Breaking the Curse
Decentralizing Natural Resource Management in Myanmar

February 2016
Breaking the Curse
Decentralizing Natural Resource Management in Myanmar
About Arakan Oil Watch
Arakan Oil Watch (AOW) is an independent, community-based non-governmental organization operating in Myanmar, especially in Arakan State. Founded in 2006, the organization aims to ensure that community rights, land, livelihoods, and the environment are guaranteed and protected from natural resources extraction and other mega-projects in Arakan and Myanmar. AOW monitors the activities of corporations and the resulting human rights, environmental and financial impacts in Arakan and Myanmar. AOW educates communities and conducts advocacy around the issue of decentralized natural resources management and networks with Myanmar (Burma)-based CBOs, political parties, and regional and international NGOs that monitor natural resources extraction and its impacts around the world. AOW is an active member of the Burma Environment Working Group (REWG) and Oil Watch South East Asia (OilWatch SEA).

Contact:
Email: info@arkanoilwatch.org
Website: www.arakanoilwatch.org

Published in February 2016
Part I: The Resource Curse.................................8
Natural resource extraction projects in Arakan State increasing...8
Foreign Direct Investment increasing...........................................9
Investments soar, Arakan State stagnates.........................11

Part 2: Building a Development Vision based on Decentralized Decision Making................. 12

Part 3: How to break the curse...............................14
1. Build peace.......................................................... 14
2. Formalize broad-based participation.............................. 16
3. Decentralize governance.............................................. 20
4. Decentralize ownership of natural resources.....................22
5. Decentralize management of natural resources....................22
6. Decentralize collection of natural resource revenues.............25

Case studies..........................................................32
Conflict and natural resources.............................................32
Decentralized ownership in natural resource rich federations.....34
Decentralized control and management powers.......................36
Decentralized revenue management systems..........................41

Endnotes......................................................................51

Appendices...........................................................54
Companies investing in Arakan State.....................................54
International norms......................................................56
In 2008, Myanmar’s military rulers ratified a new constitution that ensured their continued monopoly of the country’s natural resources. Section 37 (a) states:

“the Union is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere”

Under this constitution, the central government in Naypyidaw is not only the owner of all natural resources in the country; it also controls and manages them, enacting “necessary laws for extraction.” This centralized control has had disastrous effects in widening inequality, fueling a cycle of conflict and violence, and depleting non-renewable resources that could be the basis of a sound economy for future generations.

Arakan State provides a perfect illustration of this and lies at the heart of one of Myanmar’s most sought after resources: natural gas. The Shwe project now produces 500 million cubic feet of natural gas per day, yet none of this is used to provide electricity in Arakan State. While local communities bear livelihood and environmental destruction, human rights abuses and land confiscation, the gas is sold to China and more than one billion USD annually flows to Naypyidaw. There, accounting of the revenues remains opaque and reinvestment in Arakan’s infrastructure, education, and health is practically non-existent. The state is the second poorest in the country.

Until now, the military, the central government, and foreign investors have taken advantage of the centralized governance structure and a lack of protection mechanisms to make all the decisions around natural resources and reap most of the benefits. In contrast, devolving the powers to manage resources to lower levels of government will establish political, administrative, and fiscal structures so that decisions around the use of natural resources can be made at local levels with input from affected peoples. This distribution of powers makes natural resource management more accountable to the needs of local communities and will therefore ensure a more sustainable development.

Drawing on the Arakan Oil Watch’s decade-long work with communities affected by natural resource investments and experiences from resource-rich countries around the world, we find six critical components to achieve sustainable natural resource management in Myanmar. They are:

1. **Build peace:** A moratorium on high-value natural resource extraction until political agreements and new legislation have been finalized will reduce tensions and conflict and allow time for protection laws and institutions to be established. Peace
agreements that specify division of powers—such as the one in Papua New Guinea—will help prevent conflicts from re-emerging and enable subnational governments to proceed with establishing their own governance structures.

2. **Broaden participation:** Engaging people in the process of managing their own resources and ensuring that they receive benefits from their resources will prevent resentment and reduce conflicts. Strengthening formal participation, as is done in Latin America with community referendums, will provide immediate input from affected communities and community-based organizations on natural resource projects as well as on long-term planning decisions.

3. **Decentralize governance:** Transferring significant powers of authority from Naypyidaw to civilian-led state and regional governments through statutory and constitutional provisions will bring decision-making closer to affected people and make development processes more efficient and equitable.

4. **Decentralize ownership of natural resources:** Amending Section 37 (a) of the national constitution to enable states and regions to own their natural resources will address longstanding calls for more autonomy from ethnic organizations, contributing to long lasting peace.

5. **Decentralize control and management of natural resources:** Amending Section 37 (b) of the national constitution so that states and regions can control and manage their lands and natural resources, including the decision whether or not non-renewable resources should be extracted. State and regional governments will also then be able to establish appropriate laws and institutions for economic planning, regulation and monitoring of extractive industries, and rights protection for current and future generations.

6. **Decentralize collection of natural resource revenues:** Providing legislative powers for states and regions to collect significant taxes will enable responsive local governments to manage their own budgets and allocate funds according to local plans and needs, reducing time consuming and costly bureaucracy at the national level, and better serving local populations.
Interim Steps During the Peace Process

Recommendations

1. There should be a moratorium on the extraction and sales of high-value resources and exploration contracts should not be renewed until structures are in place to ensure decentralized management of natural resources. Protection laws and regulations, institutions, and transparent practices need to be established before lifting the moratorium.

2. Division of powers related to the ownership, control, management, and revenue collection of natural resources should be clearly defined and included in peace agreements between ethnic armed groups and the central government and in political dialogue between the central government and political parties.

3. Economic planning and development policies around the use of natural resources need to be formulated by political parties, armed groups, community based organizations, and affected communities.

4. There is an urgent need to strengthen the formal participation of affected communities and community-based organizations for immediate input on long term planning for natural resource management. This should start with community consultations for the creation of state and regional policies on development priorities, input at the conceptualization stage of large-scale projects, as well as monitoring of projects, including management of local grievance procedures.

Steps to Establish Devolved Federal Natural Resource Management

Devolved federal governance

1. Powers of authority and responsibility need to be transferred from central government ministries to state and regional governments through statutory or constitutional provisions that allocate formal powers and functions. In particular, the current system of the selecting the chief ministers of states and regions, and appointing military personnel to 25 percent of state and regional legislatures must be abolished; the residents of the state and/or region should elect their chief minister and all legislative representatives.

2. The central government must hold all states and regions to a single minimum standard to protect the rights of communities through national legislation that:
   a. protects the rights of communities to organize into groups, access uncensored information, and conduct referendums on natural resource projects
   b. requires the disclosure of information, assessments, and monitoring of projects.
Devolved ownership of natural resources
i. Section 37 (a) of the national constitution must be amended to enable states and regions to own their lands and natural resources.

Devolved control and management of natural resources
1. Section 37 (b) of the national constitution must be amended to provide legislative powers for states and regions to control and manage their lands and natural resources. This requires comprehensive devolved political, fiscal, and administrative powers and necessary federal support structures.
2. Future federal states and regions need to establish laws and create sustainable institutions to:
   a. formulate long-term economic planning, including specific strategies for natural resources and sustainable development
   b. monitor and regulate extractive industries
   c. protect the rights and participation of communities
   d. protect the environment and natural resources for future generations.

Devolved revenue management
1. The national constitution must provide legislative powers for states and regions to collect revenues from the use and sale of their natural resources and to develop their own budgets for the development of their areas and delivery of services to their populations.
2. Future federal states and regions need to establish laws and create financial institutions and mechanisms for accountable, transparent, and sustainable financial management. Duties of these institutions should include:
   a. to collect and manage revenues, including taxes and royalties, from extractive industries with negotiated proceeds transferred to the central government
   b. to ensure that a significant percentage of the revenues are saved and invested for future generations through the establishment of:
      i. savings funds, for future development;
      ii. stabilization funds, responding to price and revenue fluctuations;
      iii. government budgets, with clear strategic allocation policies.
   c. to manage independent financial auditing of government agencies and extractive companies, and present reports to the public.
3. The central government should disburse equalization payments to less resource-rich states and regions.
4. The central government should establish national natural resource revenue funds for oil, gas, and mineral income that prioritize saving, stabilization, and appropriate allocations for expenses in health, education, and environmental protection.
PART I:
The Resource Curse

Many resource-rich countries around the world suffer from inequality, corruption, and conflict precisely because they have so many resources. In particular, developing and mid-level income countries with a high dependency on natural resources are less likely to develop a strong, sustainable economy. Resources are often exported in raw form, instead of used to spur industry domestically. When global market prices fall and/or the resources dwindle, these countries are left extremely vulnerable to economic disaster. This contributes to something known as the “resource curse.”

