

Burma's RESOURCE CURSE

The case for revenue transparency in the oil and gas sector



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What is Arakan Oil Watch?

Arakan Oil Watch (AOW) is an independent, community-based, non-governmental organization operating in Burma. Founded in 2006, the organization's mission is to ensure that community rights, livelihoods, and environments are guaranteed and protected, and to monitor the activities of multinational oil and gas projects and their human rights, environmental, and financial impacts in Arakan State and the country of Burma. AOW is an active member of Oilwatch Southeast Asia, and networks with a variety of Burma-based organizations and international NGOs that monitor resource extraction and impact.

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EXECUTIVE SUMMARY

Burma is rich in natural resources, particularly natural gas and oil. Yet instead of using these resources for the country's development through industry and job growth, military leaders have been exporting them for over a decade. This has generated huge revenue flows, but a lack of transparency and mismanagement of these revenues has left Burma with some of the worse development indicators in the world, creating a resource curse.

Sales revenues of natural gas exports alone amounted to US\$ 2.5 billion in 2010-11. It is estimated that this amount will increase by over 60% to US\$ 4.1 billion starting from 2013 as three additional production blocks come on line. Further revenues will be generated from over 40 additional oil and gas blocks that are currently under exploration.

Despite this enormous wealth, Burma remains extremely poor and its people live with chronic energy shortages. It is a country crippled by corruption, with its major businesses controlled by military companies and cronies. Burma is censured for major human rights violations, and continues to suffer from a decades-old civil war between the ruling government and ethnic peoples. Due to Burma's lack of protection laws, projects which extract and export natural resources have directly led to human rights abuses such as forced labor, land confiscation, rape and displacement, as well as severe environmental degradation. The projects also fuel armed conflict as government and ethnic troops clash in order to access and control project areas. The revenues from resource extraction projects have in turn helped prop up authoritarian rule and enrich top military generals.

The report analyzes the previous Than Shwe regime and new military-dominated government's lack of transparency around oil



Photo Daewoo International

and gas revenues, lack of an accountable system to manage revenue, corruption, and a lack of equitable benefit sharing of resource revenues. Although a new “civilian” government is now in place, under Burma’s new constitution, the military remains firmly outside the law and beyond civilian control. The role of military companies in Burma’s economy and in accessing and managing Burma’s massive oil and gas revenues remain unknown and unregulated. The government does not disclose how much it receives in gas revenues, or how those revenues are managed or spent. Foreign oil companies engaging in Burma’s oil and gas sector also refuse to publish how much and how they pay the military regime.

There is therefore an urgent need for Burma to manage oil and gas revenues with greater transparency and accountability as well as to reform its military-dominated economy to ensure that the benefits of the country’s resources are shared more equitably among its people and for the country’s sustainable development. If Burma prioritizes the protection of peoples and the environment in extraction projects and manages the revenues from the sale of its resources transparently, the country’s non-renewable resources can be used sustainably for the benefit of current and future generations, decreasing the pace and need to extract resources from additional areas.

Mechanisms and systems for public disclosure of money flows, independent revenue management and auditing, civil society input, and equal benefit sharing currently exist in international standards of revenue transparency and are put into practice in oil and gas producing countries around the world. This report provides key lessons from these countries that Burma can draw on to improve the management of its oil and gas revenues and work toward ending its resource curse.



Photo AOW

Natural gas from the offshore Shwe fields (at left) will not benefit the over 90% of households in Arakan State that use wood for cooking fuel (above)

CHAPTER 1

What is a resource curse?

Studies have shown that when governance is good in resource-rich countries, resources can generate large revenues to foster economic growth and reduce poverty. However, when governance is weak, they may instead cause poverty and conflict.⁴

Oil, gas and minerals are a source of great wealth in resource-rich nations. The domestic use of such resources can spur the development of industries and contribute to better social conditions through energy production. On the other hand, the extraction and export of such resources can generate enormous revenues which, if used properly, could also be a catalyst for development in these nations. Unfortunately, however, many resource-rich countries are not benefiting from this wealth but instead are experiencing great poverty and unstable living conditions. This phenomenon is commonly known as the “resource curse” or “paradox of plenty.” The resource curse describes a situation where, instead of boosting a country, natural resource wealth actually leads to further corruption, repressive conditions, poverty and conflict.

Many countries that are rich in natural resources are badly governed. Revenues generated from the sale of resources are often stolen or squandered through corruption and a lack of government accountability.¹ The authority of sitting governments or power structures within a country can therefore be maintained through the accumulation of resource revenues into the hands of a few. Consolidation of revenues by sitting governments, particularly those that rely on military means to maintain power, can exacerbate repressive conditions. There is a correlation between the rise and fall in the price of petroleum with the rise and fall in the protection of human rights in major oil-producing countries.²

A lack of accountability and corruption allows enormous financial opportunity for a select few at the expense of average persons,

intensifying the gap between rich and poor; this coupled with a resulting lack of effective social spending, leads to increased rates of poverty. The extraction and export of resources without investment in the domestic economy and human resources also contributes to long term poverty of a nation, particularly as most resources are non-renewable.

Natural resources can also provoke and prolong existing conflict due to a lack of equitable benefit sharing. Populations in the regions that produce resources must bear the costs of resource extraction – such as environmental damage, livelihood destruction, and pollution – but do not necessarily receive fair compensation and benefits from the resources – such as jobs or other forms of benefit sharing.

Another consequence of abundance of natural resources is Dutch Disease. This concept refers to the harmful consequences that arise when the income of a country drastically increases. This is usually due to the sale of natural resources but can also occur from any large inflow of foreign currency (such as development aid). The inflow of foreign currency increases the value of the national currency compared to other nations, creating serious repercussions on other segments of a country's economy.³ For example, an too-rapid increase in a national currency's value decreases the competitiveness of that country's exports, causing declines in the manufacturing sector which can in turn create massive unemployment.

Pipeline that will take gas to China being built in Shan State, Burma

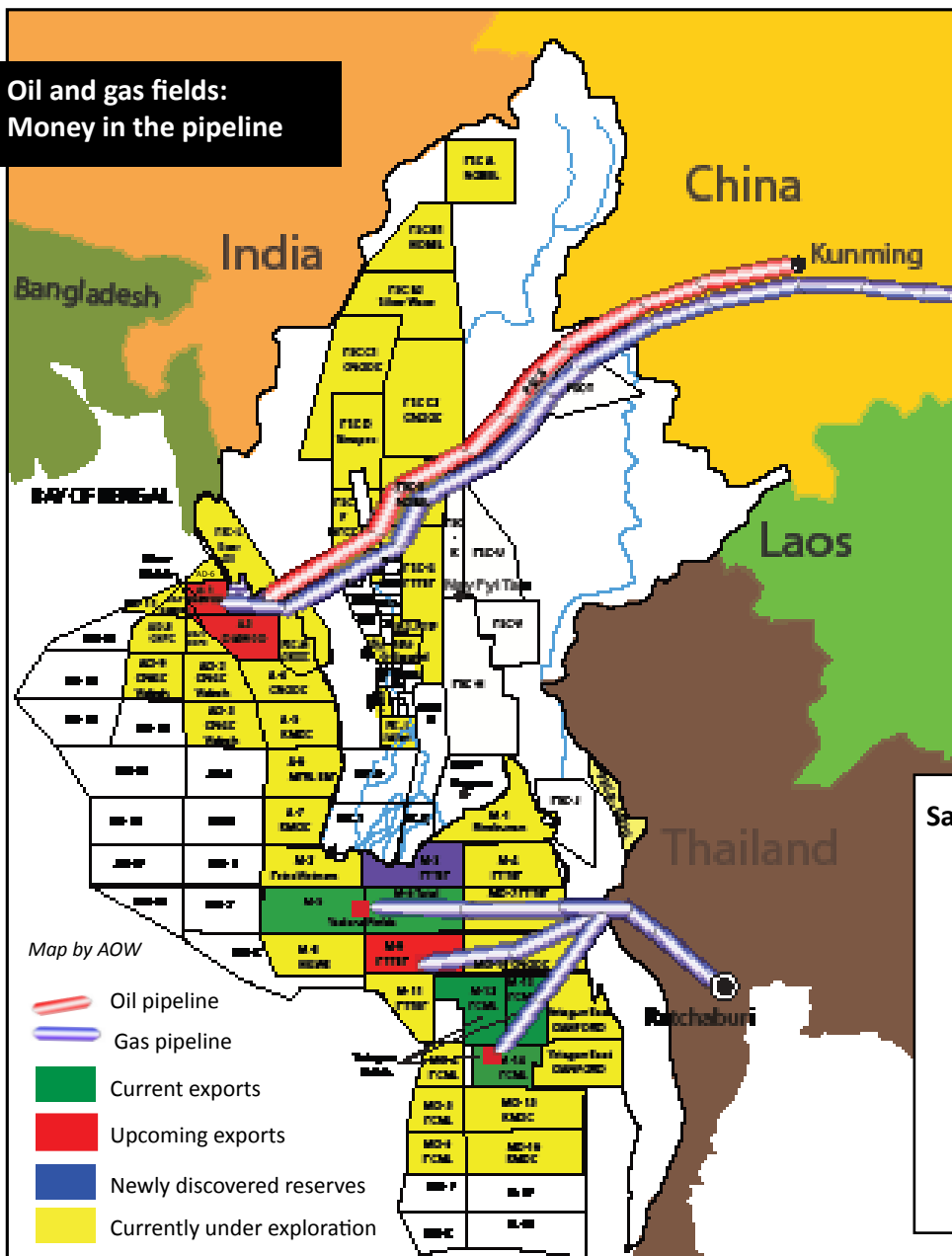


Photo tab

The folly of export

Evidence shows that between 1960 and 1990, per capita incomes in resource-deficient countries grew at rates two to three times faster than those of countries with a dominant export-driven non-renewable resources sector.⁵

**Oil and gas fields:
Money in the pipeline**



**Global Corruption Ranking
2011**

180	Afghanistan
180	Myanmar
182	Korea (North)
182	Somalia

* ranked out of 183 countries worldwide

Sales revenues from gas exports

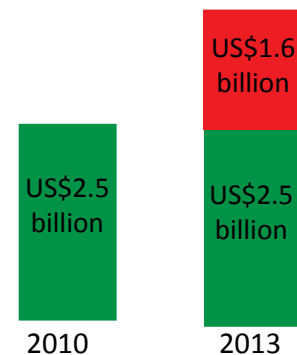


TABLE: Burma's gas export revenues

Current annual gas revenues (fiscal year April-March)		Estimated upcoming gas revenues US \$1.65 billion/year*	
Yadana/Yetagun**		Shwe Gas	Block M9
2011-2012	US\$ 2.94 billion	US\$ 1.25 billion (expected to begin selling in 2013)	US\$ 0.4 billion (expected to begin selling in 2013)
2010-2011	US\$ 2.52 billion		
2009-2010	US\$ 2.91 billion		
2008-2009	US\$ 2.38 billion		
2007-2008	US\$ 2.53 billion		
2006-2007	US\$ 2.03 billion		

* See appendix for full calculations

** <http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/10/NG-561.pdf>. The figures for 2011-2012 fiscal year are until February 10 2012 and were published in Eleven News on February 22 2012.

Burma is considered one of Asia's most resource rich countries and earns billions of dollars per year from the export of natural resources such as oil and gas, teak, gems, and minerals.⁶ Export of natural gas alone accounted for 45% of total exports in 2008 and is Burma's single largest source of foreign income.⁷ Burma has been exporting gas to Thailand from the Yetagun and Yadana offshore blocks located in Mottama Gulf since 1998 and 2000 respectively. In 2008 BP ranked Burma as the largest gas exporter via pipeline in the Asia-Pacific with gas exports totalling 9.7 bcm in 2007, making it the 11th largest gas exporter in the world that same year.

Sales of gas amounted to US\$ 2.5 billion in 2010-11 and it is estimated that this amount will increase by over 60% to US\$ 4.1 billion in the coming years (see table on page 8). It is estimated that Burma's government receives 70% of these amounts in the form of payments for gas, royalties, taxes, and bonuses.

With over 100 new onshore and offshore oil and gas blocks open for exploration, revenues have the potential to rise exponentially. Burma currently has 65 onshore blocks and 53 offshore blocks in total.⁸ More than 22 foreign oil companies are operating in 31 offshore blocks, while onshore, 13 contracts are active in 13 blocks with 11 foreign companies. Eighteen new onshore oil and gas blocks were opened for exploration in 2011.

Upcoming oil and gas exports

Shwe gas export to China: 2013

Massive natural gas reserves of 4.5 trillion cubic feet (tcf) off Burma's western Arakan State will be piped across the country and exported to China beginning in 2013. Sale of the gas will bring in an estimated US\$29 billion over the next 30 years. In November 2010 China loaned Burma US\$2.4 billion to speed up construction of dual pipelines to send the gas and oil transfers from Africa and the Middle East. See appendix for the full calculation.⁹ Terms of the loan were not publicly disclosed. In addition to loans for the project and payments for the gas, China will pay an annual transit fee of US\$150 million to Burma's military regime over 30 years, a total of US\$4.5billion.

