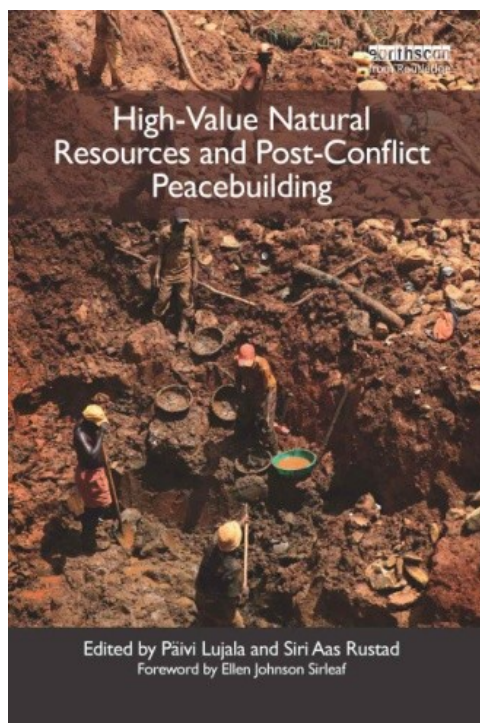


This chapter first appeared in *High-Value Natural Resources and Peacebuilding*, edited by P. Lujala and S.A. Rustad. It is one of 6 edited books on Post-Conflict Peacebuilding and Natural Resource Management (for more information, see www.environmentalpeacebuilding.org). The full book can be ordered from Routledge at <http://www.routledge.com/books/details/9781849712309/>.

© 2012. Environmental Law Institute and United Nations Environment Programme.



Sharing natural resource wealth during war-to-peace transitions

Achim Wennmann^a

^a*Centre of Conflict, Development and Peacebuilding, Graduate Institute of International and Development Studies*

Online publication date: June 2012

Suggested citation: A. Wennmann. 2012. Sharing natural resource wealth during war-to-peace transitions. In *High-Value Natural Resources and Peacebuilding*, ed. P. Lujala and S. A. Rustad. London: Earthscan.

Terms of use: This chapter may be used free of charge for educational and non-commercial purposes. The views expressed herein are those of the author(s) only, and do not necessarily represent those of the sponsoring organizations.

Sharing natural resource wealth during war-to-peace transitions

Achim Wennmann

Since the early 1990s, the relationship between natural resources and armed conflict has been a recurring topic in the policy and scholarly worlds. “Conflict diamonds” and the complicity of companies in conflict economies have made headline-grabbing news, and the role of resources in financing belligerents has placed natural resources at the heart of discussions at the United Nations Security Council (UNSC). In academia, natural resources have come to occupy a central place in explaining conflict dynamics, as a source of both means and motives in the use of armed violence. While natural resource wealth has found its way onto the political and research agendas for different reasons, all the reasons converge on a single point: natural resource wealth is a problem because it allows and sustains armed conflict, and thereby creates an obstacle to peacemaking.

This chapter reverses this perspective. The goals here are (1) to explore the opportunities that natural resource wealth creates for peacemaking, and (2) to ask whether, by addressing resource wealth during peace processes, it is possible to strengthen post-conflict economic recovery and help establish a lasting peace. Wealth sharing can be said to play a dual role in war-to-peace transitions: it looks backward, to address the ends or means of past disputes; and it looks forward, to shape the vision of a new society and economy (Zartman 2005).

As used in this chapter, *wealth sharing* refers to a negotiated agreement about the distribution of income derived from natural resources. The two types

Achim Wennmann is a researcher at the Centre on Conflict, Development and Peacebuilding (CCDP) of the Graduate Institute of International and Development Studies in Geneva. The author wishes to thank Gilles Carbonnier, Simon Mason, and Axel Wennmann for their constructive comments. An earlier version of this chapter was presented at the Thirteenth Annual International Conference on Economics and Security, Thessaloniki, Greece, June 24–26, 2009. The research for this chapter was conducted as part of a project entitled Economic Issues and Tools in Peace Processes, which was supported by the Swiss Federal Department of Foreign Affairs. This chapter also draws from a guidance note for mediators on income sharing from natural resources and the author’s book *The Political Economy of Peacemaking* (Routledge 2011).

of distribution are (1) company-to-government transfers and (2) special sharing schemes between the central government and subnational entities.¹

The chapter is divided into five major parts: (1) a review of the relationship between development, conflict, and natural resource wealth; (2) a discussion of the role of natural resources in peace processes; (3) a description of various forms of, and approaches to, wealth sharing; (4) an evaluation of wealth-sharing schemes in Sudan and Indonesia, where natural resources had contributed to armed conflict in Southern Sudan and Aceh, respectively; and (5) concluding thoughts on the effective integration of wealth sharing into war-to-peace transitions.

DEVELOPMENT, CONFLICT, AND NATURAL RESOURCE WEALTH

Natural resources, whether renewable or nonrenewable, are actual or potential sources of wealth; examples include timber, water, land, wildlife, minerals, metals, stones, and hydrocarbons, such as petroleum and natural gas (UNEP 2009). Revenue from natural resources is particularly important for many developing countries, half of which rely on four commodities for more than 50 percent of their export earnings, and one-third of which rely on four commodities for more than 75 percent of their export earnings. The principal commodities exported by developing nations are oil and oil products, fish, natural gas, forestry products, sugar, cocoa, and coffee (UNCTAD 2008). Some natural resources, such as oil and minerals, yield unearned income, or “rents”—the excess of revenues over all costs, including normal profit margins (Collier 2009).

But many countries with an abundance of certain natural resources—particularly oil, gas, and valuable minerals—experience lower economic growth and human development than countries where such resources are scarce (Auty 1993; Karl 1997). One explanation for this phenomenon is that natural resources are not revenues but assets. Oil, for example, is part of a country’s natural endowment; when it is commercialized—that is, extracted from the ground and sold—it is converted into a liquid asset (Radon 2007). But this transaction does not represent income; it is simply a change in the denomination of the asset from barrels of oil to U.S. dollars.

Thus, the challenge for developing countries is to transform natural resource assets into lasting development benefits without depreciating the assets themselves. Such efforts are often complicated by the self-destructive incentives created by natural resources: first, they tempt leaders to overspend for current needs; second, they are perceived as prizes that various parties attempt to capture, either through

¹ For additional perspectives on resource sharing, see Michael L. Ross, Päivi Lujala, and Siri Aas Rustad, “Horizontal Inequality, Decentralizing the Distribution of Natural Resource Revenues, and Peace,” and Roy Maconachie, “The Diamond Area Community Development Fund: Micropolitics and Community-led Development in Post-war Sierra Leone,” both in this volume.

corruption or armed force (Humphreys, Sachs, and Stiglitz 2007);² third, they can foster “rentier states,” which rely on rents from natural resources, rather than on the productive activities of the population, for their revenue base. Rentier states are marked by weak state-society relations and by semiauthoritarian governments in which the capture of natural resource rents accords disproportionate power to government elites (Beblawi and Luciano 1987; Ottaway 2003).³

After the end of the cold war, a number of the conflicts in Africa placed the spotlight on the relationship between natural resources and armed conflict. The issue gained prominence (1) through detailed reports filed by the UNSC sanctions-monitoring mechanisms for Angola, the Democratic Republic of the Congo (DRC), Liberia, and Sierra Leone, and (2) through multi-stakeholder initiatives undertaken to curtail trafficking in conflict diamonds and the abusive and illegal behavior of companies in conflict zones (Banfield, Lilly, and Haufler 2003; Smillie 2005; Ballentine and Haufler 2005). In addition, in 2003, the World Bank identified armed conflict as an obstacle to development and opened an entire research stream on the economics of political and criminal violence (Collier et al. 2003; Bannon and Collier 2003; Collier and Sambanis 2005). The resulting findings emphasized the role of natural resources in the development of a “conflict trap” in which “war wrecks the economy and increases the risk of future war” (Collier et al. 2003, 1). Specifically, natural resources provide insurgents with the means and motives to secede from or challenge the state; the state’s lack of institutional and military capacity, in turn, increases the incentive for insurgents to make the effort (Herbst 2004).⁴

In sum, natural resource wealth can have a range of adverse effects on a country: it can weaken the economy and state-society relations, provide belligerents with both the means and motives to continue armed conflict, and influence the dynamics of armed conflicts. Thus, it can be said that natural resources facilitate conflict and undermine the transition to peace. The rest of this chapter looks at the other side of the coin: how, and to what extent, can natural resource wealth end armed conflict and support lasting peace?