The Myanmar government is currently maximizing the extraction and export of natural resources for the benefit of the few rather than protecting the interests of the general public and environment, fuelling abuse, local conflicts, and even civil war.

I. Natural resource extraction projects increase in Arakan State

Like many of Myanmar’s ethnic states, Arakan is endowed with rich natural resources. Foreign interest in these resources, particularly oil and gas, began in earnest with the discovery of the Shwe gas field off the Arakan coast in 2004. Under the Than Shwe military regime, Indian, South Korean, and Chinese companies developed the field and associated infrastructure to export the gas to China. Chinese oil giant CNPC built pipelines to transfer not only the gas, but also transshipments of Middle Eastern and African oil, to refineries in southwest China. The controversial pipelines have been operating since June 2013. Other mega projects include China’s planned Kyauk Phyu special economic zone and India’s Kaladan multi-model transit transport project.

After the Thein Sein government came to power in 2011, Arakan State has become the target of keen interest from Western investors as well. By 2013, international oil companies such as ConocoPhillips and Chevron of the United States, Netherlands Royal Dutch Shell PLC, England-based BG group and Ophir, Woodside Energy from Australia, and Norway’s Statoil had secured exploration rights for nine Arakan offshore blocks partnering with crony-owned local companies. (For a complete list of companies investing in Arakan please see Appendix 2).

In addition to these new oil and gas projects, Arakan State now also has two large-scale mining projects: a titanium mine along the coast of northern Arakan, operated by a Chinese company, and a marble mine in Arakan’s Nayputaung Mountain, operated by a joint venture between Vietnam and Myanmar (SIMCO Song Da Limited Joint Stock Company (MYSICO)). A coal-powered plant is also planned.
1.2 Foreign investments increase

The oil and gas sector in Myanmar has been a major attraction for foreign investors for decades, but has seen a rapid increase since the easing of Western sanctions in 2011. From 2011 to 2015, Myanmar awarded 44 onshore and offshore oil and gas blocks to more than 40 foreign companies for exploration and production. Many Western oil companies were among the winners of the contracts for offshore blocks. According to Myanmar’s Foreign Investment Law enacted in November 2012, foreign oil companies must create a joint venture with a local oil company in order to bid for blocks (with the exclusion of deep water blocks). Over one hundred domestic oil companies have entered the energy sector since 2011. Some of these are registered in Singapore and other offshore havens, making it difficult to determine their ownership.

Total Foreign Direct Investment (FDI) in Myanmar during the 2014-2015 fiscal year reached 8.1 billion USD. This is a staggering 25 times more than the 329.6 million USD received in 2009-2010, the year before the military ceded power, and almost double the amount in fiscal year 2013-2014. Of the 8.1 billion, 3.2 billion USD was in the oil and gas sector, followed by 1.5 billion USD in transportation and communication.
A girl carries wood home for cooking while behind her gas is piped to China. Photo AOW

1.3 Arakan State stagnates

The Shwe gas project in Arakan State produces 500 million cubic feet of natural gas per day: Exactly 80 percent, or 400 million cubic feet per day, will be exported to China over thirty years, while just 100 million cubic feet per day is planned for Myanmar’s domestic use. Of the 20 percent slated for domestic use, the majority will go to Mandalay and to Than Shwe’s home district of Kyaukse. In Arakan State, the headquarters of the western Navy command, Kyauk Phyu city, and a few villages in Kyauk Phyu Township, where the gas terminal is located, received electricity from the Shwe gas in 2013. The rest of the township, including villages located along the gas pipeline and transmission lines, is still in the dark. In December 2014, only cities in nine out of Arakan’s seventeen townships had access to electricity from the national power grid.

Although Arakan State is the source of the Shwe gas, and has paid a hefty price for its extraction, it receives a paltry amount of the resource. The central government is instead planning to build a coal power plant in Kyauk Phyu Township to provide electricity to Arakan State. Coal-fired power plants have faced fierce opposition from local communities in Kyauk Phyu and other affected communities in Myanmar due to their high level of pollution. Arakan’s relatively clean natural gas, however, is already promised to China.

Myanmar’s vast and lucrative natural resources such as oil, gas, and minerals are mostly located in the ethnic states. However, these states do not receive revenue benefits from their natural resources. At the same time, social and economic conditions remain abysmal, and they suffer from environmental degradation and human rights violations related to the extraction of their natural resources.

Arakan State has one of the largest natural gas fields in ASEAN that earns more than one billion USD annually for Myanmar, yet it still lacks electricity, roads and infrastructure, and jobs (Arakan State has the highest rate of unemployment nationally). The state has the lowest percentage of households with access to clean water and sanitation facilities, and the third lowest percentage of households using electricity for lighting and cooking (see graphs). It also has low education and health indicators and is currently ranked the second poorest state in Myanmar.
PART 2: Building a Development Vision based on Decentralized Decision-Making

In order to prevent existing natural resource extraction from further undermining the development of Arakan State and Myanmar, a debate is urgently needed to decide what and how development should be implemented in the states and regions, and nationally.

What are the human and natural resource building blocks of development that we currently have for this and future generations? Considering that the vast majority of the people in Arakan State make their living from agriculture and fisheries, surely these sectors should be prioritized for development? Surely too, extraction of natural resources should only proceed with the consent of people living in the state, and resources used only if the benefits from them or cash from their sale outweighs the negative impacts of extraction? In addition to protected natural parks, shouldn’t agricultural, fisheries, and cultural areas also be off-limits to any resource extraction? How can the states and regions raise their own funds for education, health care, and investment in sustainable livelihoods through the collection of local taxes at state and local levels? These are just some of the questions this report hopes to raise.

Developing policy around the use of natural resources, particularly those that are non-renewable, remains a major challenge not only for Arakan State and Myanmar, but for many countries across the globe. When developing long-term policies, the following options should be considered:

1. **leave the resources in the ground or sea to protect** agricultural lands, forests, watersheds, and fishing waters from negative impacts or complete destruction (which would impact community livelihoods), and to prevent climate change;
2. **extract limited oil and natural gas for domestic energy use** only to ensure a stable, long-term supply and to focus on the development of local industries;
3. **extract limited oil and natural gas for partial sale** to utilize the revenues for long-term development

The most important questions of all, however, are:

- who will participate in decision making around natural resources?
- how will decisions be made?

Determining a long-term development vision and the role of non-renewable natural resources in the economy should promote inclusive discussions at the community level up to the township and state levels that seek a consensus. During the last year, Arakan Oil Watch and other civil society organizations have begun broad discussions through workshops on natural resource management. Communities and political parties from all townships in Arakan State have participated. In order to ensure...
that laws and institutions indeed benefit people, the environment, and the sustainable development of the states and regions, there needs to be formalized participation of affected communities at every stage of the process, including the formulation of long-term and short-term policies and institutions that manage the natural resources. We believe in such inclusive, or decentralized, decision-making processes.

Decentralization has become a common means of easing and preventing inequality both within and outside the post-conflict context and is gaining momentum in contributing to peace processes around the world. There are three key powers over natural resources to consider decentralizing:

1. **Ownership** - Who has constitutional and legal ownership of natural resources: the central government or the states and regions?

2. **Control and Management** - Who has the right to develop policies and laws for the extraction of natural resources, including the right to decide whether or not to extract the mineral resources? Who will regulate, manage, and monitor the extractive industry investors?

3. **Revenue management** - How will taxes and revenues be collected, managed, and distributed in a way that benefits the resource-rich states/regions and resource-poor states/regions as well as contribute to the needs of the central government?

Right now, according to Myanmar’s constitution, the “Union,” or the central government, firmly holds all of the above powers. The alternative is transferring these powers of authority and responsibility from central government ministries to lower level, autonomous units of government through statutory or constitutional provisions that allocate formal powers and functions. This is called devolution. Devolution is the highest form of decentralization, and allows the most powers to be transferred to the state/regional level. Deconcentration is the lowest form of decentralization, and merely transfers tasks to state and regional field offices of central government ministries.

