

Subnational Governance in Myanmar Discussion Paper Series

Natural Resources and Subnational Governments in Myanmar

Key considerations for wealth sharing



Thet Aung Lynn and Mari Oye

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Key considerations for wealth sharing***

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The *Subnational Governance in Myanmar Discussion Paper Series* is a collaborative research initiative between the Myanmar Development Resource Institute's Centre for Economic and Social Development and The Asia Foundation. The paper series aims to provide Myanmar policy-makers at national and local levels, civil society organizations, the business community, development partners, and other interested stakeholders with timely research on subnational governance issues that directly inform policy and reform processes. This volume of the series is presented in partnership with the International Growth Centre. The research behind the series incorporates the perspectives of a range of government, political, non-governmental, civil society, and community stakeholders in subnational governance, while also bringing to bear the most relevant policy analysis and international experience. The sponsoring organizations welcome inputs and suggestions on published, ongoing, or future research.

The Myanmar Development Resource Institute's Centre for Economic and Social Development is an independent think-tank dedicated to the economic and social transformation of Myanmar. The Centre undertakes participatory policy research studies related to economic reform, poverty-reduction, sustainable development, and good governance in Myanmar. It also provides training and education services for key institutions and organizations contributing to the ongoing process of reform.

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Preface

The Myanmar Development Resource Institute's Centre for Economic and Social Development (MDRI-CESD), the International Growth Centre, and The Asia Foundation are pleased to present this fourth volume in the *Subnational Governance in Myanmar Discussion Paper Series*.

The pace of change in Myanmar is rapid and constantly evolving, and decentralization and local governance are issues of critical importance to the country's long-term development and priorities in the government's reform agenda. As such, there is a real need for timely research and analysis on key reform areas related to decentralization and local governance. This series of discussion papers aims to provide Myanmar's policy-makers at national and local levels, civil society organizations, the business community, development partners, and other interested stakeholders with research findings on subnational governance issues that directly inform policy and reform processes.

The research presented in this discussion paper by Thet Aung Lynn and Mari Oye provides an overview of the current role of subnational government in natural resource management and revenue collection in Myanmar. Natural resources provide a large share of government revenue, and there is potential for growth in these sectors in coming years. The government under President Thein Sein has made reform of the natural resource management system a priority, and the topic remains the subject of great interest among the wider public and civil society. In addition, natural resource management and revenue collection has long been a contentious issue in the country's numerous ethnic conflicts and will need to be fully considered in the political dialogue. As discussion of potential future reforms takes place, an overview of the current laws, systems, and practices surrounding these areas is intended to lay the groundwork for future research and inform policy debate.

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Acronyms

BGF	Border Guard Force
CSR	Corporate social responsibility
EAO	Ethnic armed organisation
ECD	Environmental Conservation Department
EIA	Environmental impact assessment
EITI	Extractive Industries Transparency Initiative
FESR	Framework for Economic and Social Reform
FLEGT	Forest Law Enforcement, Governance and Trade
FPJVC	Forest Products Joint-Venture Corporation
GAD	General Administration Department
GOM	Government of Myanmar
IRD	Internal Revenue Department
KIO	Kachin Independence Organization
KNU	Karen National Union
KSDP	Kachin State Democracy Party
MDI	Myanmar Defence Industries
MEC	Myanmar Economic Corporation
MFTB	Myanmar Foreign Trade Bank
MGE	Myanmar Gems Enterprise
MIC	Myanmar Investment Commission
MOECAP	Ministry of Environmental Conservation and Forestry
MOEP	Ministry of Electric Power
MOF	Ministry of Finance
MOGE	Myanmar Oil and Gas Enterprise
MPC	Myanmar Peace Centre
MPE	Myanmar Petrochemical Enterprise
MPPE	Myanmar Petroleum Products Enterprise
MSG	Multi-stakeholder group
MSMCE	Myanmar Salt and Marine Chemical Enterprise
MTE	Myanmar Timber Enterprise
NLD	National League for Democracy
PSC	Production-sharing contract
SEE	State economic enterprise
SLORC	State Law and Order Restoration Council
SNDP	Shan Nationalities Democratic Party
SOE	State-owned enterprise
SPDC	State Peace and Development Council
UMEHL	Union of Myanmar Economic Holdings Ltd.
UNA	United Nationalities Alliance
UNFC	United Nationalities Federation Council
USDP	Union Solidarity and Development Party

Executive Summary

Myanmar's government has announced a commitment to both greater transparency in natural resource sectors and to further fiscal decentralization. There has also been increasing discussion of sharing natural resource revenues in the contexts of economic restructuring, constitutional reform, and the peace process. However, there is not yet consensus on what is to be shared, between which entities, how, or why.

This discussion paper is intended to provide an overview of the current unknown and known elements of the resource governance system in Myanmar in order to inform future analysis of the potential risks and benefits of changes to the role of subnational governments.

At a national level, natural resources contribute significantly to Myanmar's budget, with natural gas revenues providing the largest source of foreign income for the government.¹ Responsibility for overseeing resources is divided between ministries by sector: mining, oil and gas, timber, and hydropower are highlighted here. State-owned enterprises retain important responsibilities for both issuing licenses and handling tax and non-tax revenue. There are important differences by sector in foreign investment patterns and levels of informal extraction. The Environmental Conservation Law, passed in 2012, provides principles and guidance for integrating environmental conservation in the nation's development, though many of its rules and procedures are still being finalised.

The government has established a working group to improve public financial management and Myanmar has submitted a candidacy request to the Extractive Industries Transparency Initiative (EITI). Still, mapping responsibilities for resource extraction and revenue flow in Myanmar remains an exercise in patching together available information and identifying gaps. Significant sources of uncertainty include: the composition, extent and distribution of the resource endowment; informal extraction and payments; contested areas and parallel administration by non-state groups; the role of military-owned companies; and a lack of routine, disaggregated reporting for formal revenues from the extractive sector.

At the subnational level, Myanmar's 2008 Constitution sets state and region governments' authority to legislate and tax some limited areas of natural resource governance, such as salt and less-valuable forest products. Additional decentralization of some natural resource-related functions has taken place from both 1) the Union ministry side, via the transfer of some responsibilities to state/region government, and 2) new legislation or orders of individual state/region governments. Though the scope of these changes has been limited, they demonstrate subnational governments' interest in greater involvement in natural resource management and revenue flows. The stated rationale for these changes has been one of efficiency—that subnational governments are 'closer to the people' than the Union government so can respond more.² The current trend in Myanmar has been to simply *deconcentrate* revenue collection without aligning incentives through *devolution*.³ Separating political control of natural resource revenues from the point of collection of revenues removes the incentive for subnational governments to increase collection efficiency.

³ In *devolution*, powers are transferred to local governments with significant autonomy. In *deconcentration*, lower administrative levels are given more authority or discretion but remain accountable to the centre.

Though the revenues accruing to subnational government budgets from natural resources remain relatively minor, the administrative structures and natural resource management responsibilities of subnational government are important, as they form the beginnings of institutions, practices and structures for managing natural resources. Moreover, some measures—such as a proposed transfer of license-issuing power for small-scale mines to state and region governments—could themselves have significant effects. The setup of subnational environmental agencies also represents an important development, which will have to be handled carefully to strengthen the enforcement of protections and improve accountability for the costs of resource extraction.

In addition to these step-by-step changes in subnational roles, a broader discussion about ‘wealth sharing’ is emerging in Myanmar. Wennmann (2012) defines wealth sharing as ‘a negotiated agreement about the distribution of income derived from natural resources’.³ ‘Wealth sharing’ or ‘revenue sharing’ (*win ngwe kwe we mu*) has been discussed in Myanmar’s peace process, where some stakeholders say it has been supported ‘in principle’ by both government representatives and ethnic armed organizations.⁴ Whatever political settlement is reached in Myanmar, will the fiscal framework be ready to support the wealth-sharing institutions, and will the institutions chosen fit the fiscal framework? The mechanisms of wealth sharing chosen will be very important to its (positive or negative) effects, as the arrangements set up will, in turn, create a new set of incentives for accountability or for rent-seeking, and will shape emerging institutions.

Compared to wealth-sharing political settlements where there has been one major resource (such as oil), and two competing groups, Myanmar presents a very different situation. There are important variations in the political economy of different regions. While the number of actors and variety of resources make the Myanmar situation more complex, this may also create an opportunity for stakeholders to think more broadly about designing a system that is seen as fair, and lays a foundation for inclusive growth after natural resources are eventually depleted.

Though these discussions have often focused on revenues, there are two issues involved: policies towards resource management and towards resource revenue. Some grievances aired by ethnic minority political parties and environmental groups centre on what they see as non-inclusive decision-making practices in natural resource management, a distinct issue from the sharing of revenue. However, more inclusive and transparent natural resource management could help build the trust needed to discuss revenue-sharing arrangements more flexibly. In addition, sound resource management will also be needed to increase the overall amount of revenue collected on natural resources in Myanmar, regardless of how it is shared.

The authors’ intent is primarily to raise important questions, rather than make recommendations. Key considerations for Myanmar include deciding which goals wealth-sharing policies would be intended to address, and the transparency, sustainability, and distributional effects of the systems they might create. It is also crucial to consider how any wealth-sharing arrangements would be integrated with general fiscal decentralization and mainstream budgeting. A companion paper, *Fiscal Decentralization in Myanmar: Towards a Roadmap for Reform* (Nixon and Joeline 2014) discusses principles and processes of designing fiscal decentralization systems.

ONE: Introduction

Myanmar^b is rich in many types of natural resources including timber, oil and gas, minerals and gemstones, and hydropower potential. As part of Myanmar's economic and political transition, the government has announced a commitment to both greater transparency in natural resource extraction and further fiscal decentralization.^c In May 2013, President Thein Sein stated:

Our goal cannot be less than sustainable peace. It will mean compromise. It will mean the further devolution of power to the state and regional levels. It will mean new agreements on resource sharing.⁵

However, there is a lack of clarity about both the extent and distribution of natural resources in Myanmar and the role of subnational government in natural resource management and in revenue flows. While a companion paper (Nixon and Joeline 2014) discusses general fiscal decentralization in Myanmar, this paper focuses on the related issues of natural resource management and potential sharing of natural resource revenues between the Union and the states/regions.^d Research was guided by the following questions:

- What are the current roles of national and subnational government in natural resource management and revenue-flows in Myanmar? (Sections 2 and 3 below)
- What discussions of natural resource wealth sharing are taking place in the context of economic reform, political/Constitutional change, and peace negotiations? (Section 4)
- What are the potential benefits, risks, and economic trade-offs involved in any decentralization of resource management or wealth-sharing arrangements? (Section 5)

To date, Myanmar's natural resources have been predominately managed and taxed by the central (Union) government through line ministries and the state-owned enterprises under them. The 2008 Constitution created subnational governments in the 14 states and regions of Myanmar. Since then, limited further decentralization relevant to natural resources has taken place from both a) the Union ministry side, via the transfer of some responsibilities to state/region governments, and b) new legislation or orders of individual state/region governments. Though the scope of these changes has been limited, they demonstrate subnational governments' interest in greater involvement in natural resource management and revenue flows.

^b A note on names: In 1989 the State Law and Order Restoration Council (SLORC) Government in Myanmar (Burma) adopted new transliterations and pronunciations of key place names, including that of the country itself. This discussion paper series adopts these new spellings when referring to contemporary locations for consistency with current practice inside Myanmar. In reference to earlier historical eras, it adopts the common historical usage. No position on the 'correct' Anglicization of Burmese names is implied.

^c According to the Framework for Economic and Social Reforms, the government has initially decentralized 24 departments and agencies to be governed under the directives of state and region governments. In August 2013, the president ordered some Union responsibilities to be shifted to the state and region governments, including the hiring of nurses, midwives and primary school teachers, direct supervision over the departments within states or regions, and compiling civil servants' performance evaluation reports.

^d States and regions are constitutionally equivalent in Myanmar, but have different historical roots. The states primarily cover areas with large ethnic minority populations and are located along the country's more mountainous borders. The regions (formerly known as 'divisions') encompass majority 'Bamar' areas and are generally located near the centre. Other areas include the Naga Self-administered Zone in Sagaing Region, and four self-administered zones, (Danu, Pa-O, Pa Laung, and Kokang) and Wa Self-Administered Division in Shan State. (Nixon *et. al* 2013).

A broader discussion about ‘wealth sharing’ is emerging in Myanmar. Wennmann (2012) defines wealth sharing as ‘a negotiated agreement about the distribution of income derived from natural resources’.⁶ ‘Wealth sharing’ or ‘revenue sharing’ (*win ngwe kwe we mu*) has also been discussed in Myanmar’s peace process, where some stakeholders say it has been supported by both sides ‘in principle’.⁷

Any discussion of wealth sharing in Myanmar relates to three key, ongoing policy processes: an expansion of investment in the extractive industries accompanied by a push for transparency of revenue flows, proposed political/constitutional reform, and peace negotiations between the central government and non-state armed groups. This discussion paper aims to provide a preliminary map of some known and unknown areas in natural resource governance in the hope of informing these ongoing discussions.

1.1 Research methods and scope

Researchers conducted 40 semi-structured interviews from February to May 2014. These included interviews in the capital, Nay Pyi Taw, with officials from the Ministry of Mines, Ministry of Environmental Conservation and Forestry, Myanmar Oil and Gas Enterprise (under the Ministry of Energy), Internal Revenue Department (under the Ministry of Finance), and members of the Minerals and Natural Resources Management Committee, Amyotha Hluttaw (Upper House) and the Natural Resources and Environmental Conservation Committee, Pyithu Hluttaw (Lower House). Additional in-depth interviews were carried out with key stakeholders in Yangon, including representatives of the Myanmar Peace Centre, the Extractive Industries Transparency Initiative (EITI), and staff of civil society organizations (CSOs) and international non-governmental organizations (INGOs) working in the areas of legal aid, natural resource governance, and conflict. Prior to fieldwork, researchers conducted a desk review of natural resource governance in Myanmar, and analysed recent media coverage in the English and Myanmar-language press regarding subnational government and the extractive industries.

Due to time limitations, the authors focused field research in Shan State and Kachin State. These two states were chosen as they have significant natural resource endowments (primarily mining) and territories contested by non-state armed groups. Findings from these states are not necessarily meant to represent situations elsewhere. Interviewees in these states included staff from CSOs focused on the environment, legal aid, and local development; members of the *hluttaw* (state parliament); members of state governments including a State Minister of Finance and a State Minister of Forestry and Mines; and representatives of the Settlement and Land Records Department, the State Forestry Department, and the General Administration Department under the Ministry of Home Affairs. Also interviewed in person and by email were representatives of several ethnic minority political parties and political representatives of non-state armed groups and their liaison offices. Lastly, the team met with private sector energy specialists and business associations in the mining industry and visited several mining sites.

In defining a ‘natural resource’ for the purposes of this research, the authors focused on mining and gems, oil and gas, timber, and hydropower.^{e8} This paper does not cover several important areas such as fisheries, illicit drugs, and above all, land. This mapping exercise is a first attempt at describing a very complex system, which is itself in flux. Needless to say, the information presented does not constitute tax or legal advice.

More work on oil- and gas-rich states would complement the research on mining areas included here, as could case studies of the communities and individuals affected by resource extraction, of interactions with subnational government at the township/village level, and of interactions with non-state groups. Detailed reports on particular projects, mines and proposed dam sites already exist, and this paper will not address the costs and benefits of individual sites. Instead, the aim is to outline broader questions: what role could natural resources play in Myanmar’s future, and how could state and region governments be constructively involved?

1.2 Framing the debate

There are two main policy issues explored in this paper: 1) how to effectively manage natural resources and natural resource revenue, and 2) how to share revenue (whether or not from natural resources) with subnational/local governments. These two issues, of management and revenue, are linked. Some grievances aired by ethnic minority political parties and environmental groups centre on what they see as non-inclusive decision-making practices in natural resource management, a distinct issue from the sharing of revenue. However, more inclusive and transparent natural resource management could help build the trust needed to discuss revenue-sharing arrangements more flexibly. In addition, sound resource management will also be needed to increase the overall amount of revenue collected on natural resources in Myanmar, regardless of how it is shared.

Changes are underway which could reshape natural resource governance in Myanmar. Key actors in Myanmar’s peace process state that some parties have agreed ‘in principle’ to wealth sharing, and that it will be an important topic in any political dialogue.⁹ Whatever political settlement is reached in Myanmar, will the fiscal framework be ready to support the wealth-sharing institutions, and will the institutions chosen fit the fiscal framework? The mechanisms of wealth sharing chosen will be very important to its positive or negative effects, as the arrangements set up will, in turn, create a new set of incentives for accountability or for rent-seeking.

Public debate over the role of subnational governments and natural resources in Myanmar has mainly combined the issues of concessions, revenues, ownership, and environmental and/or social impact. Revenue sharing has been expressed in terms of various numerical splits, but there has been little specificity about what is to be shared, to what purpose, and how. This situation creates a need and opportunity to share more information both within branches of government and with political parties, stakeholders in the peace negotiations, and the wider population.

Several broader points should be emphasised regarding natural resource management in Myanmar:

^e The World Trade Organization defines natural resources as ‘stocks of materials that exist in the natural environment that are both scarce and economically useful in production or consumption, either in their raw state or after a minimal amount of processing’ (World Trade Organization 2010).

1. *Myanmar relies heavily on natural resources as a percentage of total government revenue:* This means that any line ministry spending in the states and regions or transfers from national to subnational governments are already to some extent transfers of natural resource wealth. The government has committed to increase tax revenue to 10% of GDP by 2018, from an estimated 4.4% of GDP for 2013–14.¹⁰ This 4.4% includes some taxes on natural resources and some taxes paid by state-owned enterprises.

2. *Revenue goes uncollected on resource extraction:* Natural resource stocks are depletable. Unless revenues are collected from resources and used well, the act of extracting and selling resources does not benefit the country.¹¹ Moreover, tax holidays and enforcement gaps create many legal and illegal paths for resources to leave Myanmar.

3. *The extent of resource endowments, rates of use, and impacts are unclear:* Myanmar's proven reserves of natural resources are significant, but unproven energy reserves or new discoveries of mineral wealth could alter expectations. Informal extraction, especially in logging and mining, also make depletion rates an unknown. At present, the environmental, social, and infrastructure costs of resource extraction to the country are not systematically measured.

4. *Resource revenues should be saved or invested for the future:* As a rule, natural resource revenues need to be saved for future generations or invested to support diversification of the economy.¹² In developing countries, where the present generation may be poorer than future generations, capital investment (for example in human capital via schools) can be a good choice. However, in many countries there is both too little saving and too little investment. Policymakers should consider how they want to use resource wealth strategically. If revenues from resources are not collected and invested well, it may be better to 'keep oil and natural resources in the ground'.¹³

Natural resource management policies need to be designed so that the true costs of developing a resource are taken into account from the start. If costs are borne locally, but benefits go to the centre, then often costs will not be fully measured, and developments may proceed that do not help the country. Decentralization can be one way to address this important problem, but there are also significant risks. For example, when natural resource revenues specifically are decentralized, subnational governments may lack institutional capacity to 'manage extreme volatility of income streams or ensure oversight'.¹⁴

Resource revenue sharing to subnational governments is not the only way to share benefits from resource wealth more broadly. Other methods include creating incentives to hire local workers (local content requirements), investing in local development, and distributing revenues directly to the population.¹⁵ It is also possible to design hybrid policies that combine these mechanisms.