NATURAL RESOURCES AND PEACE PROCESSES

Armed conflict originates in the perception of irreconcilable differences on particular issues; violence is the chosen means of resolving these differences

² For further discussion of the resource curse, see Paul Collier and Anke Hoeffler, “High-Value Natural Resources, Development, and Conflict: Channels of Causation,” in this volume.

³ State-society relations tend to be weaker in rentier states because they have fewer incentives to nurture relations with their citizens than do states that depend on taxation for governmental revenues.

⁴ For further discussion of the link between natural resources and armed conflict, see Paul Collier and Anke Hoeffler, “High-Value Natural Resources, Development, and Conflict: Channels of Causation,” in this volume.

(Holsti 1991). Thus, one of the main objectives of a peace process is to change perceptions by focusing on the issues that underlie the conflict; using an issues-based approach, mediators and negotiators can reframe disagreements, allowing compromises to be forged and future disputes to be resolved without recourse to armed violence (Zartman 1995).

Although economics and political economy are standard approaches to conflict analysis, the economic dimensions of peace processes have received little attention. A comparison of provisions in twenty-seven peace agreements, for example, showed that most focus on security and political power; economic provisions are marginal (Suhrke, Wimplemann, and Dawes 2007). It is not clear why natural resources and other economic issues are often omitted. One possibility is that the parties may be more concerned with other issues; another is that mediators, preferring to keep the focus on ending armed violence and getting a signed agreement, may be reluctant to overload the agenda (Wennmann 2009a). Moreover, armed groups who are financed by natural resources may be disinclined to discuss them, and may even reject the entire peace process if they feel that their ability to mobilize is threatened (Dwan and Bailey 2006).

Nevertheless, a focus on economic issues opens new opportunities for conflict resolution. For one thing, disagreements over economic issues should be easier to solve (at least in principle) than, for example, identity disputes. Unlike the emotions associated with ethnic conflict, the control of mines, markets, and economic infrastructure can be quantified and divided. Certainly, economic issues are often intricately connected to cultural and identity disputes, but addressing economic issues in peace processes as a “rational” rather than as an “emotional” topic may facilitate a negotiated exit from armed conflict. Moreover, if an armed conflict is actually about greed, belligerents may be responsive to the argument that they stand to make more money through private sector investment—within the bounds of a functioning state and a lasting peace. More broadly, the inclusion of wealth-sharing arrangements in peace processes may strengthen the belief among the parties and their constituencies that agreeing to stop fighting offers the prospect of a better life. Thus, wealth sharing creates an economic incentive on two levels: by providing direct benefits to all parties, and by attaching an opportunity cost to continued conflict.

In the relatively few instances in which natural resources have been meaningfully addressed in peace processes, it has primarily been through wealth-sharing arrangements, which have three specific functions:

- If disputes over the control of natural resources were a factor in the outbreak of a conflict, wealth-sharing arrangements directly address such disputes.
- If natural resources were used to pay for the initiation and perpetuation of a conflict, wealth-sharing arrangements target the means of financing armed groups.
- If the parties agree to enter into a transitional agreement to lead their country or community out of armed conflict, wealth sharing can shape new governance arrangements and help ensure a speedy economic recovery.

Ensuring that the violence stops is important, but unless combatants and civilians have a vision of what comes next, some may believe that their life during the conflict was more profitable and may return to violent appropriation as a means of achieving a livelihood. Talking about wealth sharing can help craft a shared vision of a new economic future in which former combatants and conflict-affected populations can start believing. Developing such a vision entails, among other strategies, creating opportunities for employment and vocational training, and stimulating private investment in support of demobilization, disarmament, and reintegration (DDR). Ultimately, failure to persuade the parties that peace offers the chance of a better life may lead to criminal parallel economies, the collapse of DDR initiatives, or even a full-scale renewal of fighting (Reno 1997).

Wealth sharing can also be an element in power-sharing negotiations, which are part of forging a political future in which the benefits of participating in a government or in an autonomous entity are greater than those of challenging or overthrowing the state (Hartzell 1999). Like peace agreements, constitutions and constitutional reform processes can play an important role in formalizing agreed-upon revenue assignments, sharing principles, and modes of transfer (Haysom and Kane 2009). The trend toward addressing power sharing (including wealth/sharing) in peace agreements and constitutional reforms may stem from the fact that such arrangements can be amended only through special procedures (i.e., not simply by a majority vote) and are therefore perceived as more permanent.

Addressing wealth sharing effectively in peace processes also implies preparing the groundwork for the prevention of future armed conflict. Wealth sharing addresses security concerns by (1) balancing the relative gains that each party receives from natural resources and (2) regulating access to funds that could potentially be used for another round of conflict, and thereby ensuring that no party has the means to impose itself militarily in the future (Siriam 2008).

In sum, wealth sharing addresses key elements of peacemaking:

- Ending or transforming a past armed conflict.
- Setting out a vision of a future society and economy that both former combatants and civilians can believe in.
- Preventing the resumption of renewed armed conflict over natural resources.

Accordingly, wealth-sharing arrangements seek to reduce access to revenue sources that might otherwise enable spoilers to restart a war, nurture an indigenous revenue base for economic recovery, and support a viable peace that increases the opportunity costs of renewed conflict. Thus, getting wealth sharing right in the peace process can help protect against future losses in the realms of peacebuilding and development investment.

APPROACHES TO WEALTH SHARING

Wealth sharing takes two forms: the first occurs between companies and the central government, and the second occurs between the central government and

subnational entities. This section describes the characteristics of these two types of wealth sharing; it also discusses the practicalities of wealth-sharing schemes: vertical and horizontal sharing, direct distribution, tax base adjustments, and centralized versus decentralized sharing. Finally, the section explores how wealth-sharing arrangements have been used to strengthen economic development, and the potential role of such arrangements in supporting the transition from conflict to peace.

Company-to-government transfers

Extractive industries are central to wealth sharing: they explore, exploit, produce, and market natural resources and derivative products, and negotiate with governments on the basis of costs and risks, return on investments, and profit margins. Wealth sharing between companies and governments occurs in accordance with contractual obligations. Once funds are transferred, whatever happens to them is a matter of national policy and depends on the host government's development priorities. Thus, this type of wealth sharing does not guarantee that funds will be spent in a particular way or even in a sound way: it only means that companies transfer wealth to the government.

Decisions about how company-to-government transfers will occur are typically made in the context of larger negotiations about the structure of a contract between a company and a state. Among the typical arrangements are license agreements, production sharing, joint ventures, and service agreements.

A license agreement is perhaps the most common contractual arrangement.⁵ License agreements are particularly attractive for governments that have little or no capacity to extract or exploit a particular resource (e.g., oil or kimberlite diamonds), but licenses are also granted for other resources, such as timber. Under a license agreement, the government grants a company exclusive development and production rights in a particular area for a specific period of time; in return, the government receives a license fee, royalties,⁶ and (if production occurs) income tax payments. Licenses are usually granted by national governments but may be granted by subnational entities that have the authority to do so. Arrangements for income taxes may include a windfall profit tax to ensure that the government receives its fair share, especially if prices for a particular natural resource are high (Radon 2007).⁷

⁵ Generally, there are few differences between license agreements, licenses, permits, extraction contracts, and concessions. In some instances, different terms may be applied to larger areas and to more specific sites, but there is no consistent usage.

⁶ Unlike license fees, which are usually one-time, up-front payments, royalties are paid as the resource is extracted. A royalty may be a fixed percentage of the value of the extracted resource, a graduated percentage (e.g., X percent for the first Y barrels of oil, Z percent for all oil above that amount), a fixed fee (e.g., US\$X per barrel), a graduated fee, or some combination.

⁷ Windfall revenues usually reflect temporary booms in income caused by higher commodity prices. When resource prices are within the normal range, there are no windfall profits.

Because some governments, under license agreements, have lost control of natural resources to private companies, many governments use production-sharing contracts, which recognize that the host country has sole ownership rights to the resource in question. Under a production-sharing contract, the company bears all risk and all exploration, development, and production costs; in return, the company receives a stipulated share of whatever is produced (Humphreys, Sachs, and Stiglitz 2007).

