singapore: ISEAS
- Sen, Amartya. 1999. *Beyond the Crisis: Development Strategies in Asia*. Singapore: ISEAS.
- Sidel, John T. 2006. *Riots, Pogroms, Jihad: Religious Violence in Indonesia*. Cornell: Cornell University Press.
- Stewart, Frances. 2000. 'Crisis Prevention: Tackling Horizontal Inequalities'. *Oxford Development Studies* 28 (3): 245-262.
- Stewart, Frances. 2001. 'Horizontal Inequalities: A Neglected Dimension of Development,' *WIDER Annual Lecture* 5. Helsinki: WIDER-UNU.
- Stewart, Frances. 2004. 'Horizontal Inequalities: A Neglected Dimension of Development,' *CRISE Working Paper No. 1*. Oxford: Queen Elizabeth House, University of Oxford.
- Sudjana, Brasukra and Satish Mishra. 2004. 'Growth and Inequality in Indonesia Today: Implications for Future Development Policy', *UNSFIR Working Paper 04/05*. Jakarta: UNSFIR.
- Tadjoeddin, Mohammad Zulfan and S. Mansoob Murshed. 2007. 'Socioeconomic Determinants of Everyday Violence in Indonesia: An Empirical Investigation of Javanese Districts, 1994-2003', *Journal of Peace Research* (forthcoming).
- Tadjoeddin, Mohammad Zulfan. 2002. 'Anatomy of Social Violence in the Context of Transition: The Case of Indonesia', *Politics Administration and Change* 38, (July-December).
- Tadjoeddin, Mohammad Zulfan. 2003. 'Communal Conflicts and Horizontal Inequalities in Indonesia: Dynamics and Consequences'. Paper presented at the IPSK-CNRS Reading Group Meeting on Conflict, LIPI Jakarta, January, 15.
- Tadjoeddin, Mohammad Zulfan. 2004), 'Civil Society Engagement and Communal Violence: Reflections of Various Hypotheses in the Context of Indonesia', *Politics Administration and Change* 42:1-18.
- Tadjoeddin, Mohammad Zulfan, Widjajanti I. Suharyo and Satish Mishra (2001), 'Regional Disparity and Vertical Conflict in Indonesia', *Journal of the Asia Pacific Economy* 6(3): 283-304.
- Thee Kian Wie. 2006. 'Technology and Indonesia's Industrial Competitiveness', *Research Paper Series 72*. Tokyo: ADB Institute.
- Tomagola, Tamrin Amal. 2001. 'The Bleeding Halmahera of North Moluccas', in Ingrid Wessel and Georgia Wimhöfer, eds., *Violence in Indonesia*, Hamburg: Abera Verlag.

- Torvik, Ragnar. 2002. 'Natural Resources, Rent Seeking and Welfare', *Journal of Development Economics* 67 (2): 455-470.
- UNDP, BPS and BAPPENAS. 2001. *Indonesia National Human Development Report 2001, Toward A New Consensus: Democracy and Human Development in Indonesia*, Jakarta.
- Varshney, Ashutosh, Rizal Panggabean and Mohammad Zulfan Tadjoeddin. 2006. 'Creating Datasets in Information-Poor Environments: Patterns of Collective Violence in Indonesia (1990-2003)'. Paper presented at the annual meetings of the American Political Science Association, Philadelphia, PA, September, 1.
- Wilson, Chris. 2005. 'The Ethnic Origins of Religious Conflict in North Maluku Province, Indonesia, 1999-2000', *Indonesia* 79: 69-91.
- Wood, Adrian 1999. 'Natural Resources, Human Resources and Export Composition: A Cross Country Perspective'. In Jörg Mayer, Brian Chambers and Ayisha Farooq, eds., *Development Policies in Natural Resource Economies*. Cheltenham, UK: Edward Elgar.
- World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. New York: Oxford University Press.
- World Bank. 1996. 'Indonesia: Dimensions of Growth', *Report 15383-IND*. Washington, DC: World Bank.
- Wulan, Yuliana C., Yurdi Yasmi, Christian Purba and Eva Wollenberg. 2004. *Analisa Konflik Sektor Kehutanan di Indonesia 1997 - 2003*. Bogor: CIFOR.