Compared to wealth-sharing political settlements (e.g. in Sudan/South Sudan or Iraq/Kurdistan) where there was essentially one major resource (oil), and two competing groups,¹⁶ Myanmar presents a very different situation. This means that the lessons of these comparative cases will need to be adjusted to the Myanmar context. While the number of actors and variety of resources makes the Myanmar situation more complex, this may also create an opportunity to think beyond a win-loss split in designing a system that works for all areas of the country and lays a foundation for inclusive growth after natural resources eventually run out.

Section 2 presents a preliminary overview of the current system of revenue flows and institutional responsibilities for minerals and gemstones, oil and gas, timber, and hydropower, while section III

describes the current role of subnational government and some of the reforms already proposed. Section 4 examines the relevance to wealth sharing of three policy processes: economic restructuring, political/constitutional reform, and peace negotiations with non-state armed groups. Finally, Section 5 briefly reviews evidence from international experience with wealth sharing to discuss the economic principles involved and the potential risks and benefits.

TWO: Mapping Resources, Revenues and Responsibilities

At a national level, natural resources contribute significantly to Myanmar's budget, with natural gas revenues providing the largest source of foreign income for the government. State-owned enterprises retain important responsibilities for both issuing licenses and collecting tax and non-tax revenue. Responsibility for overseeing resources is divided between ministries by sector: mining, oil and gas, timber, and hydropower are covered here. There are important differences by sector in foreign investment patterns and levels of informal extraction.

The government has established a working group to improve public financial management and Myanmar has submitted a candidacy request to the Extractive Industries Transparency Initiative (EITI). Still, mapping responsibilities for resource extraction and revenue flow in Myanmar remains an exercise in patching together available information and identifying gaps. Sources of uncertainty are significant, and include the composition, extent and distribution of the resource endowment; informal extraction and payments; contested areas and parallel administration by non-state groups; the role of military-owned companies; and the disaggregated details of formal revenues.

2.1 Background

Article 37 of Myanmar's 2008 Constitution states the Union:

- (a) is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere in the Union;
- (b) shall enact necessary law to supervise extraction and utilization of state-owned natural resources by economic forces.

After the Revolutionary Council took power in 1962, around 15,000 private firms were nationalized.¹⁷ The energy sector was nationalized in 1963 and brought under the monopoly of the government-owned People's Oil Industry, which was renamed the Burma Oil Corporation in 1970 and the Myanmar Oil and Gas Enterprise (MOGE) in 1989.¹⁸ The economy became more market-oriented when the State Law and Order Restoration Council (SLORC) took power in 1988. However, the State-Owned Economic Enterprises^f Law of 1989 (SOEE Law) gave 'sole right' to the government for:

- (a) the exploration, extraction, production and sale of petroleum and natural gas;
- (b) the exploration and extraction of pearl, jade and precious stones and export of the same;
- (c) the exploration and extraction of metals and export of the same.^g

In the late 1980s and early 1990s, the military government (SLORC/SPDC) reached ceasefire agreements with several large ethnic armed groups. During the ceasefire period, increased extraction of natural resources was reported in the ceasefire areas, particularly mining and logging in Kachin, Shan and Kayin States.¹⁹ The SLORC/SPDC government began the export of natural gas to Thailand in 1998, with the construction of the Yadana and Yetagun pipelines.²⁰ The highly overvalued official exchange rate during this period 'meant that the true value of the income of state economic enterprises did not appear in government accounts, with this problem being particularly

^f In Myanmar, state-owned enterprises are called 'state economic enterprises' or SEEs. They will be referred to as state-owned enterprises (SOEs) in this paper for consistency with international terms.

^g Though this law remains in force and SOEs remain significant in the extractive sector, in practice the government no longer maintains 'sole' rights to these areas.

acute for SOEs operating in the gas and oil industries'.²¹ The controversies of this period remain prominent in the public discourse regarding future natural resource management and revenue.^{h22}

Since 2011, the government's reform agenda has emphasised the natural resource sector in several ways. The Framework for Economic and Social Reform (FESR), drafted in 2012, states a commitment to transparency and equitable sharing of benefits from natural resources:

The Government will undertake transparent, competitive and non-discretionary procedures for the award of exploration, development and production rights and ensure that future concession agreements meet high social and environmental standards as well as delivering a transparent and equitable sharing of financial benefits.²³

President Thein Sein also announced Myanmar's intention to become a candidate country for the Extractive Industries Transparency Initiative in 2012, and Myanmar officially submitted its candidacy for EITI in May 2014 (See box 1).²⁴ If its candidacy is accepted, Myanmar's first report to EITI on all payments made by companies and received by government would likely be due in 2016. The President explained his rationale for joining the EITI with the statement, 'We want to use the EITI to ensure that these resources are developed and managed in a transparent manner for the sustainable benefit of our people'.²⁵ Transparency is also important due to the fact that Myanmar is in the process of privatizing and/or corporatizing many of its state-owned enterprises, potentially including those in the extractive sectors.ⁱ

Box 1. The Extractive Industries Transparency Initiative

The Extractive Industries Transparency Initiative (EITI)

The EITI process is based on two components: 1) disclosure, allowing the payment records of companies and revenue records of governments to be reconciled by an independent third party; and 2) the establishment of multi-stakeholder groups, which are intended to generate civil society involvement in monitoring these figures and fostering public accountability. EITI procedures are different in each implementing country. Depending on the reporting standard chosen by the multi-stakeholder group, these payments may be recorded company-by-company or in aggregate. Worldwide, the EITI process focuses on payments made by companies to government. Its current scope does not address the upstream issues of contracting and licensing or the downstream issue of expenditure. EITI is a process and not a treaty or law, though the process may be used to generate stronger domestic transparency laws and better public financial management in the extractive sectors.

Source: Adapted from MDRI-CESD 'Fiscal Policy' chapter, Asian Development Bank Myanmar Country Study, forthcoming.

^h A report from Arakan Oil Watch in 2012 stated that gas revenues were recorded at the official exchange rate of 6 kyat: 1 USD, while the market exchange rate ranged from 800-1,000 kyat, 'leaving billions of dollars' worth of gas payments completely unaccounted for.' (Arakan 2012).

ⁱ Corporatization describes the process of turning the state's assets and liabilities into a corporation, with the government retaining at least majority, if not full, ownership. The main feature of this process is that it creates separate and independent economic entities, endowed with managerial autonomy, staffed using processes that are different from the civil service, and subject to the transparent reporting duties prevailing within the private sector.

2.2 Sources of uncertainty

The Myanmar government has stated a commitment to greater transparency, to clarifying existing practice for foreign investors, and to promoting better public access to, and awareness of, existing law. Still, Myanmar was ranked last of the 58 countries evaluated on Natural Resource Governance Institute's 2013 Resource Governance Index,²⁶ a measure of transparency and accountability in the oil, gas and mining sectors. There are several sources of uncertainty relevant to this research, including the following 'known unknowns':

- **Composition, extent and distribution of the resource endowment:** Exploration for oil and gas and for mineral deposits is underway. Proven reserves of natural gas are set to come on stream in the next few years, but the size of potential discoveries is not yet known; it is possible that these could exceed proven reserves. New discoveries and disclosures of ongoing extraction are adding more categories of resources to the list (such as rare earth minerals) and a register of licensed extraction sites is not yet publicly available.²⁷
- **Informal, formal, and mixed extraction practices:** The level of informality varies between sectors: due to the nature of extraction and investment, oil and gas are increasingly formalized, whereas informal extraction (i.e. smuggling) has been estimated to vastly exceed formal extraction in sectors such as jade and timber.²⁸ Beyond black-and-white categories of formal and informal, however, there are many grey areas: as, for example, when registered and licensed companies engage in 'negotiation' over assessments of tax liability. These grey areas are pervasive in many areas of the extractive industries.
- **Contested areas, parallel administrations, and militias:** In some areas contested or controlled by non-state armed groups, parallel systems of resource governance exist.²⁹ Some of these are codified, with licenses issued by parallel administrative bodies; others are not. These systems sometimes conflict, overlap, or coexist with those of the Union Government line ministries and military. 'Border Guard Forces' and pro-government militias (*pyithu sit*) are also reported to be active in the extractive sectors, especially mining.
- **Military companies:** Myanmar military-owned companies and holding groups such as UMEHL (Union of Myanmar Economic Holdings Limited) and MEC (Myanmar Economic Corporation) are heavily invested in the extractive sector.^k
- **Amount and flow of revenues:** Formal revenues that are collected by the Union Government are disclosed in aggregate, at the level of ministry contributions to the budget. The disaggregated budgets of state-owned enterprises, audit responsibilities, and the procedures followed in practice are not always clear, however. Where state and region governments have taken the initiative in setting their own natural resource policies, the legal and practical limits of their role and that of the Union are still being set.

^j According to Tun (2014), 'There is presently no public register of mining permits/concessions in Myanmar and limited information is available on mining permit holders, permit areas and duration of the permits.'

^k As of the 2011--12 fiscal year, UMEHL, MEC and MDI (Myanmar Defence Industries) were recorded paying fees/taxes to the Ministry of Mines for limestone, coal, copper, quartz, iron ore, and marble, operating sites in Shan, Mandalay, Kayin, and Tanintharyi. (Interviews, sector specialists and policymakers).

Government officials, CSOs and mining associations interviewed all identified illegal mining as a common practice, estimating illegal mining to be more common than legal, at least for small mines. Interviewees also reported prevalent informal practices or payments (such as paying for the passage of trucks hauling illegal logs, renting a legally obtained export license to other illegal mines, making under-the-table payments to local administrators, or producing minerals under an exploration license). Though this paper's aim is to map formal revenue streams, the interaction of decentralization processes and informal extraction practices cannot be overlooked.

In addition, reliable and up-to-date data on poverty levels and populations of the states/regions are not available (though the 2014 Census and a number of studies from international agencies will soon fill this gap). There is also currently little or no systematic monitoring of the impact of extraction on the environment or local communities, though the recently-passed Environmental Law will provide a legal framework to require environmental impact assessments for some resource development (see Section 2.5). The transparency of revenue flows in some areas of formal extraction is improving, and officials interviewed provided helpful information to the authors and expressed the intention to make such information more regularly and publicly available. Such data are necessary in order to analyse the impact that wealth-sharing policies might have on economic growth, and on service delivery to those in need.

A recent Legal Review Report for EITI provides a thorough analysis of the legal framework for the Extractive Industries Transparency Initiative in Myanmar.³⁰ The report notes that in addition to the relevant laws governing each sector, 'rules and regulations' and 'notifications' from the executive branch also determine resource governance. Within departments, procedures followed and longstanding practices sometimes are not codified in law. At a local level, often 'people are not aware of the existing law' and 'only know about customary law'.³¹ Customary law in Myanmar often governs local management practice, especially for forest and land management.³²

As Myanmar undergoes rapid reforms, multiple laws may sometimes cover the same sector without harmonisation. For example, the Myanmar Mines Law (1994), Myanmar Mines Rules (1996), Myanmar Gemstone Law (1995), Foreign Investment Law (2012), Union Taxation Law (2014), and Environmental Conservation Law (9/2012), all bear on the mining sector, as do some laws and notifications at the state and region level.

There are also sometimes areas of overlap between administrative responsibilities as, for example, when a mine site is in a 'designated forestry area,'³³ or over several types of jewellery tax, some due to the Internal Revenue Department (IRD) and some to the Myanmar Gems Enterprise. The Asian Development Bank's sector assessment reports that 'energy sector activities are scattered among seven ministries: within each ministry, the functions of policy, regulation, implementation and operation exist'.³⁴ Administrative reforms may include 'functional reassignment' for greater efficiency and as laws relating to these sectors are amended, these areas of overlap should be reduced.

2.3 Significance of natural resource revenues

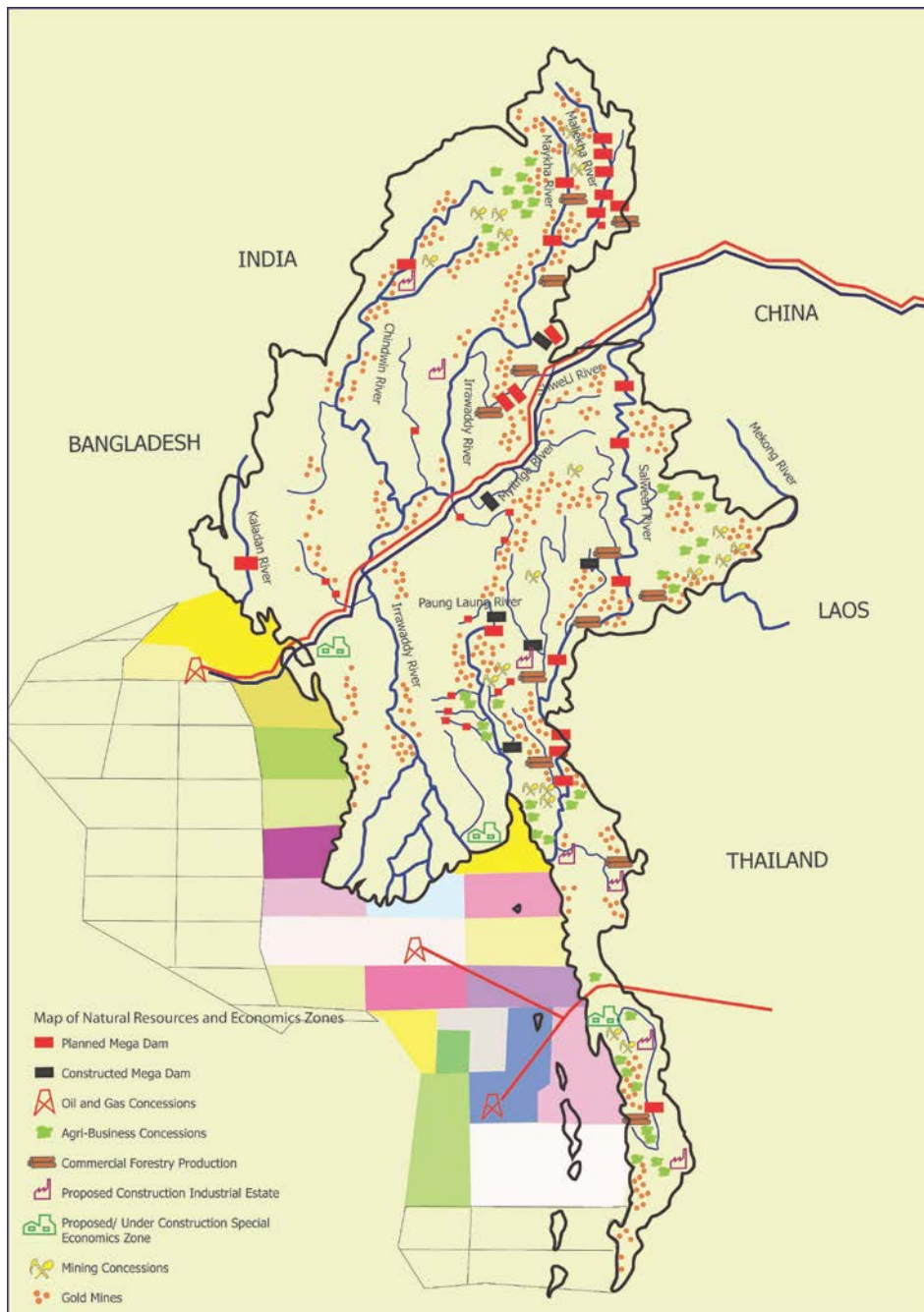
Natural resources matter to Myanmar. Myanmar has a wide variety of natural resources distributed across the country (see Figure 1).¹ The recorded value of exports of gas, oil, coal, jade, gems, metals,

¹ A chart summarizing natural resources found in each state and region is presented in Annex I.

and wood made up about 70% of national exports, or about 10% of GDP in 2012–13, with natural gas exports alone of \$US 3.6 billion.³⁵ Natural gas revenues ‘represent the largest source of foreign income for the government’, with a peak of 6.5 % of GDP projected in 2014–15.³⁶

Myanmar is estimated to rank 41st in the world for proven reserves of natural gas and 78th for proven reserves of crude oil.³⁷ An Asian Development Bank assessment of the energy sector states: ‘a total of 104 blocks are demarcated onshore (53) and offshore (51) for oil and gas exploration and development. Proven oil reserves total 160 million barrels. Proven gas reserves total 20.11 trillion cubic feet with huge potential for discovery’.³⁸

Figure 1. Natural resources and economic zones

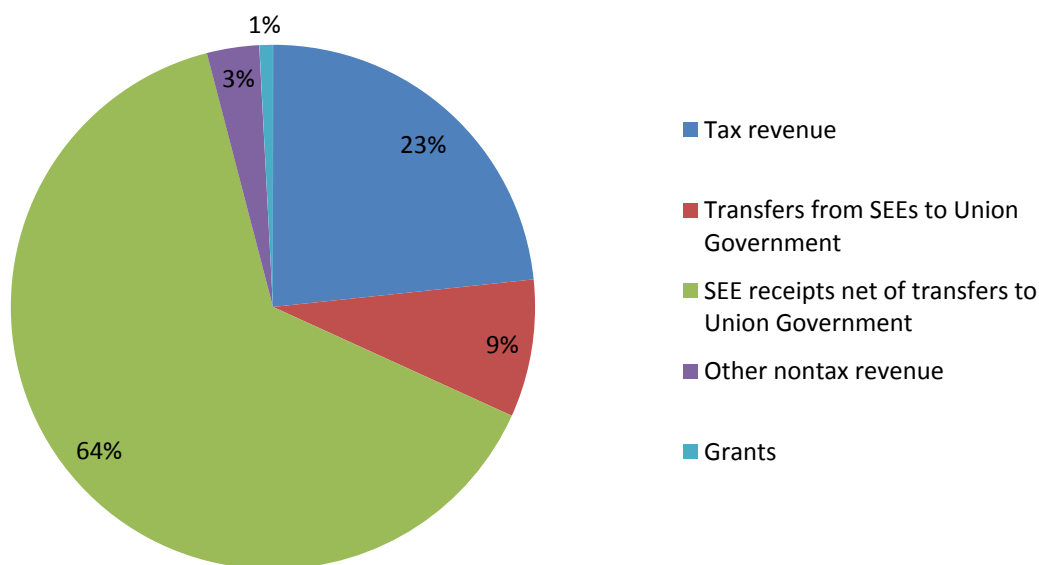


Source: Myanmar Peace Monitor: ‘Economic and Political Stakes’ (September 2013). Used by permission.

Natural resource-related payments comprise both tax and non-tax revenue.³⁹ The exact share of Myanmar’s revenue deriving from natural resources is difficult to measure because 1) tax revenue collected by the IRD includes taxes paid by companies in the extractive sector and tax payments from state-owned enterprises (SOEs), as well as taxes not related to natural resources; 2) state-owned enterprise revenues from loss-making and profit-making enterprises are now aggregated at the level of the supervising ministry, making it hard to tell how much loss or how much profit each enterprise makes; 3) payments, royalties and fees collected by Union line ministries and subnational entities are not all uniformly recorded and made public (although some are available).

According to International Monetary Fund calculations (see Figure 2), tax revenue from all sectors in Myanmar for 2013–14 made up only 4.4% of GDP (2,609 billion kyat), among the lowest in the Southeast Asian region.⁴⁰ For comparison, in 2012, Cambodia collected 11.6% of GDP in tax, Thailand 16.5%, and the Philippines 12.9%.⁴¹ It is not clear what share of Myanmar’s tax revenue comes from the taxes paid by SOEs, most significantly the Myanmar Oil and Gas Enterprise (MOGE), or from private companies active in the extractive industries.