Through a joint venture, two or more companies work together to exploit natural resources. In the case of natural resource extraction, joint ventures often include a national resource company: in one region of Algeria, for example, Statoil (the Norwegian state oil company), British Petroleum, and Sonatrach (the Algerian state oil company) jointly operate a large oil field. Joint ventures allow companies to share risks, which makes it easier for local firms to engage in capital-intensive natural resource extraction. Where a national resource company is part of a joint venture, such involvement may increase the government's role in decision making.

In service agreements, the host government contracts with a company to perform specific tasks related to natural resource extraction (Radon 2007). These tasks may include, for example, renting exploration or production rigs. In such arrangements, the government retains more control, assumes more responsibility, and usually receives more revenues from the resources.

Negotiating company-to-government transfers is usually a hard-fought battle. Governments, for example, generally like royalty arrangements because they provide immediate compensation. Companies, for their part, want to keep the size of the royalty as manageable as possible to avoid slowing the recovery of capital investment and increasing commercial uncertainty (Radon 2007). Another area of contention involves the balance between the company's profit margin and the government's share of revenues.⁸ What makes this issue particularly complex is that most companies are reluctant to disclose contractual details, because they wish to avoid compromising their negotiations or contracts in other countries.

Historically, it has been difficult for governments to negotiate a fair share: companies generally have better information, more highly skilled negotiators, and the resources to outlast the government during long-term negotiations (Radon 2007). Nevertheless, as new multinational companies based in emerging economies have intensified the competition for natural resources, governments have gained negotiating power. With more companies fighting for contracts, governments can insist on better contractual terms and exploit the willingness of Chinese state companies, for example, to link mining contracts to investments in infrastructure, telecommunications, public buildings, and sports stadiums (Ford 2007).

⁸ Governments fare best if they reach agreements with companies before production begins; once production has started, it is more difficult to make claims for a fair share of revenues. Governments should also require companies to justify their claims for compensation for production costs.

Nongovernmental organizations (NGOs) also play an increasingly important role in company-to-government transfers. Local, national, and international NGOs lobby for transparency in payments and contracts, and for public accountability for revenues and disbursements; they have also become increasingly integrated into global campaigns such as Publish What You Pay and the Extractive Industries Transparency Initiative (EITI) (Carbonnier 2008).⁹ Nevertheless, local, national, and international NGOs sometimes have different attitudes toward natural resource ventures. Local and national NGOs may be more open to compromise on the potentially harmful effects of natural resource ventures—such as pollution and disease—in exchange for investments, jobs, and infrastructure, whereas international NGOs often insist on standards that reflect policy concerns in developed countries, rather than local economic needs.

National wealth-sharing schemes

The distribution of natural resource wealth to subnational units can involve a number of schemes, including vertical sharing, horizontal sharing, direct distribution, and tax base adjustment (see table 1). Vertical sharing refers to the distribution of revenues between central and subnational governments; horizontal sharing refers to the distribution of revenues among subnational units (Bahl and Tumennasan 2002). Under one approach to horizontal sharing, known as the derivation principle, the share accorded to each subnational entity depends on the portion of revenue that originated in its territory (Ahmad and Mottu 2002). But because natural resource wealth is usually unevenly distributed within a country, relying on the derivation principle alone can create significant inequity between producing and nonproducing regions. Thus, governments also employ other sharing principles that depend, for example, on the size of a region's population or its development needs (Bahl and Tumennasan 2002). Taxes, grants, and other means can also be used to transfer revenue to subnational entities (Haysom and Kane 2009; Iff and Töpperwien 2008).

Wealth sharing may also involve the direct distribution of natural resource income to citizens, as is the case in Alaska (United States) and Alberta (Canada).¹⁰ Direct sharing of natural resource wealth is difficult in fragile or conflict-affected settings because state institutions are weak and citizen registries are either incomplete or nonexistent (Ross 2007). In many instances, companies share revenue with local communities through investments in social, health, education, or transport infrastructure. Central governments may, however, have reservations about these

⁹ For further discussion of the EITI, see Eddie Rich and T. Negbalee Warner, "Addressing the Roots of Liberia's Conflict through the Extractive Industries Transparency Initiative," in this volume.

¹⁰ For a more detailed discussion of direct distribution, see Martin E. Sandbu, "Direct Distribution of Natural Resource Revenues as a Policy for Peacebuilding," in this volume.

Table 1. Income-sharing schemes

<i>Scheme</i>	<i>Description</i>
Vertical sharing	Revenue from natural resources is shared between the central government and subnational governments; arrangements specify how much is allotted to the central government and how much is allotted to subnational entities.
Horizontal sharing	Income is shared among subnational entities, both natural-resource-rich and natural-resource-poor. This often involves revenue equalization schemes, in which the federal government collects and redistributes income from natural resources to subnational entities according to an agreed-upon formula.
Direct distribution	Direct payments are made to citizens.
Tax-base adjustment	Income sharing from natural resources is converted to authority for subnational entities over tax bases. Subnational entities retain a greater share of their tax receipts; the share corresponds to the amount of revenue that they would otherwise have received as income from natural resources.

Sources: Ahmad and Mottu (2002); Bahl and Tumennasan (2002); Ross (2007).

investments, because they prefer to monopolize relations with extractive companies (Batruch 2009).

Under the wealth-sharing scheme known as tax base adjustment, the central government allows regional or local governments to retain a greater share of their tax receipts; the extra share represents the amount of revenue that they would otherwise have received as income from natural resource exploitation. In return, the central government retains all income from natural resources, which allows it to maintain maximum control over macroeconomic policy and development planning. Economically, tax base adjustments are the least distorting form of income sharing because they are not as volatile as direct revenue sharing, which is susceptible to changes in commodity prices and production quantities. Tax base adjustments are more effective if resource deposits are located in areas that have strong economies that are not based on natural resources. Where the economic base is less strong or where windfall revenues are high, wealth can be shared through a mix of tax base adjustments and vertical sharing. Tax base adjustments also help diversify regional and local economies (Ahmad and Mottu 2002).

Centralized versus decentralized wealth sharing

Central and subnational governments often have differing views of centralization and decentralization in wealth-sharing schemes. To justify centralized wealth sharing, central governments invoke both the state's sovereignty over surface and subterranean resources and its custodial obligation to manage natural resources that are owned collectively by all citizens (Collier 2009). It is this ownership claim that makes central governments the main contractual partners for extractive

234 High-value natural resources and post-conflict peacebuilding

industries and entitles them to receive the cash flows from natural resource ventures. Some governments also maintain that the income from natural resources has to be centralized first, before being distributed, in order to strengthen national unity and ensure equal treatment for subnational entities. In small or fragile states, centralization may be the only feasible option when subnational governments lack the institutions or expertise to manage large revenue flows.

Producing regions and communities make a number of arguments to justify decentralized wealth sharing:

- Since they live on the land where the natural resources are located, they have an ownership claim on the resources.
- Local communities view natural resource wealth as a heritage that must be preserved; thus, those who are selling off their heritage deserve a fair share of the revenues (Bennett 2002).
- Producing entities deserve to be compensated for the negative effects of resource extraction, including pollution and disease.

When central governments resort to wealth-sharing schemes, they often do so out of political expediency: to improve relations with subnational entities or to appease secessionist factions (Bahl and Tumennasan 2002). Another advantage of wealth sharing is that it may prevent local authorities from approaching extractive industries directly, in order to obtain direct payments through local taxes or community investments. Such initiatives may directly benefit local communities, but if they become excessive they may result in economic distortions, worsen relations with the extractive industries, and weaken investment conditions in the long term (Bahl and Tumennasan 2002).

A review of twenty-five countries showed that natural resource revenue management was centralized in fourteen and partially decentralized in ten; in only one instance was it fully decentralized (Ahmad and Mottu 2002). The tendency toward centralization can be explained by the fact that windfall revenues have to be administered centrally, in order to manage price and market volatilities, strengthen macroeconomic policy, and support national development plans. Centralized wealth sharing also prevents subnational governments from engaging in debt financing.