In conjunction with the Shwe gas and pipelines project, the development of a deep sea port and special economic zone to facilitate oil transfer to China and service foreign industries will bring in additional revenues; these will also not be managed transparently under current conditions.

Block M9 gas export to Thailand: 2013

In July 2010 the Petroleum Authority of Thailand (PTT) signed a gas sales agreement (GSA) with the Myanmar Oil and Gas Enterprise (MOGE) to import gas from the Zawtika (M9) offshore block for a period of 30

CHAPTER 2

The oil and gas sector: Burma's largest source of foreign income





Pipeline to take Shwe gas to China
Photo tab

years. The Zawtika block has proven gas reserves of 1.4 tcf. Under the gas sales agreement, PTT will produce 300 mcf a day, of which 240 mcf will be sent to Thailand. The remaining 60 mcf will remain in Burma.¹⁰

PTT's subsidiary PTTEP is the operator of the Zawtika block with 100% stakes. Scheduled to start production in 2013, Thailand will build a new 63 km pipeline along the existing Thai-Burma Yadana gas pipeline, infamous for its rights abuses, to transfer gas from the Zawtika field.¹¹ More than 70% of Thai electricity generation is derived from natural gas, and nearly half of that is imported from the Yadana and Yetagun gas pipelines.¹² Thailand's PTTEP is also the sole operator of Blocks M-3, M-4, M-7, and M-11.

Gas export to India in the near future

India is planning to import gas from its offshore Block A-2 in Arakan State through an inland pipeline passing through Bangladesh. Operated by India's Essar Group, the block has an estimated 13 trillion cubic feet (tcf) gas reserve. Essar also owns the onshore Block L located in Sittwe, which has an estimated recoverable reserve of 330 million barrels of oil equivalent.¹³ Indian companies are also exploring offshore Block A.

Foreign Direct Investments in oil and gas sector

Revenues are streaming into the country not only from the sale of natural resources, but in the form of foreign direct investment (FDI) funds. Since the opening of Burma to foreign investors in 1989, FDI has been directed almost exclusively toward the extraction of natural resources, especially in the oil and gas, hydropower and mining sectors. These funds are ostensibly for the development of infrastructure and facilities to enable the extraction and export of resources.

According to official data, US\$10.18 billion of FDI for 12 oil and gas projects accounted for more than half the country's total FDI in the 2010/2011 fiscal year.¹⁴ As of May 2010, China invested US\$8.173 billion into oil and gas, mining and two hydropower projects. China's total investment in the period was recorded US\$10.48 billion.¹⁵ Thailand follows in second place with US\$2.49 billion total investment.

Profit shares, signing bonuses, royalties, taxes and fees

The most common form of contract for the development of a natural gas or petroleum block by a foreign company in Burma is the production sharing contract (PSC). Under a PSC, the government continues to own the oil and natural gas, while sharing profits with a company or consortium of companies that conduct exploration, development, and production activities. The contract generally involves payment of a royalty to the government, bonuses to the government upon signing an agreement and reaching certain production levels, and sharing profits from the sale of the gas/petroleum with the government. Each signed PSC contract is therefore worth millions of dollars.

Section 1: Where's the gas money?

Although revenues from the export of natural gas are the largest source of foreign income in Burma, there has been no revenue transparency under both the previous Than Shwe regime and the current Thein Sein regime. How the government receives, manages, or uses oil and gas revenues is not publicly disclosed, the role that military enterprises play in revenue management and use remains unaccountable, and a total lack of benefit sharing is prolonging Burma's resource curse.

Revenue streams unknown

Since receiving its first payments for the export of gas in 2001 until today, both the military junta led by Than Shwe and the current Thein Sein regime have not disclosed how gas revenues enter the country or how they are managed. The gas money is not entered into public accounts or the national budget, so where is it? Most analysts speculate that payments are deposited into foreign bank accounts which are accessed by military generals for arms purchases and personal expenses.

For decades, Than Shwe's military regime ruled Burma without any revenue transparency or accountability, never publishing where it keeps gas export revenues or how these revenues are managed. Until today, people of Burma, including most senior military officers, do not know where the gas revenues are and how they are managed.

According to a former official of the state-owned Myanmar Oil and Gas Enterprise (MOGE), income from the sale of the Yadana gas never even enters Burma. The payments are disbursed by Thailand through a third party to bank accounts in foreign countries such as Singapore, Dubai, and China. Use of gas revenues for such purchases as military weapons, equipment, or personal items can be then directly transferred from the foreign banks to relevant countries and companies.

There have also been allegations that gas revenues are controlled by Burma's military enterprises. Major Aung Linn Htut, a former intelligence officer who currently lives in the United States, has also written that payments for Burma's gas exports to Thailand are not transferred to the Ministry of Finance and Revenue, but deposited in a bank account in an unknown foreign country which is run by the Union of Myanmar Economic Holding Limited (UMEHL), a military enterprise (see below).¹⁷ A 2009 investigative report uncovered that generals keep payments from the gas sales in two Singaporean banks (OCBC and DBS Group).¹⁸

One economic analyst explained in 2009 that "Burma currently receives between \$1 and \$2 billion a year from its sales of natural gas to Thailand, but these funds are kept far from the country's public accounts. They are squirreled away offshore and in local banks accessible only to the top leadership of the SPDC."¹⁹

CHAPTER 3

Burma's Revenue Black Hole

"Than Shwe and his crowd of generals are unwilling to use their significant revenues from oil and GAS sales to address Burma's humanitarian problems. Instead, they buy arms or send their families on shopping trips to Singapore, while the vast majority faces an increasingly difficult struggle to survive."¹⁶

Missing billions: dual exchange rates under-calculate revenue value

“As well as violating their own citizens’ human rights, Burma’s military rulers are robbing their people blind by hiding billions in energy revenues.”²⁰

Gas revenues in Burma are recorded at the ‘official’ exchange rate of 6 kyat: US\$1 while the market exchange rate ranges from 800-1,000 kyat: US\$1, leaving billions of dollars worth of gas payments completely unaccounted for.²¹ Burma’s top military generals have therefore hidden billions of gas export dollars since 1998 due to the dual exchange rate system in Burma.²²

Based on this exchange rate system, the military regime has hidden 99% of the Yadana gas exports from 2000 to 2008 (an estimated US\$4.80 of US\$ 4.83 billion). The unrecorded gas export revenue in the national budget from the Yadana project alone could build more than 200,000 schools for 30 million children.²³



Visiting Chinese Vice President Xi Jinping (L) meets with Than Shwe, chairman of Myanmar’s State Peace and Development Council, in Nay Pyi Taw, Myanmar, Dec. 20, 2009. [Xinhua]

Corruption

The secrecy and lack of accountability mechanisms around oil and gas revenues provides a perfect enabling environment for corruption. Burma was ranked 180 of 183 countries for corruption by Transparency International in 2011. According to the Wikileaks cables, in early 2009 military regime leader Than Shwe considered a US\$ 1 billion bid to buy Manchester United FC, one of the most expensive football clubs in the world, yet where the General got the funds to consider such a bid is unknown.

Pocket money: contracts and bonuses worth millions undisclosed

In addition to the secrecy around and unknown whereabouts of revenues from the sale of natural gas, there is no public information on how much companies pay to the military regime as signature bonuses for each PSC contract to explore and produce oil and gas. Since 1988 Burma has signed over 40 such contracts, each worth millions of dollars. Yet how much, how, and to whom companies pay for these contracts, and how the revenues are utilized, are a complete secret.

According to a PSC contract between MOGE and Total of France, In 1992, Total Myanmar Exploration and Production paid US\$15 million to the Myanmar Oil and Gas Enterprise (MOGE) for a PSC to explore the Yadana gas field.²⁴ China’s CNPC paid US\$10 million to MOGE as a signature bonus for exploration and production in block AD-1 and US\$2 million for block AD-8 in 2007, three days after China vetoed a draft UN Security Council Resolution calling on Burma to cease military attacks against civilians in ethnic regions and start political dialogue.²⁵

Section 2: Gas monies and military control

Gas revenues: A boon for weapons purchase and military build up

Although Burma has no external enemies, its Army has almost doubled since 1988, and with an estimated 492,000 soldiers, it is considered the largest in the region. Human rights abuses of civilians, including killing, torture and rape, are being committed by the Burma Army and continue today.

Revenues from the export of gas are the country's biggest foreign income source and keep the armed forces equipped. Military purchases since gas revenues have started to flow include armored personnel carriers, tanks, fighter jets, aircraft, radar systems, surface-to-air missiles and short-range air-to-air missile systems.²⁶ Following the production of gas from the Yadana fields in 1998 and the payment for the export of that gas to Thailand, the Than Shwe regime sped up military purchases, spending billions for weapons and equipment from China, Russia, India, Singapore, Pakistan, North Korea, Ukraine and Israel.²⁷ Shortly after receiving the first payment of US\$100 million for the Yadana gas, the Than Shwe regime purchased 12 MiG-29 aircraft at a cost of about US\$ 130 million from Russia.²⁸ In May, 2007, the Than Shwe regime also signed an agreement with Russia to build a 10-megawatt nuclear-research reactor in Burma.

In 2009, while the Tripartite Core Group (UN, ASEAN, and Burma's Junta) was seeking emergency funds of US\$ 693 million for urgent humanitarian assistance for the more than 100,000 people affected by Cyclone Nargis, the military regime made a US\$630 million purchase of twenty MiG-29 fighter jets and Mi-35 attack helicopters from Russia.²⁹



Military parade in the new capital which cost over US\$200 million to build
Photo Nic Dunlop

MOGE: The state's oil and gas enterprise

The 100% state-owned Myanmar Oil and Gas Enterprise (MOGE) is the only company authorized to partner with foreign companies for oil and gas exploration and production in Burma. As it is the company responsible for signing contracts worth millions of dollars with foreign companies, MOGE is one of the country's biggest money-makers. The company is also responsible for undertaking initial domestic oil and gas exploration, and for constructing domestic pipelines, though these may be undertaken with a foreign partner.³⁰ MOGE is under the Ministry of Energy which is currently ministered by U Than Htay, a former Brigadier General.



It appears that MOGE officially receives the revenues from the sale of oil and gas but the company does not disclose payments received or how the money is managed. According to available gas payment contracts until 2003 for the Yadana gas export to Thailand, MOGE kept gas payment dollars in a bank account in Singapore. Whether MOGE or military companies UMEHL and MEC manage this bank account is also unknown.

Military enterprises controlling gas revenues?

UMEHL, the Union of Myanmar Economic Holding Limited (known in Burmese as “U Pai”) is a military-run enterprise that manages the Armed Forces’ pension fund. Formed in 1990 by the military and run by military officials, UMEHL was the first military-run business enterprise after the crackdown on student uprisings in 1988.

The company is well known as a major arms dealer for the military regime as 40% of the company’s shares are owned by the Directorate of Procurement at the War Office and a major shareholder is the Ministry of Defence.³¹ The remaining 60% of shares are held by regional commands and active and retired military officers, in-service military personnel, 1,467 military units, 6,069 military personnel, and 89 veteran organization committees.³² As oil and gas revenues are the single largest income source for the regime, it is widely believed that UMEHL has access to these revenues for the purchase of weapons.³³



In this 2010 photo, Tin Aye, former Chairman of UMEHL (right), discusses cooperation with Chairman Chung Joon-yang of POSCO company (left), which recently bought control of Daewoo International of South Korea. Many foreign investments are channelled through the military enterprise.

Photo er.asia.co.kr

In Burma the exploration, extraction, sale, and production of oil and natural gas, as well as other natural resources, are undertaken by State Owned Enterprises which are commonly chaired by active or former military generals. There are 46 state-owned enterprises (SOEs) in Burma which provide revenues for the regime from the sale of timber, gems, oil and gas, and minerals. In 2007, according to the Burmese Business Investment Group, SOEs earned more than US\$ 3 billion in profits.³⁴ UMEHL, together with the Myanmar Economic Corporation (MEC), another military enterprise, have been involved in a majority of business activities in Burma for over twenty years in sectors ranging from gem production and garment factories to wood industries, food and beverages, supermarkets, banking, hotels and tourism, telecommunications, steel production, transportation, construction, the cement industry, automobiles, cosmetics, and trade.³⁵ Many major foreign investments are channelled through UMEHL, which since 1999 has set up 50 joint ventures with foreign firms.³⁶ UMEHL currently owns a total of 38 businesses and maintains interest in nine joint ventures with foreign companies.³⁷

UMEHL has enjoyed the privilege of tax exemption since it was formed. In January 2011, Burma’s Internal Revenue Department announced a new law targeting companies that evade taxes. However, UMEHL and several other government enterprises remain exempt from this regulation and are not required to pay taxes.³⁸

Burma's arms dealer and links to North Korea

Lieutenant General Tin Aye, chairperson of UMEHL from 2002-2010 and ranked Number 5 in Burma's armed forces, has made official visits to China, North Korea, Russia and Ukraine to buy arms and military equipment. In 2008 he travelled with the Chief of Staff of the Armed Forces to formalize military cooperation between Burma and North Korea.³⁹ In early 2010 he was responsible for the purchase of 20 MiG-29 fighter jets from Russia.