Figure 2. Sources of general government revenue, 2013–14 budget year



Source: International Monetary Fund, 2013/14.

Although not all SOEs are involved in the extractive industries, the most profitable are, including those under the Ministry of Energy, Ministry of Environmental Conservation and Forestry, and the Ministry of Mines. Their profits effectively subsidize loss-making SOEs such as those under the Ministry of Electric Power #1 (see Table 1). Published budget data from recent years are aggregated at the level of the ministry. Fiscal year 2010–11 data are available disaggregated by SOE and are presented in Annex IV; however, as this was before the official exchange rate was replaced by a market-determined exchange rate, these data are flawed.

Table 1. Revenue and expenditure of SOEs, selected ministries, 2013–14 (billion kyat)

SOEs by Ministry	Revenue		Expenditure		Balance
	Kyat (billions)	% of total SOE revenue	Kyat (billions)	% of total SOE expenditure	Kyat (billions)
Energy	4,341	48	3,168	39	1,173
Environmental Conservation & Forestry	385	4	320	4	65
Mines	303	3	162	2	141
Electric Power #1	1,319	15	1,641	20	-322

Source: Central Statistical Office, 'Selected Monthly Indicators.'

In addition to the corporate income tax (25%) and Union dividend (20%) paid by Union SOEs, there are also royalties and taxes levied on specific types of resources, and specific fees and payment agreements included in individual contracts. These vary by the type of resource, and are transferred to the IRD via line ministries. The amounts collected via these taxes are, in general, smaller than those related to SOEs. Note that the table above is in billions of kyat, the table below in millions of kyat, and they cover different fiscal years.

Table 2. IRD targets for tax collection on state-owned resources 2014/15 (million kyat)^m

Tax	Ministry	Target
Land tax	Home Affairs	0.89
Water tax	Agriculture and Irrigation	1,016.54
Dam tax	Home Affairs	0.03
Taxes on extraction of forest products	Environmental Conservation and Forestry	1,848.06
Tax on mineral resources	Home Affairs	7.45
Fishery tax	Livestock, Fisheries and Rural Development	1,083.70
Tax on rubber	Environmental Conservation and Forestry	0.50
Tax on oil and gas extraction	Energy	329,343.27
Tax on minerals and gems	Mines	1,400.00
Tax on power generation	Electric Power	11,460.00

Source: MDRI-CESD translation from the *Mirror* newspaper, 14 April 2014.

Private companies and state economic enterprises are required to pay corporate income tax (also known as 'profit tax') at a rate of 25% of profits.⁴² This is paid to the township officer of the Internal Revenue Department where the company is headquartered, not necessarily near the extraction site.

SOEs must additionally pay a 'Union Dividend,' transferring 20% of their profits to the Union budget, and fund their capital expenses from the remainder, rolling over up to 55% of their profits from year to year (see Figure 3). In the 2013–14 budget allocations, total payments from SOEs made up 945.9 billion kyat (about \$US1 billion),ⁿ with 3.8 billion kyat listed under the category 'Union Budget Fund

^m The tax on telecoms, included in the published table, is omitted here.

ⁿ This includes SOEs in transport, telecoms, etc., not only those in the extractive industries, although the bulk of revenue comes from MOGE.

of SEEs' overseas income'.⁴³ Payments in kyat are made to the Myanmar Economic Bank and payments in foreign currency to the Myanmar Foreign Trade Bank (MFTB).

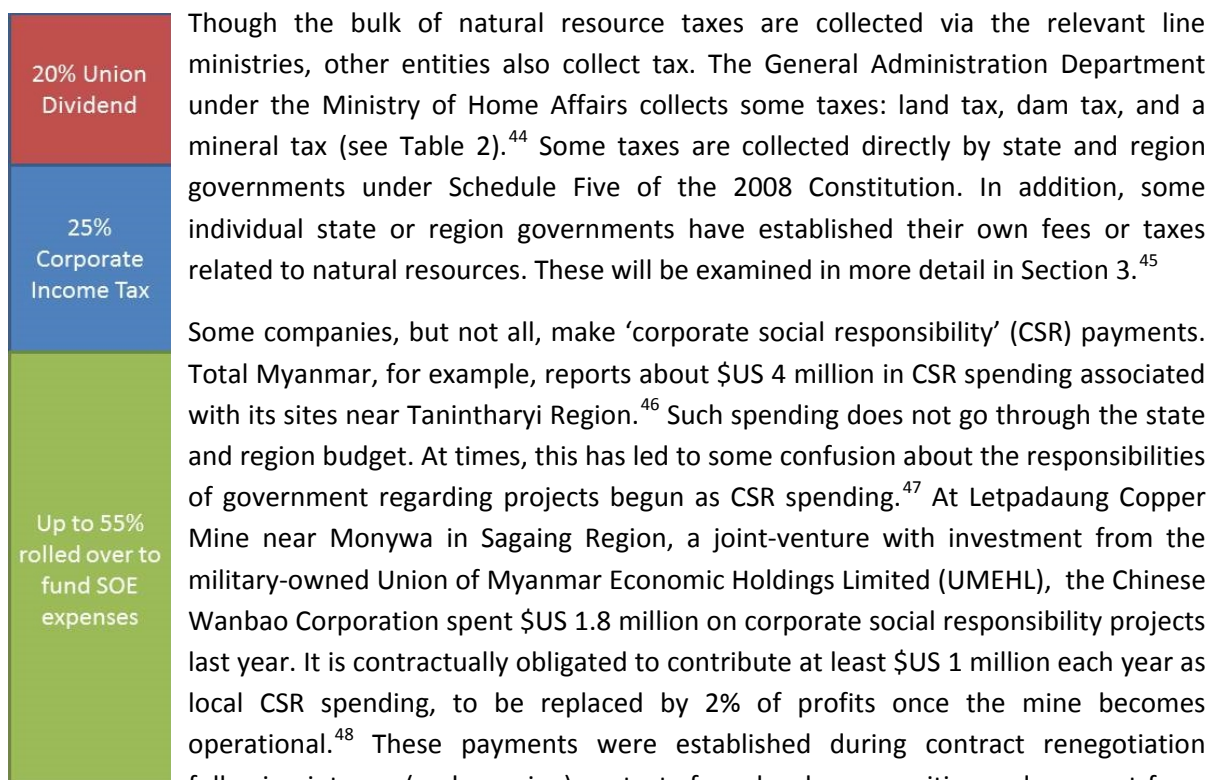


Figure 3:
Division of SOE profits

2.4 Overview by sector

Oversight of natural resource extraction and natural resource revenue is split between different ministries and levels of government, according to the type of resource, and in some cases, the value of the resource. The following section will describe formal responsibilities and procedures for handling revenue flow by sector; bearing in mind, of course, the significance of the 'unknown areas' described in Section 2.2, and particularly the extent of informal practices. This overview is far from a comprehensive review of the four sectors covered, and is intended as grounding for further research.

Mining

Table 3. Mining sector summary

Agency	Ministry of Mines → Department of Mines, Department of Geological Survey and Mineral Exploration
Law	Myanmar Mines Law 1994 (draft amendments now in the Union Parliament), Myanmar Mines Rules 1996, Myanmar Gemstone Law 1995, Myanmar Pearl Law 1995, Salt Enterprise Law 1992
State-owned enterprises	Mining Enterprise 1- Lead, zinc, silver, copper, iron, antimony, nickel, chromite; Mining Enterprise 2 – Gold, tin, tungsten, rare earth, titanium, platinum Mining Enterprise 3 – Coal, limestone, industrial minerals, manganese, decorative

	stone Myanmar Gems Enterprise Myanmar Pearl Enterprise (Myanmar Salt and Marine Chemical Enterprise, now under state/region government)
Royalties^o	Metallic minerals: 3-4 % Precious metallic minerals: 4-5% Industrial minerals (including coal): 1-3% Ruby, sapphire, jade, and diamond: 20% Other gems: 10%
Commercial tax	<i>Domestic sales:</i> Most minerals and other goods: 5% of the sale price Jade, ruby, sapphire, emerald, diamond and other precious stones (unpolished): 30% of the sale price Jade, ruby, sapphire, emerald, diamond and other precious stones (polished) and jewellery: 15% of the sale price <i>Exports:</i> Jade, rubies, sapphires, etc. 30% Jewellery made from jade, rubies, sapphires, etc. 10%

Mining sites are distributed throughout many states/regions in Myanmar. Though large-scale sites such as the Letpadaung copper mine in Sagaing, Mogok gem mines in Mandalay, and Hpakant jade mines in Kachin are well-known, smaller-scale mining is widespread and has significant local environmental, social and economic impacts. Estimates of informal extraction in the mining sector suggest informal extraction exceeds formal channels, and that the value of the jade market, in particular, could be much larger than reported figures.⁵⁰

The Ministry of Mines includes two departments: the Department of Mines and the Department of Geological Survey and Mineral Exploration. The Department of Mines oversees the mining enterprises and, in future, is also to handle environmental affairs for the Ministry of Mines.⁵¹ The Department of Geological Survey and Mineral Exploration is ‘responsible for mapping, prospecting, and exploration of minerals, including coal’.⁵²

There are six SOEs involved in the mining sector. Mining Enterprises 1-3 each oversee a particular type of resource (see above); though they operated mines in the past, and may still do some mineral processing, they are to cease acting as operators or shareholders as part of Myanmar’s economic restructuring process.⁵³ Myanmar Pearl Enterprise produces pearls itself, and in cooperation with foreign and local investors. Myanmar Gems Enterprise oversees Myanmar’s valuable gem trade, best known for rubies, sapphires, and jade. The last, Myanmar Salt and Marine Chemical Enterprise, is now under state and region government control.

Minerals

The mining of minerals including coal,^p copper, lead, nickel, tin, antimony, iron, and gold, is of great relevance to both Union and state and region governments, due to both localized environmental and

^o Royalties are levied on the value of the mineral sold and are set by the 1994 Mining Law; for gems, ‘royalties’ and commercial tax appear to be cumulative.

^p Coal is listed as a mineral under the 1994 Mining Law, falling under the control of the Ministry of Mines Enterprise 3 and with 3% royalty payable as an industrial mineral. According to a report of the Asian Development Bank, ‘the 33 major coal deposits have estimated reserves totalling some 488.7 million tons in

social impacts and potential rapid expansion of investment in the sector. Under the 1994 Myanmar Mines Law, the Ministry of Mines controls all permitting for mineral extraction in Myanmar. A draft amendment to the law is now in the Union Parliament.⁵⁴

The current mining law divides mining operations into 'large scale' and 'small scale' categories. Policymakers interviewed stated that the draft amended law will include a category for 'medium scale' mining, transfer the control of permits for 'small scale' and artisanal mining to state/region government control, and change the structure of contracts to foster more private investment in the sector. At the time of this publication, the law had not yet been released.

Large-scale mines are governed by a joint-venture or production-sharing contract between the relevant Mining Enterprise and the private mining company. These contracts vary case-by-case. According to the Asian Development Bank's Energy Sector Initial Assessment, for coal 'the average PSC provides 30% of profits for the government and 70% for the private contractor'.⁵⁵

Small-scale mine companies apply to the Ministry of Mines for licenses and pay fees up front. Before mining begins, the Ministry of Mines collects application fees⁵⁶ and land rental fees known as 'dead rent' according to the acreage of the mine site.⁵⁷ Ministry of Mines officials stated that all incoming taxes and fees are collected by the relevant department and paid on an ongoing basis by the Ministry of Mines to the Ministry of Finance account.

Royalties are collected at the rates stated in Table 3. They are paid on the value of the mineral sold, though the 1994 Mines Law does not specify how either quantity or value are to be measured nor when sales are measured. In addition, some mining payments are made in-kind and often in advance of production, especially payments in gold from gold mines.

The General Administration Department^q also separately collects certain taxes which are termed 'mineral taxes', but on less valuable materials.⁵⁸ Since the creation of subnational governments, some of these taxes now accrue to the state/region fund. Mining companies, like other businesses, are also required to pay land tax, profit tax, and income tax for their employees. Land tax (*myeyakon*) is collected by the local (township) office of the GAD and paid to the state/region fund, though a senior GAD official interviewed said this amount, only a few kyat per acre, is in practice often uncollected from mine sites as the amounts are small.⁵⁹ Under the Foreign Investment Law, the Myanmar Investment Commission (MIC) can grant tax holidays to new investments, including in the extractive sectors.⁶⁰ Some mine owners interviewed stated that MIC has given them a tax holiday; these are awarded on a case-by-case basis.

various categories. Only 1% of this estimated potential, however, has been confirmed. Coal deposits are found mainly in the Chindwin River Valley, Sagaing Region, and are also present in Shan, Tanintharyi, Magway, and Ayeyarwady, with as many as 57 private and government mines producing about 700,000 metric tons of coal a year'. Coal-fired power plants are handled by the Ministry of Energy and the Ministry of Electrical Power #1 (Asian Development Bank 2013, 'New Energy Architecture').

^q See *The General Administration Department: An overview of the administrative backbone of Myanmar* (forthcoming), M. Arnold and Kyi Pyar Chit Saw, in this series. In 2010, these included 'fees from licenses for the extraction of minerals such as stone, laterite, limestone, marble, gypsum, clay, or other minerals which are not under the special mining rule.' In some cases, as with clay, there is a fee per mill or rent per acre; in other cases, as with marble, GAD receives a certain number of kyat per 100 cubic feet extracted. (Ne Tun 2010).

Gems

Gems are regulated separately from other minerals by the 1995 Myanmar Gemstone Law^r and are governed by the Myanmar Gems Enterprise (MGE) under the Ministry of Mines. Amendments to the Gemstone Law are reportedly being drafted by the Myanmar Gems Enterprise. In the Gemstone law, royalties are stipulated ‘based on the value assessed by the valuing body’ at 20% in the case of ruby, sapphire, jade and diamond, with 10% for other gemstones.⁶¹ The valuing body is set up by the Ministry of Mines. According to the law, ‘If a company sells raw gemstone on its own in foreign currency, after [the] 1st sale, 10% royalty [is due] on foreign currency actual sale value’.

All high-quality gems and all grades of jade are supposed to be sold at the Myanmar Gems and Jade Emporium, held three times a year in the capital, Nay Pyi Taw, since 2006. A 10% tax is due on sales at the Emporium and is collected by the Myanmar Gems Enterprise.

The 1995 Gemstone Law contains a clause stating that those making the payments above are ‘exempted from payment of taxes under any other existing law in respect to the sale of said gemstone’, which has been interpreted to mean all commercial and profit taxes.⁶² However, this clause is in conflict with the 2014 Union Tax Law, which stipulated taxes on jewellery, gems and jade. Under the 2014 Union Tax Law, gems and jade are ‘privileged goods’ liable for commercial tax. As of the 2014 fiscal year, ‘jade, ruby, sapphire, emerald, diamond and other precious stones (unpolished)’ are to be taxed 30% of the sale price, with polished precious stones and jewellery taxed at 15%.⁶³ Exports of these raw gems are to be taxed at 30%, with finished gems taxed at 10%. These taxes on exports are to be ‘collected on the type of earning currency’ and paid to the Internal Revenue Department (Ministry of Finance).⁶⁴

Oil and gas

Table 4: Oil and gas sector summary

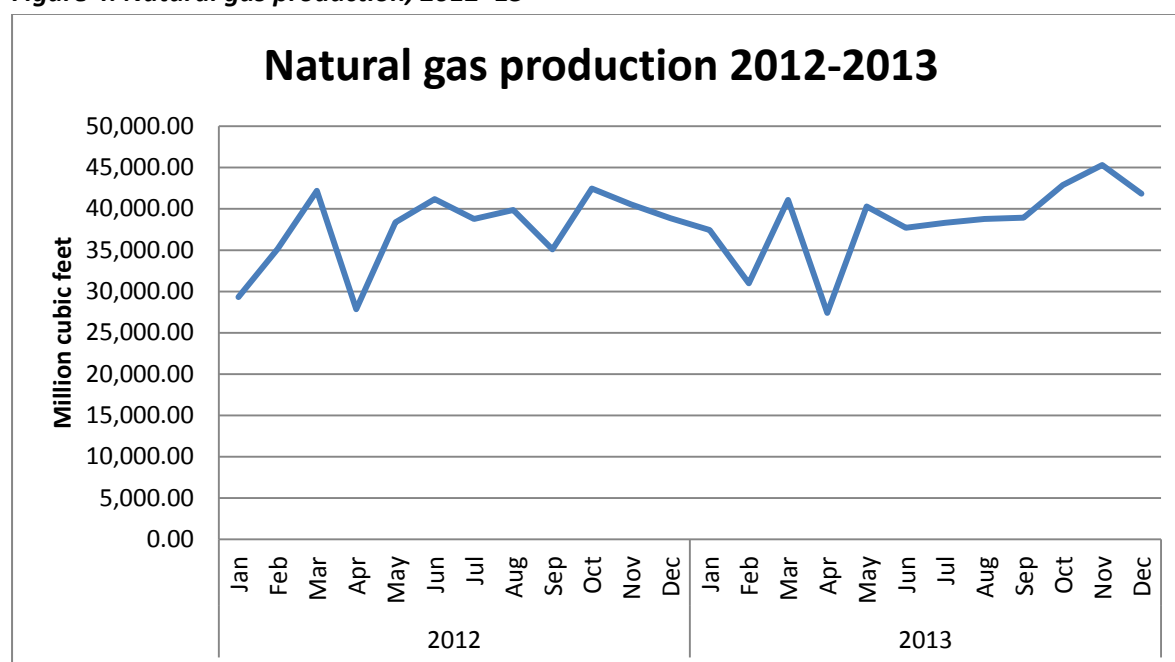
Agency	Ministry of Energy → Energy Planning Department
Law	Individual contracts govern. The following laws are not enforced in practice: Oil-Fields Act 1918; Oil-Fields Rules 1918; Notifications under the Oil-Fields Act 1918; Petroleum Act 1934; and Petroleum Rules 1934. ⁶⁵
State-owned enterprises	Myanmar Oil and Gas Enterprise (MOGE): Exploration and production of crude oil and natural gas; Transportation of crude oil and natural gas Myanmar Petrochemical Enterprise (MPE): Operations of 3 refineries, 5 urea fertilizer plants, 3 liquefied petroleum gas plants, and a methanol plant Myanmar Petroleum Products Enterprise (MPPE): Marketing and distribution of petroleum products
Royalties	Depend on contract type: see below
Commercial tax	Crude oil and condensate: 5%

^r Under the 1995 Myanmar Gemstone Law: ‘Gemstone means ruby, sapphire, jade, diamond, spinel, peridot, chrysoberyl, tourmaline, danburite, aquamarine, zircon, topaz, phenakite, garnet, moonstone, iolite, apatite, epidote, lapis-lazuli, diopside, amber, fluorspar or nephrite. The said expression also includes stones of gem quality of the quartz group and substances which may be declared by the Ministry of Mines by notification with the approval of the Government from time to time to be gemstone.’