Wealth sharing and development prospects

A poorly conceived wealth-sharing arrangement can have tremendous political costs. At worst, excessive centralization and the perception that revenues from natural resources have been distributed unfairly can foster the mobilization of armed groups, as evidenced in Angola (Cabinda), the DRC (Katanga), Morocco (Western Sahara), Nigeria (Biafra), and Papua New Guinea (Bougainville) (Ross 2007). In the mid-1970s, rebels succeeded in mobilizing in Aceh even though the local populace had initially welcomed gas exploration in the belief that it

would bring jobs, roads, schools, medical facilities, and housing. The separatists gained local support by focusing public attention on the Indonesian government's appropriation of the region's natural resources and by raising expectations that natural resources could be the basis for an independent state. When the central government responded with armed reprisals and further centralization, it lost legitimacy in the eyes of the Acehnese, which further strengthened the rebel movement. Thus, by failing to share wealth from natural resources, the central government lost an opportunity to defuse tensions (Ross 2005).

The case of Aceh illustrates that disputes over natural resources are intricately linked to the ways in which communities, ethnic groups, and subnational areas think about their economic future. The discovery of natural resources often raises expectations for a better life; by the same token, if those expectations remain unmet after several years of production, frustration results.

To use natural resource wealth to stimulate economic development, many governments create natural resource funds (NRFs), which accumulate financial flows from natural resource ventures, manage market and price volatility, and meet national development needs (Bell and Faria 2007).¹¹ Experience with NRFs offers some lessons about effective practice in the realm of economic development.

NRFs tend to be more effective if they specify what types of revenue sources (e.g., royalties, signing bonuses, income taxes from extractive industries, windfall profit taxes) will make up the inflow into the NRF, and which commercial projects (e.g., specific oil fields or mines) inflow will be drawn from. To avoid abuse and corruption, detailed records must be kept on payments into and withdrawals from the NRF. Furthermore, to ensure effective oversight, these records should be made public. To reduce the risk of wasteful disbursement, the entities that decide how much is spent should be separate from those that decide what it is spent on. To remove resource wealth from domestic political pressures and prevent Dutch disease,¹² it may be best to have the NRF administered abroad; the oil fund of São Tomé and Príncipe, for example, is administered by the New York Federal Reserve (Bell and Faria 2007; Radon 2007).

¹¹ Examples include Kiribati's Revenue Equalisation Reserve Fund (1956), Kuwait's General Resource Fund (1960), the Alaska Permanent Fund (1976), and the Norwegian State Petroleum Fund (1990). More recently, NRFs were established in Azerbaijan (1999), Kazakhstan (2001), São Tomé and Príncipe (2004), and Timor-Leste (2005). In Timor-Leste and Sudan, NRFs were part of the transition to peace and directly contributed to the revenue of the respective governments (Bell and Faria 2007).

¹² Dutch disease is a phenomenon in which the discovery of substantial natural resource wealth negatively affects a nation's economy. The discovery often causes sudden appreciation in the value of the nation's currency—which, in turn, decreases the nation's competitiveness in the international commodity markets. This reduces the country's exports of manufactured and agricultural commodities and increases its imports. At the same time, the natural resource sector draws a substantial share of domestic resources such as labor and materials, increasing their cost to other sectors. Moreover, when the initially booming resource sector eventually declines, the non-resource-based sectors may find it difficult to recover.

These lessons are relevant for transitions from conflict to peace because they underline some of the technical implications of transforming revenues from natural resources into long-term development benefits. During a peace process, NRFs and wealth-sharing schemes can be used to forge new visions for the future and persuade negotiators and their constituents that a better life after war is a real possibility. The section that follows illustrates the opportunities and limitations of sharing natural resource wealth and the role of wealth sharing in the transition to peace.

THE WEALTH-SHARING EVIDENCE: SUDAN AND INDONESIA

In Sudan and Indonesia, natural resources (oil, and in the case of Indonesia, natural gas as well) were important elements in long-lasting armed conflict.¹³ In both cases, natural resource wealth was addressed in peace negotiations, although very differently: in Sudan, the parties agreed to a detailed wealth-sharing agreement that included a wealth-sharing formula and the establishment of new institutions; in Indonesia, wealth sharing was part of a broader offer of autonomy from the central government.

Wealth sharing in Sudan

Sudan's North-South conflict (1983–2005) stemmed from clashes over political power; cultural identity; and natural resources, including land, water, and oil. A number of structural issues fueled the dispute: weak state institutions; a history of governance by elites; and attempts, in a country where citizens belonged to many different cultures and many different religions, to build a national identity based on Arab culture and Islam (Prunier and Gisselquist 2003; Simmons and Dixon 2006).

Oil has been one of the drivers of the North-South conflict, particularly since 1999, when production first began. The location of oil in the border area between northern and southern Sudan elevated the oil's strategic significance; hence, much of the fighting was concentrated in that area (see figure 1). Moreover, the government's exploitation of oil brought no tangible benefits to the South, which fostered grievances in the region and made oil a rallying point for the mobilization of the Sudan People's Liberation Movement/Army (SPLM/A), especially between 1999 and 2005. Over time, oil also shifted the military balance in favor of the government and entrenched the rule of the National Congress Party (NCP) (Johnson 2003; Jok 2007).

¹³ The case studies on Sudan and Aceh are elaborated more fully in Wennmann (2009b) and Wennmann and Krause (2009). See also Luke A. Patey, "Lurking Beneath the Surface: Oil, Environmental Degradation, and Armed Conflict in Sudan," in this volume.

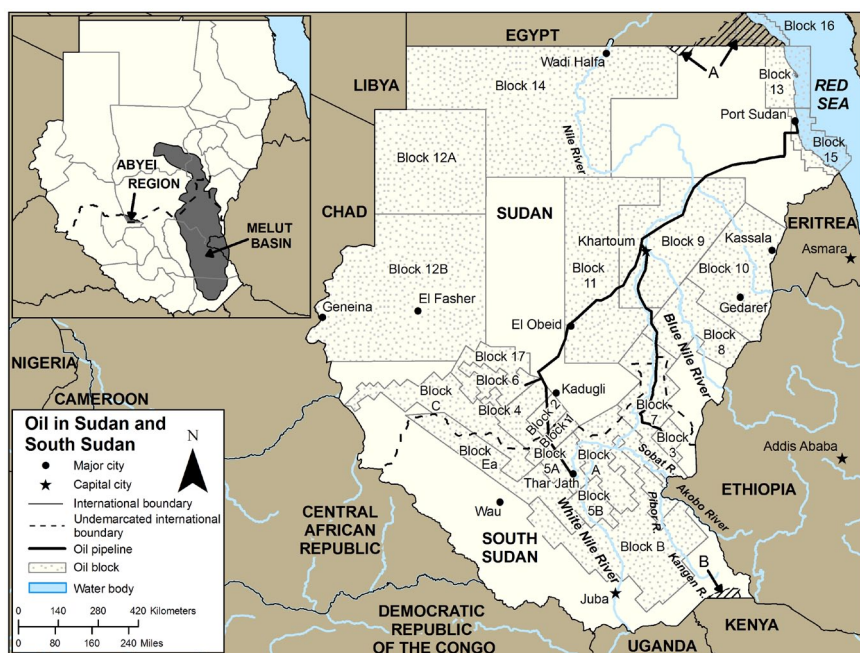


Figure 1. Oil in Sudan and South Sudan

Source: IHS (1998).

Notes:

A – The Hala'ib Triangle, claimed by Sudan and de facto administered by Egypt.

B – The Ilemi Triangle, claimed by Ethiopia, Sudan, and Kenya and de facto controlled by Kenya.

For information on ownership of specific concession blocks, see page 570.

The Sudan Comprehensive Peace Agreement and the Agreement on Wealth Sharing

The Sudan Comprehensive Peace Agreement (CPA) of January 9, 2005, was a landmark settlement of one of Africa's longest civil wars. The CPA included provisions for an interim period (2005–2011) that addressed security, wealth sharing, power sharing, and the future of three regions: Abyei, Southern Kordofan, and Blue Nile. It also called for general elections in 2010 and a referendum on the status of southern Sudan in 2011.

The Agreement on Wealth Sharing (AWS) of January 7, 2004, one of the six protocols that make up the CPA, was a major achievement of the North-South peace process. In addition to having been a major factor in the onset and dynamics of the conflict, oil represented an indigenous source for financing post-conflict recovery. Wealth sharing was an issue in the peace process mainly because of the high-value oil wells located in the border region between Northern and Southern Sudan. The war had made it difficult to attract additional capital investment and had prevented oil companies from continuing to operate in the region; oil was therefore an incentive for peace (Batruch 2004). Oil was also an element

in the tactically informed choices of the belligerents to relocate the fighting from the battlefield to the negotiating table (Wennmann 2009b).