Political decentralization involves the transfer of decision-making power and accountability to local levels. It often involves devolution—the transfer of responsibilities to local government with significant autonomy.

Administrative decentralization focuses on distributing managerial responsibilities among different levels. Administrative decentralization can take the form of deconcentration, whereby lower administrative levels are given more authority or discretion but remain accountable to the centre, or devolution in which executive authority is given to full-fledged local governments that are more autonomous from the centre.

Fiscal decentralization describes the way in which expenditure responsibilities and corresponding financial resources are provided to subnational levels. Some discretion over resources may be deconcentrated to lower tiers of central ministries, or more complete control devolved to local government with a system of planning and budgeting, local revenue, central-local transfers, and borrowing. (Taken from *State and Region Governments in Myanmar*, MDRI, 2015)
I. Build peace

Although the root cause of armed conflict in Myanmar is mainly one of ethnic identity, the last decade’s increase in large-scale extraction projects and sale of natural gas have exacerbated conflict between ethnic armed groups and the Myanmar army. Specifically, Myanmar Army presence at project sites escalates tensions and threatens the current peace process. Ethnic political parties and armed groups have called for a devolved federal structure for decades and the recent rise in natural resource extraction by foreign investors and the central government has increased calls for devolved federal natural resource management in the current peace negotiations. However, continued extraction of oil, gas, and other minerals in the war-affected ethnic states currently provides economic, political, and military advantages to the central government while disadvantaging ethnic populations and reducing the chances of a sustainable outcome.

There is an urgent need for all stakeholders in Myanmar’s peace process to recognize the crucial role that high-value natural resource extraction can have on the outcome of peace negotiations. As such, ethnic political and armed groups need to develop and share their vision and policies on the division of powers related to the ownership, control and management, and revenues of natural resources prior to political negotiations. This would include not only long-term policies that establish governance structures, but also interim policies to protect affected communities as well as the political and economic interests of the ethnic states during the peace process.

As continued extraction of natural resources in the ethnic states threatens the entire peace process, ceasefires are not the only precursor to peace. A moratorium on high-value natural resource extraction until political agreements and new legislation have been finalized will reduce tensions and conflict. Specific language about natural resources in peace agreements and political dialogue will nurture a sustainable peace.

Case studies from conflict resolution in Asia

Conflicts over natural resources in Aceh in Indonesia and Bougainville in Papua New Guinea were resolved through lengthy peace negotiations. To reach sustainable peace, all parties had to i) reach a negotiated peace settlement; ii) formalize the agreement in local and national constitutions; iii) pass laws based on the constitutions; and iv) create effective government and independent institutions to implement reform.

In accordance with a 2001 peace agreement in Papua New Guinea, a process to decentralize natural resource powers from the central government resulted in the Bougainville subnational government gaining full rights over minerals in Bougainville in August 2014.
The Bougainville government then passed a progressive mining act that recognizes individual and customary land ownership and the right of landowners to veto any mining exploration on or below their lands. As mining had been one of the causes of the conflict, a moratorium on investment was maintained throughout the peace process until the Bougainville government adopted the new mining act.

In the province of Aceh in Indonesia, negative impacts from the extraction of natural gas sparked a 29-year civil war that ended in 2005. Natural resources were a key component in the political negotiations between the warring parties. The Acehnese put a large emphasis on revenue sharing in the negotiations. In the peace agreement, the provincial government obtained 70 percent of revenues from the natural gas, while negotiating "shared powers" to manage resources. As a result, the central government of Indonesia was able to maintain full de facto control and management of the natural gas sector in Aceh. Acehnese negotiators later reflected that they should have negotiated "exclusive powers" of natural resources, as they today remain powerless to influence and manage the future direction of oil and gas development in their province.

In both of the above cases, it is clear that natural resource policy development was crucial in peace negotiations and that language specifying the division of powers should be written in to peace agreements. Such policy development can start to put concrete interim policies in place that protect communities and lands from premature development until a stage when agreements have been formalized into legislation and sustainable structures are functioning. Language that clearly defines division of powers can help prevent conflicts from re-emerging and enable subnational governments to proceed with establishing their own governance structures. For more detail on the Bougainville and Aceh peace processes and natural resource management see Case Study 1.
1. Formalize broad-based participation

The Than Shwe regime and investors proceeded with the Myitsone dam, the Shwe Gas Project, and a multitude of mining projects, such as Letpadaung, in ethnic states and regions with minimal or no consultations with affected people. The Thein Sein regime continued along the same path. Communities have been forced off their lands and lost their livelihoods for compensation payments that are rarely enough to replace previous income levels. This has fuelled conflict between communities and the central government, and between communities and project companies. The presence of Myanmar’s Army at project sites increases incidence of abuse, interferes with the daily life of nearby communities, and creates an atmosphere of intimidation and fear.

Ongoing projects such as oil and gas extraction and infrastructure construction, mining, and special economic zones are causing land confiscation, destruction of livelihoods, human rights violations, and environmental damage (see following pages). Opportunities from the projects for a small number of local people are limited to short-term, low-paying, and dangerous jobs. In Arakan State, according to interviews with local workers, they are paid less than workers brought from Ymgon and foreign countries.

International investors take advantage of Myanmar’s lack of regulations, weak regulatory institutions, media censorship, atmosphere of intimidation, and culture of corruption to extract valuable resources at the cheapest rate possible. The projects do not follow international standards for obtaining Free, Prior, and Informed Consent (FPIC) of affected peoples, conducting impact assessments, or disclosing revenues (see Appendix 2). Local people in Arakan State are concerned that the many new oil and gas, mining, and other mega projects granted by the government will cause further human rights abuses and environmental destruction because protection laws and mechanisms are weak or non-existent.

If people are not engaged in the process of managing their own resources, if they do not receive benefits from their resources while a few powerful interests profit, conflicts emerge. There is therefore an urgent need to strengthen the formal participation of affected communities and community-based organizations for immediate input on natural resource projects as well as long-term planning. At the same time, civic participation must be allowed and protected: communities must be allowed to organize into groups and to conduct referendums on natural resource projects; the media must be allowed to provide uncensored information. The central government must hold all states and regions to a single minimum standard through national legislation that guarantees such rights.
Inspiration from the Americas

Community-initiated referenda in the Americas are pushing governments to enact legislation that will integrate the views of affected people into the system of managing natural resources. Indigenous communities affected by mining projects in Central and South America have been proactive in asserting their rights to protect their lands from confiscation by organizing referendums on mining projects through non-violent and democratic processes. These referendums provide a chance for affected communities to voice their opinions and a means to transmit those voices to decision makers and the public regardless of formal representation in government.

The first community referendum of note took place in Tambogrande in Peru in 2002. A proposed gold mine was set to displace 4,000 fruit farmers and had led to demonstrations and confrontation between communities and police posted to protect the foreign company's offices. These conflicts led to injuries on both sides and culminated with the murder of a community leader.

While considering armed opposition to the project, the communities finally organized a referendum, which within the framework of the law would not be a binding vote. A vast majority of the community participated and 98 percent of the secret ballot voted against the implementation of the project, under the slogan "yes to agriculture, no to mining." Although the company and the government initially did not recognize the vote, the referendum created democratic and social legitimacy to the community voice, and public pressure ensured that the project was cancelled a year later.9

The Tambogrande vote inspired many other communities in Peru, Guatemala, Argentina, Columbia and Ecuador to follow suit. Communities in Guatemala alone have organized 60 such votes involving around 700,000 people on mining and dam projects.

In response to the growing number of social conflicts related to large scale development projects, in 2011 the Peruvian government passed a national consultation law to protect the rights of indigenous peoples, based on the ILO Convention 169, which creates additional legal options to challenge inadequate consultation by government or companies.10 The law still remains controversial, however, as crucial parts of the draft proposed by the indigenous communities, such as veto power by affected communities, were deleted.
China’s oil giant opens gateway to riches, leaves locals without livelihood

On Arakan’s Madae Island, the state-owned China National Petroleum Corporation, or CNPC, is constructing a huge seaport and oil terminal to import oil from the Middle East and Africa through Myanmar to a refinery in Yunnan. China currently imports 80 percent of its oil from those areas, shipping it through the Straits of Malacca. The Myanmar pipeline provides a more secure and much cheaper alternative transport route. In contrast to the astronomical benefit that the projects represent for China, local islanders have lost farmlands and fishing grounds to CNPC, which means they no longer have any means to live. In addition to this desperate situation, they are also abused by local police.