Natural gas: 8%
 On exports: Crude oil 5%, natural gas 5%

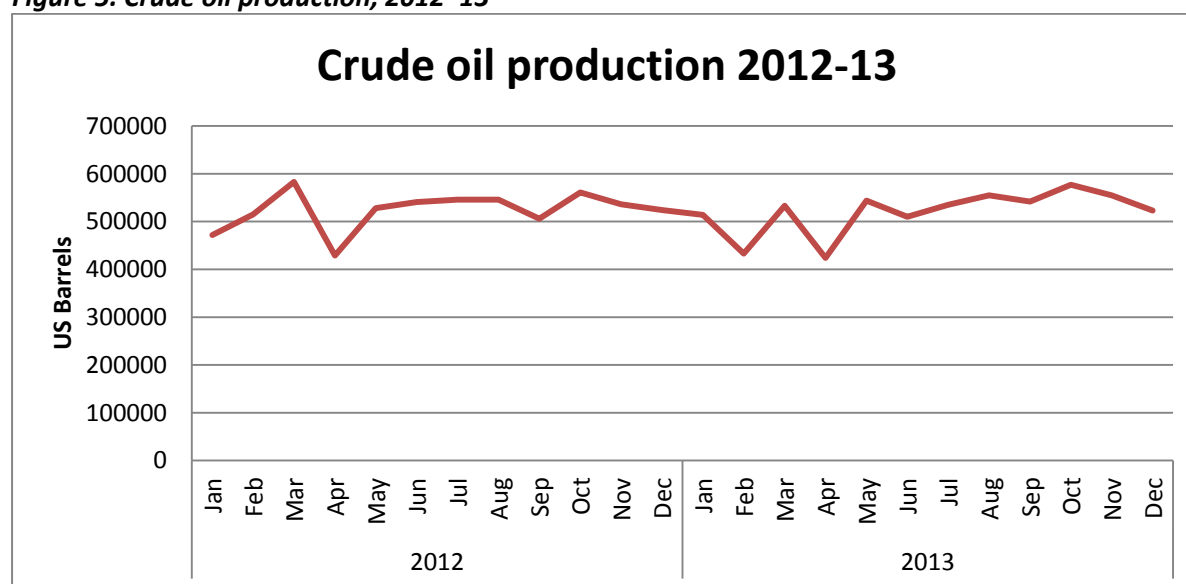
An estimated 16 foreign companies are presently working on 17 onshore blocks and 15 foreign companies are involved in exploration or production on 20 existing offshore blocks.⁶⁶ Myanmar awarded 10 shallow-water and 10 deep-water exploration blocks for oil and natural gas in March 2014 through an open tender process.⁶⁷ At present, ‘proven gas reserves total 20.11 trillion cubic feet, with a huge potential for discovery’.⁶⁸ The major offshore sites are Yadana and Yetagun, Zawtika, and Shwe Gas field, with 65 on-shore gas fields. Gas pipelines run from Shwe Gas field to China, and from Yadana and Yetagun to Thailand.⁶⁹

Figure 4. Natural gas production, 2012–13



Source: Central Statistical Office, ‘Selected Monthly Economic Indicators’

Figure 5. Crude oil production, 2012–13



Source: Central Statistical Office, ‘Selected Monthly Economic Indicators’

Oil and gas revenues contribute to Myanmar's budget through both direct and indirect channels (tax and non-tax revenue), with gas being much more significant than oil. In 2012–13, natural gas exports to Thailand, 'by far the largest single commodity sold, totalled \$US 3.5 billion or 30% of total exports' from Myanmar.⁷⁰

All oil and gas companies are in partnership with the state-owned Myanmar Oil and Gas Enterprise (MOGE) under the Ministry of Energy, the majority through production-sharing contracts.⁵ There are three oil refineries in Myanmar, run by the Myanmar Petrochemical Enterprise (MPE). Finance officials interviewed at MOGE stated that there is variation by contract, but that MOGE has '15-20% participating interest typically'.⁷¹ Under the model production-sharing contract for oil made public by MOGE, the government receives from the contractor:

- 12.5% royalty of available petroleum
- 25% corporate income tax on net profit
- 20% of contractor's share of profit for petroleum at 90% of fair market price (domestic requirement)^t

In addition, depending on the contract details and work programme, the government may receive signing and production bonuses, entitlements, allocations of shares, transport fees for natural gas, training, and education funds. Royalties and signing bonuses are now paid to the Energy Planning Department under the Ministry of Energy, while MOGE collects production bonuses and its 15-20% share.

According to MOGE finance officials interviewed, payments from operators are transferred to an account for the MOGE in an overseas correspondent bank of the Myanmar Foreign Trade Bank (MFTB). MOGE then deposits these into the MOGE account in the MFTB where it can only make deposits and not withdraw. Royalties are transferred from the MFTB account to the IRD, monthly, by direct payment order. Companies pay 25% corporate income tax directly to the IRD from the company headquarters, not the area of extraction (for example, Total is registered in Yangon as Total Myanmar).^{72u} Under Myanmar's Foreign Investment Law, tax holidays may be given for new investments, including in the oil and gas sector. As of the 2014–15 fiscal year, these tax holidays last for five years and begin with the date of production.

Officials stated that all income goes into an MOGE account at the Myanmar Economic Bank and is divided at the end of the fiscal year as with other SOEs (see Figure 3). MOGE reports every six months to the Ministry of Finance/IRD 'for [corporate] income tax, profit and loss account,' which are centralized from the various individual projects at the MOGE head office.⁷³ Employee income tax for MOGE employees is deducted from payroll and paid through the respective township IRDs.⁷⁴

In addition to the revenue streams above, under the 1934 Petroleum Act, nominal taxes are due to the township administrator (GAD) from the extraction of crude oil. MOGE officials said that this

⁵ According to a 2011 presentation from MOGE, there are several types of blocks awarded: 'PSC and EP (Onshore) Exploration, PSC (Offshore) Areas, IOR / PCC (Onshore) Improved, Oil Recovery, and RSF (Onshore) Marginal Field Development.' In addition, MOGE officials interviewed stated that 'some onshore blocks are kept reserved for MOGE'.

^t For natural gas, this domestic requirement is 25% in the model contract

^u These payments are, for the most part, made annually, but 'Shwe and PCMA pay quarterly'.

amounts to one kyat per 40 gallons of crude oil, and is paid to the township GAD office at the extraction site.⁷⁵

Timber

Table 5. Timber sector summary

Agency	Ministry of Environmental Conservation and Forestry (MOECAF) → Forest Department, Environmental Conservation Department; Survey Department; State/Region Forestry Departments.
Law	Myanmar Forest Law, 1992. Myanmar Forest Policy, 1995. Community Forestry Instructions, 1995.
State-owned enterprises	MTE: Myanmar Timber Enterprise.
Royalties	n/a; payments vary
Commercial tax	The 2014 Union Tax Law sets commercial tax on ‘teak lots and sawn teak timbers’ at 25%, with 50% levied on exports; ban on export of raw timber from 1 April, 2014.

Myanmar’s most valuable timber species is teak, though there are also other valuable species of hardwood.⁷⁶ A ban on the export of raw timber went into effect on 1 April 2014, with the stated goal of increasing value-added processes for wood products.⁷⁷

The state-owned Myanmar Timber Enterprise (MTE), under the Ministry of Environmental Conservation and Forestry, has sole extraction rights for teak,⁷⁸ though private companies may run teak plantations. MTE officials interviewed said that the enterprise is responsible for ‘timber harvesting, milling, and downstream processing and marketing of forest products,’ and certification from MTE is required for the legal export of timber. MTE itself has three departments: extraction, marketing, and export. MTE also enters into joint ventures with companies for wood processing. The share of revenue received from these processing businesses depends on the specific contract, which is negotiated case-by-case.⁷⁹

According to a published investment report, MTE subcontracts for timber extraction with companies.⁸⁰ The timber remains the property of MOECAF. After extraction, MOECAF ‘then sells the extracted timber back to the company at set prices which are normally below market prices’ and the extractor may then sell it on the open market. MOECAF afterwards reimburses the extraction company ‘for about 40% of the costs incurred during extraction’.⁸¹ MOECAF officials note that companies make payments either in ‘Yangon or Mandalay, where the company is based, not where timber is extracted’.⁸²

Officials stated that revenues from timber sales are paid from MTE to a Forest Department account with the Myanmar Economic Bank. The Director General of MOECAF stated that ‘state-level forest departments and MTE pay royalties to the Forest Department account directly’.⁸³ Kyat payments are

^v These contracted companies include a ‘semi-governmental’ enterprise, the Forest Products Joint Venture Corporation Ltd. ‘FPJVC is a 45-10-45 joint-venture between three stakeholders: Myanmar Timber Enterprise (under the Ministry of Environmental Conservation and Forestry), the Forest Department (also under the Ministry of Environmental Conservation and Forestry), and private shareholders. The company first sold shares to the public in 1993.’ (ThuraSwiss 2013)

deposited in the Myanmar Economic Bank, while foreign currencies are deposited in the Myanmar Foreign Trade Bank, in an account ‘now audited by the Auditor General’s office’.⁸⁴

In the timber sector, tax holidays of 2–3 years may be given by the Myanmar Investment Commission for timber processing, but not for extraction.⁸⁵ As the environmental regulatory body, MoECAF must be consulted on the environmental impact of projects proposed to the Myanmar Investment Commission (MIC). The Minister of Environmental Conservation and Forestry is currently also a member of the MIC.

Timber plantations for commercial hardwood are managed under a separate system and ‘private involvement is encouraged’. For plantations, 10% of ‘income at final harvesting’, when trees are 25–35 years old, ‘is government revenue’.⁸⁶

Community forestry instructions were introduced in 1995, though ‘to date no commercial extraction by communities has been possible’.⁸⁷ As of 2011, there were ‘572 Forest Users Groups with certificates, managing 104,146 acres of forest’.⁸⁸ Currently, there are 574 groups, with community forestry particularly common in Kachin State and northern Shan State.⁸⁹

Hydropower

Table 6. Hydropower sector summary

Agency	Ministry of Electric Power (MOEP) → Department of Hydropower Planning, Department of Hydropower Implementation Ministry of Agriculture and Irrigation → Department of Irrigation Some state/region governments
Law	Individual contracts govern. Electricity Act of 1948, amended 1967; Myanmar Electricity Law 1987. New electricity law now in draft form.
State-owned enterprises	Myanmar Electric Power Enterprise, Electricity Supply Enterprise; other SOEs under MOEP, Individual dams

Hydropower generation supplies over 70% of Myanmar’s electric power, with a total installed capacity of 46,101 megawatts.⁹⁰ The hydropower potential of the country’s rivers, which drain the four main basins of Ayeyarwady, Chindwin, Thanlwin, and Sittaung, is estimated to be more than 100,000 megawatts (MW).

Responsibility for dam projects in Myanmar is divided among several ministries and agencies, based on the size and purpose of the dam. According to a presentation from the Ministry of Agriculture and Irrigation in 2011, ‘hydropower projects are under implementation by the Department of Hydropower Implementation’ under the Ministry of Electric Power and the Department of Irrigation, under the Ministry of Agriculture and Irrigation.

The Ministry of Electric Power is now operating 20 hydropower plants in Myanmar, while the Ministry of Agriculture and Irrigation constructs water reservoirs and dams for irrigation purposes. The irrigation dams sometimes include small hydropower units. The Ministry of Agriculture and Irrigation collects ‘irrigation tax from dams and reservoirs’.^w

^w Until 2006, the GAD also collected ‘irrigation tax from dams and reservoirs’, but this responsibility was transferred to the Ministry of Agriculture and Irrigation in 2006 (Ne Tun 2010).

There is variation in contract types. Contracts include joint ventures with foreign investors and policy documents discuss the potential development of new sites with a build-operate-transfer model.⁹¹ It is not clear from this initial review how any revenue from exported electricity from hydropower is or would be treated, and more research is needed on the hydropower sector in Myanmar.

A new electricity law is currently being drafted but has not yet been passed. According to national-level *hluttaw* discussions from 2012, this bill would stipulate some small and medium-scale electric power production to be managed by state/region governments. In an October 2012 national parliamentary discussion, the Deputy Minister of the Ministry of Electric Power stated ‘The size of small and medium-scale electric power production to be managed by state/region governments is not set yet’.⁹²

2.5 Environmental Law^x

The 2008 Myanmar Constitution provides a number of important references to environmental conservation and sustainable development. Section 390 provides that ‘Every citizen has the duty to assist the Union in carrying out the following matters: a) preservation and safeguarding of cultural heritage; b) environmental conservation; c) striving for development of human resources; and d) protection and preservation of public property.’ The Constitution also expressly limits its guarantee of the right to own and use property by other provisions of the Constitution and existing laws (section 372).

Myanmar’s new main environment law, the Environmental Conservation Law 2012, was promulgated in March 2012. The overarching goal of this law is to provide basic principles and guidance for the integration of environmental conservation in the nation’s development, including through the implementation of the Myanmar National Environmental Policy.⁹³ The Environmental Conservation Law 2012 is largely a framework statute that requires the development of implementing regulations (also known as rules).

The first regulations that have been prepared will give effect to the law’s environmental impact assessment (EIA) provision.⁹⁴ The development and implementation of an EIA system is one of a number of ‘duties and powers’ the law imposes on the Ministry of Environmental Conservation and Forestry (MOECAF). These first regulations were drafted in 2013, and are awaiting approval by the Union Government. It is anticipated that they will come into effect sometime in the third quarter of 2014. At the same time, more detailed EIA Procedures have also been drafted by MOECAF to guide the implementation of the EIA system. These Procedures are also close to being finalised, and are expected to be formally adopted very soon after the regulations come into effect.

Together, the regulations and Procedures will establish a clear legal framework for when EIAs will be required for economic development activities involving natural resources in Myanmar. Notably, the EIA system has also been designed to dovetail with the Foreign Investment Law’s process for considering investment proposals from foreign entities. Essentially, the combined process will require an investment application demonstrating that the EIA requirements have already been complied with (either resulting in an endorsed environmental assessment or certification from MOECAF that one is not required).

^x Section authored by Martin Cosier, Vermont Law School.

The Environmental Conservation Law 2012 also contains a chapter on the conservation of natural resources. While listing key natural resources (including forests, lands, freshwater, minerals, fisheries and agricultural resources), as a framework law, it does not provide any regulatory controls. Rather, the law states that relevant government agencies must ‘carry out the conservation, management, beneficial use, sustainable use and enhancement of regional cooperation’ regarding the listed natural resources.⁹⁵ Natural resource management regulation is, therefore, presently the domain of resource-specific legislation and administrative responsibilities.

It is worth noting that some important elements of environmental protection and natural resources management are not provided for in the current law. These include provisions on information disclosure, public participation, right of review or appeal, and (beyond the brief aforementioned reference to cooperation regarding natural resources) consideration of regional issues. Some of these aspects will certainly feature in implementing regulations to be developed under the law and/or in other related legislation. Their absence does, however, emphasise the need for clarity in institutional arrangements and coordination between relevant agencies.

The lead agency in environmental protection in Myanmar, MOECAF, is very young. It was created in September 2011 by expanding the responsibilities of the then Ministry of Forestry. In 2012, a new department was added to MOECAF—the Environmental Conservation Department (ECD). The ECD is responsible for environmental policy. It has been growing rapidly—from an initial staff complement of 28 to over 100 as of mid-2014—and will continue to do so. While these additional human resources are critical to the effective discharge of the department’s responsibilities, there is a clearly recognised need to also support the development of the team’s capacity in environmental law and policy development, implementation, monitoring, and enforcement.

At the same time, subnational ECD offices are being created around the country. As of mid-2014, there were five regional ECD offices, with another five to be opened in the 2014–15 fiscal year and the remaining four regional offices planned for 2016. In addition, 67 district-level ECD offices and 336 township offices are planned to open from 2016 onwards. This model reflects the structure of the Forest Department within MOECAF and its rollout presents an extraordinary opportunity to consider how to best share institutional responsibilities both between the ECD offices at various levels and with the state, regional, and local governments.

THREE: Subnational Government Roles

State and region governments in Myanmar were created by the 2008 Constitution and established in March 2011.^y Myanmar today comprises seven states and seven regions, five self-administered zones, one self-administered division, and Nay Pyi Taw as a Union territory. State and region governments are led by chief ministers who are appointed by the President from among members of the state/region *hluttaw* (parliament). The cabinets consist of the Chief Minister and other cabinet ministers (at least nine ministers in most states and regions). There are unicameral state/region *hluttaws*, composed of the elected members, with one-quarter of seats reserved for appointed military representatives.

Under the 2008 Constitution, subnational involvement in natural resource management and revenue collection is limited. The legislative areas and administrative responsibilities of state and region governments are listed in Schedule Two of the 2008 Constitution. Oil and gas, mining, and timber are not included in Schedule Two, with the exception of a few areas such as salt products, firewood and gemstone cutting and polishing. Schedule Five of the 2008 Constitution lists the taxes which are collected by states and regions. Schedules Two and Five are included in Annex II and III.

In the period since the creation of state/region governments, limited further decentralization of some natural resource management and revenue collection has taken place from both a) the Union ministry side, via the transfer of some responsibilities to state/region governments, and b) new legislation or orders of individual state/region governments. Though the revenues accruing to subnational governments from natural resources remain relatively minor, the administrative structures and natural resource management responsibilities of subnational government are important, as they form the beginnings of institutions, practices and structures for managing natural resources.

Table 7. Schematic diagram of current types of resource governance arrangements

		Management	
		Central	Subnational
Revenue	Central	Example: Oil and gas, concessions and revenues both centralized	Example: Small-scale mining proposal (licensing to be subnational and revenue to go to centre)
	Subnational	Example: Certain species of timber. Managed by MOECAAF with revenue to state/region fund	Example: Salt products under Myanmar Salt and Marine Chemical Enterprise

^yThe president has formed a national reform steering committee to support the reforms, composed of 26 cabinet sub-committees or 'delivery units.' These are led by the Union deputy ministers and are specifically intended to play a coordination role between the state and region governments and Union ministries. The general administrative, fiscal and political dimensions of the decentralization process are described in detail in the report *State and Region Governments in Myanmar* (Nixon et al. 2013).