Tin Aye retired from the military just before the military-dominated election in November 2010 to become the chairman of the Union Election Commission (EC). UMEHL is now formally chaired by Lieutenant General Khin Zaw Oo who is on England's sanctions list and is reportedly loyal to General Than Shwe. Tin Aye remains an influential figure over the company.⁴¹

UMEHL has transferred money to North Korea's Korea Kwangson Banking Corporation, blacklisted by the US Treasury Department, and identified as a prime suspect for expediting sales of arms to Burma and other countries.⁴¹ By 2010, with a huge revenue bonanza from sales of natural gas to Thailand, Burma was able to pay North Korean weapons experts that came to Burma posing as South Korean businessmen cash for missile technology.⁴² Burma is allegedly acquiring knowledge about nuclear weapons from North Korea and it has been reported that North Korean engineers assisted Burma's military junta in building 600 to 800 underground tunnels and facilities beneath the new capital of Naypyidaw.⁴³ According to a US diplomatic cable released by the anti-secrecy website WikiLeaks, UMEHL has exported rice and other agricultural commodities to North Korea in exchange for arms.⁴⁴

Tin Aye, chairman of UMEHL and described by Chinese media as "chief of defense industries of Myanmar," meets with Chinese Defense Minister Liang Guanglie in Beijing, China, in August 2008.

Photo Xinhua



Section 3: Winds of change?



Leading members of Burma's previous junta are in leading positions in the new government (left to right: Senior General Than Shwe, Vice Senior General Maung Aye, General Thura Shwe Mann (now speaker of the House) and General Thein Sein (now Prime Minister) in October 2007.

Photo Reuters

Former military officers control key positions in new government

Following Burma's military-controlled elections in November 2010, a new parliament opened in March 2011. Former military officers, including President Thein Sein and 28 out of 35 high level cabinet ministers, control key positions in this new regime. All 28 former military officers resigned their military posts just weeks before the election.

Under the new government, Burma's largest money-making sectors - energy, mining, and electricity - are ministered by former military generals. The Ministry of Finance and Revenue, critical in managing import and export revenues, is now ministered by U Hla Tun, head of the Finance and Revenue department under the Than Shwe regime.

The following laws and practices enacted since the election have cemented the military's position, legalizing the advantages and protections that the armed forces and its companies enjoy.

Budgetary process is not transparent

In 2011 the national budget was publically disclosed for the first time in decades.⁴⁵ The budget was enacted by the military before the new legislature opened its first session on January 31, giving the Parliament no oversight of expenditures.

In 2012, a budget drafted by the president was submitted to Parliament for some debate on allocation decisions, which was an improvement over the previous year. However, the source of budget revenues, including revenues from the sale of oil and gas, remain undisclosed. This makes it impossible to calculate whether all gas payments have been entered into the budget and, if so, at what exchange rate. This lack of transparency makes it impossible to allocate gas revenues for specific expenses, such as social spending. The budgetary process for state budgets also remains opaque.

Given the limited nature of debates within the Parliament thus far, how much genuine input into or control over budget allocation decisions MPs will have remains unclear. It must be remembered that 25% of seats in Parliament are held directly by military personnel and a further 58% are held by the military-backed USDP party. According to the Myanmar Times, the military will receive about US\$2.3 billion in the 2012 budget, a 36% increase from the 2011 fiscal year.⁴⁶

Management of gas revenues/role of military enterprises remain opaque

Under the new regime, there continues to be no public information on which ministry manages and oversees the current gas export revenues from Thailand and how this process works. Whether gas revenues are managed by the Ministry of Finance and Revenue or whether gas accounts continue to be accessed by military enterprises such as UMEHL and MEC remains unknown.

In March 2011 a Public Accounts Committee was formed to “scrutinize the budget of the Union Government” yet it is uncertain how or if this committee will be able to manage oil and gas revenues. According to the laws and rules establishing the committee, proceedings of committee meetings should “not be leaked out” and meeting minutes “shall not be handed out.”

The public accounts committee is chaired by U Thurein Zaw of the military-backed USDP party; the Secretary U Maung Toe is also from USDP. U Thurein Zaw was the former Deputy Minister of National Planning and Economic Development under the Than Shwe regime and U Maung Toe is the retired managing director of the Myanmar Pearl Enterprise.

Budgetary autonomy of defense expenditures: The Special Fund Law

On January 27, 2011, just four days before the newly elected parliament opened, General Than Shwe enacted The Special Fund Law. This law established reserve funds which are to be allocated for “defending the Constitution and the State from external and internal threats.” According to the law, the commander of the Armed Forces has free rein to determine expenditures from the fund which cannot be audited:

“The Tatmadaw Commander-in-Chief is allowed to freely use the Special Fund in both local and foreign currencies for the expenditures incurred in carrying out the duties for non-disintegration of the Union, non-disintegration of the Solidarity of National Races, and the Perpetuation of State Sovereignty.”

Tax exemption for military enterprises

On January 1, 2011 the “Withholding Tax” law came into effect. The law stipulates that all businesses, traders, NGOs and individuals with assets higher than 300,000 kyat (US \$300), must pay taxes between 3 and 20 percent of their profits or earnings. According to the law, government enterprises and military owned companies are exempt from the law and are therefore not required to pay taxes.



25% of seats in Parliament are held directly by military personnel and a further 58% are held by the military-backed USDP party.

Photo AFP

The Special Fund: Untouchable

“No individual person or organization is allowed to scrutinize or audit the usage of the Special Fund.”

Section 4: No disclosure by investing companies

Companies operating in Burma face significant financial, reputational and legal risks. According to a 2012 study on respect for the rule of law, Burma is rated Number 1 among 197 countries for “extreme risk” to investments, offering the least legal protection for foreign companies and investors and being least transparent in implementing policies and regulations.⁴⁷

In addition, extraction projects are proceeding in active conflict zones and increasing foreign presence coupled with the lack of local benefits from such projects is contributing to rising local resentment, putting investments under threat of retaliatory attacks. For example in 2007 a group of local residents outraged at the confiscation of their land by a Chinese company exploring for oil in Arakan State entered the company’s facility and destroyed equipment on the site. The abuses associated with such projects have also led to lawsuits, consumer boycotts, and withdrawal of shareholders, ruining the reputation of investing companies.

Companies can reduce risks, safeguard their business, and attract more investors by adhering to international revenue transparency guidelines and corporate social responsibility standards. In turn, shareholders are more likely to invest in a company that operates in a country where revenue transparency is practiced rather than in corrupt nations such as Afghanistan, Somalia and Burma.

Despite this, a brief analysis of the 10 major oil and gas companies currently operating and/or investing in Burma’s oil and gas sector reveals that participation in international initiatives encouraging business transparency is extremely limited and only half are – or have major subsidiaries that are – listed on a major international stock exchange (see appendix). The majority of the companies are from Asia and relatively new to international exploration. Only two of the ten major companies operating in Burma have public disclosure policies. These are Chevron and Total, which have both publicly endorsed the EITI and pledged to implement its principles through country by country disclosure of revenue payments.⁴⁸

With the exception of Total, none of the 10 companies provide detailed data on revenue payments to Burma’s government. Some companies publish revenue payments per region (South East-Asia or ‘others’) but do not disclose how much money is paid specifically to Burma’s government.⁴⁹ After pressure to practice revenue transparency, Total published a portion of the revenues it paid to the Burma’s junta in 2008 (US\$ 254 million).⁵⁰

“Companies that make legitimate, but undisclosed, payments to governments may be accused of contributing to the conditions under which corruption can thrive. This is a significant business risk, making companies vulnerable to accusations of complicity in corrupt behaviour, impairing their local and global ‘licence to operate’, rendering them vulnerable to local conflict and insecurity, and possibly compromising their long-term commercial prospects in these markets.” (Investors’ Statement on Transparency in the Extractives Sector)

Section 5: Lack of revenue sharing

“If Burma receives one kyat, you will also get one kyat”

Exploitation of ethnic areas

Burma was born as an independent country in 1948 after being colonized by the Japanese and British. However, just one year after independence, civil war broke out between the new government and ethnic states. Denial of self autonomy and governance in ethnic regions was the major spark of the war. The famous slogan of General Aung San above became a rally call of the Karen revolution in 1949. This simple slogan encapsulates the root of conflict still today: the need for the equal sharing of resources and revenues. Decisions about the ownership and use of natural resources in ethnic areas – i.e. the equal sharing of benefits - remains a key reason for the continuation until today of armed conflict in Burma.

The majority of lucrative resources such as jade, timber, oil, gas, and hydropower potential, are found in the ethnic states of Burma and exported to neighboring countries. The revenues from the export of these resources are not shared back to the resource owner states. These states also do not receive compensatory social or environmental funds although they bear the burden of environmental destruction and human rights abuses that accompany the extraction and export of resources.

Income gap and lack of spending on social development

Misuse of revenues, as well as pervasive corruption, have led to the elevation of the country’s military rulers – and those connected to them – while the economic situation of the majority of the country’s citizens continues to deteriorate. Burma’s 62 million people are among Asia’s poorest, earning an estimated \$2.20 per day on average, about seven times less than the per capita income in neighboring Thailand, according to IMF statistics.⁵¹ High ranking officials in the military, their family members, and cronies are the richest people in the country, able to afford luxuries unimaginable to average citizens. In 2006, guests gave an estimated US \$50 million in gifts to the dictator’s daughter at her lavish wedding ceremony that enraged ordinary citizens.



Photo AOW

Shwe gas exported to China- Arakan State remains dark

A campaign demanding 24-hour electricity in gas-producing Arakan State before any gas is exported highlights the continuing lack of equitable benefit sharing under Burma’s new government. The campaign group is highlighting the lack of electricity, high electricity prices in Arakan state, human rights abuses, environmental damage, and lack of revenue sharing from the Shwe gas project.

The project is expected to produce 500 million cubic feet (mcf) of gas per day for 30 years. While 400 mcf is planned for transport to China, the remaining 100 mcf is intended for domestic use. This remaining amount will be supplied to more than fifty factories owned by the government and military cronies including arms dealer Tay Za’s Htoo Cement Factory, drug lord Lo Hsing Han’s Asia World Cement Factory, Zaw Zaw’s IGE Cement Factory, and Aung Ko Win’s Kanbawza Cement Factory.

BENEFIT SHARING ENDS CONFLICTS



Sudan ended civil war with an agreement to share oil revenues equitably Photo AFP

South Sudan: Lessons for conflict-ridden Burma

Bloody civil wars and conflict are common in resource rich countries around the world where there is unfair or no benefit sharing to the resource producing states and communities. The case of Sudan is such an example. Struggles for autonomy and a federalist system led to protracted civil war which eventually ended with the creation of the new nation of South Sudan on July 9, 2011.

While an estimated 75% of Sudan's oil reserves are in the south, oil refineries and other oil infrastructure, along with the associated jobs, are located in the north. Resulting economic disparities were one of the key issues driving the two-decade long civil war in Sudan. Under the Comprehensive Peace Agreement of 2005 which ended the conflict, the south was granted regional autonomy along with guaranteed representation in a national power-sharing government and provision of 50% of Sudan's oil proceeds.⁵²

A fair benefit sharing system can decrease, stop or prevent conflicts. Lack of benefit sharing with resource producing areas is one of the major reasons for Burma's long standing civil war, it is crucial to ensure the resource rights of the producing region and/or communities.

One way to ensure that producing regions and communities are fairly compensated for the exploitation of their resources and the burdens of production is to allocate a share of oil and gas revenues directly for use in the producing region. A second option is to provide a share of revenues directly to the local communities whose lands are exploited and to ensure that they receive a percentage of jobs created by the project. However, this will prove difficult as extractive industries by nature create few jobs.

Aceh: Sharing oil and gas revenues key to ending armed struggle

Indonesia is one of the most oil and gas rich countries in ASEAN, with the province of Aceh yielding significant oil and gas resources. Aceh was an independent sultanate that fought Dutch colonization for over one century but was made a special region of the Republic of Indonesia in 1949. The Acehnese demanded independence from Indonesia and their separatist movement quickly turned into an armed struggle that lasted over fifty years.

A peace agreement signed in 2005 between the Indonesian government and the Gerakan Aceh Merdeka (GAM) stipulated autonomy for Aceh state as well as sharing 70% of oil and gas revenues (as compared to 5% under the Suharto regime). This was a key demand of the GAM in finalizing the peace agreement.⁵³

As the example of Aceh illustrates, ensuring equitable benefit sharing of oil and gas revenues can end conflicts and stabilize regions. It thus provides an important case for Burma to consider.