Daw Mey Shay, a farmer, said:

"About three acres of my lands were lost to this oil terminal but I did not get any compensation. Each leaf of tobacco I grew in those fields was as big as this hat. I also used to grow rice in those fields, but all my land is gone now. There is nothing left. I don’t have a place to go and work anymore. I’m just living on my savings and my tears fall down three times a day."

U Nor Mg, one of the first farmers to lose his lands at the beginning of the seaport project, said:

"I had rice fields and mountains before. We did not need to worry about our family’s livelihood even though we were not rich. When the Chinese arrived, the mountains and the rice fields were confiscated and our life became very difficult... We were informed of nothing before the confiscation. They did not give us even a word about it, for instance, how our land would be confiscated and how much we would be paid for compensation. We were just forced to sign in June and they arrived to work in November. Not soon after they arrived, they just started working on our land without letting us know anything."

Fishing is the other major livelihood for Madae islanders. According to fishermen, CNPC mined the rocks from local riverbeds for construction, and then dumped the unused rocks into the Thansit River, where islanders do the majority of their fishing. The rocks and concrete under navigational buoys now snag and rip fishermen’s nets, destroying key tools of their trade and making a successful catch impossible. U Khin Mg Htay, a fisherman from Madae Island said:

"We can’t get as many fish as before. Fishing has become difficult due to the setting of the pipeline and many navigational buoys along the river. When we go out, our fishing nets get caught in the rocks and we lose the nets. So now we can’t get fish to sell."
While the two main livelihoods on Madae are being destroyed, the project is not offering alternative means of living for local residents. Currently, over 200 workers from China and over 100 workers from central Myanmar are at the CNPC project site. Tun Kyi, a local, said that the workers from central Myanmar are former military personnel or those who have connections to military personnel. Only about sixty local Arakanese workers from various townships work at the CNPC seaport project site. If an accident occurs on the job, the worker receives no medical care or compensation, he or she is just fired. An Arakanese worker working at the project site said:

"At first, the Chinese promised to pay us 8,000 kyat (6.50 USD) per day. However, when they actually pay us, they just give 4,000 kyat (3.25 USD) per day, because they think they can do what they want to local Arakanese workers. They also exploit working hours by increasing the workday by 15 to 20 minutes and sometimes until dark. Sometimes we do not even have time to take a shower. If we refuse to work additional time, we are fired."

A female daily worker from Madae Island said, "I get 3,000 kyat (2.45 USD) a day. How can 3,000 kyat be enough for my family?"

The Shwe Gas Project: stolen lands and toxic waste

Daewoo Company started the Shwe project without any social and environmental impact assessments.* Local farmlands were confiscated for the gas project terminal and pipeline construction without prior notice to the landowners. Some farmers got limited compensation and some did not get any compensation for confiscated or damaged land. Many farmers lives have become worse since the beginning of the project in 2008 due to the loss of their farmland. Daw Khin Nu, a local farmer who lost her farmland to Daewoo’s gas terminal project, said:

"We were not informed about the confiscation of our land. They just defined my rice farm as one acre without conducting any measurement. They provided over 37 lakhs (3,700,000 kyat or 2,890 USD) in compensation for the rice farm and paddy for three years. But I did not get anything for my vacant field and seasonal farmland. This happened in 2010, so we have not gotten any compensation for 2014 and 2015. There are 172 affected farmers in this area. We sent a letter to the local authorities demanding compensation but it was not taken seriously. We just want our farmlands back. We’ve had these lands since the time of our ancestors. Before the projects arrived, parents could provide education for their children. In these days, we don’t have farmlands anymore. We have to struggle for daily food. So many parents have to stop their children’s education before they graduate."

In 2014 four local women from the Malar Kyun village had stillbirths. The village is located next to the Onshore Shwe Gas Terminal (OGT) site and the majority of local people think that the incident happened due to toxic waste released from the site. U Aung Wai Khin, a Malar Kyun villager said:

"I found the dirty wastewater in the canal when I went to my farm at 5 a.m. It smelled terrible and it was leaking into the rice farms nearby through cracked cement along the canal. People working in the farms and passersby could smell the dirty waste. This went on from September 2013 to the beginning of 2014 before they fixed it. Four pregnant women worked in the farms nearby. They drank water from their farms, and used it to cook too. I think those women gave birth to dead babies because of the dirty water, because we never had stillbirths in our village before."

* According to a staff member of the implementing organization, a Social Impact Assessment was conducted after the project began, but it was never disclosed to the public. The organization had to provide a report to the government and claimed that they therefore self-censored the questionnaires and final assessment.
3. Decentralize governance

Centralized governance and control by the military has for decades caused injustices and untenable development in Myanmar. Although there have been some improvements since a new government took office in 2011, a majority of the structural problems remain. These include constitutional powers to the military, extremely limited powers to the state and regional governments to enact laws, centralized judicial appointments, and the appointment—not election—of state chief ministers. The General Administration Department (GAD), which is under the militarily led Ministry of Home Affairs, forms the administrative office of the state and regional governments and manages all key township committees.

Myanmar’s 2008 constitution stipulates centralized power over the ownership, control, and management of natural resources as well as the collection of revenues from the sale of natural resources. There is no mention of a natural resource revenue management system or of criteria for sharing revenues with natural resource owner/producer states, regions, and communities. The highly centralized government structure leaves little or no room to respond to diverse needs and opportunities at the local level, resulting in inadequate and inappropriate development in a majority of Myanmar’s states and regions.

In order to resolve ethnic conflicts and develop sustainably, Myanmar requires devolved federal governance under civilian control, bringing decision-making powers closer to its people. Powers of authority and responsibility need to be transferred from central government ministries to state and regional governments through statutory or constitutional provisions that allocate formal powers and functions. In particular, the current system of the selecting the chief ministers of states and regions, and appointing military personnel to 25 percent of state and regional legislatures must be abolished; the residents of the state and/or region should elect their chief minister and all legislative representatives.

Decentralization reforms have accelerated across the world over the last few decades due to conflicts over natural resources. Results from these reforms clearly show efficiency and equity benefits from democratic processes that encourage local authorities to serve the diverse needs and desires of their populations. Global studies also claim that locally-managed development planning promotes environmental protection and increases sustainable use of natural resources such as water, minerals, and forests.

A devolution of powers politically, administratively, and fiscally sets up structures and mechanisms so that decisions around the use of natural resources can be made at local levels and input from affected peoples can be taken into account. It also allows
locally elected legislative bodies to manage the use of resources. Currently, Schedule II of Myanmar’s constitution leaves key management decisions at the central government level. For example, state parliaments can pass legislation on how minerals are polished, but cannot limit the amount of minerals that can be exported out of the state. Another cornerstone of efficient devolved governance is the ability of states or regions to raise a substantial part of the funds necessary for development activities through local taxation, such as taxes on income, property, and the sale of resources. This reduces bureaucracy and increases the accountability of local governments to local needs.

In Myanmar, the debate around natural resources has up until now focused on benefit-sharing agreements and the percentages of revenues and/or taxes to be paid to producing states and regions. This focus does not address the central government’s complete ownership and control over natural resources through the existing constitution. The Arakan National Conference held in April 2014 highlighted the crucial need of ownership, control, and management power over natural resources by Arakan people for the development of Arakan State.13

Devolved powers in the oil and gas sector must prevent corruption, the resource curse, and injustices from occurring at the state and regional levels. Democratic, transparent, and accountable governance must be guaranteed by policies enshrined in national and subnational legislation. Legislation has to adhere to specific protection of human rights, environment, and livelihoods at much higher levels than current Myanmar legislation does, and include measures to protect the national and local economies from the resource curse. Devolved powers may in many cases still include continued presence by the national Myanmar Oil and Gas Enterprise and other national institutions, as long as the interests of local areas are prioritized.