3.1 Fiscal decentralization

The overall planning and budgeting process for subnational governments is undergoing reform. ‘Formula-based transfers’ in Myanmar, in which, for example, grants from the central government are targeted to address poverty rates or spending needs, are under consideration but have not yet been implemented. A roadmap for this fiscal decentralization process is considered in the companion paper, ‘Fiscal Decentralization in Myanmar’ (Nixon and Joelene 2014).⁹⁶

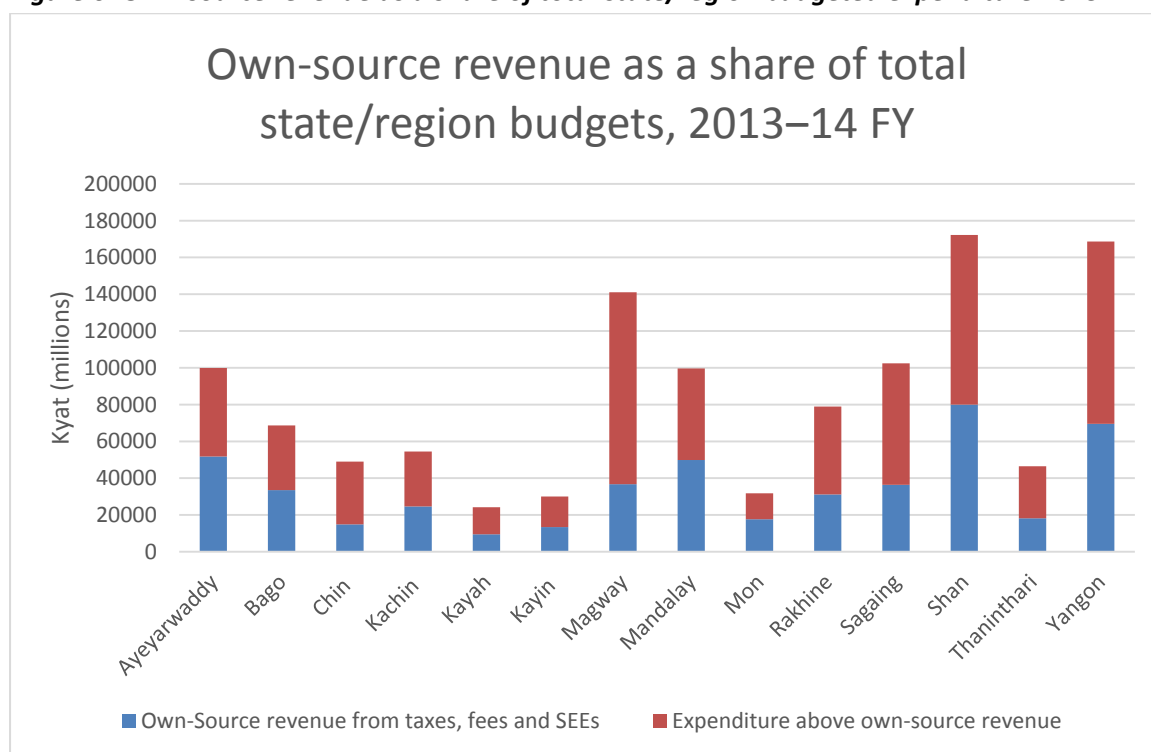
Presidential orders have been issued ‘to increase the role of state and region ministers in administration, and for Union ministries to decentralize some of their functions to their subnational administrative offices.’⁹⁷ There has also been a corresponding increase in transfers to subnational governments. In the 2013–14 fiscal year, the share of the Union budget estimate assigned as grants or loans to state and region budgets amounted to 3.6% of overall public spending.⁹⁸ In the 2014–15 budget estimate, this amount has more than tripled to 11.8% of overall public spending.⁹⁹

Under the current system, as Union government spending is recorded in the budget by sector ministry rather than by location, the total levels of Union government expenditure in each state or region are not available.^z Some stakeholders see a tension between economic planning centred around proposed ‘development corridors,’ between Yangon and Mandalay and along trade routes with India and China, and any wealth sharing from natural resource revenues, which might allocate more to the border-area states and regions.¹⁰⁰

State and region budgets are composed of both ‘own-source revenue’ from taxes, fees, and SOE payments, and grants and loans from the Union government. The overall total is decided through a process of proposals and negotiations between the states/regions and the Union, starting from the level of deficit between local revenues and expenditures and past patterns. A member of the Kachin State Parliament said ‘there are always deficits in the state [and region] budgets so Nay Pyi Taw has to transfer some amount’.¹⁰¹ For most types of own-source revenue, additional revenue collection in the state or region does not appear to increase the state budget kyat-for-kyat (undermining a key incentive for improved revenue performance). The most significant types of own-source revenue are the property tax collected by municipalities and the revenue from the state Public Works Department, a state-owned enterprise.¹⁰²

^z ‘The deconcentrated channel of funds for states and region departments of union ministries are not presented in national budget documents; the parent union ministry is the primary budget unit, and there is not currently a secondary budget classification that clearly breaks out state/region spending at union level. Together, these factors mean that it is currently very difficult to answer the most basic question about fiscal decentralization: *how much of Myanmar’s public spending is decentralized, and to what levels?*’ (Nixon and Joelene, 2014).

Figure 6. Own-source revenue as a share of total state/region budgeted expenditure 2013–14



Source: State and region budget laws, 2013–14 FY. Official Gazette.

At present, own-source revenue makes up less than half of state/region expenditure—about 42% on average for the 2013–14 fiscal year.

Schedule Two sets out a legislative list as well as the administrative responsibilities of the state and region governments (see Annex II). There are eight sectors listed in Schedule Two: most provisions in each sector are quite limited, and many still need to be clearly defined by legislation in the Union Parliament.¹⁰³ Though the Constitution’s provisions set legislative areas for the Union and the state and region governments, respectively, constitutional considerations do not limit increases in the amounts transferred from the Union to the states and regions.

Box 2. 2008 Constitution, Schedule Two

2008 Constitution, Schedule Two:

Sector 4. Energy, Electricity, Mining and Forestry

- (a) Medium and small scale electric power production and distribution that have the right to be managed by the Region or State not having any link with national power grid, except large scale electric power production and distribution having the right to be managed by the Union;
- (b) Salt and salt products;
- (c) Cutting and polishing of gemstones within the Region or State;
- (d) Village firewood plantation; and
- (e) Recreation centres, zoological garden and botanical garden.

Schedule Five of the 2008 Constitution (see Annex III) stipulates the taxes collected by states and regions. These include land tax and mineral tax collected by the General Administration Department, taxes on allowed timber species and forest products collected by the Forestry Department, and electricity charges from small hydropower.¹⁰⁴ Tax revenues in the 2013–14 state/region budget from

minerals (collected by the General Administration Department under the Ministry of Home Affairs) and from forest products (collected by the State Department of Forestry) are shown below.

Table 8. State/region revenues from taxes on minerals and forest products, 2013–14 FY

State/region	Tax on extracting minerals (million kyat)	Tax on extracting from forest (million kyat)
Ayeyarwady	11.787	400.573
Bago	15.938	241.88
Chin	0.088	13.274
Kachin	1.122	125.304
Kayin	1.75	297.372
Kayah	0.3	25.558
Magway	11.085	124.343
Mandalay	11.08	84.777
Mon	6.475	181.388
Rakhine	2.337	118.894
Sagaing	31.727	224.694
Shan	11.798	157.018
Tanintharyi	0.832	125.185
Yangon	27.718	110.097

Source: State and region budgets, FY 2013–14. Official Gazette.

The Myanmar Salt and Marine Chemical Enterprise, formerly under the Ministry of Mines, was transferred to state and region governments in accordance with Schedule Two of the Constitution. In the 2013/14 budget, it records a loss in seven of the eight state/region budgets in which it appears (based on current revenue/expenditure).^{105 aa}

Small hydropower dams also contribute to the state/region budget. In Kachin State, there are three small-scale hydropower plants which will start contributing income to the state fund in 2014-15.¹⁰⁶ According to an engineer with the Shan State Department of Electric Power, there are 10 small hydropower plants in Shan State; electricity charges from these contribute to the state fund.¹⁰⁷

There are a few experimental taxes/fees for which a certain percentage is retained according to a derivation principle—meaning, remaining in the state/region they were collected. In the past year, for example, 25% of the fees collected for motorcycle licenses were ‘given to the state and region’ in an effort to increase the number of licensed motorcycles. Kachin State officials reported receiving 400 million kyat from this source in the 2013/14 fiscal year. No natural resource payments are currently collected in this way.¹⁰⁸

Natural resource-related payments to Union ministries or the Internal Revenue Department are not generally reported to the Ministry of Finance according to their region of derivation. A company, for example, would pay profit tax from its company headquarters to the township officer of the Internal Revenue Department, not at the site of resource extraction.¹⁰⁹ Likewise, SOEs such as MOGE aggregate profit and loss across extraction sites, and transfers from ministries to the Union budget

^{aa} The exception being Ayeyarwady; there, the positive balance is only about 5 million kyat.

are not recorded by their region of derivation. It is possible for state/region governments and parliaments to request this information, however, and some have done so.¹¹⁰

For example, members of the Kachin State Hluttaw requested data on mining activities and revenues generated from mining within Kachin State. The Ministry of Mines replied with a letter to the Kachin State Hluttaw describing permits issued and revenue received in 2012–13, and the first half of the 2013–14 budget year.¹¹¹ The letter lists three permits for large-scale production, 110 permits for small-scale production, and 90 exploration permits issued to 51 companies for coal, limestone, metallic minerals, marble, molybdenum, lead, tin/tungsten, serpentine, and gold. The letter does not cover licenses or revenues from jade and gems. Kachin State MPs commented that the officially-collected revenues are a ‘very small amount’ compared to the volume of illegal mining.

Table 9. Revenue received by the Ministry of Mines from mineral extraction businesses within Kachin State (excluding gems and jade)^{bb}

2012–2013 Fiscal Year	Kyat (million)	US dollars	Gold (<i>viss</i>)
1. Land rental fees	21.9639	-	-
2. Mineral tax	0.1350	34212.40	1.08695
3. Production sharing to Myanmar Mines Enterprise No.1	-	286460.28	-
4. Production sharing to Myanmar Mines Enterprise No.2	-	-	9.87260
Total	22.0989	320672.68	10.86955
First six months of 2013-14 fiscal year			
1. Land rental fees	17.9755	-	-
2. Mineral tax	8.0353	27800.00	0.26999
3. Production sharing to Myanmar Mines Enterprise No.1	-	200160.00	-
4. Production sharing to Myanmar Mines Enterprise No.2	-	-	2.42992
Total	26.0108	227960.00	2.69991
Grand Total	48.1097	548632.68	13.56946

Source: Letter from Ministry of Mines to the Kachin Hluttaw

This *ad hoc* response to requests demonstrates state government interest in greater involvement in natural resource management and revenue flows. Officials interviewed in other states/regions said they knew how to request such information, but were reluctant to request ‘sensitive’ information. In order to move to a country-wide, transparent system, such reporting should be routinized or derivation should be recorded in the national accounts.

3.2 Administrative structures

There is considerable variation in administrative practice for natural resources in the states and regions, depending on the sector. State and region cabinets have ‘ministers, but no ministries’ to carry out bureaucratic functions under them.¹¹² Many government functions at local levels are therefore carried out by the General Administration Department (GAD) under the Ministry of Home Affairs, which remains the ‘backbone’ of public administration in Myanmar.¹¹³ For example, civil society organizers in one state noted that ‘while the chief minister might have some authority (for example, over staffing appointments in the cabinet), it is the GAD that has to release the

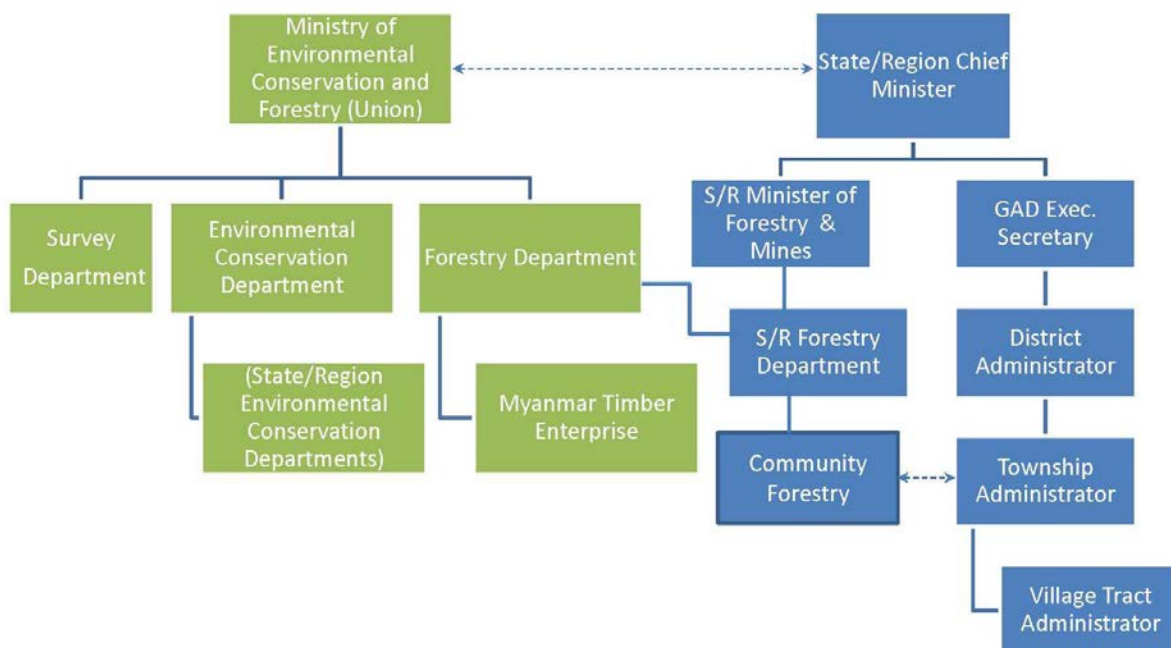
^{bb} *Viss* is a Burmese unit of measurement equal to 1.63 kg.

state/region budget'.¹¹⁴ There is an Auditor General at the state/region level, appointed by the Chief Minister and tasked with auditing the state/region budget and reporting to the *hluttaw*. The Auditor General's accountability is not clear, as the position is subordinate to both the President and the Auditor General of the Union via the Chief Minister.¹¹⁵

State and region governments have a cabinet post for the State and Region Minister of Forestry and Mines. There is a 'State Forestry Department,' a deconcentrated department of the Union Ministry of Environmental Conservation and Forestry.^{cc} Its employees' 'direct accountability' is to the Union ministry, while the State Minister of Forestry and Mines is also in a position of consultation (see Figure 7). As outlined in Section 2.5, MOECAF has opened five subnational environmental conservation departments and intends to open more.¹¹⁶

There are no state-level departments of mines or energy, though there are branch offices of the Department of Geological Survey and Mineral Exploration in some states/regions, and MOGE has offices at some onshore oil fields. Various small hydropower dams under the state and region government appear to be managed by different agencies.

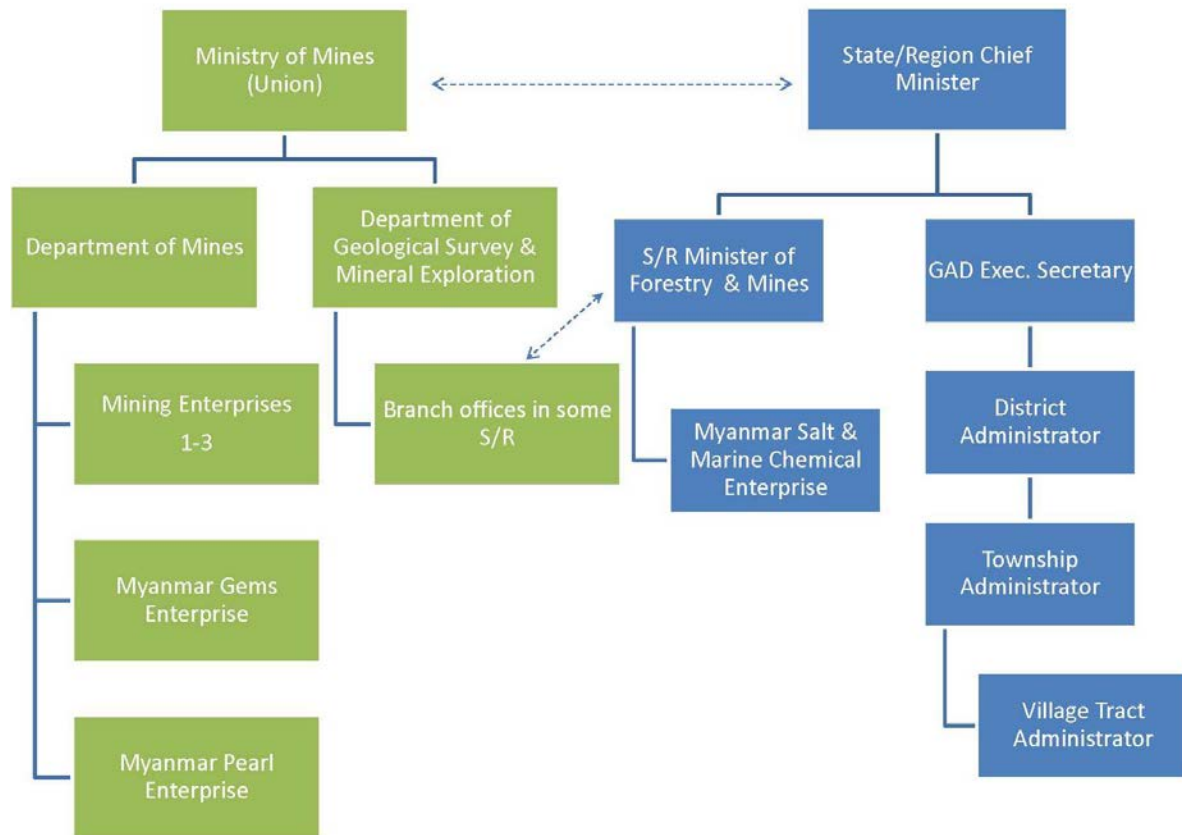
Figure 7. Forestry administrative structure^{dd}



^{cc} The salaries of employees of the State Forestry Department and other current expenditures are paid from the State and Region Fund, while capital expenditure and expenses of the Myanmar Timber Enterprise operations in the state or region are paid by MOECAF. An official of the Kachin State Forestry Department said some portion of funds allocated by the Union for environmental monitoring went unspent due to conflict. (Interview, Kachin State Forestry Department).

^{dd} State and region environmental conservations departments are now being created (see section 2.5). Their integration with subnational governments is not yet clear.

Figure 8. Mining administrative structure



Officials interviewed describe a process of consultation among administrators prior to mining. The Ministry of Mines letter to the Kachin Hluttaw states:

Ministry of Mines has been issuing mining permits to businesses after reviewing comment from state/region government, recommendations from respective Township General Administration Department, Township Land Records Department, Township Forestry Department, Village Administrator and village people. Production has been done by production sharing contracts with respective enterprises under the Ministry of Mines.¹¹⁷

A member of the Kachin Hluttaw stated that in the licensing process, the ‘Union government asks comment from state government on gold and other metals, but not jade and precious stones’.

The Shan Forestry and Mines Minister, a member of the Shan Nationalities Democratic Party (SNDP), reported consulting frequently with Ministry of Mines officials in Shan State. This ‘consultation’ process, however, is not yet codified into reporting responsibilities, or supported by a state/region bureaucracy equipped to handle enforcement or implementation of natural-resource related reforms. Members of state government interviewed described ‘two channels’ in applying for a mining license: either through the state and region government to the Ministry of Mines, or directly to the Ministry of Mines in Nay Pyi Taw. In short, although state/region governments are able to endorse applications, they generally do not have the power to veto them.

3.3 Recent changes and proposed reforms

In terms of symmetrical changes affecting all states and regions, the pattern so far has been to transfer an entire department (such as the State Forestry Department) or SOE (such as the Salt and Marine Chemical Enterprise) to the state/region level and the state/region budget, while maintaining some reporting requirements to the line ministries.

MOECAF has identified 104 species of timber and forest products to be managed and taxed by the state and region governments, though lucrative timber species such as teak and other hardwoods are excluded.¹¹⁸ A notification from MOECAF charged the state/region forestry departments with collecting these taxes, depositing revenue with either the state/region or the Union according to the species of timber.¹¹⁹

Proposed revisions to Myanmar's 1994 mining law include a potentially significant step: the transfer of responsibility for licensing small-scale mines to the state and region level. Under the proposed amendments, which have not yet been approved, responsibility for licensing small-scale and artisanal mines would fall to state and region governments or self-administered zones, while revenues from these mines would be deposited in the Union Ministry of Mines account. Proposed categories for small-, medium-, and large-scale mines would be described by acreage and anticipated life of the investment.¹²⁰ Some state and region governments and *hluttaws* had previously advocated for small-scale mining to be transferred, and said they would welcome the change. In the words of one Shan State official, 'there are many illegal mines, we will manage better and could generate revenue for the State Government'.

However, a Shan State civil society member expressed concern about a lack of accountability:

When we say small and medium, we need to know how small is small, how medium is medium. Decentralization is welcome actually, but currently even in the centralized system there is widespread corruption and the country does not have revenue from resources. So I am worried about this.¹²¹

Unless small-scale mining is clearly defined, and measures implemented to support the process, these transfers could set up an incentive problem. For local governments to collect effectively, they generally should be able to retain what is collected without decreasing their other sources of support. Where the discretion to issue licenses and the benefits of good enforcement are separated, corruption has a tendency to flourish.