The AWS describes resource-sharing arrangements for Sudan's post-conflict economy during the interim period. The agreement covers the division of oil and nonoil revenues, the management of the oil sector, monetary authority, and the reconstruction of war-affected areas; it also establishes new institutions for economic governance, including the National Land Commission, the National Petroleum Commission, the Bank of Southern Sudan, the Southern Sudan Reconstruction and Development Fund, the National Reconstruction and Development Fund, and the multi-donor trust funds (MDTFs). The AWS does not address ownership of natural resources, but it does specify that the parties have agreed to resolve that issue at a later date (AWS 2004).

One of the main provisions in the AWS calls for net oil revenue from wells in Southern Sudan to be divided equally between the Government of Southern Sudan (GOSS) and the Government of Sudan (GOS).¹⁴ With respect to nonoil revenue, the agreement specifies various revenue sources for the GOS and the GOSS, including taxes and fees.

Forging and implementing the AWS

During negotiations on the AWS, the parties managed to solve a number of critical problems. First, the decoupling of resource management and ownership prevented an early collapse of the negotiations. Second, the GOS became more open to wealth sharing once it became clear that the 50/50 sharing formula would only apply to wells in Southern Sudan, and not to all oil wells in Sudan (Wennmann 2009b). Agreement on wealth sharing was further facilitated by four factors:

- The decision to work from a single document, which made it easier to develop trade-offs to address outstanding issues.
- The use of resource experts, which enabled negotiators to address complex issues and to develop an understanding on oil reserves and potential.
- Compromise between obligations to service outstanding debt and economic development needs.
- Changes in the modes of payment for oil exports, such as the shift from accepting payment in the form of consumer goods to payment in the form of financial transfers (Wennmann 2009b).

The AWS was accompanied, however, by implementation problems that complicated the peace process in the South. These problems were associated

¹⁴ Under article 5.6 of the AWS, the 50/50 sharing formula applies after (1) payments have been made to the Oil Revenue Stabilization Account and (2) at least 2 percent of net oil revenues have been allocated to producing states or regions, in proportion to their contribution to total production (AWS 2004).

with a lack of transparency about oil exploitation on the part of the GOS; a lack of trust between the NCP and the SPLM/A; absence of any formal meetings other than those of the joint technical committee; and concerns about the social and environmental consequences of exploitation (UNSC 2007). Nevertheless, in February 2006, more than one year after the CPA was signed, the GOS reportedly transferred US\$800 million to the GOSS. There was no indication, however, what time period this payment corresponded to, or whether it reflected a 50/50 distribution (ICG 2007).

By 2008, wealth sharing between the GOS and GOSS had improved, and the GOS had paid arrears for 2005 through 2007 (UNSC 2008). In 2007, the GOSS received US\$1,458 million in revenues (SMF 2008). Despite the transfer of considerable sums, suspicions remain in the South as to whether the transfers did indeed comply with the AWS sharing formula; Global Witness, an international NGO, has even claimed that the GOSS has received only half of what it is due under the AWS (Global Witness 2009). Assessing the GOS's compliance will remain difficult as long as oil contracts, exports, and price arrangements are not subject to independent verification (ICG 2008).

Failure to achieve a peace dividend

Despite the transfer of funds from the GOS to the GOSS, the AWS has yet to yield a substantial peace dividend. There are a number of reasons for this failure. First, the GOSS lacks the capacity to systematically collect, store, manage, and allocate oil and nonoil revenues (ICG 2007); there have also been allegations that this lack of capacity created an environment within the SPLM/A that was ripe for corruption (Jooma 2007). Second, the relative lack of prewar development and the duration and impact of the armed conflict have probably inhibited economic growth—a problem that Benaiah Yongo Bure identified as early as 2005 (Bude 2005). Third, the promised international assistance for the GOSS—through multi-donor trust funds and other aid instruments—was delayed; for example, the first MDTF disbursement occurred in March 2006, over one year after the CPA had been signed (Scanteam 2007).

The limited treatment of water and land in the AWS has also hobbled its contribution to economic recovery. Water issues were not a primary interest for either the GOS or the GOSS; moreover, addressing them would have drawn Sudan's neighbors into the peace process, further complicating the effort (Rogier 2005; Schafer 2007). The AWS addresses land issues only in vague terms, in relation to the National Land Commission (Jooma 2005). The failure to systematically address land rights has prevented the resolution of long-simmering local conflicts that have been exacerbated by population movements (IISS 2007).

Contextual factors must also be taken into account. Sudan's political and security conditions hardly created a conducive environment for the AWS to make a constructive contribution to post-conflict economic recovery. Although the CPA stopped the conflict between the GOS and the SPLM/A, fighting escalated in

Darfur, in western Sudan, and between Sudan and Chad; meanwhile, armed groups have continued to proliferate in Southern Sudan, forming constantly shifting alliances (SAS 2007). In addition, despite the signing of the CPA, both northern and southern Sudan have become increasingly militarized, receiving large-scale military assistance from China; expanding their weapons imports; and developing indigenous arms-manufacturing industries (HSBA 2007a, 2007b). The monumental task of demobilizing and reintegrating about 180,000 former combatants has yet to be completed (IRIN 2008). Finally, as the United Nations Security Council has observed, “the lack of mutual trust and confidence between the NCP and SPLM/A remains the main challenge for the implementation of the [CPA]” (UNSC 2008, 15). In October 2007, the SPLM/A even temporarily withdrew from the Government of National Unity.¹⁵

Oil reserves and Sudan’s economic future

Declining deposits of high-quality oil in the South pose a challenge to the future viability of Southern Sudan. Because oil—in particular, high-quality oil—is concentrated in the Abyei region and in the Melut Basin, in eastern Sudan, border demarcation between Northern and Southern Sudan and the status of Southern Sudan (particularly its independence) have significant commercial implications. Thus far, production and pipeline construction have focused on these two areas; after years of intensive exploitation, however, production in the Abyei oil fields has declined. It is estimated that more than half the reserves in Abyei have been exploited, whereas the Melut Basin remained largely untapped as of 2006 (ECOS 2008; ICG 2007). The decline in production in Abyei may have been caused by a GOS policy to extract as much as possible before the referendum in 2011; because of the lack of transparency in Sudan’s oil sector, however, it is impossible to verify these allegations (ICG 2008). In any case, fewer resources are available for wealth sharing in 2011 than there were in 2005—which, in turn, has implications for the significance and function of wealth sharing in a future peace process.

Lessons learned

The inability of the AWS to foster immediate post-agreement peace dividends is a potent reminder that money alone is not the key to successful economic development. Governance capacity, the implementation environment, and weaknesses in the content of an agreement all have potential bearing on economic recovery. Moreover, the lack of development progress must be set against the objectives of the peace process. Ultimately, the CPA reflected an agreement, on the part of the GOS and the SPLM/A, to continue fighting by other means. In

¹⁵ The Government of National Unity was the transitional government stipulated by the 2005 peace agreement; elections held in April 2010 replaced the transitional government with an elected one.

other words, the CPA embodied short-term military, political, and economic interests, and is thus more a reflection of the parties' self-interest and mutual mistrust than a "shared commitment to addressing the country's key problems and building a common future" (Rogier 2005, xiv). Viewed from this perspective, the AWS was an acceptable interim compromise on oil revenues and part of a larger peace process that was neither designed, nor required, to address any issues that were outside the bounds deemed acceptable by the parties.

Wealth sharing in Aceh, Indonesia

The discovery of natural gas in northeastern Aceh, in 1974, was central to the origin and evolution of Aceh's civil war. The military presence in Aceh dates back to the discovery of natural gas, when the Indonesian armed forces (*Tentara Nasional Indonesia*, or TNI) were deployed to protect the gas production



242 High-value natural resources and post-conflict peacebuilding

facilities (Mietzner 2006). In 2000, TNI forces in Aceh numbered about 30,000; by 2003, between 13,000 and 15,000 police and special forces had been deployed (Schulze 2006). The civil war can largely be explained as a reaction to the TNI's presence.

Three decades of armed conflict ended in 2005, after Aceh had been severely affected by a tsunami. Before the natural disaster, the Indonesian central government and the Free Aceh Movement (Gerakan Aceh Merdeka, or GAM) had begun to explore a negotiated settlement. The memorandum of understanding (MOU) of August 15, 2005, closed one of Asia's longest civil wars and framed Aceh's post-conflict and tsunami recovery.