**WARNING: Deconcentration is not a solution**

The Ministry of Environmental Conservation and Forestry (MOECAF), Myanmar’s environmental protection agency, was created in 2011. Its Environmental Conservation Department (ECD) is responsible for environmental policy and has been rapidly expanding staff and subnational offices around the country. As of mid-2014, there were five regional ECD offices, with another five to be opened in the 2014-15 fiscal year and the remaining four regional offices planned for 2016. In addition, 67 district-level ECD offices and 336 township offices are planned to open from 2016.14

While it can be useful for central government ministries to have offices in the states and regions, it does not represent devolution of governance. Rather, the ECD subnational offices are a classic example of deconcentration—transfer of authority and responsibility from central government ministries in the country’s capital city to field offices of those ministries at a variety of levels (region/state or local). Current structures make these field offices accountable to central government rather than local governments. Thus far there are no serious discussions of how the subnational ECD offices will share responsibilities with the state and regional governments.

Devolved decentralization has three aspects:

1. **Political**: subnational political representatives have powers to formulate and implement substantive local laws and policies

2. **Fiscal**: subnational governments are able to raise funds, formulate budgets, and manage finances to address local needs through the collection of significant taxes and revenues

3. **Administrative**: subnational governments and ministries are able to retain significant powers to manage the delivery of local services.
4. Decentralize ownership of natural resources

According to Section 37 (a) of Myanmar's current constitution, "the Union is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere."  

Civil wars have plagued Myanmar since the time of independence as successive central governments have denied any form of autonomy to the ethnic states. Ethnic armed organizations have over the years moved away from claims of independence, and are now collectively calling for a decentralized federal union. These demands have included the rights to own and manage natural resources within the ethnic states. Constitutional ownership of natural resources by states and regions within a federation is often seen as less important in comparison to control and management powers. However, its significance in terms of recognizing heritage that dates back centuries as well as related powers to decide whether or not to extract natural resources cannot be overlooked in Myanmar’s peace process.

Section 37 (a) of the national constitution must be amended to enable states and regions to own their lands and natural resources.

A range of ownership powers in federations

There are many examples of decentralized ownership of natural resources in federations around the world, including the US, Canada, Argentina, the United Arab Emirates (UAE), and Iraq (see Case Study 2). In Argentina, for example, provincial ownership of non-marine natural resources was recognized by a 1992 federal law and formalized in a constitutional reform in 1994. In the UAE, the seven Emirates that make up the federation have complete ownership of natural resources within their territories. Yet in Iraq, ambiguous constitutional text regarding ownership has created violent conflicts between the federal government and Kurdish opposition.

5. Decentralize control and management of natural resources

According to Myanmar’s 2008 constitution, "the Union shall enact necessary law to supervise extraction and utilization of State owned natural resources by economic forces" (Section 37 (b)). The constitution therefore places full authority over the control and management of natural resources in the hands of the central government—a government in which active military personnel make up 25 percent of the legislature. (These personnel and others in government postings profit from involvement of military-owned companies in the extractive sector, a conflict of interest not addressed in Myanmar’s current legal framework). The states and regions, by contrast, are left with a specified list...
of a few, relatively insignificant, items that they are allowed to legislate.

Contracts for large-scale projects are drafted and signed by government and army officials in Naypyidaw, with minimal or no consultations with affected communities or local governments in the respective states and regions. Projects are managed by officials from Naypyidaw ministries and foreign companies while local communities are left with negative impacts and few employment opportunities.

In order to prevent further fuelling the inequality, resentment, and conflict caused by the current management system, Section 37 (b) of the national constitution must be amended to provide legislative powers for states and regions to control and manage their lands and natural resources. This requires comprehensive devolved political, fiscal, and administrative powers and necessary federal support structures.

Once securing management powers, future federal states and regions need to establish laws and create sustainable institutions:

- formulate long-term economic planning, including specific strategies for natural resources and sustainable development
- monitor and regulate extractive industries
- protect the rights and participation of communities
- protect the environment and natural resources for future generations.

**Federal frameworks for managing natural resources**

Federations around the world have chosen a variety of frameworks for the management of their natural resources (see Case Study 2).

In **Canada**, provincial (subnational) legislatures and governments are given exclusive authority to make laws related to exploration of non-renewable natural resources and for the development, conservation, and management of non-renewable and forestry resources. Experiences from two different provinces in Canada reveal that decentralized management of resources by public institutions that have mechanisms for input and consultations with affected peoples are more accountable to local populations. Privatized institutions, on the other hand, serve the interests of industry and are more difficult to oversee.

In **Iraq**, the 2005 federal constitution that “favours regional governments” created a challenge for a new government that suddenly had to manage a decentralized country previously administered by dictatorship. Negotiations leading up to the 2005 constitution either did not take into account the future challenges regarding "shared powers" between the central and provincial
governments, or both sides believed that the vaguely worded constitution would enable them to gain control over natural resources. The ambiguous constitution and the rapid transition from dictatorship to democracy allowed little time to develop short and long-term policies at the both the central and provincial levels. This has kept the door to renewed conflict open.

In Argentina, ten resource-rich provinces created an interprovincial institution that was a significant force in the negotiations for constitutional amendments to decentralize powers over natural resources in the early 1990s. Although individual provinces in Argentina maintain full ownership and management of natural resources, the institution continues to protect provincial interests by ensuring that powerful private corporations are audited and by negotiating revenue shares with the central government.

<table>
<thead>
<tr>
<th>Tasks</th>
<th>National</th>
<th>States/Regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish vision and policy priorities</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Develop legislation</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Build management institutions</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Define/limit national energy production</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Define subnational energy needs, usage and production</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Strategic Environmental Assessments</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Community consultations and référendums</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Social, Environmental, Health and Human Rights Impact Assessments</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Manage production contracts with investors:</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>-Intra-state/region projects</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>-Interstate/region and export projects</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Oversight and performance auditing of companies</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Protect environmental, social and human rights</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Distribution and sales of resources</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Collect royalties</td>
<td>y</td>
<td>/</td>
</tr>
<tr>
<td>Collect taxes</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Manage Savings/Stabilization funds</td>
<td>/</td>
<td>/</td>
</tr>
</tbody>
</table>
6. Decentralize collection of natural resource revenues

Gas exports to Thailand and China provide Myanmar with one of its largest sources of income. Exports were estimated at 3.3 billion USD in fiscal year 2013-14 and are expected to increase to more than 5 billion USD in 2015. Despite these huge amounts, in 2013 Myanmar was ranked as having the poorest natural resource governance among fifty-eight resource-rich countries. Myanmar's central government has been notoriously opaque about how much it earns from the sale of oil and gas, and what it does with those revenues. Despite inclusion of oil and gas revenues in the national budget for the first time in 2012, the revenue management system remains extremely weak and non-transparent. A scoping study prepared for the implementation of the Extractive Industries Transparency Initiative (EITI) in Myanmar found a difference of 412 million USD in the value of gas exports reported by the Customs Department and the Central Statistical Organization for fiscal year 2013-14. Such discrepancies in official data illustrate the difficulty in knowing exactly how much the country is earning from natural resources.

A recent study by Adam Smith International verifies that nearly half of the country's budgeted revenue is kept in non-transparent bank accounts, both foreign and domestic.

As of 2014, known signature bonuses and fees from the nearly twenty production sharing contracts signed since 2000 for exploration and production of Arakan oil and gas blocks alone have yielded an estimated 170 million USD, yet none of this can be traced back to investment in Arakan State itself. The central government will also earn 13.81 million USD per year for thirty years from a right of way fee for the China-Myanmar dual oil and gas pipelines, and 22 million USD per year for transit fees from the China-Myanmar oil pipeline. Overall income from the oil and gas sector is set to further increase as about 40 onshore and offshore blocks are under operation, and investment in the sector has been dramatically increasing. There has been no discussion of how this income would be re-invested in the areas the pipelines pass through.

Avast majority of oil, gas, and mineral resources originate in the ethnic states, yet:

"Today, approximately 99 percent of official oil, gas and mining revenues are collected by the national government or state-owned entities, as prescribed by the 2008 constitution. Transfers of these and general revenues to subnational governments are ad hoc, generally favoring conflict-prone areas like Kachin, Kayah and Tanintharyi." 