One way for countries to address the resource curse is by instituting accountable and transparent revenue management systems that ensure equitable benefit sharing. If citizens can freely access information about how much revenue is paid to a government, and how that revenue is used by the government, then there will be less opportunity for corruption and misuse and a higher potential for revenues to be used in a manner that benefits a broader spectrum of people. This builds on the experience in non-oil rich countries where the public dissemination of information about government resources and their allocation has reduced corruption and improved policies.⁵⁴ In order to avoid the resource curse and create a sustainable economy, natural resource revenues must be used to improve the living conditions of citizens, protect the environment, and invest for the future.

Revenue transparency seeks to increase public knowledge of the scale and scope of revenues gained from extractive industries in order to reduce corruption and better manage revenues for equal benefit. This includes enhancing public information about the amount of money going to governments as well as of existing oversight systems. In a transparent system, host governments publish how much money they are receiving from companies for the sale of resources, companies publish how much they are paying, and home governments of companies regulate and enforce the disclosure of this information. Civil society, particularly media, plays a critical a role in revenue transparency initiatives by monitoring revenue flows and ensuring that information is publicly and widely available to all involved stakeholders.

If revenues are transparent and managed in accordance with an accountable management system, there is less opportunity for powerful interests to keep the money directly for themselves or to squander it as they wish. Instead, the country's laws, citizens, and civil society should ensure that revenues from the sale of natural resources are used fairly for development, environmental protection, and for the benefit of current and future generations.

A system of benefit sharing for producing regions, affected communities, and future generations can address inequities caused by the extraction of resources, thus avoiding conflict and future impoverishment. For example, revenues from the sale of nonrenewable resources can be invested in special funds for sustainable development projects and/or disbursed to local populations.

Revenue transparency is important for the prevention of the resource curse. This chapter will outline global standards of revenue transparency and provide specific case studies from oil and gas producing countries.

CHAPTER 4

Fighting the resource curse: revenue transparency

International standards of revenue transparency

International Monetary Fund (IMF) Guide on Resource Revenue Transparency

The International Monetary Fund (IMF) has addressed the public financial implications of extractive industries in resource-rich countries by urging greater transparency and accountability for financial flows from extractive industries projects to government budgets. The IMF's Guide on Resource Revenue Transparency, published in 2005 and updated in 2007, outlines best practices in four key areas: clarity of roles and responsibilities; public availability of information; open budget preparation, execution, and reporting; and assurances of integrity. Notably, the Guide argues for contract transparency in addition to revenue transparency. The International Monetary Fund specifies four elements of revenue transparency:⁵⁵

- 1 Clarity of Roles and Responsibilities. This includes having a legal revenue management system, where there are specific laws that govern where revenues are deposited, who has access to them, and how they are spent.
- 2 Open Budget Process. Information about how resource revenues are spent and how they are used in the national budget should be open and clear.
- 3 Public Availability of Information. Information related to natural resource revenues should be available to the public. This includes the estimated value of reserves, the amount of money paid by companies to the government, how much of that money is kept and/or used by the government, contracts between the government and companies, and other relevant information.
- 4 Assurances of Integrity. Internationally-recognized systems of accounting systems should be used, and regular audits should be conducted and released to the public.

➤ **Burma is a member of the IMF but following the IMF's Guide is not required of member governments**

The EITI

The most widely used global standards for revenue transparency are contained in the voluntary protocol Extractive Industries Transparency Initiative (EITI), which currently has 30 Candidate and Compliant Countries from different parts of the world. The EITI promotes revenue transparency through monitoring and reconciling company payments and government revenues at the country level. The process is overseen by participants from the government, companies and civil society.⁵⁶ As applied to states, the EITI Principles encourage several factors related to revenue transparency, including 1) the use of revenue wealth for sustainable growth; 2) public understanding and participation;



Burma is currently not following any international standards on revenue transparency

- 3) greater financial transparency, management, and accountability;
- 4) and government accountability for extractive industry revenue streams and expenditures.

The criteria for meeting these principles include 1) regular publication of extractive industry revenues received by governments; 2) independent auditing of revenues and budgets, and 3) the active engagement of civil society.⁵⁷

- **Thus far Burma has not shown any promising signs for participation in EITI⁵⁸**

UN Convention Against Corruption

Anti-corruption standards are also relevant to revenue transparency, as transparency itself is aimed at stemming government corruption and misuse of funds. In addition to the anti-corruption principle directed towards businesses in the UNGC, states adhere to international anti-corruption standards through the UN Convention Against Corruption. The Convention contains rules for, among others, the implementation of state anti-corruption policies and regulating the conduct of public officials, including those who manage public funds.⁵⁹

- **Though Burma signed the Convention in 2005, it is one of the few countries that has not yet become a party to the convention⁶⁰**

Natural Resource Charter

Another initiative to promote revenue transparency is the Natural Resource Charter, a set of economic principles for governments and societies on how to use the opportunities created by natural resources effectively. The Natural Resource Charter seeks to provide guidelines and standards to inform and improve natural resource management.

- **As an international convention still in the making, Burma has not signed on⁶¹**

A Model Oil and Gas Revenue Management Law

The Oil Revenue Management team of the Colombia University Consulting Group has outlined essential elements to oil and gas fund laws. These include:

- 1 Definition of the revenue streams included in general oil and gas revenues;
- 2 Instructions for deposit of oil and gas revenues;
- 3 Restrictions on who can access revenues and how they are used;
- 4 Detailed instructions for removing and using deposited funds;
- 5 Sharing and distribution of oil and gas revenues with affected communities and owner states;
- 6 Public reporting on inflows received, expenditures and interest earned;
- 7 Oversight, including independent auditing.⁶²



Residents of the state of Alaska in the United States receive dividends from oil revenues Photo Rolf Hicks

Case studies from oil and gas rich countries

Alaska, United States: Public information, oversight, and benefit

The State of Alaska, one of the most resource rich areas in the United States, receives considerable revenues from the sale of its oil and natural gas reserves. In April 2009 alone, Alaska produced 21 million barrels of oil and over 34 bcf of natural gas.⁶³ Alaska receives revenues through proceeds from the direct leasing of its own lands for resource development, as well as revenue sharing arrangements with the United States national government.⁶⁴

The Alaska state constitution claims common heritage rights of ownership of oil and other minerals for the people of the state as a whole and establishes a permanent fund for oil and natural gas revenues. At least 25% of the revenues received by the State of Alaska are deposited into the Alaska Permanent Fund, which is then invested.⁶⁵ Natural resource revenues that are not deposited into the Fund are used in the state budget. Investment money from the Fund is either used in Alaska's budget or divided equally among its citizens in an annual dividend payment.⁶⁶

From 1982 through 2009, the dividend program paid out about \$17.5 billion to Alaskans through the annual distribution of dividend checks (in 2008 each individual received roughly US\$2,000). Dividends represent an important source of income for some Alaskans, particularly those in rural Alaska and have a significant impact on the state's economy.⁶⁷

A quasi-state body, the Alaska Permanent Fund Corporation, manages the fund.⁶⁸ It is overseen by a Board of Trustees, which consists of 2 members from government and 4 persons from the public.⁶⁹ Each year, the Board must produce and publish a report with information about the fund's holdings, activities, and audits; annual holdings must also be published in the media and made available on the Corporation's website.⁷⁰ Anyone can email questions and receive a direct reply from a knowledgeable Fund trustee or employee.

General information regarding oil and natural gas reserves, budgets, the use of revenues, and block development and production is also made available to the public. Alaska's Office of Management and Budget publishes budget information on its website, along with a comprehensive annual finance report and revenue forecasts.⁷¹ Monthly oil and gas production rates and royalty revenues are published on the homepage of the Division of Oil and Gas of the Alaska Department of Natural Resources. The website also publishes information regarding the development of individual reserves.⁷²

Although Alaska publishes fairly comprehensive information regarding its oil and gas revenues, finding that information can be challenging because it is published in many different places. For example, to find royalty payments one must go to the Department of Natural Resources, but for total revenues one must contact the Office of Management and Budget. Nevertheless, there is a strong citizen interest in the Fund's operation and investment activities.

The Alaskan model of a public dividend fund based on oil revenues is gaining popularity in several countries such as Iraq and Ghana, which are exploring revenue management models.⁷³

Lessons for Burma

Although all information on revenues is not available in one place, the Alaska Permanent Fund is a well-managed, transparent and democratic institution. The Alaskan model is a fair and effective way to secure wealth benefits for the people as a whole, which could be replicated in Burma.⁷⁴

The cornerstone of revenue transparency is the publication and accessibility of revenue payments and budgetary information (such as projected revenues, payments received, the holdings of national oil accounts, and national budgets) to the public in multiple fora. This could include the internet or newspapers; ideally a public information office would ensure that relevant timely information is accessible. Particularly for Burma, publishing information in multiple languages for the general public as well as affected communities is also critical.

When considering methods to ensure revenue transparency in Burma, the option of creating a public information office should be explored. The office would gather information related to revenues from all the different government agencies and departments and then publish it in one central location. The information should be easily obtainable by the public and available in physical form as well, thus lessening confusion over an already complex topic.

Another important component of revenue transparency is oversight. In addition to regular, publicly available auditing, different bodies should be responsible for overseeing different aspects of revenue management. For example, the legislature may be responsible for overseeing the use of oil and gas revenues, while a body comprised of government and civil society representatives may be in charge of reviewing audit reports and advising the legislature on spending priorities.

Whatever the ultimate makeup, it is important for Burma to consider oversight, particularly independent auditing, as an indispensable component of any revenue management plan.



Today there are 48 fields in production on the Norwegian Continental Shelf

Norway:

Revenue management system & national oil account

A developed country with health, education, and welfare indicators consistently among the world's best, Norway depends largely on subsea oil and natural gas reserves. It is the world's third-largest exporter of oil, with estimated reserves of nearly 7 billion barrels as of 2008. Similarly, Norway is among the world's top ten natural gas producers, with estimated 2008 reserves of 82 tcf.⁷⁵

Worried about long-term economic stability once its petroleum reserves are exhausted, Norway created a separate savings fund for oil and natural gas revenues in 1990. Under its national laws, all revenues⁷⁶ from the sale of Norway's substantial petroleum reserves are placed into the national petroleum fund, also known as the Norwegian Pension Fund.⁷⁷ The state, which owns all subsea petroleum deposits, is obligated to manage its resources "in a long-term perspective for the benefit of the Norwegian society as a whole."⁷⁸ The purpose of the petroleum Fund is to provide a long-term budgetary cushion, with conservative investments increasing the value of the Fund's holdings. When Norway's resources are depleted, the Fund will provide the financing necessary for the economy to transition to new sources of revenue.

In order to safeguard the use of the Petroleum Fund, several restrictions are placed on the use and management of the Fund. Money from the Fund may only be transferred to the government budget by order of the Parliament; it may not be used for credit or for the private sector.⁷⁹ Norges Bank is responsible for managing the Fund, which is carried out by a separate unit of the Bank.⁸⁰ Regular reports detailing the Fund's holdings, deposits, and investments are provided to the Ministry of Finance and published for the public.⁸¹

Lesson for Burma

In Burma, a national oil account could help provide the same financial security sought by Norway. It is not necessary for all revenues to be placed into a savings account but some sort of national fund should be considered in order to ensure longer-term economic stability and to save for future generations.

Brazil:

Revenue shares for producing regions and environmental protection

Brazil gained independence in the early 19th century after centuries as a Portuguese colony. Following further decades of political upheaval, the country's last military regime ended in 1985.⁸² Though Brazil still struggles to overcome income inequality and to maintain sustained economic growth, in recent years the country has managed to expand social services and improve several key development indicators in the fields of health, education, and welfare.⁸³ Oil reserves of 12 billion barrels and natural gas reserves of over 10 tcf⁸⁴ form a comparatively small portion of Brazil's national economy, which has strong agriculture and industry sectors.

While the central government earns oil and gas revenues largely from taxes on oil companies and profits of state-owned Petrobras, producing regions are allocated a share of royalties and so-called "special participations" or extra royalties on higher yielding fields.⁸⁵ Under Brazil's legal revenue management framework, producing states receive approximately 50% of royalties and 40% of special participations, while producing municipalities receive approximately 17% of royalties and 10% of special participations. A share of the royalties is also allotted to all municipalities within the producing state. Brazil's Ministry of the Environment receives 10% of special participations for environmental mitigation. Private landowners are also provided a small royalty rate.⁸⁶

Lesson for Burma

The Brazilian example of sharing/distributing oil and gas revenues among national, state and municipal entities as well as between producing and non-producing regions could be applied to Burma. One main difference is in amount of government revenues derived from oil and gas. In Brazil, oil and gas revenues account for less than four percent of the country's GDP, whereas in Burma oil and gas accounts for most of the government's revenue. The distribution of revenue in Brazil does not generate the sort of controversy it would do in Burma.⁸⁷



Brazil shares oil and gas revenues with states and municipalities



People of Rio in Brazil protest to keep gas revenues for the benefit of their state Photo Bloomberg

Timor Leste:

Revenues used for social development and environmental protection

After a turbulent history of colonization and occupation by Portugal, Japan, and Indonesia, Timor Leste, previously known as East Timor, became an independent state in 2002. Though nearly all of the country's infrastructure was destroyed by departing Indonesian forces in 1999, the resource rich country has worked to rebuild and to establish a working democracy. Part of this challenge includes decisions over the use and development of Timor Leste's considerable natural gas and oil resources.