Though the new Environmental Law sets a framework for closer environmental regulation, there are not yet institutions or staff in place to monitor and enforce regulation and to prevent environmental damage or health/working conditions concerns. Small-scale gold mining, for example, commonly uses mercury—miners interviewed by the authors drank river water from the Irrawaddy near the outlets of their mines. Larger-scale gold mines commonly use arsenic and cyanide. The impacts could also be much more widely felt, as the waters of the Irrawaddy are used for irrigation, fishing and other purposes along the length of the country.

Individual states and regions have also passed their own legislation or issued notifications regarding natural resources in their states, including:

- In Shan State, the state government established its own 'Fund for Poverty Reduction and Environmental Conservation' by decree from the Chief Minister. According to the Minister of

Forestry and Mines for Shan State, the fund has raised about 240 million kyat since its inception.^{ee} Mine sites pay a flat fee up front according to the size and type of mine; often 2,500,000 kyat for a small-scale mine of less than 50 acres. The fund is mainly used to provide microloans to farmers in Shan State, which can be disbursed by state cabinet ministers and the leaders of the self-administered zones.¹²²

- Mandalay Region Hluttaw passed a gemstone cutting and shaping law in October 2013, while Sagaing Region passed one in March 2012.¹²³ The Kachin State Hluttaw is also now drafting a state law to regulate cutting and polishing gemstones.¹²⁴ However, state *hluttaw* members explained that it would be difficult to do jade cutting and polishing within Kachin State because the 1996 Myanmar Gemstone Law requires that jade mined in Kachin State be sold at the Jade Emporium in Nay Pyi Taw.
- In March 2014, the Kachin State Government began requiring gem mining companies to contribute 10 million kyats each for construction of the Moe Kaung-Hpakant road, one of the main roads to the Hpakant jade mines.¹²⁵

These initiatives reflect a growing awareness of the potential to generate revenues from natural resource wealth among state and region leaders and some of their constituencies. Some may test the space available for state and region governments to act; for example, members of the Union Parliament have questioned the legality of the Kachin Hpakant road initiative.¹²⁶ However, the demand to address these local concerns remains. ‘There are billions [of dollars] extracted from here, what has happened with the road?’ asked one Kachin civil society group member.¹²⁷

These initiatives represent different underlying principles from the deconcentration or transfer of a certain species of tree or size of mine. The laws on gems polishing represent an attempt to move up the value chain by processing more raw materials in the areas where they are extracted. The road fund in Kachin State and the Environmental Conservation and Poverty Reduction Fund in Shan State are based on the idea of compensation for the infrastructure or environmental costs of mining. These aims are sound, and the incentives they create could be positive. However, individual state initiatives will need to be well-coordinated to prevent distortions and ensure funds are used effectively.

According to some officials, Myanmar’s current gradual decentralization of some natural resource management responsibilities may prove a useful avenue to develop capacity. The Finance Minister of Shan State said:

Some people are saying state and regional governments are not effective enough to receive more power or authority. It is like trying to drive a car. You can only learn to drive by driving! ...We are the government that is very close to the people, and we can [build] trust with the people more and more.¹²⁸

On the other hand, functions in more technical areas such as geological assessments or negotiating contracts do not yet exist at local levels and duplicating them at national and subnational levels in a short time frame would be difficult.

^{ee} Interviewees did not report exactly when the fund began or how the payments are administered.

3.4 Civil society engagement

Some arguments for decentralization are based on the ideas of responsiveness and effectiveness. In some countries, civil society groups have been able to act as checks on, and guides to elected officials, and have increased the success of decentralized natural resource management programmes. If aspects of natural resource management in Myanmar will be devolved to the subnational level, then there also needs to be a 'demand side' for accountability at the local level and avenues for constituents to engage with subnational government, whether at the state/region or even township/village tract level. There are some signs that this is developing and should be supported. However, in many areas, the political landscapes of local media, civil society groups and elected officials are just taking shape. Many powerful subnational actors are not elected and/or have dual accountability requirements (as the state Auditor Generals do).

There is a very active environmental movement in Myanmar, mobilized primarily around high-profile sites such as the suspended Myitsone Dam in Kachin State and the Letpadaung Copper Mine in Sagaing Region. These groups have often focused on land rights and compensation for displaced local populations, as well as environmental impacts. Generally, these organizations advocate greater local involvement in natural resource management decisions and much stronger enforcement of regulations to protect the environment, secure land rights, and control resource extraction. At times, these protests have led to direct conflict.¹²⁹ A representative of a lawyers' group observed increased advocacy on resource issues: 'It is different before 2010 and after, awareness is increasing in 2012–13. Now people raise some questions—where does our tax go? People are speaking more loudly than before on natural resources and revenue from natural resources'.¹³⁰

Civil society and environmental groups interviewed described some emerging dialogue and forms of interaction with subnational government. In Shan State, the state government has provided space for photo exhibitions on the environment. In Kachin State, a CSO leader described the state government as 'more helpful' than the previous government, with representatives able to coordinate effectively on social service delivery programmes. A cabinet member in state government said: 'State government has some interactions with civil society organizations—we participate in their meetings when we are invited. When we hear complaints from people, civil society, like about illegal mines, we take action'.

Other civil society members interviewed said that the limited role of state government made it less relevant to natural resource issues. A Chin civil society leader stated:

Now the government is trying to decentralize resource management and revenue allocation. But up until today, state government is not the decision-making party about resource management or revenue allocation. I think this is a problem. When local people ask about this, local government only says 'we are not responsible for this one, we don't have information about the company and what agreement they made with the government'.¹³¹

In addition, civil society groups remained constrained by a number of factors, including the requirement (in most states/regions) that they receive endorsement from the Chief Minister to be legally licensed.¹³² Some civil society groups interviewed also expressed a need for more substantive engagement from the subnational government side: 'We invite state government to come participate in meetings, but they just come for a few minutes and explain what they want to say. One improvement though, we can comment back in the meetings to them'. Some groups are

represented in the Myanmar Extractive Industries Transparency Initiative multi-stakeholder group, which includes business, government, and civil society representatives. Some civil society representatives in the multi-stakeholder group have pushed for discussion of a ‘subnational platform’ in the EITI workplan to involve state/region government and civil society.^{ff} Whether or not enacted through EITI, this point broadly reflects a desire to engage constructively with subnational government and create channels for better communication.

^{ff} The item’s language is: ‘MSG to discuss and agree options for establishing regional CSO-government EITI support groups—options for establishing groups followed up’ (Personal communication, EITI team).

FOUR: Stakeholders and Debates

Discussion of greater decentralization of natural resource management and revenue flows has been driven by a number of sources and parties at national, subnational and local levels.

At the national level, a Pyithu Hluttaw MP from the USDP stated: 'We are not discussing [resource revenue sharing] in Parliament, but within our ruling party, we are realizing that resource sharing must be there, and must go together with Federalism. Because we have to change our mindset, and change according to the new developments'.¹³³ These debates also intersect with national-level discussions regarding the appropriate rates of tax on mining or other businesses.

Within state/region governments, the Chief Ministers and Finance Ministers of some states and regions, members of the USDP, have publicly supported further fiscal decentralization.¹³⁴ The Shan State Finance Minister said: 'Our desire is to have 75% of all the taxes collected in Shan State, with 25% to the Union. For example in some countries, in the mining sector 70% stays, so we would like this kind of thing to happen'.¹³⁵ Members of the Kachin State Hluttaw also expressed an intention to seek more involvement with natural resources: 'For the time being all taxes on jade and timber go to the Union, but in future we will have to negotiate for more'.¹³⁶

Wealth-sharing discussions so far have largely been seen as a 'zero-sum game' with winners and losers, limiting the argument, for example, to numerical splits of 30-70, 50-50, or 1/3, 1/3, 1/3.¹³⁷ But without discussion of what is being shared, how it is measured, and between which entities, these numbers are hard to interpret.

Any changes to natural resource management or revenue-sharing arrangements will affect three processes underway in Myanmar, and in turn be shaped by them. These are:

- i. Economic restructuring: exploration and mapping of new resources, increasing transparency of existing revenue flows, and privatization and corporatization of state-owned enterprises
- ii. Political/constitutional reform: further decentralization, electoral processes, and potential changes to the 2008 Constitution
- iii. Peace processes: ceasefire negotiations and a framework for political dialogue with ethnic armed groups

It is important for actors focused on one area of the reform to consider the linkages between the three, and to handle the sequence and timing of any fiscal decentralization or resource-wealth sharing carefully.

4.1 Economic restructuring

Rapid economic growth, increases in foreign investment, and economic restructuring are reshaping natural resource extraction in Myanmar even as debates over wealth sharing occur. A member of the Natural Resources and Environmental Conservation Committee of the Pyithu Hluttaw stated that in his opinion, the Myanmar Petroleum Enterprise (MPE) 'must go for privatization as soon as possible'.¹³⁸ The state-owned Myanmar Petroleum Products Enterprise (MPPE) has announced plans to enter into joint-ventures for the distribution of jet fuel.¹³⁹ However, presidential advisor U Myint has advised against privatizing state-owned entities 'too fast' without a strong legal framework in place.¹⁴⁰

Among mining association representatives, company owners and consultants interviewed, the lack of clarity and stability in the regulatory environment was a common refrain. 'One thing I can say for sure' said a member of the Southern Shan Mining Association, 'if a business applies according to the regulation, using no other means, they will not get the permits'.¹⁴¹ A national-level MP stated that in the absence of clear laws, 'People cannot wait... They get formal or informal approval from the local government and they do their business'.¹⁴²

Foreign investment in sectors such as oil and gas may be a driver for transparency, as some companies will need to comply with their own domestic legal requirements. In other sectors, including most mining and gems business, this dynamic is not yet in play. A risk consultant to foreign investors stated that he had clients from international mining companies, but that for these clients, 'it's too early, too messy; it's in ethnic regions, there is conflict, and there is corruption'.¹⁴³

Finally, the Ministry of Finance has established a public financial management reform (PFM) process, which may help to simplify the complex system of resource revenue-flows described in this paper. Some relevant areas of PFM include strengthening the role of the Ministry of Finance so that all funds flow into a single budgetary account, and ensuring that the Internal Revenue Department (IRD) has full audit and collection rights for taxes over which the Ministry of Finance has control.¹⁴⁴

4.2 Constitutional reforms

The 2008 Constitution, which came into force on 31 January 2011, is the third constitution of Myanmar, adopted under the military government. Political movements to reform the Constitution have been growing, particularly campaigns and rallies led by the National League for Democracy and the 88 Generation Group. Their demands focus on changes to Article 436, which 'stipulates that any amendments require the support of more than seventy-five per cent of members of the Parliament, where unelected military representatives control a quarter of the seats'.¹⁴⁵ The ethnic political parties generally emphasize reforms to the process of selecting Chief Ministers, and advocate more legislative and administrative power, and greater revenue sharing at subnational levels. Supporters of rewriting the Constitution include the United Nationalities Federal Council (UNFC) and United Nationalities Alliance (UNA),⁸⁸ who support drafting a new constitution with fundamental changes in state structure, power sharing, and wealth sharing, and to put this draft forward in a future political dialogue process.¹⁴⁶

The Union government has formally requested suggestions from state/region governments regarding constitutional amendments. This channel has sometimes led to discussions of wealth sharing. The Forestry and Mines Minister for Shan State said: 'Recently the President's Office asked for suggestions from our State Government about constitutional amendments – we proposed that all the tax revenue from natural resources in Shan should be split about 70-30 (state-Union)'.¹⁴⁷

⁸⁸The UNFC is a 'coalition of ethnic armed organizations' which 'wants to establish a Federal Union in Myanmar.' Its members include the Kachin Independence Organization (KIO), New Mon State Party (NMSP), Shan State Army-North (SSPP /SSA), Karen National Union (KNU), Karenni National Progressive Party (KNPP), Chin National Front (CNF), Lahu Democratic Union (LDU), Arakan National Council (ANC), Pa-Oh National Liberation Organization (PNLO), Ta-ang National Liberation Army (TNLA) also known as Palaung State Liberation Front (PSLF), and Wa National Organization (WNO). Source: 'UNFC', Myanmar Peace Monitor website. Accessed 30 May 2014. <http://www.mmpeacemonitor.org/stakeholders/unfc>
The UNA is 'comprised of ethnic political parties that had contested the 1990 election.' Burma Library. 'Peace Processes.' Accessed 5 June 2014. <http://www.burmalibrary.org/show.php?cat=16>

In July, a Parliamentary Joint Committee for Reviewing the Constitution (PJCRC) was set up in order to review the current 2008 Constitution and collect input from political parties, organizations and the general public. The committee submitted its report to the Union Parliament on 31 January 2014, with suggestions mainly emphasizing not to make any changes on the most controversial provisions: 25% reservation of seats in the Union Parliament for the military, the existing amendment provisions, and the eligibility requirements for the presidency.¹⁴⁸ Reportedly, the committee did propose changes to Chapters 1-5 that would allow greater power sharing between the Union government and the states and regions.¹⁴⁹ Following the PJCRC's report, another committee, the Committee for Implementation of 2008 Constitution Amendment, was formed and assigned with the task of submitting a report on constitutional amendment to the Union Parliament.¹⁵⁰

4.3 Peace processes and ethnic political actors

Stakeholders involved in Myanmar's peace processes have identified natural resource revenue sharing and natural resource management more broadly as key points. A representative of the Myanmar Peace Centre stated that although there has not yet been 'any substantive discussion' of the topic, 'one of the biggest issues of the political dialogue is to negotiate on resource revenue sharing'.¹⁵¹ These topics are interlinked with the constitutional discussions described in the previous section, although the sequence of these processes remains an unresolved and central point in negotiations.

The Ethnic Armed Organizations' text on a Nationwide Ceasefire Agreement includes a Transitional Arrangement, under which natural resources would be included as a topic 'for further negotiations'.¹⁵² The department head of the Kachin Independence Organization's (KIO) Agriculture, Livelihood and Forestry Department stated:

For Kachin State, we are rich in natural resources and have fertile land. However, because there is instability and no political resolution, the people are suffering, and the environment is deteriorating. In our country we realize this. We also want peace as soon as possible...We haven't developed a concrete, specific idea for resource sharing yet. We can see the most important problem now is centralization: teak and other hardwoods are controlled by the Union, the state government has only unimportant items. All the jade mines are in the hand of Nay Pyi Taw, and state government has nothing to do with it, even the small-scale gold mines are controlled and managed by the Union government.¹⁵³

Though not directly involved in peace negotiations, state/region government officials are certainly aware of the stakes. A senior member of the Kachin General Administrative Department, when asked about development priorities for the state, said 'It all depends on peace—the most important is the peace process'.¹⁵⁴

Box 3: Ethnic-national actors with resource governance/extraction claims

- More than 20 opposition Ethnic Armed Organisations (EAOs), ranging in size from just a few dozen troops up to approximately 30,000.
- 23 pro-government Border Guard Force battalions (BGFs), once EAOs but now under the command and support structures of the Tatmadaw.
- Thousands of government-linked *Pyithu Sit*, or 'People's Militias' (of a similar structure to BGFs but under less rigid control).
- Constitutionally-instated 'Leading bodies' of Special Administered Zones and Divisions

Source: Adapted from Joliffe, K. (June 2014) *Ethnic Conflict and Social Services in Myanmar's Contested Regions*. The Asia Foundation.

The landscape of armed actors in Myanmar is complex (see Box 3). In particular, further research is also needed on 'Border Guard Forces' and the numerous paramilitary 'people's militias' (*pyithu sit*). The mechanisms of the relationship between natural resource extraction and conflict in Myanmar are also far from straightforward. The situation varies in different areas, and incentives are likely to change from conflict onset through stages of fighting or ceasefires.¹⁵⁵ In some areas of active fighting (such as parts of Kachin State and northern Shan State), natural resource smuggling, in particular of timber, has been cited as the proximate cause of recent fighting, though the facts of these cases are highly contested.¹⁵⁶

In terms of natural resource management, members of ethnic armed organizations identified large-scale, non-inclusive natural resource extraction or 'mega development'¹⁵⁷ as a destabilizing influence. A recently published set of interviews with active soldiers in opposition groups identifies 'community benefits from natural resource development' as a shared goal.¹⁵⁸ There may be opportunities for collaboration on points of convergence in this agenda, with community forestry projects, for example, suggested as a positive model by some stakeholders interviewed in both ethnic armed organizations and local government.^{hh159}

Some ethnic armed organizations maintain parallel structures for the administration of natural resources, e.g. the Karen National Union's Mining and Forestry Departments and the Kachin Independence Organization's Agriculture and Forestry Department.¹⁶⁰ There is often a degree of economic interaction between these systems and Government of Myanmar administrative areas. For example, the KIO's Bukhaw Power Company operates a hydropower dam that provides electricity to the Kachin State capital, Myitkyina. Ethnic armed organizations also carry out social service delivery in some areas, which is detailed in The Asia Foundations' report *Ethnic Conflict and Social Services in Myanmar's Contested Regions*.¹⁶¹

With by-elections scheduled for 2014 and national elections scheduled for 2015, it is an open question how the positions of ethnic armed organizations, the platforms of ethnically-based political parties, and the aims of current state/region government leaders will intersect. While many natural resources are concentrated in the mountainous border areas where ethnic armed organizations are active, others are found in majority ethnic Bamar areas. There are also ethnic minority regions with fewer proven natural resources. Against a history of centralization and non-transparent practices, ethnic minority armed groups and political parties from both relatively resource-poor and resource-rich areas have called for greater state and region government involvement in natural resource management and for wealth sharing. As wealth-sharing discussions become more concrete, though, these political economy concerns may become more pressing.

Ethnic political parties

Ethnic political parties have increasingly become registered in mainstream politics, and many are actively making demands for 'revenue sharing' between national and subnational government.

^{hh} The KNU Forest Department website includes an item for: 'Forestry Policy: - Devolution. The Forest Department will study what forest areas and subjects of management are appropriate for devolution to local communities.' (Karen National Union, 'Kaw Htoo Lei Forest Policy').

Table 10. Ethnic political party representation by state/region

State or region	Ethnic party MPS	Total MPs
Ayeyarwady	0	72
Bago	1	76
Chin	11	24
Kachin	6	51
Kayah	0	20
Kayin	9	23
Magway	0	68
Mandalay	1	76
Mon	7	31
Rakhine	18	47
Sagaing	1	101
Shan	50	143
Tanintharyi	0	28
Yangon	2	123

Source: ALTSEAN Parliament Watch.

maintain businesses in the extractive sector. For example, the SNDP in Shan State runs the Top White Tiger Mining Company, which produces gypsum.¹⁶⁷

Ethnic national conferences held in the states have issued statements on natural resources, many of them citing the 1947 Panglong Agreement as precedent for a federal system. Ethnic nationalist parties and leaders in both resource-rich and relatively resource-poor areas have called for greater control over resources in their areas and a greater degree of revenue sharing. The Arakan National Conference, held on 28 April 2014, called for ‘Rakhine to get 50% of oil and gas revenues’, including those from sites offshore, and for local groups to be included in resource management.ⁱⁱ¹⁶⁸ In Chin state, the November 2013 Chin National Conference called for ‘equitable sharing between the Union and State government of the revenues obtained from the natural resources,’ for ‘state government to play a more important role in the management of the natural resources in the state,’ and for strengthened environmental policies and transparency.¹⁶⁹ In sum, two main points can be made:

1. Public debate so far has mainly not distinguished between the issues of natural resource concessions, revenues, ownership, and environmental impact.
2. Revenue sharing has been discussed ‘in principle’ at many levels and forums, including in the peace process, though there is little specificity about what is to be shared, to what purpose, and how.