Centralized collection of taxes from natural resources and other sources and their subsequent distribution through various accounts provides a mechanism to ensure higher levels of transparency. "Ministries and SEEs [State Economic Enterprises] have off-budget “Other Accounts” lodged in the Myanmar Economic Bank which are not in the fiscal reports...The MOE [Ministry of Energy] has three Other Accounts (in Singapore) and MOGE [Myanmar Oil and Gas Enterprise] has 14 Other Accounts. It is not clear what each of these accounts is used for and to what extent oil and gas revenues flow through these accounts...Myanmar has multiple Other Accounts. Other Account receipts for FY2011-12 total 2.54 trillion kyat, 44% of total budgeted revenue. While use of Other Accounts is not unusual, bringing these accounts into the formal budget process will ensure higher levels of transparency." - Adam Smith International
centralized ministries does not respond to diverse local needs and creates an unequal balance of power between the Naypyidaw government and the state and regional governments.

Conversely, devolved collection of significant taxes enables responsive local governments to allocate funds according to local plans and needs, such as developing culturally appropriate school curricula, vocational trainings for local employment needs, and sustainable small-scale production of energy. Decentralized collection of taxes also reduces time consuming and costly bureaucracy at the national level, making governance more efficient.

A holistic approach to natural resource and revenue management must be adopted in Myanmar, incorporating all aspects of the value chain, from initial policy development to decommissioning at the end of any project.

In order to develop sustainable, efficient, and devolved revenue management structures, the national constitution must provide legislative powers for states and regions to collect revenues from the use and sale of their natural resources and to develop their own budgets for the development of their areas and delivery of services to their populations.

Once securing powers to collect and spend revenues, future federal states and regions need to establish laws and create financial institutions and mechanisms for accountable, transparent, and sustainable financial management. Duties of these institutions should include:

a. to collect and manage revenues in the form of taxes and royalties from extractive industries with negotiated proceeds transferred to the central government
b. to ensure that a significant percentage of the revenues are saved and invested for future generations
c. to manage independent financial auditing of government agencies as well as extractive companies, and present reports to the public.
Global experiences with natural resource management

Revenues from natural resources can have a significant positive impact on a country’s economy, if they are managed well according to policies that consider long-term economic health. However, the sudden injection of revenues without such policies and support institutions can create corrupt, unequal, and imbalanced economies that entrench poverty and cause the collapse of governments.

Generally, the higher the share of revenue from natural resources is of a country’s total revenues and GDP, the higher the risk of getting caught in the resource curse (see table below). Managing high-value natural resources transparently and accountably at subnational and national levels is necessary to prevent the resources curse.

The single most important policy to protect a country or a subnational region from the resource curse is to set an appropriate limit to how much of the resource revenue may enter the government’s budget. This can prevent inflation, wasteful expenditures, and unwanted dependency on a resource that one day will be depleted. In identifying an appropriate limit, long-term fiscal planning is crucial in order to determine sustainable levels of government expenditures, development planning (prioritizing education, health, and livelihoods), as well as estimates of future oil and gas reserves. As all of these depend on the size of the economy and population, the percentage of revenues that enter the budget varies considerably from country to country. The models used by Norway and Timor-Leste are considered the most successful and sustainable but other countries also have clear limits enshrined in law, as outlined in the table below.

Minimizing the share of revenues from non-renewable resources in the national budget

<table>
<thead>
<tr>
<th>Country or Region</th>
<th>Percentage of natural resource revenues entering national or subnational budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska, US</td>
<td>50-75% of revenues minus taxes on income and property</td>
</tr>
<tr>
<td>Ghana</td>
<td>Maximum 70% of 7 year-average of revenues</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>Maximum 3% of petroleum wealth (Estimated Sustainable Income or ESI)</td>
</tr>
<tr>
<td></td>
<td>Petroleum wealth is the total balance in the Petroleum Fund plus the estimated value of future oil and gas reserves, which is updated annually</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>Maximum 40% of excess oil and gas revenues above estimated revenues</td>
</tr>
<tr>
<td>Botswana</td>
<td>0% (mineral revenues may only be used for public investment or entered into savings fund)</td>
</tr>
</tbody>
</table>
A path out of the resource curse

<table>
<thead>
<tr>
<th>Contributing factors to the resource curse</th>
<th>Solutions to protect against the resource curse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mismanagement and corruption of funds, common in a business that is often plagued by secrecy, discretionary funds transfers, and political back scratching, can create social conflicts and political turmoil.</td>
<td>Establish democratic, accountable, and transparent governance structures that provide public oversight of natural resource revenue transfers and investments through independent auditing and monitoring mechanisms, civic participation, and free media.</td>
</tr>
<tr>
<td>2 Low benefits to producing regions can create social conflicts and civil wars.</td>
<td>Share benefits equitably between investors and local government and between local and central governments, and non-producing regions; prioritize employment and contract opportunities for local communities and businesses.</td>
</tr>
<tr>
<td>3 High dependency on natural resources that one day will be depleted leads to low economic diversification, i.e. reduced investment in other economic sectors.</td>
<td>Minimize the share of revenues from non-renewable resources in the national budget and seek alternative sustainable sources of revenues.</td>
</tr>
<tr>
<td>4 Sudden increases in foreign currency increase the value of the local currency, making it harder to export goods from other sectors and thereby increases dependency on natural resources. This phenomenon, commonly called “Dutch Disease,” keeps countries trapped in exporting its valuable resources without building up other sectors of the economy</td>
<td>Invest for the future by putting a large percentage of natural resource revenues into a savings fund, drawn down as yearly interest which can continue after the resources are depleted; only consider infrastructure development that contributes to future self-reliance.</td>
</tr>
<tr>
<td>5 Increased revenues can lead to wasteful and unsustainable spending on unplanned infrastructure development or increased salaries that in turn can cause significant national inflation.</td>
<td>Invest in people by supporting education, healthcare, and sustainable livelihoods.</td>
</tr>
<tr>
<td>6 Irregular revenues due to global oil and gas price and production fluctuations can leave governments with unexpected budget deficits.</td>
<td>Protect against price and production fluctuations by creating in a stabilization fund to balance budgets when resource prices are low.</td>
</tr>
</tbody>
</table>
Federal countries such as the US, Canada, Argentina, and the United Arab Emirates, as well as unitary countries such as Timor Leste and Norway, provide practical lessons in developing revenue management procedures into a decentralized, effective, and sustainable system (see Case Study 4 for detailed examples).

There are three ways that subnational governments may receive oil, gas and mineral revenues:

1. Subnational governments collect taxes and revenue directly on the resource industry (like Canada, the US, and Argentina)
2. Subnational governments receive a direct transfer from the central government that is a defined share of the revenues from resources originating in the region (like producing states in Nigeria and Indonesia)
3. Subnational governments receive indirect transfers through the national budgeting process that reflect preferential treatment for producing regions

Because oil, gas, and mineral resources are not renewable, countries rich in these resources often establish natural resource “funds” to manage and invest revenues for sustainable economic development. The model is popular and practiced in many countries at both the national and subnational levels. Reasons to set up a natural resource funds include saving for the future, macroeconomic stabilization, and socioeconomic development. There is no perfect formula to follow but a fund can be set up and managed to suit particular needs. Currently twenty three countries in the world have natural resource funds and an accompanying revenue management system.

Timor-Leste established a Petroleum Fund with the aim to build up a large enough balance so that all government expenditures would be covered entirely by the interest generated by the Fund. In this way all of the revenues themselves could be saved for the future, when the resources are depleted. In 2014, ten years after establishing the Fund, it had grown to 16.5 billion USD and the interest generated in 2013 was higher than disbursements to the national budget, indicating its potential to contribute to self-sufficiency. Since 2009, however, the government has spent higher amounts from the Fund than the target limit. Overall the government has spent 31 percent of oil and natural gas revenues while saving the remaining 69 percent since the permanent fund was set up.