Timor Leste boasts estimated natural gas reserves of around 10 tcf and estimated oil reserves of 959 million barrels (though approximately 40% may be taken by other countries under treaties and agreements).⁸⁸ Thus far, the country's largest reserve is the Greater Sunrise natural gas field, which is roughly comparable in size to Burma's Shwe reserves. The offshore gas field is located within the Joint Petroleum Development Area, which is shared by Timor Leste and Australia according to the 2002 Timor Sea Treaty. While revenues from the Greater Sunrise gas are to be shared with Australia, Timor Leste will receive an estimated 10 to 16 billion USD over several decades.⁸⁹

Three main legislative devices have been instituted to ensure the management of resource revenues in Timor Leste: the Petroleum Mining Code, the Petroleum Tax Law and the Petroleum Fund Law. The Petroleum Mining Code for the Joint Petroleum Development Area grants ownership of natural resources to the state, while declaring that they should be "used in a fair and equitable manner in accordance with national interests." This includes creating "mandatory financial reserves" as well as environmental preservation.⁹⁰



oil and gas drilling in Timor's sea

The Petroleum Tax Act sets out a specific taxation regime for petroleum activities in Timor Leste. The purpose is to provide maximum social economic benefit to Timor Leste and its people from petroleum resources.⁹¹ Although this law has been established, enforcement is equally important as oil companies may not pay their taxes in full.

The structure to manage the financial reserves mandated by the constitution was created in 2005 by the Petroleum Fund Law.⁹² The Law's preamble emphasizes both the objective of benefiting future, as well as current, generations and the goal of transparent management. Revenues from the development and sale of natural resources are to be deposited into the Petroleum Fund,⁹³ and money from the Fund is to be transferred only for use in the state budget, subject to yearly limits.⁹⁴ Advice on the use of the Fund is provided by the Petroleum Fund Consultative Council, which contains representatives from civil society.⁹⁵ Before the Petroleum Fund Act was promulgated in 2005, several public consultations were held, reaching thousands of Timor

Leste's 950,000 people.⁹⁶ Quarterly and annual reports on the Fund, including deposits, withdrawals, and investments, are to be provided to the government and published for public access.⁹⁷ As of the end of 2011, the balance of the Fund was 9.32 billion USD.⁹⁸

Although Timor Leste has enacted official standards, the country still faces difficulties in applying its resource wealth to promote the lives of its peoples. Health, education, and economic indicators still need much improvement. As an extractive industry, the oil sector provides very few jobs and petroleum revenues have yet to contribute to job creation. An estimated 20 percent of the country's 1.1 million inhabitants and half the men aged between 20 and 24 in Timor Leste's largest city Dili are unemployed.⁹⁹ Several civil society groups recommend developing the country's key governance and infrastructure and focusing on developing human resources and agriculture for several more years before moving forward with large scale natural resource development.¹⁰⁰

Timor Leste: Information disclosure and anti-corruption measures

All agreements between Timor-Leste's government and mining companies are not separately negotiated. Signature bonuses are forbidden. All royalties and other payments are published and are held in a separate fund, and are therefore not part of the national budget for possible political spending purposes. Withdrawals of any funds by government administrators are enforced by stringent legislative checks.¹⁰¹

Timor Leste has also included several further provisions related to transparency and the publication of information in its national laws and practices. Though lacking a concrete definition, transparency is recognized as a fundamental principle in the 2005 Petroleum Act.¹⁰² The former Prime Minister, Mari Alkatiri, placed particular emphasis on this objective and there have been several additional initiatives to prevent corruption.¹⁰³ In an attempt to promote transparency and discourage corruption, the laws of Timor Leste prohibit public officers (including members of parliament and parliamentarians) and their immediate families from holding interests in exploitable petroleum reserves.¹⁰⁴

Timor Leste became an EITI Candidate Country in 2007 and was accepted as an EITI compliant country on 1 July 2010.¹⁰⁵ However, the Petroleum Fund Law does not provide any legal requirement for companies to publish their payments, despite suggestions of civil society groups.¹⁰⁶ In addition to the EITI workplan, several documents regarding oil revenues and contracts are provided on the websites of government ministries in multiple languages.¹⁰⁷ The previous government also gave information sessions to local communities through road shows, where they provide explanations about oil revenues and questions are answered.¹⁰⁸



Students at the East Timor National University protest against the purchase of luxury cars for each National Parliament member

Original framework for ensuring good governance of Timor Leste's oil revenues

Despite the political difficulty of setting aside savings in the face of Timor-Leste's many development needs, Timor-Leste's first leaders demonstrated commitment to ensuring the sustainability of revenue use for future generations and took several important steps to promote prudent management of the country's natural resource revenues.

In 2005 the Parliament passed the Petroleum Act, the Petroleum Taxation Act, and, unanimously, the Petroleum Fund Act. These laws provide the essential framework for petroleum production and the management of revenues consistent with international good practice:

a) All petroleum revenues and returns on investment will be deposited in the Petroleum Fund and saved for future generations, keeping with the principle of intergenerational equity. The Petroleum Fund was established in September 2005, with USD 204.6 million of royalties accumulated since 2000, and has since grown to \$9.3 billion. Government planned to use only sustainable income in order to preserve the real value of petroleum wealth by spreading expenditures over an infinite time horizon, safeguarding a sustainable budget in perpetuity. However since the new government in 2008, budgets have been overspent.

b) Expenditures from the Fund will be integrated into the budget process. Transfers from the Fund can only be made to a designated Government account, and total transfers in a fiscal year cannot exceed a ceiling set by Parliament as part of the approval of the regular budget. Expenditures are executed through the Treasury and recorded as part of the Government's consolidated reporting. Revenue and expenditure figures are publicly available, and the Budget Law and regular external audits are intended to guard against the misappropriation of funds.

c) Assets are managed prudently in safe, offshore investments sheltered from domestic economic risks. While the Ministry of Planning and Finance has overall responsibility, operational management falls under the Banking and Payments Authority (BPA). Professional investment managers oversee investments made by the Fund. An Investment Advisory Board was set up in late 2005 to advise the Government on Fund investments.

d) Governance mechanisms have been put in place to ensure transparency and accountability, including the timely publication of quarterly reports and annual financial statements. An independent Consultative Council is nominated by the Parliament to advise it on matters related to the Fund, although there is no requirement for Parliament to follow the Council's recommendations. Independent external audits are carried out by an internationally recognized accounting firm, and audit reports are adapted into a format accessible to the public. The Government launched a website to publicize the legal regime, transparency arrangements, and financial reports; keeping these information portals updated and maintained is essential.

e) Recognizing the importance of citizen understanding of the savings regime and governance measures, Government undertook a series of public consultations throughout the country on the Petroleum Fund. Parliament also held a number of seminars for its members on the legal regime and the transparent and sustainable management of the country's petroleum resources.

f) Timor Leste became an EITI compliant country in 2010.

The government is also obligated to make several items publicly available upon request, including: 1) details about exploitable reserves and development plans; 2) details of operations in areas covered under the Timor Sea Treaty; 3) reports of company compliance with relevant laws; and 4) reports on payments made regarding petroleum operations.¹⁰⁹

Lessons for Burma

Despite the challenges, Timor Leste's efforts at transparent revenue management are instructive for Burma. Timor Leste and Burma have many things in common: a long history of oppression, conflict and corruption, they are amongst the least developed countries on the UNDP Human Development Index, and hold vast reserves of oil and gas which could be a curse instead of a blessing for its people.


After years of occupation, Timor Leste is working to rebuild its infrastructure and societal structures, and has shown that revenue transparency can be a key goal even as a country recovers from years of war and struggles to create a sustainable democracy. The country created a legal revenue management system and national oil account only three years after its independence. Timor Leste has also worked to improve transparency and oversight, using the EITI as a benchmark. This shows that a country like Burma can begin to implement transparent revenue management even through its early struggles.

Timor-Leste is a young country still establishing working systems of revenue transparency. The ultimate success will depend on a well-functioning public expenditure management system, on the effectiveness of all the checks and balances set out in the Constitution and on the ability of Timor Leste to prevent its politicians from subverting the existing framework.

A major lesson from Timor-Leste is that it was relatively easy to pass good legislation and set up good processes before large oil revenues started coming in. However, once billions of dollars from oil sales started to flow in to the country, the temptation to undercut these processes and overspend the money was too great for many politicians to resist. This highlights the critical importance of implementing a good revenue transparency system quickly to avoid unsustainable spending of oil and gas revenues.

Timor Leste's example of an implementing legislature, becoming a member of EITI, and consulting civil society in the process of building a revenue transparency system are all good practices that could be modelled in Burma. Yet Burma should also learn from Timor Leste's pitfalls in putting the revenue management system into practice in order to avoid similar problems.

The adjacent box describes how Timor Leste implemented its revenue management system. This step-by-step list can serve as an example of what steps Burma can undertake toward a well-functioning revenue transparency management system.



Conclusion

Although Burma is rich in oil and gas, military leaders have been exporting these resources for over a decade, leaving the people to suffer from chronic energy shortages and some of the lowest development indicators in the world.

How revenues from the sale of gas resources are spent is not known, yet it is clear that government spending for social development is paltry while the military continues to expand. Inequitable sharing of resource benefits is also contributing to ethnic conflicts.

Although a new “civilian” government is now in place, under Burma’s new constitution, the military remains firmly outside the law and beyond civilian control. The role of military companies in Burma’s economy and in accessing and managing Burma’s massive oil and gas revenues remain unknown and unregulated. Foreign oil companies engaging in Burma’s oil and gas sector also refuse to publish how much and how they pay the military regime.

It is urgently needed to ensure transparency and sound management of the country’s largest source of foreign income - revenues from the export of oil and gas - and address military dominance in the economy. Without this, instead of contributing to a sustainable development, oil and gas resources in Burma will simply prolong the country’s resource curse.

In order to ensure that oil and gas revenues are managed properly, and to provide a benchmark for tracking the use of those revenues, an accountable revenue management system is needed. This could take the form of a constitutional mandate followed by more specific national legislation, or simply national legislation that comprehensively regulates the use of funds. At minimum, there must be oil and gas fund laws that clearly cover the following elements:

- 1 Definition of the revenue streams included in general oil and gas revenues;
- 2 Instructions for deposit of oil and gas revenues;
- 3 Restrictions on who can access revenues and how they are used;
- 4 Detailed instructions for removing and using deposited funds;
- 5 Sharing and distribution of oil and gas revenues with people (affected communities and owner states) of Burma;
- 6 Public reporting on inflows received, expenditures and interest earned;
- 7 Oversight, including independent auditing.

Recommendations

After analyzing international revenue transparency standards and mechanisms from oil and gas producing countries throughout the world, Arakan Oil Watch makes the following recommendations:

- The establishment of functioning mechanisms for revenue transparency and accountability should be a prerequisite for any economic engagement with the new military-backed government in Burma by **international governments and banks**.
- **Corporations** should refrain from any new investments in Burma's oil and gas sector until legitimate laws and mechanisms to implement proper protection of human rights and the environment, as well as to ensure revenue transparency, are established and functioning.