ⁱⁱ This conference has also drawn reactions. In press accounts, U Hla Swe of the Union Solidarity and Development Party states: ‘It would not be fair to use half of the revenues from Rakhine’s natural resources for the state’s sole benefit.. While some areas of the country have plentiful resources, others such as the Naga Self-Administered Zone in Sagaing Region have none’. (Maung Tintone 2014).

Ethnic political parties hold 43 seats (10%) out of 431 seats in the Union Pyithu Hluttaw, 29 seats (13%) in the Amyotha Hluttaw. In the state and region parliaments, they hold 106 seats (12%) out of 883 total seats (while one-quarter of seats at national and subnational levels are reserved for the military).¹⁶² The subnational cabinet post of Forestry and Mines Minister is held by a representative of an ethnic party in Kayin, Chin, Rakhine, and Shan states.¹⁶³ A leader of the Kachin State Democracy Party stated that ‘since 2010, the role of political parties is increasing and ethnic parties are forming. The government now gives political power some space and we have a right to do activities’.¹⁶⁴ Many ethnic minority political parties did not or could not participate in the last elections, and some are considering merging for the next elections. Ethnic parties do not currently have direct involvement in the peace process.

In Kachin and Shan states, ethnic minority parties interviewed favoured resource sharing, with leaders calling it ‘a must’¹⁶⁵ and stating ‘a genuine federalism has to have power-sharing and resource sharing’.¹⁶⁶ Political parties in Myanmar are permitted to own companies, and some

FIVE: Considerations for Myanmar

5.1 What are the goals?

A thorough discussion about the aims and principles behind any wealth-sharing policies or other decentralization of natural resource management is important, as different policies will be appropriate for different goals. Some potential principles include:

Table 11. Aims, principles, and considerations

1. Addressing environmental, social, or other costs	Costs from mining and extractive industries can be significant. In Ghana, for example, a study from the International Growth Centre found that agriculture productivity decreased by 40% near mining areas, relative to areas further away. ¹⁷⁰ In Myanmar, environmental, health, and social costs of natural resource extraction are not yet systematically measured. These are part of the cost of extraction and not an added ‘local benefit’ – compensation is about bringing communities back to the baseline level. Costs may also be indirect and felt outside of producing regions; such as—for example, if the natural resource exports cause the exchange rate to rise, hurting farmers in resource-poor regions. ^{jj}
2. Administrative efficiency	According to a rule known as ‘subsidiarity,’ matters should be handled by the least centralized competent authority to improve responsiveness and effectiveness. ^{kk} For example, in Myanmar, the public works department does not need to contact Nay Pyi Taw to clean the streets of municipalities.
3. Regional equity	When resource-producing regions are also poor, sharing resource revenues can be one way to address regional inequity, as it was intended to do in Aceh, Indonesia. However, resource revenue sharing can also worsen inequities: In Peru, a tax that gives certain municipalities an automatic share of revenues has created significant inequities between them. ¹⁷¹
4. Peace processes and regional disputes	Wealth-sharing agreements allocating a share of resources to subnational governments have been set up in Indonesia, Iraq, the Philippines, and Sudan, among other places. ¹⁷² In peace processes, wealth-sharing agreements can demonstrate willingness to compromise. However, sudden increases in revenues without oversight and responsibilities for expenditure can also increase the risks of conflict.
5. Regional derivation	Often, ‘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’. ¹⁷³ For example, indigenous populations in the US and Canada have special rights to the resources from their areas.

In theory, decentralization can deliver important benefits in terms of responsiveness and effectiveness. One Myanmar lawyers’ group representative gave the example of a new township

^{jj} Conflict itself also generates heavy costs for Myanmar, both to locals in conflict-affected areas and to the country as a whole.

^{kk} Nixon and Joeline (2014). For more, see Jesper Steffensen, *Fiscal Decentralization and Sector Funding Principles and Practices* (DANIDA, November 2010), 3. There is an extensive literature on the theoretical benefits of fiscal decentralization and fiscal federalism dating from the 1950s. A useful overview is Paul Smoke, *Fiscal Federalism in Developing Countries: A Review of Current Concepts and Practices* (New York: United Nations Research Institute for Social Development, 2001).

where ‘every house has a meter box for an electricity transformer set up and needs to connect the cable from the transformer to the meter. But to connect, the state government is waiting for a reply from Nay Pyi Taw and the Ministry of Electric Power. It’s been six months. It is better to decentralize to the subnational level because state government is closer to the people than the Union government so can respond more’.¹¹

On the other hand, evidence from other countries demonstrates that decentralization is very ‘risky and difficult in practice.’¹⁷⁴ For example, decentralization has not been shown to help service-delivery to the poor in most cases. When it has helped, as in the Indian states of Kerala and West Bengal, ‘positive outcomes are mainly associated with strong commitment by a national government or party to promoting the interests of the poor at a local level’.¹⁷⁵

While these kinds of arguments are based on economic theories about efficiency in administration, claims based on derivation principles are made in terms of political trade-offs and rights. There have been some references to derivation principles in Myanmar policy documents. One of the pillars of the proposed National Energy Policy is ‘To implement programs by which the local population could proportionally enjoy the benefit of energy reserve[s] discovered in the areas.’^{mm176} Some local people have also stated claims in these terms. In October 2013 in Chin state, for example, a group of elders protested a company’s bioresin extraction from pine trees by writing letters to the state government. According to a civil society leader from the area, ‘Local people feel these are their trees, preserved from 50 or 100 years ago.’¹⁷⁷

In these cases, the relevant issues go beyond revenue sharing to claims of ownership, heritage, and autonomy: whether states or regions with natural resource wealth should receive ‘extra’ benefits, beyond compensation for costs and grants for equalization.

5.2 Mechanisms and evidence from other countries

Revenue sharing is one way to share benefits with local communities, but it is not the only way. Other methods include creating incentives to hire local workers (local content requirements), investing in local development, and distributing revenues directly to the population.¹⁷⁸ It is also possible to design hybrid policies that combine these mechanisms.

For revenue sharing with subnational governments, there are several options:

- First, one might design a system of general revenue sharing or fiscal decentralization, combined with compensating certain states/regions or groups for the indirect or direct costs they bear due to natural resource development. In this case, the government would treat natural resource revenue like any other kind of revenue.
- Second, one might treat natural resource revenue as something special for fiscal decentralization, for example by identifying specific taxes or royalties as payable to local

¹¹ A national-level MP interviewed also commented on inefficiencies in communication under the current system: ‘For example, the Magway Division minister for electric power cannot make direct contact with Nay Pyi Taw. He would have to put up his case to the Chief Minister, and the Chief Minister [would] submit it to the Minister for Electric Power’.

^{mm}The National Energy Management Committee is chaired by the vice-president, and composed of members from relevant ministries such as electric power, energy, forestry, irrigation, plus Union Hluttaw members.

governments of the areas where the resource is located. This approach requires motivation beyond costs borne by the subnational areas (such as regional political concerns).¹⁷⁹

Transfers from the central government are the primary source of revenue for most subnational governments around the world. They can include all types of revenue or treat natural resource revenues separately.ⁿⁿ¹⁸⁰ Of the 58 resource-rich countries in the Natural Resource Governance Institute’s ‘Resource Governance Index,’ 30 ‘have revenue-sharing mechanisms whereby national governments transfer natural resource income to state, regional and local governments’.¹⁸¹ In cases where there is natural resource wealth sharing, ‘the transfer does not have to be of all resources, as some resources may be reserved for national purposes or to make equalizing transfers to less advantaged regions’.¹⁸²

Where subnational governments receive funds specifically from natural resources, they:

- May levy some taxes directly on the resource industry^{oo}
- May receive a direct transfer from the central government that is a defined share of the revenues originating in the region
- May receive indirect transfers—through the national budgeting process—that reflect preferential treatment for producing regions.¹⁸³

Sometimes these arrangements share between the central government and the producing region (vertical sharing). Sometimes resource revenues are divided among all regions (horizontal sharing).

Table 12: Income-sharing schemes

Scheme	Description
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 according to an agreed-upon formula.
Direct distribution Tax-base adjustment	Direct payments are made to citizens 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 they would otherwise have received as income from natural resources.

Source: Wennman, Achim (2012). ‘Sharing Natural Resource Wealth During War to Peace Transitions’. In High-Value Natural Resources and Post-Conflict Peacebuilding, Lujala and Rustad, ed.

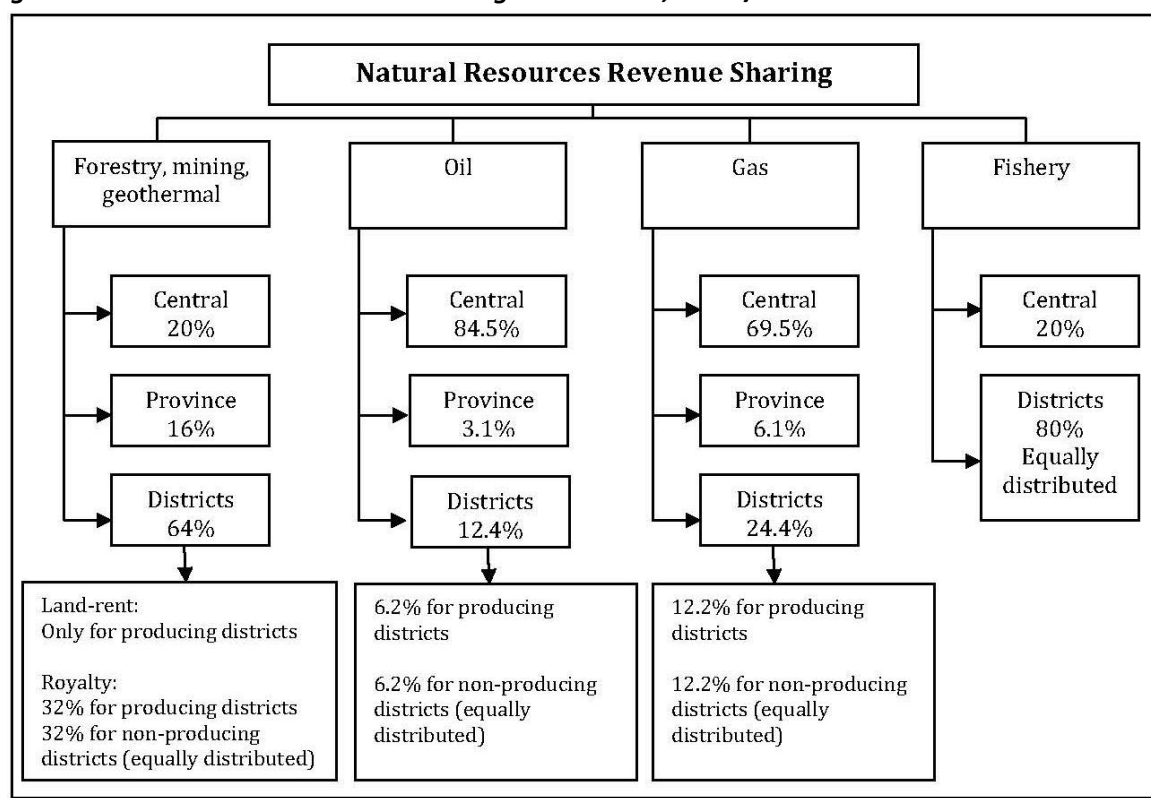
ⁿⁿ ‘In some countries, like Brazil, Ghana, Indonesia, and Nigeria, there are actually two separate intergovernmental transfer programs: a general tax pool transfer, and a separate, derivation-based transfer that applies only to mineral, oil or gas revenues. In other countries, like Canada, the United States and South Africa, there is only a general transfer.’ (Bauer 2013).

^{oo}These can either be levied through 1) *separation of taxes*, in which royalties or some excises go to subnational governments and income tax to central government or vice versa or 2) *concurrency of taxes*, where each level of government levies taxes on oil rent (tax base sharing). (Agustina *et al.* 2012).

These arrangements can be illustrated with some country examples. In Nigeria, every state is entitled to a share of national resource revenue, although producing states get an additional share of 13% of the oil revenues generated within their state.¹⁸⁴ Revenues can also be shared with smaller units. In the Philippines, tax revenues and natural resource revenues are distributed among different levels of local government according to an allocation formula that includes population and other factors.¹⁸⁵

Indonesia developed a complex system in which natural resource revenues are shared with subnational entities according to a formula (see Figure 9).¹⁸⁶ There are also asymmetric arrangements decided by political settlement in Aceh, Papua and Papua Barat.^{pp187} Because of concerns over inequity between regions, general fiscal transfers are also used to equalize the total budgets of the subnational units. Many Myanmar policymakers interviewed cited Indonesia as an example to emulate—perhaps because, like Myanmar, Indonesia has a variety of resources which are widely distributed. However, a key point is that the design of fiscal decentralization arrangements in Indonesia has evolved over time. The first policies put in place in 1999 were revised in 2004. The arrangements in the chart below, though current at the time of publication, are also slated for reform.¹⁸⁸

Figure 9: Natural resource revenue sharing in Indonesia, UU33/2004



^{pp} 'Aceh receives 70% only for the first nine years, while both Papua and Papua Barat receive a 70% share for the first 25 years. After these periods, the share will be reduced to up to 50% each'. In Aceh, '[Wealth sharing] did not have a decisive impact on the process, because wealth sharing provisions lacked technical precision and ownership, and ongoing military activities fostered polarizations and distrust. In the final assessment, wealth sharing may not have made a large economic difference due to the near depletion of Aceh's oil and gas reserves. Nevertheless, wealth sharing represented an opportunity to build confidence and create new institutions for the future governance of Aceh, and its relationship with Jakarta.' (Wennman and Krause 2009)

Source: Agustina *et al.* (2012 March). 'Political economy of natural resource revenue sharing in Indonesia'. Paper submitted to the conference Alternative Visions for Decentralization in Indonesia, Jakarta (pp. 12-13).

5.3 Trade-offs and risks

Natural resource governance presents many challenges, both for getting the incentives for resource management right and for handling revenues. Some of these are potential contributors to the much-discussed 'resource curse'.^{qq189} Without strong, accountable subnational institutions and national environmental regulation and fiscal management processes, these risks are heightened. Even with strong institutions, some issues, such as volatility, remain major concerns.

Aligning central and local interests: Where benefits go to the centre but costs are felt only in the local area, projects can go ahead that do not help the country. One solution is to devolve some of these decisions to subnational government, or ensure adequate representation/safeguards for the interests of states and regions in the central government's decision-making.

Aligning politicians' and populations' interests: There can also be problems when local officials' incentives are not in line with those of the population. In Indonesia, for example, decentralization of permitting for timber extraction meant that local officials allowed excessive legal logging, with 'local governments issuing as many permits as possible with the goal of generating additional local revenue'.¹⁹⁰

Effect on informal extraction: As informal extraction in many sectors is already very high in Myanmar, the interaction of new policies at all levels of government with patterns of informal extraction is a crucial consideration. In Indonesia, a 2012 study found that different townships essentially competed with each other to attract illegal logging, lowering timber prices.¹⁹¹

Effect on formal investment: Private sector stakeholders interviewed expressed concerns that 'an ambiguous and contradictory legal/regulatory environment with different demands at different levels would likely deter investments that could benefit all parties.'¹⁹² Local mining associations also stressed the issue of 'red tape' when permits had to pass down from ministries to local levels of government and back up again. On the other hand, conflict with local communities also presents a risk to investors. Reforms to subnational government roles in natural resource governance should be coordinated to contribute to a system of well-managed resource development and reduced conflict, which could improve the investment climate.

Accountability: If natural resource wealth sharing delivers large funds to entities poorly equipped to manage them, there is an increased risk of corruption.¹⁹³ In Myanmar, systems of supporting regulation and controls are for the most part not yet in place. Natural resource revenues should be used to promote inclusive growth, not to reinforce the power of local elites.^{rr} One civil society leader

^{qq} The 'resource curse' includes the finding that 'after controlling for initial income per capita, investments in physical and human capital, trade openness, and rule of law, natural resource dependence (measured by the ratio of natural resource exports to GDP) has a strong and significant negative effect on growth of GDP per capita' (Sachs and Warner 1997 in Van Der Ploeg and Venables 2012).

^{rr} In a cross-national study, Siegle and O'Mahony (2006) identify the following conflict 'risk factors' for decentralization: 'Highly inequitable local revenue sources, typically from natural resources but increasingly from illicit sources such as drugs or unreported customs fees; Countries with a history of ethnic conflict; Provinces where the central government does not have control over security; Political parties organized along ethnic or geographic identity lines; Societies where there are large concentrations of minority groups;

commented: ‘I like decentralization, actually, but we have to be careful, as there are no institutions and no mechanisms to check power holders’. In other countries, complementary budget monitoring and infrastructure-monitoring activities have been important in supporting subnational governments that receive revenue transfers. However, it will also be important to set up a system with as little accountability risk as possible.

Capacity to tax: Where resource revenues have been shared through direct taxes or direct transfers, subnational governments themselves have faced certain challenges. Depending on the mechanism chosen, governments might also need institutional capacity to administer complex types of taxes or to tax foreign firms. One argument for decentralizing some kinds of tax collection is that keeping own-source revenue can give subnational officials an additional incentive to collect tax more effectively. Where subnational governments are supposed to collect—but not keep—taxes, this incentive disappears.⁵⁵

Capacity to budget and spend: If a local economy is small and very dependent on its resource base, it will not be insulated from changes in the international price of the resource (volatility). This means that changes in commodity prices can make it hard for subnational governments to plan their expenditure; they may spend too much when prices are high, but at levels that are not sustainable when the resource is eventually depleted.¹⁹⁴ Even in countries with strong institutions, such as in Western Australia, the proportion of revenue received from iron ore royalties makes the state budget vulnerable to fluctuations in the iron ore price.¹⁹⁵

Subnational expenditure responsibilities and capabilities need to match the level of revenue. For the population of a state or region to benefit, revenues received by subnational governments have to be well-used. Finite stocks of natural resources represent an asset for Myanmar, like money in a bank account. As a rule-of-thumb, revenues from these resources should be used for capital investment rather than reoccurring expenses.

National governments struggle to save and invest resource revenues wisely—it may be harder for subnational governments to make these allocation choices. Sometimes natural resource revenue funds can be used to stabilize revenue flows, with payments from the fund made to different levels of government in a transparent and predictable manner. Depending on the absolute level of revenues in the future, it may be appropriate for Myanmar to consider instruments such as stabilization and sovereign wealth funds that in other country contexts, such as in Chile, have proven extremely successful in reducing the exposure to macroeconomic risk and fostering investment.¹⁹⁶ These can sometimes be integrated with arrangements for payments to subnational units.^{tt}

Inequity and conflict risk: Depending on poverty levels in resource-producing and non-resource-producing areas, resource revenue-sharing on a derivation principle could represent a payment from

Countries with comparatively higher rates of corruption for their income cohort.’ They found that ‘decentralization initiatives that support increased levels of local government expenditures, employment, and elected leaders have been less likely to succumb to ethnic conflict’.

⁵⁵ Finally, there can also be unintended consequences when subnational governments set tax policies independently, for example causing internal migration. These changes might be beneficial or harmful, but governments need to be prepared for them.