In the state of Alaska in the US, the state constitution stipulates that at least 25 percent of oil, gas, and mineral revenues be placed in a permanent fund and invested for future generations. The earnings from the Fund are spent only with approval from the legislature. Expenditures include an annual payment to individual citizens of the state. The Fund has mechanisms to protect against price fluctuations and oversight structures to ensure accountability and transparency.
Holistic Natural Resource Management

Establish a vision:
Set up criteria of sustainable development and formulate economic plans

Build infrastructure:
Develop legal foundations (such as constitution, laws and policies) and functional institutions to manage natural resource projects

- Assess potential project:
  Conduct strategic environmental assessment, consultations/referendums and impact assessments in target communities

- Finalize project MOU:
  Finalize contract and project-based regulations transparently, in line with national and subnational legislation

- Use resources domestically:
  Define industry, community and household priorities

- Sell resources:
  Secure the best deal in terms of adequate, stable revenues

- Monitor the extraction process:
  Ensure that regulations are being followed transparently and that communities and environment are protected in accordance with legislation and international laws

- Manage and invest revenues sustainably:
  Protect subnational and national economy from the resource curse: provide democratic, accountable and transparent oversight of revenues and expenditures; invest revenues for the benefit of current and future generations

- Monitor clean up and rehabilitation:
  Ensure high standards and clear responsibilities of private and public sectors to minimize environmental, health and livelihood damage
In **Canada**, resource-rich provinces pay relatively high taxes to the central government in order to ensure minimum standard revenue per capita across all provinces in the country. The central government uses the tax income to disburse what are called “equalization payments” to poorer provinces. A clear division of ownership, management, and fiscal powers is ensured by dividing the types of taxes and royalties collected by the central and provincial governments.

In **Norway**, the government plays a significant role in the oil and gas sector, insisting on part ownership in projects. This has ensured that oil fields have been utilized only when government—and its citizens—have received a considerable share of the profits, and oil and natural gas fields have been conserved for the future. Norway currently collects some of the highest taxes in the world on investing companies and places much of these into the largest natural resource savings fund in the world, the Norwegian Government Pension Fund, valued at 882 billion USD.25

**WARNING: EITI is only part of a solution**

Considerable effort and funds have been used in Myanmar to promote government and civil society participation in the Extractive Industries Transparency Initiative (EITI) process through workshops and multi-stakeholder meetings. Myanmar became an EITI candidate country in 2014, and in aiming for full membership, will produce its first report to the EITI secretariat in January 2016. According to the EITI standard, Myanmar will need to publish accounts showing all payments the government receives from the extractive sector, including information about license holders, production data, state-owned enterprises, and the allocation of revenues from natural resources.

Although the EITI process in Myanmar is important in terms of promoting contract and revenue transparency, to date it has created an imbalanced focus on one part of the natural resource value chain, while ignoring issues of policy development, public participation in decision-making, and investing natural resource revenues into sustainable development. The current process may therefore actually serve to increase investment in the natural resource sector without supporting sustainable and participatory development, causing the country to fall further into the resource curse.
Case Study I
Natural Resources and Conflict

Extraction of high value natural resources has been among the key drivers of conflict in places such as Indonesia, Papua New Guinea, Sudan, and the Philippines. The ownership, management, and revenues of natural resources were therefore among the priority issues discussed when negotiating peace agreements in these countries during the last decade. We can learn much from these cases.

ACEH PROVINCE, INDONESIA

The resources, the conflict
A massive find of natural gas in the offshore Arun fields in 1971 sparked a 29-year long civil war between the Acehnese and the central government. An Indonesia/US joint venture to extract the gas created massive discontent among the Acehnese, because the central government extracted and sold Acehnese resources while only 5 percent of the revenues were returned to the province. This became a major contributing factor to the formation of the armed Free Aceh Movement (GAM) in 1976. The main military targets of the GAM were gas installations and engineers from the implementing Exxon Mobil Company. Around 15,000 people lost their lives in the conflict between 1976 and 2005, when a peace agreement was finally signed.

The peace deal
Equitable sharing of natural resources, including natural gas, was a key issue in the comprehensive negotiations between GAM and the Indonesian government. In the 2005 peace agreement, formalized in the Law Governing Aceh in 2006, GAM negotiated a settlement to receive 70 percent of the net profit from the natural gas. This was to be distributed from the central to the Acehnese government after sales. The 2006 law states that Aceh has full management powers over minerals, forests, and fisheries. However, the oil and gas sectors are to be co-managed between Aceh and the central government through the formation of a joint institution.

The results
After the agreement, delayed payments from Jakarta (the central government) caused conflicts between the previous adversaries to arise. It was only in 2015 —nine years after the law was passed—that a joint managing institution, the Aceh Oil and Gas Management Body (BPMA), began to take shape. It has still yet to be put into practice and meanwhile the Arun Gas fields are nearly depleted.

Due to the non-specific language in the peace agreement, the central government has been able to maintain full de facto control and management of the natural gas sector. Irwandi Yusuf, a GAM commander, peace negotiator, and governor of Aceh, reflected in 2008 that the peace agreement

“doesn’t mention who will regulate and govern [natural gas revenues], or who has the authority to give licenses for new explorations. The LoGA [Law Governing Aceh] says only that the central and Aceh governments will manage the resources jointly. We should have made it [clear] right in the MOU [peace agreement].”
The resources, the conflict
The discovery of a large copper ore deposit in 1969 was the beginning of a thirty-year long curse in Bougainville. The Panguna mine became the largest open cut mine in the world and provided the central government of Papua New Guinea (PNG) with nearly half of its export revenues. By 1989, the Bougainville Revolutionary Army (BRA) was formed to reclaim lands and rights with calls for independence. The PNG army retaliated with a series of abuses against civilians, using scorched earth methods followed by a massive blockade of the island. This response from the central government further fuelled resentment, desperation, and resistance among the local people. The civil war became the largest conflict in the Pacific since World War II: up to 20,000 people—an eighth of the population—died in less than a decade.

The peace deal
After a series of peace talks, a 1997 ceasefire led a majority of opposition to the negotiating table. A peace accord between the Bougainville islanders and the central government was formalized in 2001. The central government outright refused to consider independence for Bougainville, but the peace agreement included increased autonomy and constitutional guarantees for a referendum on independence, tentatively to be held in 2020.

While the accord stated that ownership of natural resources would initially remain with the central government, the Autonomous Bougainville Government would gain the right to control and manage its resources pending approval of the local constitution (in 2004) and natural resource legislation. A process to decentralize these powers from the central government began in 2008 and was concluded in 2014, ten years after ratifying the Bougainville constitution.

The results
Today the mine remains closed and overgrown. There has been considerable caution to restart or begin new mining operations in Bougainville, especially since Australian mining company Rio Tinto still holds the majority shares in the mine. In accordance with the 2001 peace agreement, the Bougainville government gained full rights over minerals in Bougainville in August 2014. In March 2015, the regional government passed its first mining act, which activated the autonomous control. The act recognizes individual and customary land ownership and the right of landowners to veto any mining exploration on or below their lands. It also guarantees landowners a share in revenues from any extraction together with the Bougainville government. The new act spells the end of a decade-old moratorium on mining activities that provided protection for communities and incentivized the Bougainville government to seek alternative options for economic development.

For the local agricultural and forest communities, however, the mine led to confiscation of fertile farmlands and pollution of waters and the environment. While communities were gradually pushed out by the expanding mining operations, “skilled labour” and other migrants from mainland PNG converged on the island.

Despite the seemingly progressive draft legislation, 700 petitioners from the northern region of the island criticized the act for being drafted by the UK consultancy Adam Smith International, which has direct financial links to the mining industry, and expressed concerns about a new wave of foreign mining investments.
### Case Study 2
Decentralized ownership of natural resources in federations