Prior to inviting further foreign investments, **Burma's government** should:

- 1 Immediately disclose the full amount of gas revenues, where the revenues are, how they are managed, and how they have been spent
- 2 Establish and enforce revenue laws in order to manage oil and gas revenues transparently, accountably and sustainably, including requirements for corporations to disclose payments, production, and project costs
- 3 Establish a separate oil and gas revenue fund which is overseen by an independent management body that includes members from civil society
- 4 Establish a benefit sharing system whereby affected communities and producing regions receive a portion of oil and gas revenues
- 5 Establish and enforce laws that require Free, Prior and Informed Consent before project implementation and to conduct and publish mandatory Environmental, Social and Health Impact Assessments for all oil and gas projects before implementation
- 6 Establish and enforce laws to protect human rights and the environment from resource extraction projects, including requirements for de-commissioning and clean-up procedures

Appendix: Standards and guidelines relevant to revenue transparency in Burma

Instrument	Mission Statement	Voluntary or binding?	
United Nations Global Compact (UNGC) ¹¹⁰	The UN Global Compact promotes responsible corporate citizenship so that business can be part of the solution to the challenges of globalization	The UNGC is a voluntary initiative. It is not a regulatory instrument - it does not police, enforce or measure the behavior or actions of companies	
United Nations Convention Against Corruption (UNCAC) ¹¹¹	The UNCAC is a legally binding international anti-corruption instrument	The UNCAC is a binding convention to state parties	
Extractive Industries Transparency Initiative (EITI) ¹¹²	EITI increases transparency of payments by companies to governments and to government-linked entities, as well as transparency over revenues by host country governments	The EITI is a voluntary initiative for states	
IMF Guidelines for Revenue Transparency ¹¹³	The Guidelines provide an overview of recognized good practices for transparency of resource revenue management	The IMF Guidelines are voluntary for governments	
The Natural Resource Charter (NRC) ¹¹⁴	The NRC is a global initiative to help governments and societies harness the opportunities created by natural resources effectively.	The Charter is not a binding agreement or protocol.	
IPIECA Guidance on Voluntary Sustainability Reporting ¹¹⁵	The Guidance is a voluntary reference to assist oil and gas companies interested in reporting on their environmental, health and safety, social and economic performance	The IPIECA Guidance are voluntary guidelines	
OECD Guidelines for Multinational Enterprises ¹¹⁶	The OECD Guidelines are a set of principles for responsible business conduct.	Observance of the Guidelines by enterprises is voluntary and legally not enforceable.	
Transparency International's Business Principles for Countering Bribery ¹¹⁷	The Business Principles for Countering Bribery provide a framework for companies to develop comprehensive anti-bribery programs.	TI's Business Principles are voluntary guidelines	

Who can become a party?	Relevant article/principle	Relevant signatories
Corporations can adhere to the 10 principles of the UN Global Compact	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	CNOOC ONGC
Governments	Article 9: promotes transparency and accountability, including reporting on revenue within the management of public finances. Article 12: promotes transparency in the private sector.	Burma has signed the Convention but not yet ratified it
Governments, Corporations & Civil Society can support the Initiative	All principles are relevant to Revenue Transparency	Burma is not an EITI implementing country. Neither is China, Korea, or India.
Governments, international financial institutions and civil society organizations	All guidelines are relevant	
Governments, Corporations and NGOs	Precept 2: Extractive resources are public assets and decisions around their exploitation should be transparent and subject to informed public oversight. Precept 12: All extraction companies should follow best practice in contracting, operations and payments.	
Corporations	Indicator 6: The reporting company is encouraged to indicate its policy and steps taken to promote transparency of tax, royalty and other payments made to host governments related to extraction of its natural resources.	CNOOC is a member of the IPIECA Guidance
Governments address the guidelines to corporations. Currently 37 countries adhere to the guidelines.	Chapter VI - 3: Enhance transparency of activities in the fight against bribery. Make public commitments against bribery. Enterprises should foster openness and dialogue with the public so as to promote awareness of and co-operation with the fight against bribery.	Burma, China and India do not adhere to the Guidelines. South Korea is a member of the OECD.
Corporations		

Instrument	Mission statement	Voluntary or binding?	
Global Reporting Initiative Guidelines (GRI) ¹¹⁸	The GRI is a multi-stakeholder process and independent institution whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines	The GRI Guidelines are voluntary guidelines	
Equator Principles (EP) ¹¹⁹	The Equator Principles (EPs) are a voluntary set of standards for determining, assessing and managing social and environmental risks in project financing.	Voluntary Principles	
Voluntary Principles on Security and Human Rights ¹²⁰	The Principles provide guidance to extractives companies on maintaining the safety and security of their operations within an operating framework that ensures respect for human rights and fundamental freedoms.	The Principles are voluntary	
IMF Code of Good Practices on Transparency in Monetary and Financial Policies ¹²¹	The Code identifies desirable transparency practices for central banks in their conduct of monetary policy and for central banks and other financial agencies in their conduct of financial policies	The Code should be implemented in national legislation	
Hong Kong Stock Exchange (HKEx) Revenue Transparency Rules ¹²²	The revised rules require companies listed on the HKEx to include in their listing request information that should result in significantly more detail on tax, royalty and other payments to host governments. Companies are also required to provide material information on social and environmental issues, liabilities, and mitigation practices.	Binding rules for those companies listed on the HKEx	
Dodd-Frank Wall Street Reform Bill: US Congress Transparency Legislation ¹²³ (Will take effect in 2012)	The resource transparency provision requires companies registered with the Securities and Exchange Commission (SEC) to publicly report how much they pay the U.S. and foreign governments for access to oil, gas, and minerals	Binding for US and foreign oil, gas and mining companies registered with the Securities and Exchange Commission	

Who can become a party?	Relevant article/principle	Relevant signatories
Corporations/ NGOs	The Economic Performance Indicator includes a section on Revenue Transparency:	
Banks/ Financial Institutions	Principle 10: Equator Principles Financial Institutions (EPFI) Reporting: Each EPFI commits to report publicly at least annually about its Equator Principles implementation processes and experience.	
Governments, Extractive industry companies and NGOs	Principle 5 states the importance of sharing useful and credible information vital to security and human rights.	Chevron Corporation
Central Banks/ Financial Institutions		
Corporations	Disclosure of “material” information regarding: (c) compliance with host country laws, regulations and permits, and payments made to host country governments in respect of taxes, royalties and other significant payments on a country by country basis	CNOOC is listed on the HKEx CNPCC Group
Oil, gas and mining companies registered with the Securities and Exchange Commission	Each resource extraction issuer shall disclose any payment made by the issuer, a subsidiary or an entity under the control of the resource extraction issuer to a foreign government or US government for the purpose of the commercial development of oil, natural gas or minerals, including the type and total amount made for each project	The following companies are listed on the NYSE: CNOOC Total Chevron Essar Oil

Appendix: Current contracts for oil and gas exploration*

Operator Company	Onshore Block	Offshore Block	Partner company (project shareholder)
China (13 blocks)			
China National Petroleum Corporation (CNPC)	IOR-4, IOR-3, AD-1, AD-6, AD-8		
China National Offshore Oil Company (CNOOC)	C-1, C-2, M, A-4, M-10		Golden Aaron Pte. Ltd (Burma) China Huanqiu Contracting and Engineering Corporation (China)
EPI Holding Ltd (Hong Kong)	RSF-10		Aye Myint Khine (Burma)
Tianjin New Highland	MOGE-4		Suntac Co Ltd (Burma)
Sinopec	D		100%
India (6 blocks)			
Essar Oil	L	A-2	100%
ONGC Videsh	AD-2, AD-3, AD-9		
Jubilant India	PSC-1		Parami Energy (Burma)
Thailand (7 blocks)			
PTTEP	PSC-G/EP-2, M-3, M-4, M-7, M-9, M-11		100%
Malaysia (8 blocks)			
Petronas Carigali	RSF-2/RSF-3	M-12, M-13, M-14 (Yetagun Project), MD-4, MD-5, MD-6	PTTEP (Thailand), MOGE (Burma), Nippon (Japan), UNOG (Singapore)
Rimbunan Retrogas Ltd		M-1	IGE (Burma)
France (2 blocks)			
Total (E&P)		M-5, M-6 (Yadana Project)	Chevron (USA), PTTEP (Thailand), MOGE (Burma), NIPON (Japan)
South Korea (7 blocks)			
Daewoo International		(Shwe project- A1, A3), AD -7	KOGAS (Korea), ONGC Videsh (INDIA), GAIL (INDIA), MOGE (Burma)
KMDC		A-5, A-7, M-15, M-16	Brilliant Oil Corporation Pte. Ltd., subsidiary company of SWE (Silver Wave Energy) (Singapore)
Russia (3 blocks)			
Nobel Oil	A, B-1, PSC-E		100%/ PSC-E: Alister (Russia)
Australia (1 block)			
Danford Equities Corp. (Twinza Oil)		Yetagun East Block	100%
Canada (1 block)			
Focus Energy	MOGE-2 (S)		100%
Switzerland (1 block)			
Geopetrol	RSF-9		A-1 Construction
Vietnam (1 block)			
PetroVietnam		M-2	U Chit Khaing of Eden Group (Burma)

* Table based on MOGE oil and gas block map and media reports

Indonesia (3 blocks)			
PT Istech Resources Asia	EP-5		Smart Technical Services (Burma)
Goldpetrol	MOGE-1, IOR-2		100%
Burma (2 blocks)			
NGWE		M-8	Zarubezhneft (Russia)
MPRL E&P	MOGE-2 (N)		
Singapore (1 block)			
Silver Wave (owned by Burma's corny Tay Za (General Manager Minn Minn Oung)	B-2		-

Appendix: Transparency of oil and gas companies operating in Burma

Company	Country of origin	Major projects in Burma	UNGC*	EITI**	Transparency International Ranking***
Daewoo International	Korea	Shwe Natural Gas Project	No	No	N/A
CNPC	China	Trans-Burma China pipelines; Shwe Natural Gas Project	No	No	Low
ONGC Videsh	India	Shwe Natural Gas Project and 8.35% stake in Trans-Burma China pipelines	Yes	No	Low
PTTEP	Thailand	Yadana and Yetagun Natural Gas Project	No	No	N/A
CNOOC	China	Onshore and offshore oil blocks	Yes	No	Low
Total	France	Yadana Natural Gas Project	Yes	Yes	Mid
Chevron	USA	Yadana Natural Gas Project	No	Yes	Mid
GAIL	India	Shwe Natural Gas Project and 4.17% stake in Trans-Burma China pipelines	No	No	N/A
KOGAS	Korea	Shwe Natural Gas Project	No	No	N/A
Petronas Carigali	Malaysia	Yetagun Natural Gas Project and offshore blocks	No	No	Low

*UNGC: the United Nations Global Compact encourages businesses to work against corruption

** EITI: the Extractive Industries Transparency Initiative (EITI) calls on extractive industry companies to disclose revenue payments.

*** Transparency International Ranking: High performers disclose information systematically on a country-by-country basis, go beyond existing mandatory regulations applicable to them and have strengths in different areas of transparency. Middle performers mainly disclose information by geographical area and a few selected countries of operation. Low performers disclose only by region and provide almost no information relevant to revenue transparency.

Appendix: Sources of government revenues

The following is a breakdown of general sources of government revenues from the sale of oil and natural gas. Using available production sharing contracts (PSCs) and secondary sources, estimated calculations are provided for 1) royalties; 2) government share of profit gas/petroleum; 3) government participation; 4) signature bonus; 5) production bonuses; 6) taxes; and 7) fees.

Two caveats should be kept in mind when reading estimated amounts: 1) PSC provisions are negotiable, and are not exactly the same for each project or contract; and 2) due to restrictions on information inside Burma, only a limited amount of information regarding PSCs is currently available. This section uses three PSCs plus secondary sources to estimate general revenue sources from natural gas and petroleum operations. It is meant to provide general examples and highlight the types of revenues that activists should be aware of when researching an oil or gas project. It is by no means representative of every PSC in Burma, as each contract will be somewhat different.

Royalties

The government takes royalties of 10% of Available Gas/Petroleum. Royalties can be taken in cash or in kind, and are to be paid at the end of each quarter. They are not cost recoverable.¹²⁴

Government Share of Profit Gas/Petroleum

After gas/petroleum is taken for royalties and cost recovery, the government takes a share of what is left, or the Profit Gas/Petroleum. The amount of gas/petroleum taken by the government depends on several factors, including daily rate of production, depth of offshore discovery, and price calculations.

In the older Yadana PSC (1992), the government share of Profit Gas/Petroleum is calculated according to a complex formula based on the average quarterly export market gas price and daily rate of production. Depending on the results, the government share of gas/petroleum is between 40% and 90%.¹³⁵ In the more recent Block AD-1 and AD-8 PSCs (2007), the government share of Profit Gas/Petroleum is calculated according to depth of offshore discovery and daily rate of production.¹³⁶ The government is also entitled to a domestic gas/petroleum supply requirement of up to 20% of the Consortium's Profit Gas/Petroleum. The gas/petroleum must be provided to the government at a 10% discount.¹³⁷

Government Participation

The 100% government-owned Myanmar Oil and Gas Enterprise (MOGE) has the right to demand a 15% stake in the project Consortium.¹²⁵ If so, MOGE will reimburse the Consortium 15% of the signature and production bonuses and provide a share of the costs.¹²⁶ In the more recent Block AD-1 and AD-8 PSCs, MOGE has the right to demand a

TABLE: Breakdown of government revenues

TYPE	ESTIMATED AMOUNT
Royalties	10% of Available Gas/Petroleum.
Government Share of Profit from Gas/Petroleum	Between 40% and 90% depending on a number of factors such as rate of production, depth of offshore discovery, and price calculations.
Government Participation	Between 15% and 25% stake in the Consortium.
Signature Bonus	Negotiable; Examples range from 2 million to 15 million USD
Production Bonuses	Starting at 1 million USD for approval of development plan, and increasing incrementally until 10 million USD based on daily rates of production.
Taxes	30% on Profit Gas/Petroleum after a 3 year tax holiday.*
Fees	50,000 USD per year for training and technology during exploration/appraisal; 100,000 USD per year for training and technology during development/production; Research and Development Fund in the amount of 0.5% of the Consortium's share of Profit Gas/Petroleum.