Peace negotiations

The first attempts at a negotiated settlement began only after the fall of President Suharto, who ruled Indonesia from 1967 to 1998. In 2000, the Geneva-based Centre for Humanitarian Dialogue led a peace initiative that culminated in a humanitarian pause in fighting in 2000, and a cease-fire agreement in 2002. But the government was sharply criticized for what appeared to be international recognition of the GAM (Aspinall and Crouch 2003). Meanwhile, in August 2001, President Megawati Sukarnoputri signed the Law on Special Autonomy for the Province Nanggroe Aceh Darussalam (the NAD law). The evolution of the NAD law predated the 2000 peace process and was part of a broader attempt by then-president Bacharuddin Jusuf Habibie to address Indonesia's center-periphery relations after decades of centralized authoritarian rule. On April 23, 1999, for example, parliament had passed the Law on Regional Government and the Law on Fiscal Balance between the Central Government and the Regions (Miller 2006); that same year, the Indonesian government had also agreed to independence for Timor-Leste. After these decentralization efforts, however, Jakarta became resistant to further devolution of powers.

The NAD law

President Sukarnoputri signed the NAD law to offer the GAM an alternative way out of the conflict. The law provided unprecedented powers of self-governance and control over natural resources, in exchange for cessation of hostilities and the renunciation of independence (Miller 2006). Among other features, the law provided for the creation of new institutions, the enforcement of aspects of Islamic law, and direct election of Acehnese regional representatives. A central provision granted Aceh 70 percent of the revenues generated by its rich oil and gas fields; the remaining 30 percent would go to the central government. After eight years, the shares would be equalized to 50 percent.

The government claimed that the NAD law was much more generous than previous legal provisions—in particular because it allowed Aceh also to retain revenues from fishing, general mining, and forestry (NAD law 2001;

ICG 2001). As a wealth-sharing instrument, however, the NAD law had a number of limitations:

- It failed to realistically address Aceh's economic grievances and prospects; even more important, it failed to build confidence among the Acehnese that the central government was committed to the implementation of the law.
- The law did not include baseline assessments of economic reserves or indicate the specific mechanisms by which revenues would be shared.
- No consideration was given to Aceh's economic prospects once oil and gas reserves had been depleted (ICG 2001).
- The law made it unclear whether the oil and gas revenues that were to be shared with the central government would be based on production throughout the province or only in a part of it (Martin 2006).
- The fact that revenue would first be collected by Jakarta, then disbursed to local officials, fuelled suspicions among the Acehnese that disbursements would become a means of exerting political leverage (ICG 2001).

As a result of these issues, among others, the NAD law was received unfavorably in Aceh. In particular, the revenue-sharing provisions were perceived as an avenue for providing incumbent political elites with additional opportunities for corruption. And even though some government officials presented the NAD law as a flexible starting point for further negotiation, a number of important omissions—including any mention of the reduction of Jakarta's military presence and investigations into past atrocities—fanned the perception that the NAD law was a ploy (Aspinall and Crouch 2003). Finally, because the law was conceived without any input from the GAM or Acehnese civil society, the Acehnese had no sense of ownership in the law. Consequently, the GAM rejected the legitimacy of the NAD law, a decision that reflected widespread lack of support among the Acehnese for the law and a prevailing mistrust of Jakarta (Miller 2006).

Nevertheless, the government remained convinced that the NAD law was a generous offer—a conviction that made it unwilling to agree to any other concessions and provided further scope for both parliament and the TNI to pressure the government (namely, the executive branch) to resist any further compromises (Huber 2004). The government's commitment to the NAD law thus limited its room to maneuver and complicated its negotiating position.

New strategies

In 2003, President Sukarnoputri initiated a multi-pronged strategy that included the NAD law, diplomatic efforts to undermine the GAM's international standing, back-channel contacts with the GAM, and continued military activities (Schulze 2006). This approach enabled her to manage various constituencies, especially her backers in the military and in the international community. The Indonesian military continued to support the NAD law, but only as a final offer, not as a

basis for further negotiations with the GAM. Six months after the president had initiated the multi-pronged strategy, the military persuaded her to adopt a purely military strategy, which included the creation of a special military command for Aceh (Jemadu 2006); this was the death knell for the NAD law and its wealth-sharing provisions. The resulting escalation of armed conflict effectively abolished any belief, on the GAM's part, that the offers of wealth sharing and autonomy embodied in the NAD law had been made in good faith (Aspinall 2005; Wennmann and Krause 2009).

The MOU, resource deposits, and Aceh's economic future

The memorandum of understanding of August 2005 refers to wealth sharing only in principle: "Aceh is entitled to retain seventy (70) per cent of the revenues from all current and future hydrocarbon deposits and other natural resources in the territory of Aceh as well as in the territorial sea surrounding Aceh" (MOU 2005). Although the destruction wrought by the tsunami and the subsequent humanitarian and development investments make it difficult to isolate the effect of the MOU's limited treatment of wealth sharing, the MOU's lack of precision about wealth sharing has complicated its implementation (Yusuf 2007). According to Irwandi Yusuf, the governor of Aceh, the MOU does not "mention who will regulate and govern [hydrocarbon revenue sources], or who has the authority to give licences for new explorations. The LOGA [Law on the Governing of Aceh] says only that the central and Aceh governments will manage the resources jointly. We should have made it right in the MoU" (Yusuf 2008, 82).

The overall significance of wealth sharing in Aceh's peace process, post-conflict transition, and recovery from the tsunami has been lessened by the gradual depletion of resource deposits. Production peaked during the 1990s, and by 2007, oil and gas were "almost finished" (Yusuf 2007). In April 2000, because of declining reserves, ExxonMobil and Pertamina closed two of the Arun gas fields (Tse 2000). According to ExxonMobil, oil production in Aceh will end by 2011; 90 percent of recoverable gas reserves are already depleted, and the gas fields are expected to close in 2016 (Indonesia Relief 2005; EIA n.d.; World Bank 2008).

The rapid depletion of oil and gas reserves led Aceh's economy to contract by 5.8 percent in the first half of 2008, a trend that is expected to continue (World Bank 2008). Thus, the role of wealth sharing in Aceh must be placed in the context of the relative economic importance of oil and gas. In the 1970s, these two resources were drivers of conflict, but the exhaustion of the reserves substantially reduces their relative importance.

Lessons learned

The Indonesian government's efforts to integrate wealth sharing into the peace process failed on a number of counts; in particular, wealth sharing was not presented as a credible element of conflict resolution or as the basis for a new

economic vision for Aceh, and the wealth-sharing provisions of the NAD law failed to clarify ownership or to specify precisely how revenues would be shared. Thus, the government missed an opportunity to use wealth sharing to advance and strengthen the peace process.

CONCLUSION

Wealth sharing is not a magical solution to the difficulties of post-conflict transitions. As the examples of Southern Sudan and Aceh illustrate, so many factors are in play during post-conflict transitions that a good wealth-sharing agreement does not necessarily guarantee long-term development benefits. Any effort to address natural resource wealth in the course of peace processes must be undertaken with an awareness that resources are inevitably connected to broader political, military, and social realities, and that these realities define the bounds of negotiations and expectations in transitions to peace.

Despite the complexities associated with implementation, it is important to address wealth sharing in the peace process: wealth-sharing arrangements can help end or transform armed conflict over natural resources; create a vision for the future; provide the prospect of a better life after armed conflict; and prevent a renewal of hostilities. But to have the desired effect, wealth-sharing arrangements must be thoughtfully constructed. The five strategies that follow can increase their effectiveness.

1. *Define what is to be shared, and how.* A clear understanding of which resources are involved and the precise mechanisms by which wealth will be shared can prevent difficulties during both the peace process and the post-conflict implementation. In Sudan, the AWS featured institutional, management, and oversight provisions that facilitated the management of the oil sector, including wealth sharing. In Aceh, the lack of precision in the MOU about who would regulate and govern the resources appears to have complicated the post-conflict transition. General experience with natural resource funds also suggests how important it is to clearly identify the resources and commercial projects whose revenues will flow into the fund, and for what time period.