^{tt} See for example Van der Ploeg, F. and A. Venables (2012). Country comparisons are also available via the International Growth Centre (www.theigc.org) and the Resource Governance Institute (<http://www.resourcegovernance.org/>).

poorer to richer areas or from richer to poorer. Increases in inequity between regions can prove destabilizing and can increase the risk of conflict.¹⁹⁷

An additional consideration is the equitable division of resource revenues between generations.^{uu} If natural resource wealth is indeed an inheritance from past generations, should future generations in Myanmar also have a claim to benefit from it? However natural resource revenues are allocated between regions, they should be invested to enhance Myanmar's growth and the diversification of the economy for the benefit of future generations.¹⁹⁸

5.4 Conclusions

There have been increasing discussions in Myanmar about potential natural resource wealth-sharing arrangements. In Myanmar's simultaneous reforms, and especially in the peace process, the future role of natural resource wealth is coming into focus as an area of great relevance and perhaps potential collaboration. The discussion is an important one also because of the serious risks and trade-offs involved. Consideration of natural resources and subnational governments in Myanmar should begin with a discussion about what goals any new policies would aim to achieve.

These questions will not and should not be settled hastily. As increased oil and gas revenues from the new blocks have not yet come on stream, and the shape of centre-subnational relations is still being determined, there is now an opportunity to share information more widely with all parties and stakeholders. Proponents of a larger role for state and region governments should consider the full range of means available to achieve this end. Wealth-sharing arrangements from natural resource revenues come with their own set of concerns, including volatility, institutional capacity, and potentially distorted incentives for resource management and revenue collection. There is also the risk that political settlements that set up complex arrangements may be difficult to implement in practice.¹⁹⁹ In short, sharing natural resource revenues is one way, but not the only way, to ensure local areas benefit from resource extraction. Natural resource-revenue sharing is also not the only way to ensure subnational governments have funds available to meet their expenditure needs. Stakeholders should additionally consider the relationship or integration between any natural resource wealth distribution and the regular fiscal decentralization framework.

The role of subnational governments in natural resource management and their shares of natural resource revenue have largely been addressed together in Myanmar, and sometimes conflated. Though distinct policy issues, these topics are linked. At the Arakan National Conference, held in April 2014, ethnic nationalist parties pushed for greater involvement in management as well as a subnational share of revenues.²⁰⁰

In the words of a Chin civil society group member:

If the people become informed about natural resources management and revenues, we can be more flexible – but we don't know about the existing law, so how can we

^{uu} Uncertainty regarding the total amount of resources can lead to over-optimism and push policymakers to overuse resource revenues for current spending. In a 2011 Amyotha Hluttaw session regarding regulation of mining, an MP stated: 'I will not agree... to reduce jade extraction to save for the future. Because we have been mining jade since our ancestors' time. We cannot see what is under the ground. I don't believe there will be depletion... there can even be other places where we can discover minerals with geological science.' This type of thinking, whether at national or subnational levels, poses a danger to sound economic planning for the long term. (Amyotha Hluttaw Session Record, 2011).

believe? Our state government doesn't have rights to decide, any role in decision-making process, resource sharing, so how can we believe? We need to build mutual understanding between state government, CSOs, and people.²⁰¹

If stakeholders can be reassured that management practices will be transparent and local concerns will be represented, they may be more willing to design a system for the use of revenues to maximize overall efficiency and address the most crucial long-term goals in Myanmar, rather than pushing for the greatest share of all decisions and of all revenues to be handled locally.

In the short term, prior to any political settlements or changes in the Constitution, there are also a series of step-by-step reforms taking place which affect subnational governments' role in natural resource governance.

In some cases, it will be sensible for subnational governments to take on aspects of natural resource governance that can be handled more efficiently and responsively at a local level. For example, the newly-created subnational Environmental Conservation Departments may be best able to implement and enforce some laws locally, while other environmental regulatory standards should be set nation-wide.

In other cases, these small changes pose certain risks and should be handled carefully. Indonesia offers a compelling example. However admirable the intention of decentralizing timber licensing power in Indonesia may have been, the resulting deforestation presents a warning to Myanmar. If the power to issue small-scale mining licenses is decentralized in Myanmar, as has been proposed, this kind of mismatch in incentives could occur.

Stakeholders should consider the long-term goals of natural resource management as well. Myanmar does not collect the amount of revenues that it could, given the wealth of resources present and the scale of their use. Simply increasing natural resource extraction does not help the country unless revenues are collected and used well to prepare for the day when resources run out. This can mean investment for future generations or spending on building 'human capital' or other means to diversify the economy. These issues should also be of concern to subnational stakeholders in areas which risk becoming dependent on a single resource or a few kinds of finite resources.

Whatever political settlement Myanmar reaches regarding natural resource wealth, these kinds of considerations will be important. The trade-offs involved in wealth-sharing arrangements are cause for considering, holistically, the three threads of Myanmar's transition process (economic restructuring, political/constitutional reforms, and peace processes). Finally, designing wealth-sharing arrangements is not simply a one-off bargain to satisfy current negotiators. The outcomes of the structures and institutions created will also affect management practices, resource depletion rates, political incentives, and future economic growth.

Recommendations:

Collect and share information: To understand the potential effects of natural resource wealth sharing, stakeholders need more knowledge about:

- The amounts of current government revenue coming from each kind of natural resource, and the amounts of revenue derived from each region or state
- The total resource endowment and the potential for new discoveries of resources

- Quantities of production, exports and domestic consumption and the sales value for each resource disaggregated if possible by state and region
- The populations, poverty levels, and subnational government expenditure needs in each region or state
- Environmental, social, infrastructure or other costs of resource development

Ministries interviewed in the resource sector were willing to share some information and expressed support for a ‘new mindset’ of transparency. Current *ad hoc* information-sharing should also be routinized, for example through publication on the internet of disaggregated data. This information should also be easily accessible to policymakers within different branches and levels of government.

Public financial management: Ongoing reforms in PFM are a positive step. Key aims should be to strengthen the role of the Ministry of Finance so that all funds flow into a single budgetary account and ensure that the Internal Revenue Department (IRD) has full audit and collection rights for taxes over which the Ministry of Finance has control.

Open subnational communication channels around resource management: Increased transparency in resource management can help to build trust and to move public discussion about wealth sharing beyond debates about numerical splits. There is a desire for more channels for routine communication around resource governance at subnational levels, as shown by the discussion of ‘regional CSO-government EITI support groups’ in the multi-stakeholder group. Whether or not the EITI process itself becomes a forum for this communication, constructive interaction between CSOs and local governments could help to prevent future conflict, abuse or misunderstandings around resource governance issues. Some trainings on village tract- and township-level resource management and communication have already been piloted in Myanmar, and these initiatives should be encouraged.²⁰²

Clarify subnational roles and build institutional capacity: Some piece-by-piece decentralization of natural resource functions may help efficiency or give subnational entities experience in administration. However, transferring partial control over a certain size or category of resource can also create mismatches in incentives or pose risks for corruption. Dual reporting requirements in state departments of line ministries should be replaced with direct accountability as soon as possible. Policymakers should also give careful consideration to which functions are transferred and why. Institutional and technical capacity at each level of government needs to be sufficient to address the challenges of natural resource governance and any shifts in responsibilities.

Legal regulation and implementation: The several separate laws pertaining to natural resource governance should be harmonized. For example, the 1995 Gemstone Law’s clause regarding exemption from other taxes should be revised. The rules and regulations accompanying laws should be made public as soon as possible, as should the standard processes in applying for extraction licenses. Overall enforcement of laws in these sectors also needs to be improved, and implementation of the provisions of the new Environmental Law should be a national priority.

Measurement, mitigation, and compensation for environmental damage or other costs: Environmental, health, infrastructure, and social costs of natural resource extraction need to be systematically measured. Compensation for these costs is necessary, and is about bringing communities back to the baseline level (it is not an added ‘local benefit’ from resource wealth). For

example, in Laos and Cambodia, water quality testing and site clean-up efforts near small-scale mines have been successful and cost-effective, and more environmentally-sound mining practices have been introduced.²⁰³ State/region governments, local governments and communities could play a role in these initiatives, perhaps via the newly-created state/region environmental conservation departments or by channelling some forms of compensation through subnational budgets as appropriate.

Processes for designing any wealth-sharing system should be carefully considered and sequenced: Stakeholders have presented the potential for Myanmar to use its natural resources as a force for peace rather than conflict, and identified wealth sharing as an important issue in any political dialogue process with ethnic armed organizations. Interactions between the peace process and simultaneous economic and political/constitutional reform processes will need to be considered. The sequence and process of discussing wealth-sharing arrangements must be carefully designed for the result to be seen as fair and representative of the people's interest.

Consider the goals of natural resource governance reforms and the range of available policy options: There are several different ways to achieve the goal of more efficient, inclusive natural resource management, or the goal of more independent fiscal authority for subnational governments. Any resource-specific reforms should be well-coordinated with broader fiscal decentralization. Stakeholders inside and outside government should consider the potential benefits and risks of a full range of options, including: fiscal decentralization mechanisms which are not resource-revenue specific; the assignment of some specific resource taxes to state and region governments; a subnational role in natural resource stabilization or investment funds; and targeted social service spending or infrastructure projects.

Annex I: Approximate list of natural resources by state/region

Approximation compiled from the websites and presentations of ministries in the extractive sectors. This list is not meant to be comprehensive and may not capture updated information.

State/region	Types	Major sites
Ayeyarwady	Copper, coal, gas and oil, limestone, timber	Laymyetna copper mine, Myanaung gas and oil field, NyaungDon gas and oil field
Bago	Iron, gold, platinum, timber, oil, hydropower	Yenwe hydropower station, Pyay gas and oil field, Minlan Thanseik-ShweGyin iron mine, Taunggu gold/platinum deposit
Chin	Nickel, chromite, manganese, limestone, timber, hydropower	Mwe Taung nickel deposit. Hydropower projects: Zalui, Tongva, Ngasitvar, Paletwa, Namhlaung Creek, Laiva, Htweehsaung and Chichaung
Kachin	Amber, gold, platinum, iron, jade, molybdenum, nickel, rare earth, lead, zinc, silver, ruby, oil, copper, limestone, timber, hydropower	Hpakant jade mines, Hukawng valley amber, Panwa lead-zinc-silver deposit, Indawgyi nickel deposit, Shadusuik gold-platinum deposit, Wakan-Tanaing gold/platinum deposit, Ngagyan gold/platinum deposit, Namma- Kangon gold/platinum deposit. Hydropower projects: Myitsone (suspended), Tarpain, Chibwe, Pashe, Lakin, Phizaw
Kayah	Tin/tungsten, antimony, limestone, timber, hydropower	Mawchi mine, Konsut antimony deposit, Peinchit antimony deposit. Hydropower projects: Lawpida, Beluchaung (Loikaw).
Kayin	Antimony, gold, limestone, lead, zinc, silver, tin-tungsten, timber, hydropower	Shwegyin gold mine, Shwegyi hydropower station, Hetgyi Dam, Mawhki lead/zinc/silver deposit
Magway	Coal, oil and gas, nickel, limestone, hydropower	Mann oil field, Yenangyaung oil field, Mone hydropower station, Chauk gas and oil field, Yeyang Naung gas and oil, Kyaukkwet/Letpando gas and oil field, Kanni gas and oil field, Htaukshabin gas and oil field, Thargyitaung/sabe gas and oil field, Mindinkyin nickel deposit
Mandalay	Gold, iron, limestone, marble, manganese, platinum, rubies, sapphire, silicate, silver, nickel, iron, antimony, oil, timber, hydropower	Mogok ruby/gem/sapphire mines, Thabeikkyin gold mine, Phayaung Taung gold mine (Patheingyi), Kyatwinye Iron mine, Paungdaw Lead/zinc/silver deposit, Lebyin antimony deposit, Moehti Taung gold/platinum deposit, Kwinthonse gold/platinum deposit, Phayaungtaung gold/platinum deposit, Kyaukpadaung manganese deposit
Mon	Limestone, gold, nickel, antimony, tin-tungsten, timber, hydropower	Payagon gas and oil field, Kadaik antimony deposit, Tabyu antimony deposit, Kayukway nickel deposit, Padatchaung tin/tungsten deposits
Rakhine	Offshore natural gas, marble, nickel,	Shwe Gas Field (offshore), Nayputaung mine, Maungdawanmadaw nickel deposit, UkinTaung nickel deposit,

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	chromite, limestone, timber, hydropower	Hkakyintaung nickel deposit. Hydropower projects: Laymyo Chaung, Thahtay Chaung, Am Chaung, and Saidin
Sagaing	Gold, coal, jade, copper, nickel, limestone, timber, oil, hydropower	Letpadaung copper mine, Khamti jade mine, Bhamauk gold mine, Kyaukpazat gold mine, Thaphanzeik hydropower station (kyunhla), Ayadaw gas and oil field, KyesinTaung copper mine, Sabe taung copper mine, Panmakut Mann copper mine, Kweeight copper mine, Taunggadon nickel deposit, Tagaung taung nickel deposit, Shangalon gold/platinum deposit, Banbwegon gold/platinum deposit, Thitchauk coal mine
Shan	Antimony, chromium, coal, diamonds, fluoride, iron ore, gold, gypsum, lead, limestone, manganese, platinum, quartz, rare earth, ruby, silicon, silver, zinc, Copper, nickel, timber, hydropower	Pinpet iron mine, Bawsaing lead/zinc/silver deposit, Namtu-Bawdwin lead/zinc/silver, Mongshu ruby, Hsipaw gypsum mine, diamond placer(Momeik), Kentaung hydropower station ,Tigyit coal fire power, Bawdwin copper mine , Mongkannwe Iron mine, Phaleng Lead/zinc/silver deposit, LonChein Lead/zinc/silver deposit, Bawsaing Lead/zinc/silver deposit, Mong Inn nickel deposit, Nagok nickel deposit, Hopone nickel deposit, Monpyin manganese deposit, Tar Pin manganese deposit, Wansaw Wanpaing manganese deposit, Hydropower projects: Kengtawng, Moby, Nawngpha, Paunglong (proposed), Shweli, Tasang, Yeywa, Zawgyi
Tanintharyi	Coal, diamonds, tin-tungsten, heavy sand, offshore natural gas, pearls, gold, iron, manganese, limestone, timber, hydropower	Yadana, Yetagun, Zawtika offshore gas fields. Heinda mine, Russel island gold mine, Diamond placer (Theindaw), Maputae Island iron mine, Kho Island iron mine, Powel Island manganese deposit, Hermyigyti tin/tungsten deposits, Theindaw tin/tungsten deposits, Atwin Bokpyin tin/tungsten deposits, Heinze tin/tungsten deposits, Kanbauk tin/tungsten deposits
Yangon	Iron, gas and oil	Shwepyithar gas and oil field, Apyauk gas and oil field

Annex II: Region or State Legislative List (Schedule Two)

Constitution of the Republic of the Union of Myanmar (2008)

1. Finance and Planning Sector

- (a) The Region or State budget;
- (b) The Region or State fund;
- (c) Land revenue;
- (d) Excise duty (not including narcotic drugs and psychotropic substances);
- (e) Municipal taxes such as taxes on buildings and lands, water, street lightings and wheels;
- (f) Services of the Region or State;
- (g) Sale, lease and other means of execution of property of the Region or State;
- (h) Disbursement of loans in the country from the Region or State funds;
- (i) Investment in the country from the Region or State funds;
- (j) Local plan; and
- (k) Small loans business.

2. Economic Sector

- (a) Economic matters undertaken in the Region or State in accord with law enacted by the Union;
- (b) Commercial matters undertaken in the Region or State in accord with law enacted by the Union; and
- (c) Co-operative matters undertaken in the Region or State in accord with law enacted by the Union.

3. Agriculture and Livestock Breeding Sector

- (a) Agriculture;
- (b) Protection against and control of plants and crop pests and diseases;
- (c) Systematic use of chemical fertilizers and systematic production and use of natural fertilizers;
- (d) Agricultural loans and savings;
- (e) Dams, embankments, lakes, drains and irrigation works having the right to be managed by the Region or State;
- (f) Fresh water fisheries; and
- (g) Livestock breeding and systematic herding in accord with the law enacted by the Union.

4. Energy, Electricity, Mining and Forestry Sector

- (a) Medium and small scale electric power production and distribution that have the right to be managed by the Region or State not having any link with national power grid, except large scale electric power production and distribution having the right to be managed by the Union;
- (b) Salt and salt products;
- (c) Cutting and polishing of gemstones within the Region or State;
- (d) Village firewood plantation; and
- (e) Recreation centres, zoological garden and botanical garden.

5. Industrial Sector

- (a) Industries other than those prescribed to be undertaken by the Union level; and
- (b) Cottage industries.

6. Transport, Communication and Construction Sector

- (a) Ports, jetties and pontoons having the right to be managed by the Region or State;
- (b) Roads and bridges having the right to be managed by the Region or State; and
- (c) Systematic running of private vehicles within the Region or State.

7. Social Sector

- (a) Matters on traditional medicine not contrary to traditional medicine policies prescribed by the Union;
- (b) Social welfare works within the Region or State;
- (c) Preventive and precautionary measures against fire and natural disasters;
- (d) Stevedoring;
- (e) Having the right of management by the Region or State, the following:
 - (i) Preservation of cultural heritage;
 - (ii) Museums and libraries.
- (f) Theatres, cinemas and video houses; and
- (g) Exhibitions such as photographs, paintings and sculptures.

8. Management Sector

- (a) Development matters;
- (b) Town and housing development; and
- (c) Honorary certificates and awards.

Annex III: Taxes Collected by Region or States (Schedule Five)

Constitution of the Republic of the Union of Myanmar (2008)

1. Land revenue.
2. Excise revenue.
3. Water tax and embankment tax based on dams and reservoirs managed by the Region or State and tax on use of electricity generated by such facilities managed by the Region or State.
4. Toll fees from using roads and bridges managed by the Region or State.
5.
 - (a) Royalty collected on fresh water fisheries.
 - (b) Royalty collected on marine fisheries within the permitted range of territorial water.
6. Taxes collected on vehicles on road transport and vessels on inland waterway transport, in accord with law, in a Region or a State.
7. Proceeds, rent fees and other profits from those properties owned by a Region or a State.
8. Fees, taxes and other revenues collected on services enterprises by a Region or a State.

Annex IV: Selected state economic enterprises, 2010-11

Central Statistical Organization.

Note: An artificially low fixed exchange rate was in force during this period, meaning that the value of foreign exchange earnings is not accurately represented.

State Economic Enterprise	Receipts (current)	Expenditure (current)	Current cash surplus/deficit	Capital Expenditure
Agricultural Enterprises	45963.6	75396.7	-29433.1	4109.2
Myanma Timber Enterprise	33985.7	121221.2	-87235.5	202.0
Livestock, Foodstuff and Milk Products Enterprise	11976.1	30439.8	-18463.7	1862.3
Mining Enterprises	12430.5	9116.5	+3314.0	43.4
Myanma Gems Enterprise	60814.3	32706.3	+28108.0	1010.9
Myanma Salt and Marine Chemical Enterprise	722.7	1199.4	-476.7	5.9
Myanma Pearl Enterprise	1124.4	1157.6	-33.2	215.5
Industry (1)	168729.6	192098.3	-23368.7	42890.2
Industry (2)	93235.3	78923.3	+14312.0	31000.8
Myanma Oil and Gas Enterprise	65352.5	75353.4	-10000.9	3771.5
Myanma Petrochemical Enterprise	196128.7	244168.4	-48039.7	19828.9
Myanma Petroleum Products Enterprise	686460.5	473588.8	+212871.7	136.8
Myanma Electric Power Enterprise	427447.6	482579.1	-55131.5	92106.1

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