20% stake, which can be increased to 25% if reserves prove greater than 5 tcf.¹²⁷

Signature Bonus

Though the signature bonus appears to be a standard part of the PSC in Burma, it is clearly negotiable on a project by project basis.¹³³ In the three examples available to the authors, the signature bonus has varied from 2 million to 15 million, with 2 million for Block AD-8, 10 million for Block AD-1, and 15 million for Yadana.¹³⁴

Production Bonuses

Production bonuses appear to be fairly standard according to available information. The government is generally given US\$ 1 million upon approval of the project development plan, with a series of escalating bonuses as production begins and increases.

Taxes

The Consortium partners must pay income taxes to the government on their share of Profit Gas/Petroleum.¹²⁸ The general tax rate appears to be 30% after a 3 year tax holiday,¹²⁹ though the tax rate for the more recent Block AD-1 and AD-8 PSCs is not available.

Fees

Fees to the government for training and technology also appear fairly standard. During the exploration/appraisal period, the Consortium must spend 50,000 per year for training and technology. After development/production begins, training and technology fees increase to 100,000 per year.¹³⁰ The Consortium must also establish Research and Development Fund at the discretion of MOGE in the amount of 0.5% of the Consortium's Profit Gas.¹³¹ According to information in a 2005 article posted on a Burma government website, the above fees are for offshore development; for onshore development, the yearly fees are 25,000 during exploration/appraisal and 50,000 during development/production.¹³²

* According to Wikileaks, In June 2006, the Ministry of Finance and REVENUE issued a notification for levying tax on profits gained by transferring assets of the companies conducting business in oil and GAS sector as following rates: Profit Tax rate (a) up to US\$100 million 40% (b) Between US\$100 and \$150 million 45% (c) Over US\$150 million 50%

Revenue estimates on export of natural gas from the Shwe Gas project (USD)

Total Value of Available Gas = 37.53 billion

10% Royalties = 3.75 billion

Operation and Construction Costs (Cost Gas) = 5.23 billion

Profit Gas = 28.55 billion

56% Burma Government share of Profit Gas = 16.27 billion

44% Consortium share of Profit Gas = 12.28 billion

Discount for domestic gas = 246 million

Consortium share-discount = 12.03 billion

MOGE take as consortium member = 1.80 billion

Amount of Profit Gas to non-MOGE Consortium = 10.23 billion

Taxes to Burma Government on non-MOGE Consortium Profit Gas = 2.76 billion

Fees for training and technology = 3 million

Production bonuses = 6 million

Pipeline Transit fee = 4.5 billion

Total sales revenue of available gas:

US\$ 37.53 billion (1.25 billion/year)

Burma Government revenues (w/out signing bonus) = US\$ 29.09 billion (970 million/year)

Burma Government in kind for domestic gas = US\$ 7.26 bn (242 million/year)

Cash profit for Burma Government: US\$ 21.83 bn (728 million/year)

Add together the items highlighted in bold, which all go to the government, for an estimate of project revenues

Revenue estimates on export of natural gas from the M9 block (USD):

Total Value of Available Gas = 9.91 billion

Burma Government 10% Royalties = 991 million

Operation and Construction Costs (Cost Gas) = 3.28 billion

Profit Gas = 6.63 billion

56% Burma Government share of Profit Gas = 3.71 billion

44% Consortium share of Profit Gas = 2.92 billion

Discount for domestic gas = 58 million

Consortium share-discount = 2.8596 billion

MOGE take as consortium member = 429 million

Amount of Profit Gas to non-MOGE Consortium = 2.43 billion

Taxes to Burma Government on non-MOGE Consortium Profit Gas = 642 million

Fees for training and technology = 2.5 million

Production bonuses = 6 million

Total sales revenue of available gas:

US\$ 9.91 billion (396 million/year)

Burma Government revenues (w/out signing bonus) = US\$ 5.78 billion
(231 million/year)

Burma Government in kind for domestic gas = US\$ 1.92 bn (77 million/year)

Cash profit for Burma Government: US\$ 3.86 bn (154 million/year)

Endnotes

- ¹ *U.S. Policy Recommendations to Combat Natural Resource Conflict and Corruption*, submitted for the “Poorly Governed Resource Dependent States: Policy Options for the New Administration” Workshop, Stanford University, Global Witness, March 13, 2009.
- ² *The First Law of Petropolitics*, Friedman, Thomas L., April 25, 2006.
- ³ *Dutch Disease: Too much wealth managed unwisely, Finance & Development*, Christine Ebrahim-Zadeh, March 2002.
- ⁴ “We need EITI in Burma,” *Burma Digest*, December 23, 2006.
- ⁵ *Resource Abundance and Economic Development: Improving the Performance of Resource-Rich Countries*, Richard M. Auty, Research for Action 44, United Nations University, World Institute for Development Economics Research, 1998.
- ⁶ “Natural Resources Now Burma’s Top Exports,” *The Irrawaddy*, June 4, 2007.
- ⁷ *The Economy of Burma/Myanmar on the eve of the 2010 elections*, United States Institute of Peace, 2010.
- ⁸ *Invitation For Bids To Conduct Petroleum Operations in Myanmar Onshore Areas 2011*, Ministry of Energy, July 2011 at <http://www.myanmarembassy.com/documents/Invitation%20for%20Bids.pdf>
- ⁹ The official agreement was signed between the China Development Bank Cooperation and Burma Foreign Investment Bank. http://www.monstersandcritics.com/news/business/news/article_1605067.php/China-loans-Myanmar-2-4-billion-dollars-for-gas-pipeline-project
- ¹⁰ “Gas Deal signed in Burma”, *The Nation*, July 30, 2010.
- ¹¹ “PTT seeks M9 Delivery Delay”, *Bangkok Post*, May 30, 2009.
- ¹² *Burma’s Democratic Prospects After Elections*, Thitinan Pongsudhirak, Institute of Asian Studies, Chulalongkorn University November 23, 2010
- ¹³ “India mulls further investment into Burmese energy sector,” *Mizzima*, August 24, 2010.
- ¹⁴ <http://in.reuters.com/article/2011/06/09/myanmar-investment-idINL3E7H90ZW20110609>
- ¹⁵ “FDI jumps by more than half in July, says CSO,” *Myanmar Times* October 18-24, 2010.
- ¹⁶ <http://www.look4leaks.net/showCable.php?id=07RANGOON1069&title=FRENCH+COMPANY+TO+CONTINUE+OIL+AND+GAS+OPERATIONS+IN+BURMA&lang=en>
- ¹⁷ “Burmese Army on Internal Alert,” *The Irrawaddy*, May 22, 2009.
- ¹⁸ <http://www.earthrights.org/campaigns/burma-project/new-report-oil-companies-fueling-nuclear-proliferation-burma-myanmar-complic>
- ¹⁹ SPDC, State Peace and Development Council, the name of the military junta ruling Burma from 1990-2010 under General Than Shwe, Sean Turnell, May 12, 2009 at [http://www.e-ir.info/?p=1266/Burma after Nargis](http://www.e-ir.info/?p=1266/Burma%20after%20Nargis)
- ²⁰ <http://www.guardian.co.uk/commentisfree/2008/may/04/burmasmissingbillions>

- ²¹ *Burma's Economy 2008: Current Situation and Prospects for Reform*, Sean Turnell, May 2008.
- ²² *Natural Gas Revenue, Fiscal Balance, and Inflation in Myanmar*, IDE Discussion Paper No. 225, March 2010, and *Burma Economic Watch*, May 2008.
- ²³ Total Impact, EarthRights International, 2009.
- ²⁴ PSC on file with EarthRights International.
- ²⁵ PSC on file with author.
- ²⁶ http://www.asiapacificms.com/papers/pdf/burma_dprk_military_cooperation.pdf
- ²⁷ Security analyst William Ashton in 2004 at http://www.irrawaddy.org/article.php?art_id=4216&page=5
- ²⁸ Take-off magazine, June 2011 (www.take-off-ru), <http://yaleglobal.yale.edu/content/trade-and-security-trump-democracy-burma-%E2%80%93-part-i>
- ²⁹ "Russia, Burma sign arms deal", *Mizzima*, December 23, 2009.
- ³⁰ See www.energy.gov.mm/upstreampetroleumsubsector.htm.
- ³¹ *Burmese Military Government: Crony Capitalists in Uniform*, Virginia. *Review of Asian Studies* 6 (2004): 27-41, Win Min, 2004.
- ³² *Ibid.*
- ³³ The rumour among Burma's business circles is that Burma's military leader Than Shwe and his right hand Lieutenant General Tin Aye, former Union of Myanmar Economic Holding Limited (UMEHL) chairperson, are the only two persons who have access and control over gas export revenues. See "Tin Aye: A Military Tycoon", *Irrawaddy News*, December 25, 2009.
- ³⁴ *Sanctioning State-Owned Enterprises*, Rangoon embassy cable , 2008-09-29 (wiki leaks)
- ³⁵ *The Tatmadaw in Myanmar since 1988: An Interim Assessment*, Myoe Maung Aung, Working Paper No. 342. Canberra: Strategic and Defense Studies Centre, Australian National University. p.13, 1999.
- ³⁶ *Burmese Military Government: Crony Capitalists in Uniform*, Virginia. *Review of Asian Studies* 6 (2004): 27-41, Win Min, 2004.
- ³⁷ Many of the 38 businesses have sub-businesses, bringing the total number of UMEHL-affiliated firms to 74. Additionally, UMEHL has joint ventures with seven additional Burmese and foreign companies that are either under liquidation or temporarily closed. According to UMEHL's FY07-08 Annual Report, 10 military officials sit on the Board of Directors and report to the Adjutant General, Major General Thura Myint Aung.
- ³⁸ http://www.irrawaddy.org/article.php?art_id=20488
- ³⁹ "Tin Aye: A Military Tycoon," *Irrawaddy News*, December 25, 2009.
- ⁴⁰ *Ibid.*
- ⁴¹ See <http://www.atimes.com/atimes/Korea/KH15Dg01.html>
- ⁴² See <http://www.nytimes.com/2010/06/19/opinion/19iht-edaung.html>. The article also stressed that Burma has worked for almost a decade to expand its production of missiles and chemical warheads.
- ⁴³ "Burma Suspected of Nuclear Link with North Korea", *The Guardian*,

- July 21, 2009 and “Why Burma May be North Korea’s Best Friend”, *Time*, June 26, 2009.
- ⁴⁴ http://www.straitstimes.com/BreakingNews/SEAsia/Story/STIStory_709631.html
- ⁴⁵ “Burma Allocates 1/4 of New Budget to Military,” *Associated Press*, March 2, 2011.
- ⁴⁶ “Health, education in line for increase,” *Myanmar Times*, February 6 - 12, 2012.
- ⁴⁷ *Maplecroft Rule of Law Index*, February 2012.
- ⁴⁸ <http://www.total.com/en/corporate-social-responsibility/Ethical-Business-Principles/Financial-transparency>; see also http://www.chevron.com/GlobalIssues/CorporateResponsibility/2006/socioeconomic/stakeholder_engagement/revenue_transparency.asp.
- ⁴⁹ Websites and the annual reports of the companies have been consulted. Some companies did mention annual revenue payments, but not per country or region. See PTTEP Annual Report 2008 at: http://www.pttep.com/en/InvestorRelations_Presentation.aspx?CatID=1 and CNOOC Annual Report 2008 at: <http://www.cnooltd.com/encnooltd/tzzgx/dqbd/nianbao/images/2009410578.pdf>; ONGC Videsh Annual Report 2008-2009, Oil and Natural Gas Corporation Limited (2008) at sec. 4.3, 5.4, 5.12, 5.21 (Director’s Report) and Schedules 7 & 26 (Profit and Loss Account). ONGC Videsh publishes financial information related to its investments in Burma, though thus far the information provided is in the form of general investment and exploration expenditures rather than revenue streams to Burma’s government. It should be noted that ONGC’s Burma projects are in the early stages of exploration and development and have likely not provided much revenue. Signing bonuses, however, are conspicuously missing from ONGC’s disclosures.
- ⁵⁰ Report of Total in reaction to EarthRights International’s report *Total Impact*, September 2009. *Total in Myanmar*, update September 2009.
- ⁵¹ <http://www.businessweek.com/news/2011-12-01/myanmar-sees-west-easing-sanctions-soon-as-clinton-to-visit.html>
- ⁵² <http://www.bbc.co.uk/news/world-africa-14069082>
- ⁵³ *Peace Zones In Aceh A Prelude to De-militarisation*, Pushpa Iyer, Research Paper 3, April 2003 at http://icar.gmu.edu/Aceh_PZs.pdf
- ⁵⁴ *Profits, and Peace: Does Business Have a Role in Peacemaking?*, Jill Shankleman & Joanne J. Myers, United States Institute of Peace, p. 45 March 2007.
- ⁵⁵ *Guide on Resource Revenue Transparency*, International Monetary Fund, 2007.
- ⁵⁶ Extractives Industry Transparency Initiative (EITI) Factsheet, 20 October 2009.
- ⁵⁷ EITI Principles and Criteria. See <http://www.eiti.org/eiti/principles>.
- ⁵⁸ *Energy Security: Security for Whom?*, Matthew Smith & Naing Htoo, Yale Human Rights & Development Law Journal, Volume 11, 1 January 2008.