2. *Generate and share information.* Creating information on the value and future prospects of natural resources is important to managing expectations and ensuring that all parties are equally well-informed. In fragile and conflict-affected situations, information is often unreliable: vested interests, insecurity, and the weakness of state institutions may undermine data collection and analysis or cause information to be shielded from public scrutiny. Sharing information can also help bridge the gap when parties have differing levels of knowledge or different views of resources and their value. In Sudan, for example, seminars conducted by outside experts helped to bridge such differences and made it possible to draft a proposal on wealth sharing that would later serve as a basis for trade-offs. One challenge, however, is to manage disagreements about the real and imagined value of resources—and the associated disappointments—so

that a pragmatic understanding of economic reality can become the basis for a transitional pact.

3. *Allow ownership of resources to remain unresolved.* The example of Sudan suggests that to maintain momentum in negotiations, it may be desirable to allow resource ownership to remain unresolved and to focus instead on wealth sharing. In Sudan, this approach prevented an early collapse of the talks, allowed both parties to achieve their central economic interests, and enabled the negotiators to avoid losing face in the eyes of their constituencies.

4. *Be inclusive—but do not allow negotiations to be undermined by spoilers.* Wealth-sharing negotiations may make a more lasting contribution to peace if they are as inclusive as possible—that is, if the negotiators and their constituencies feel ownership of the agreements. In Aceh, for example, because the NAD law was conceived without any input from the GAM or Acehnese civil society, the legitimacy of the law—including the notion of wealth sharing—was rejected. At the same time, mediators must ensure that the members of the negotiating teams generally support the peace process and that spoilers are marginalized (Darby 2001).

5. *Present wealth sharing as an incentive for peace.* By ensuring that all parties enjoy equivalent gains from natural resources, wealth-sharing agreements can override animosities and increase security. In Sudan, oil created an incentive for peace because investment and exploitation could not occur in the midst of a war. Oil also increased the government's military power, which made the SPLM/A realize that peace talks were in its own best interest. Oil revenues thus shaped tactically informed choices to relocate the fighting from the battlefield to the negotiating table.

The experiences of Southern Sudan and Aceh illustrate that peace processes do not end with a peace agreement. A negotiated exit from armed conflict requires a strong transitional pact that must be nurtured and supported as the parties implement the agreement that ends their past conflict and prepares them for what is next. Transitions from conflict to peace require constant human effort to succeed, as well as ongoing support mechanisms and the requisite capacity to facilitate peace processes. While the necessary infrastructure for mediation support is growing at the bilateral, multilateral, and civil society levels, most efforts are focused on ending conflict. Unless they are offered credible new futures, some groups and individuals will conclude that life will be better for them if they continue to use guns. Wealth sharing from natural resources has the potential to shape new visions for the future and to strengthen the transitional pacts—between belligerents, local communities, the international community, and the private sector—that are necessary to successfully manage the transition to peace.

REFERENCES

- Ahmad, E., and E. Mottu. 2002. Oil revenue assignments: Experiences and issues. IMF Working Paper 02/203. Washington, D.C.: International Monetary Fund.

- Aspinall, E. 2005. *The Helsinki agreement: A more promising basis for peace in Aceh?* Washington, D.C.: East-West Center.
- Aspinall, E., and H. Crouch. 2003. *The Aceh peace process: Why it failed.* Washington, D.C.: East-West Center.
- Auty, R. 1993. *Sustaining development in mineral economies: The resource curse thesis.* London: Routledge.
- AWS (Agreement on Wealth Sharing during the Pre-Interim and Interim Period). 2004. www.reliefweb.int/rw/RWB.NSF/db900SID/SZIE-5ZJSKB?OpenDocument.
- Bahl, R., and B. Tumennasan. 2002. How should revenues from natural resources be shared in Indonesia? International Studies Program Working Paper 02-14. Atlanta: Georgia State University.
- Ballentine, K., and V. Haufler. 2005. *Enabling economies of peace: Public policy for conflict-sensitive business.* New York: United Nations Global Compact.
- Banfield, J., D. Lilly, and V. Haufler. 2003. *Transnational corporations in conflict-prone zones: Public policy responses and a framework for action.* London: International Alert.
- Bannon, I., and P. Collier, eds. 2003. *Natural resources and violent conflict: Options and actions.* Washington, D.C.: World Bank.
- Batruch, C. 2004. Oil and conflict: Lundin Petroleum's experience in Sudan. In *Business and security: Public-private sector relationships in a new security environment*, ed. A. J. K. Bailes and I. Frommelt. Oxford, UK: Oxford University Press.
- . 2009. Lundin Petroleum's experience in East Africa: The role of the private sector in conflict-prone countries. Paper presented at the 13th Annual International Conference on Economics and Security, Thessaloniki, Greece, June 24–26.
- Beblawi, H., and G. Luciano. 1987. *The rentier state.* London: Routledge.
- Bell, J. C., and T. M. Faria. 2007. Critical issues for a revenue management law. In *Escaping the resource curse*, ed. M. Humphreys, J. D. Sachs, and J. E. Stiglitz. New York: Columbia University Press.
- Bennett, J. 2002. *Conflict prevention and revenue-sharing regimes.* New York: United Nations Global Compact.
- Bure, B. Y. 2005. Peace dividend and the Millennium Development Goals in Southern Sudan. Sudan Economy Research Group Discussion Paper No. 36. Bremen: University of Bremen.
- Carbonnier, G. 2008. Les négociations multi-parties prenantes: L'exemple de l'Initiative de Transparence des Industries Extractives. *Relations Internationales* 136:101–113.
- Collier, P. 2009. The political economy of natural resources. Paper presented at the 10th annual conference of the Global Development Network, Kuwait.
- Collier, P., L. Elliott, H. Hegre, A. Hoefler, M. Reynal-Querol, and N. Sambanis. 2003. *Breaking the conflict trap: Civil war and development policy.* Washington, D.C.: World Bank.
- Collier, P., and N. Sambanis, eds. 2005. *Understanding civil war: Evidence and analysis.* Washington, D.C.: World Bank.
- Darby, J. 2001. *The effects of violence on peace processes.* Washington, D.C.: United States Institute of Peace Press.
- Dwan, R., and L. Bailey. 2006. *Liberia's Governance and Economic Management Assistance Programme (GEMAP): A joint review by the Department of Peacekeeping Operations' Peacekeeping Best Practices Section and the World Bank's Fragile States Group.* New York: United Nations; Washington, D.C.: World Bank.

248 High-value natural resources and post-conflict peacebuilding

- ECOS (European Coalition on Oil in Sudan). 2008. *Whose oil? Sudan's oil industry*. Utrecht: IKV Pax Christi.
- EIA (U.S. Energy Information Administration). n.d. Country analysis brief: Indonesia—natural gas. www.eia.doe.gov/emeu/cabs/Indonesia/NaturalGas.html.
- Ford, N. 2007. Power struggle: Boosting competition for African energy. *Jane's Intelligence Review* 19 (1): 64–65.
- Global Witness. 2009. *Fuelling mistrust: The need for transparency in Sudan's oil industry*. London.
- Hartzell, C. A. 1999. Explaining the stability of negotiated settlements to intrastate wars. *Journal of Conflict Resolution* 43 (1): 3–44.
- Haysom, N., and S. Kane. 2009. *Negotiating natural resources for peace: Ownership, control and wealth sharing*. Geneva: Centre for Humanitarian Dialogue.
- Herbst, J. 2004. African militaries and rebellion: The political economy of threat and combat effectiveness. *Journal of Peace Research* 41 (3): 357–369.
- Holsti, K. J. 1991. *Peace and war: Armed conflicts and international order, 1648–1989*. Cambridge, UK: Cambridge University Press.
- HSBA (Human Security Baseline Assessment). 2007a. The militarization of Sudan: A preliminary review of arms flows and holdings. Sudan Issue Brief No. 6. Geneva: SAS.
- . 2007b. Arms, oil and Darfur: The evolution of relations between China and Sudan. Sudan Issue Brief No. 7. Geneva: SAS.
- Huber, K. 2004. *The HDC in Aceh: Promises and pitfalls of NGO mediation and implementation*. Washington, D.C.: East-West Center.
- Humphreys, M., J. D. Sachs, and J. E. Stiglitz. 2007. Introduction: What is the problem with natural resources? In *Escaping the resource curse*, ed. M. Humphreys, J. D. Sachs, and J. E. Stiglitz. New York: Columbia University Press.
- ICG (International Crisis Group). 2001. *Aceh: Can autonomy stem the conflict?* Jakarta and Brussels.
- . 2007. *Sudan: Breaking the Abyei deadlock*. Nairobi and Brussels.
- . 2008. *Sudan's comprehensive peace agreement: Beyond the crisis*. Nairobi and Brussels.
- Iff, A., and N. Töpferwien. 2008. Power sharing: The Swiss experience. *Politörbis* No. 45. Bern: Federal Department of Foreign Affairs.
- IHS. 1998. Melt Basin monitor report. <http://maps.ihs.com/basin-monitor-ordering-service/africa/melut-basin-monitor-report.html>.
- IISS (International Institute for Strategic Studies). 2007. *Strategic survey 2007*. London.
- Indonesia Relief. 2005. World Bank: Bye-bye Aceh oil. August 26. www.indonesia-relief.org/mod.php?mod=publisher&op=viewarticle&cid=29&artid=1569.
- IRIN (Integrated Regional Information Networks). 2008. Sudan: Preparing for massive demobilisation. *IRIN Humanitarian News and Analysis*, 21 October. www.irinnews.org/report.aspx?ReportId=81014.
- Jemadu, A. 2006. Democratisation, the Indonesian armed forces, and resolving the Aceh conflict. In *Verandah of violence: The background to the Aceh problem*, ed. A. Reid. Singapore: Singapore University Press.
- Johnson, D. H. 2003. *The root causes of Sudan's civil wars*. Bloomington: Indiana University Press.
- Jok, J. M. 2007. *Sudan: Race, religion, and violence*. Oxford, UK: Oneworld.
- Joona, M. 2005. Feeding the peace: Challenges facing human security in post-Garang South Sudan. Institute for Security Studies. August 23. www.issafrica.org/uploads/050823SUDAN.PDF.