- ⁵⁹ See United Nations Convention Against Corruption, Chapter II, 2005.
- ⁶⁰ List of signatures and ratifications of UNCAC. See <http://www.unodc.org/unodc/en/treaties/CAC/signatories.html>
- ⁶¹ Natural Resource Charter. See <http://www.naturalresourcecharter.org/>
- ⁶² See *Sao Tome and Principe Model Oil Revenue Management Law*, Columbia University Oil Advisory Group, June 2004.
- ⁶³ See Division of Oil and Gas, Department of Natural Resources, <http://www.dog.dnr.state.ak.us/oil/index.htm>.
- ⁶⁴ Alaska Statute at sec. 38.05.180.
- ⁶⁵ The Constitution of the State of Alaska (1959) at sec. 15.
- ⁶⁶ Alaska Statutes at sec. 37.13.140 & 37.13.145.
- ⁶⁷ Alaska Permanent Fund Corporation. See: <http://www.apfc.org/home/Content/dividend/dividend.cfm>
- ⁶⁸ Alaska Statutes at sec. 37.13.040.
- ⁶⁹ Alaska Statutes at sec. 37.13.050.
- ⁷⁰ Alaska Statutes at sec. 37.13.170, see www.apfc.org.
- ⁷¹ See <http://omb.alaska.gov/>. The comprehensive annual financial report is published by the Division of Finance.
- ⁷² See <http://dog.dnr.alaska.gov/>
- ⁷³ *Saving Ghana from its Oil: The Case for Direct Cash Distribution*, Todd Moss & Lauren Young, Center for Global Development, Working Paper 186, October 2009, *Models and Policies for Oil Production, Revenue Collection, and Public Expenditure: Lessons in Iraq*, Ariel Cohen, March 2004. Available at <http://www.heritage.org/research/iraq/bg1730.cfm>
- ⁷⁴ *The Alaska Permanent Fund: A Model of Resource Rents for Public Investment and Citizen Dividends*, Allana Hartzok, Geophilos, a publication of the Land Research Trust, Spring 2002.
- ⁷⁵ *Norway Energy Profile*, Energy Information Administration (last updated May 2009).
- ⁷⁶ The Fund's income consists of the cash flow from petroleum activities and the return on the Fund's capital. *The Management of the Government Pension Fund*, available at <http://www.regjeringen.no/en/dep/fin/Selected-topics/the-government-pension-fund/The-Management-Model.html?id=429362>
- ⁷⁷ Act no. 36 of 22 June 1990 relating to the Government Petroleum Fund [Petroleum Fund Act] at sec. 2.
- ⁷⁸ Act no. 72, November 29, 1996 relating to petroleum activities [Petroleum Act] at sec. 1-1 & 1-2.
- ⁷⁹ Petroleum Fund Act at sec. 3.
- ⁸⁰ Regulation relating to the Management of the Government Petroleum Fund at sec. 2, 3 October 1997.
- ⁸¹ See Norges Bank at <http://www.norges-bank.no/>
- ⁸² See The World Factbook: Brazil, Central Intelligence Agency (last updated June 2009).
- ⁸³ See Country Brief: Brazil, World Bank (April 2009).
- ⁸⁴ 2008 (oil) and 2007 (gas) estimates. Brazil Country Profile, Energy Information Administration (last updated May 2009).

- ⁸⁵ These amount to amount ten percent of the production of oil or gas. Law No. 9478 of August 6, 1997, Article 47.
- ⁸⁶ Analysis from Matteo Morgandi, *Extractive Industries Revenue Distribution at the Sub-National Level: The experience in seven resource rich countries*, Revenue Watch Institute (June 2008) at sec. 3.3. The distribution of revenues in Brazil is guided largely by the Law No. 7990 of 1989 and Law No 9478 of 1997.
- ⁸⁷ *Ownership and control of mineral resources: Can the Brazilian Model be used to douse resource control agitation in Nigeria's oil producing states?*, Madaki O. Ameh, available at http://www.dundee.ac.uk/cepmlp/car/html/CAR10_ARTICLE37.PDF
- ⁸⁸ *Sunrise LNG in Timor-Leste: Dreams, Realities, and Challenges*, La'o Hamutuk: Timor-Leste Institute for Reconstruction Monitoring and Analysis, February 2008, at Appendix 1.
- ⁸⁹ *Sunrise LNG in Timor-Leste* at sec. 1.2. See also www.laohamutuk.org/econ/OGE12/OilRevenuesTotalDec2011En900.gif
- ⁹⁰ Constitution of the Democratic Republic of East Timor (entry into force 20 May 2002) at art. 139.
- ⁹¹ Petroleum Taxation Act. See <http://www.laohamutuk.org/Oil/PetRegime/Petrol%20tax%20law%20050705.pdf>
- ⁹² Law No. 9/2005 of 3 August, Petroleum Fund Law (Aug. 2005).
- ⁹³ *Ibid.* at art. 6.
- ⁹⁴ These include the annual Estimated Sustainable Income (ESI), which is prepared by the government. Transfers from the Fund should not exceed the ESI, although they have every year since 2008. *Ibid.* at arts. 8-10.
- ⁹⁵ *Ibid.* at arts. 25-26.
- ⁹⁶ <https://digitalcollections.anu.edu.au/bitstream/1885/49322/9/05chapter04.pdf>
- ⁹⁷ *Id.* at arts. 13 & 23. To date annual reports are published only on the internet.
- ⁹⁸ Petroleum Fund of Timor Leste: Quarterly Report, Volume 7, Issue XX, 31 December 2011. All these reports available from the Central Bank and at <http://www.laohamutuk.org/Oil/PetFund/05PFIndex.htm>
- ⁹⁹ Irin News Asia, 16 July 2009.
- ¹⁰⁰ See *Sunrise LNG in Timor-Leste* and <http://www.laohamutuk.org/econ/OGE12/LHSubComCPNOJE2012En.pdf>
- ¹⁰¹ *Asia Pacific: Timor Leste Tests Revenue Transparency*, Ethical Corporation, 26 July 2005.
- ¹⁰² *Preamble Petroleum Act*, August 2005. See <http://www.laohamutuk.org/Oil/PetRegime/PetrolActPassedJul05En.pdf>
- ¹⁰³ *Strengthening Accountability and Transparency in Timor Leste*, Cheema et al, 2006 and <http://www.laohamutuk.org/econ/corruption/11AnticorruptionLaw.htm>
- ¹⁰⁴ *Petroleum Act*, August 2005, at art. 7. See http://www.timor-leste.gov.tl/EMRD/LAP%20_ENG_%20-%20Vers%C3%A3o%20Final.pdf
- ¹⁰⁵ Extractive Industries Transparency Initiative. See <http://eiti.org/TimorLeste>

- ¹⁰⁶Several civil society groups suggested in the consultation of the draft Petroleum Fund Act to include such a provision.
- ¹⁰⁷The availability and accessibility of information is not systematic, civil society groups work to provide information where the government does not.
- ¹⁰⁸See <http://www.timor-leste.gov.tl/EMRD/roadshow.htm>
- ¹⁰⁹<http://www.irinnews.org/Report.aspx?ReportId=85299>
- ¹¹⁰United Nations Global Compact. <http://www.unglobalcompact.org/>
- ¹¹¹United Nations Convention Against Corruption. See www.unodc.org/unodc/en/treaties/CAC/index.html
- ¹¹²Extractive Industries Transparency Initiative. See <http://eiti.org/>
- ¹¹³Guide on Resource Revenue Transparency. See www.imf.org/external/np/pp/2007/eng/051507g.pdf
- ¹¹⁴Natural Resource Charter at <http://www.naturalresourcecharter.org/>
- ¹¹⁵IPIECA Guidance on Voluntary Sustainability Reporting. See <http://www.ipieca.org/publication/oil-and-gas-industry-guidance-voluntary-sustainability-reporting>
- ¹¹⁶OECD Guidelines for Multinational Enterprises. http://www.oecd.org/departement/0,3355,en_2649_34889_1_1_1_1_1,00.html
- ¹¹⁷Transparency International's Business Principles for Countering Bribery. See http://www.transparency.org/global_priorities/private_sector/business_principles
- ¹¹⁸Global Reporting Initiative Guidelines. See <http://www.globalreporting.org/ReportingFramework/ReportingFrameworkDownloads/>
- ¹¹⁹Equator Principles. See <http://www.equator-principles.com/>
- ¹²⁰Voluntary Principles on Security and Human Rights. http://www.voluntaryprinciples.org/files/VPs_FactSheet_June2010_US.pdf
- ¹²¹IMF Code of Good Practices on Transparency in Monetary and Financial Policies. See <http://www.imf.org/external/np/mae/mft/code/index.htm>
- ¹²²Hong Kong Stock Exchange to Require Greater Transparency. See <http://www.renewwatch.org/news/news-article/china/hong-kong-stock-exchange-require-greater-transparency>
- ¹²³Senate Adopts Wall Street Reform Including Cardin-Lugar Provision to Increase Transparency and Attack Corruption. http://csce.gov/index.cfm?FuseAction=ContentRecords.ViewDetail&ContentRecord_id=928&ContentType=P&ContentRecordType=P
- ¹²⁴Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 10.1 & 10.2; Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 10.1 & 10.2; Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 10.1 & 10.2; "General Terms and Conditions of Production Sharing Contract"; Alec Christie, "Myanmar: Overview of Production Sharing Contracts In Oil And Gas In Myanmar" (7 Apr. 2000).

- ¹²⁵ Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 19.1; Memorandum of Understanding [Yadana] (9 Jul. 1992) at sec. 5(b) “General Terms and Conditions of Production Sharing Contract”; Alec Christie, “Myanmar: Overview of Production Sharing Contracts In Oil And Gas In Myanmar” (7 Apr. 2000).
- ¹²⁶ Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 19.6; Alec Christie, “Myanmar: Overview of Production Sharing Contract In Oil And Gas In Myanmar” (7 Apr. 2000).
- ¹²⁷ Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 19.1 & 19.6; Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 19.1 & 19.6.
- ¹²⁸ Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 9.11; Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 9.11; Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 9.11.
- ¹²⁹ Memorandum of Understanding [Yadana] (9 Jul. 1992) at sec. 4(c); Side Letter No. 3/23/92 (1620) to Memorandum of Understanding [Yadana] (9 Jul. 1992); Union of Myanmar Foreign Investment Law (30 Nov. 1988) at sec. 21; Commercial Tax Law (SLORC Order No. 8/90, 31 Mar. 1990) at sec. 8; “General Terms and Conditions of Production Sharing Contract” [addy].
- ¹³⁰ Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 15.2 & 15.3; Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 15.2 & 15.3; Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 15.2 & 15.3.
- ¹³¹ Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 15.7; Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 15.7; Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 15.7.
- ¹³² “General Terms and Conditions of Production Sharing Contract” [addy]; see also Alec Christie, “Myanmar: Overview of Production Sharing Contracts In Oil And Gas In Myanmar” (7 Apr. 2000).
- ¹³³ Alec Christie, “Myanmar: Overview of Production Sharing Contracts In Oil And Gas In Myanmar” (7 Apr. 2000).
- ¹³⁴ Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 11.1; Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 11.1; Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 11.1.
- ¹³⁵ Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 11.2 & 11.3; Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 11.2 & 11.3. Similar bonuses, though with slightly different rates of production are included in the Yadana PSC and noted in secondary sources. See Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 19.1; “General Terms and Conditions of Production Sharing Contract” [addy]; Alec Christie, “Myanmar: Overview of Production Sharing Contracts In Oil And Gas In Myanmar” (7 Apr. 2000).
- ¹³⁶ Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 9.7.
- ¹³⁷ Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 9.7; Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 9.7.

¹³⁸Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 9.7.
See Alec Christie, “Myanmar: Overview of Production Sharing Contracts In Oil And Gas In Myanmar” (7 Apr. 2000).

¹³⁹Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 9.7.
Production Sharing Contract [Yadana] (9 Jul. 1992) at sec. 14.1;
Production Sharing Contract [Block AD-1] (15 Jan. 2007) at sec. 14.1;
Production Sharing Contract [Block AD-8] (15 Jan. 2007) at sec. 14.1; “General Terms and Conditions of Production Sharing Contract



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