- . 2007. Dual realities: Peace and war in the Sudan—An update on the implementation of the CPA. Institute for Security Studies. www.issafrica.org/uploads/SUDANSITREPMAY07.PDF.
- Karl, T. L. 1997. *The paradox of plenty: Oil booms and petro states*. Berkeley: University of California Press.
- Martin, H. 2006. *Kings of peace, pawns of war: The untold story of peace-making*. London: Continuum.
- Mietzner, M. 2006. *The politics of military reform in post-Suharto Indonesia: Elite conflict, nationalism, and institutional resistance*. Washington, D.C.: East-West Center.
- Miller, M. A. 2006. What's special about special autonomy in Aceh? In *Verandah of violence: The background to the Aceh problem*, ed. A. Reid. Singapore: Singapore University Press.
- MOU (Memorandum of Understanding between the Government of the Republic of Indonesia and the Free Aceh Movement). 2005. www.aceh-mm.org/download/english/Helsinki%20MoU.pdf.
- NAD law (Special autonomy law in Nanggroe Aceh Darussalam (NAD) Law No. 18 of 2001). 2001. www.kbri-canberra.org.au/s_issues/aceh/aceh_specautonomy.htm.
- Ottaway, M. 2003. *Democracy challenged: The rise of semi-authoritarianism*. New York: Carnegie Endowment for International Peace.
- Prunier, G., and R. Gisselquist. 2003. The Sudan: A successfully failed state. In *State failure and state weakness in a time of terror*, ed. R. I. Rotberg. Washington, D.C.: Brookings Institution Press.
- Radon, J. 2007. How to negotiate an oil agreement. In *Escaping the resource curse*, ed. M. Humphreys, J. D. Sachs, and J. E. Stiglitz. New York: Columbia University Press.
- Reno, W. 1997. War, markets, and the reconfiguration of West Africa's weak states. *Comparative Politics* 29 (4): 493–510.
- Rogier, E. 2005. *Designing an integrated strategy for peace, security and development in post-agreement Sudan*. The Hague: Netherlands Institute of International Relations Clingendael. www.clingendael.nl/publications/2005/20050400_cru_paper_rogier.pdf.
- Ross, M. 2005. Resources and rebellion in Aceh, Indonesia. In *Understanding civil war. Volume II: Europe, Central Asia, and other regions*, ed. P. Collier and N. Sambanis. Washington, D.C.: World Bank.
- . 2007. How mineral-rich states can reduce inequality. In *Escaping the resource curse*, ed. M. Humphreys, J. D. Sachs, and J. E. Stiglitz. New York: Columbia University Press.
- SAS (Small Arms Survey). 2007. *Small arms survey 2007: Guns in the city*. Cambridge, UK: Cambridge University Press.
- Scanteam. 2007. *Review of post-crisis multi-donor trust funds: Country study annexes*. Oslo: World Bank, Norwegian Ministry of Foreign Affairs, and Norwegian Agency for Development Cooperation.
- Schafer, L. A. 2007. Negotiating the North/South conflict: Sudan's comprehensive peace agreement. ISS Paper 148. Institute for Security Studies. www.humansecuritygateway.com/showRecord.php?RecordId=28903.
- Schulze, K. E. 2006. Insurgency and counter-insurgency: Strategy and the Aceh conflict, October 1976–May 2004. In *Verandah of violence: The background to the Aceh problem*, ed. A. Reid. Singapore: Singapore University Press.
- Simmons, M., and P. Dixon. 2006. Introduction. In *Peace by pieces: Addressing Sudan's conflict*, ed. M. Simmons and P. Dixon. London: Conciliation Resources.

250 High-value natural resources and post-conflict peacebuilding

- Siriam, C. L. 2008. *Peace as governance: Power sharing, armed groups, and contemporary peace negotiations*. Houndmills, UK: Palgrave Macmillan.
- SMF (Sudan Ministry of Finance). 2008. Template for publication of Sudan oil sector data 2007. www.ecosonline.org/news/2008/Sudan%20production%20and%20exports%20by%20blend_2007_MOF.pdf.
- Smillie, I. 2005. What lessons from the Kimberley Process Certification Scheme? In *Profiting from peace: Managing the resource dimension of civil war*, ed. K. Ballentine and H. Nitzschke. Boulder, CO: Lynne Rienner.
- Suhrke, A., T. Wimpelmann, and M. Dawes. 2007. *Peace processes and statebuilding: Economic and institutional provisions of peace agreements*. Bergen: Chr. Michelsen Institute.
- Tse, P.-K. 2000. *The mineral industry of Indonesia*. <http://minerals.er.usgs.gov/minerals/pubs/country/2000/9313000.pdf>.
- UNCTAD (United Nations Conference on Trade and Development). 2008. *Development and globalisation: Facts and figures*. Geneva: United Nations.
- UNEP (United Nations Environment Programme). 2009. *From conflict to peacebuilding: The role of natural resources and the environment*. Nairobi.
- UNSC (United Nations Security Council). 2007. Report of the Secretary-General on the Sudan. S/2007/213. New York.
- . 2008. Report of the Secretary-General on the Sudan. S/2008/662. New York.
- Wennmann, A. 2009a. Economic provisions in peace agreements and sustainable peacebuilding. *Négociations* 11 (1): 43–61.
- . 2009b. Wealth sharing beyond 2011: Economic issues in Sudan's North-South peace process. CCDP Working Paper 1. Geneva: Graduate Institute of International and Development Studies.
- Wennmann, A., and J. Krause. 2009. Managing the economic dimensions of peace processes: Resource wealth, autonomy, and peace in Aceh. CCDP Working Paper 3. Geneva: Graduate Institute of International and Development Studies.
- World Bank. 2008. Aceh conflict monitoring update, 1st–30th September 2008. Jakarta.
- Yusuf, I. 2007. Q&A with Aceh's Governor Irwandi Yusuf. *AsiaSource*, 13 September.
- . 2008. Aceh's new era: An interview with Irwandi Yusuf. In *Reconfiguring politics: The Indonesia-Aceh peace process*, ed. Aguswandi and Judith Large. *Accord* 20. www.aceh-eye.org/data_files/english_format/peace_process/peace_process_augmou/augmou_analysis/augmou_analysis_2008_00_00.pdf.
- Zartman, I. W. 1995. Dynamics and constraints in negotiations in internal conflict. In *Elusive peace: Negotiating an end to civil wars*, ed. I. W. Zartman. Washington, D.C.: Brookings Institution.
- . 2005. Looking forward and looking backward on negotiation theory. In *Peace versus justice: Negotiation forward- and backward-looking outcomes*, ed. I. W. Zartman and V. Kremenyuk. Lanham, MD: Rowman and Littlefield.