<table>
<thead>
<tr>
<th>Country</th>
<th>Importance of oil and gas</th>
<th>Resource Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Myanmar</strong> (Unitary with 8 regions and 7 states)</td>
<td>Sales of natural gas constituted 35% of export revenues and 5% of GDP in 2014 [37]</td>
<td>According to Section 37 (a) of the constitution, “the Union is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere.” [38]</td>
</tr>
<tr>
<td><strong>United States of America</strong> (Federation with 50 states)</td>
<td>Largest producer of natural gas and the third largest producer of crude oil in the world. [39]</td>
<td>Land: ownership is divided into federal, state, and private. The respective owners have the right to both surface and subsoil lands, including minerals. [40] The federal (central) government formally owns approximately 30 percent of the total area of the US. <strong>Sea:</strong> Ownership of submarine deposits is detailed in the 1953 Congressional Acts “the Submerged Lands Act” and the “Outer Continental Shelf Leasing Act.” Coastal states own and manage resources up to between 3 to 10 miles off the coasts (depending on the state’s original agreement with the federal government). The federal government claims ownership of the waters beyond these boundaries. These acts also include and detail oil and gas management procedures for respective coastal states. [42]</td>
</tr>
<tr>
<td><strong>Argentina</strong> (Federation with 23 provinces)</td>
<td>The world’s 26th and 27th largest producers of natural gas and oil respectively [43] The resources constitute approximately 6.5 percent of the country’s GDP; 10 percent of the resources are exported. Natural gas in particular has enabled Argentina to be completely self-reliant in electricity generation. The majority of oil and gas reserves are in eight of the less populated western provinces that represent only 16 percent of the total population.</td>
<td>Land: According to Section 124 of the constitution, “the provinces have the original dominion over the resources existing in their territories.” <strong>Sea:</strong> Provincial ownership of natural resources was recognized by a 1992 federal law (National law 24.145 and 26.197) and formalized in a constitutional reform in 1994. All oil field concessions granted before the constitutional reform continued to fall under federal ownership until the expiration of agreements made prior to the reform. [44] The central government continues to assert control over offshore deposits between 12 and 200 miles off the coast. [45]</td>
</tr>
<tr>
<td><strong>The United Arab Emirates</strong>&lt;br&gt;(Federation with 7 emirates)</td>
<td>UAE is highly dependent on natural resource extraction, oil and natural gas accounts for about 60% of its income from exports, or 25% of GDP.(^{46})</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>Iraq</strong>&lt;br&gt;(Federation with 19 provinces)</td>
<td>According to Article 23 of the constitution, the Emirates that make up the UAE have complete ownership of natural resources within their territories: “The natural resources and wealth in each Emirate shall be considered the public property of that Emirate.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The 9th largest producer of oil in the world.(^{47}) Significant portion of reserves are in northern ethnic Kurdish provinces.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>According to the 2005 constitution: “Oil and gas are owned by all the people of Iraq in the regions and governorates” (Article in). The ambiguous constitutional text regarding ownership, as well as subsequent management powers in Article 112 has created violent conflicts between the federal government and Kurdish opposition.</td>
<td></td>
</tr>
</tbody>
</table>

In Myanmar the Union government owns the sea and the lands Photo AOW
### Case Study 3
Decentralized control and management of natural resources in federations

<table>
<thead>
<tr>
<th>Country</th>
<th>Constitutional powers of natural resource management</th>
</tr>
</thead>
</table>
| **Myanmar**      | According to the 2008 constitution, “the Union shall enact necessary law to supervise extraction and utilization of State owned natural resources by economic forces” (Section 37 (b)).<sup>48</sup>  
Sections 96 and 188 of the constitution divide the right to enact laws into specified legislative lists. Schedule One ensures that the central government holds the right to extract natural resources. Schedule Two grants the states and regions extremely limited powers to enact laws around such things as cutting and polishing gems, but not extracting or managing significant natural resources. |
| **Canada**       | Provincial legislatures and governments are given exclusive authority to make laws related to exploration for non-renewable natural resources; development, conservation and management of non-renewable and forestry resources. (Article 92)<sup>49</sup> |
| **Argentina**    | “They [the provinces] determine their own local institutions and are governed by them. They elect their governors, legislators, and other provincial officers, without intervention of the federal government.” (Section 122)  
“Each province enacts its own Constitution as stated in Section 5 ensuring municipal autonomy and ruling its scope and content regarding the institutional, political, administrative, economic and financial aspects.” (Section 123)  
“...the provinces have the original dominion over the resources existing in their territories.” (Section 124).<sup>50</sup> |
| **Iraq**         | “The federal government, with the producing governorates and regional governments, shall undertake the management of oil and gas extracted from present fields...” (Article 112.1) and “the federal government, with the producing regional and governorate governments, shall together formulate the necessary strategic policies to develop the oil and gas wealth...” (Article 112.2) |
IRAQ: THE DANGERS OF AN AMBIGUOUS CONSTITUTION

Following the US-led invasion of Iraq and the removal of Saddam Hussein, a new constitution was passed in 2005, followed by the country’s first democratic election in over 50 years. Iraq is a federation and populated by a number of ethnic groups, led by significant Arab and Kurdish populations. Iraq is the ninth largest producer of oil in the world and a significant portion of its reserves are located in the northern ethnic Kurdish provinces.

Management powers

The constitution gives shared powers over the control and management of natural resources between the central and provincial governments, but neither the constitution nor laws detail the specific allocation of responsibilities to manage the oil sector. The ambiguous language of the constitution, which also refers to "present [oil and gas] fields," has resulted in conflicts—sometimes violent—between oil producing regions and the central government. The country is made up of nineteen provinces (governorates) of which six are wholly or partially a part of the ethnic Kurdish region that has its own government.

Problems

In 2007, the Regional Kurdish government claimed its rights to local resources by passing the Kurdish Petroleum Act and then awarding over twenty contracts to oil companies. The central government ruled the contracts illegal and blacklisted the companies, prohibiting them from any fixture contracts in Iraq. Within a month this led to armed conflict between the Kurdish and national armed forces. A year later a compromise was made in which the awarded contracts were allowed to stand while the Kurdish government accepted the current rates of federal oil revenues, rather than a previously demanded increase.

Conflicts arose again in 2009 when the Federal Ministry of Oil gave a concession to British Petroleum (BP) without consulting the Parliament (a 1967 law requires the legislative body to adopt all oil contracts with foreign companies). The contract also created conflict between the central government and the Governorate Council of Basra, the location of the oil deposit given to BP. The Basra provincial government claimed that the oil ministry could not award contracts without consulting the elected body of the southern province.

These conflicts have created a parallel process in which oil companies now need to make two contracts with and follow the laws of both the provincial and central governments. Attempts have been made to solve the problem by writing the 2007 Hydrocarbon Law, but eight years later it still remains a draft. The draft law proposes that existing contracts be subject to a review by a panel of independent advisors of the Federal Oil and Gas Council (FOGC) and that provinces retain the right of control.
and ability to award licenses to foreign companies. A second law being drafted is the Iraq National Oil Company Law that aims to re-establish the Iraq National Oil Company as a state-owned company managing all oil and gas resources in the country. This is an apparent attempt to block provincially-owned companies.

**CANADA: DIFFERENT PROVINCIAL MANAGEMENT SYSTEMS**

Canada is among the world’s largest producer of minerals and is the fifth largest producer of both oil and natural gas. Oil production in Canada took off with the discovery of oil in the province of Alberta in 1947. Today Alberta is the largest oil and gas-producing region in North America, pumping out 1.7 million barrels of oil per day.

**Management powers**

Control and management of natural resources in Canada depends on the division of lands and subsoil minerals between federal, provincial, and private owners. The federal government owns and manages approximately 41 percent of the total lands of Canada while 48 percent is under the decentralized authority of provinces. Private land owners do not have the rights to subsoil resources, which belong to either provincial or federal authorities.

The central government maintains regulatory control of national energy development, import and export of oil and gas, as well as the transport of oil, gas, and electricity across provinces through its National Energy Board (NEB). The Federal Department of Fisheries and Oceans (FDFO) and the Canadian Environmental Assessment Agency (CEAA) are national institutions authorized to monitor pollution and waste in waterways, including environmental assessments across the country. These act in parallel with provincial institutions and departments.

Provincial governments have set up institutions to manage their respective extractive sectors. The responsibilities of these institutions are specified within provincial legislation, with duties including:

- to receive bids and facilitate related environmental assessments and consultations in affected communities;
- to issue licenses and contracts for exploration and production;
- to provide oversight of the industry ensuring that companies comply with provincial regulations.

While it is important to have independent institutions to enable participation from all stakeholders in society during the startup, production, and decommissioning of oil and gas projects, it appears that the Alberta model clearly favors the corporate extractive sector with negative results.
<table>
<thead>
<tr>
<th>Alberta Province</th>
<th>British Columbia Province</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Importance of oil and gas</strong></td>
<td>Taxes and revenues on oil and gas extraction account for approximately 24 percent of GDP.</td>
</tr>
<tr>
<td></td>
<td>Taxes and revenues mainly from natural gas production account for nearly 5 percent of GDP.</td>
</tr>
<tr>
<td><strong>Provincial government role</strong></td>
<td>The provinces legislate and manage all oil and natural gas extraction on provincial lands, including allocation, utilization, and sale, as well as oversight of the industry.</td>
</tr>
<tr>
<td></td>
<td>Provincial governments do not operate their own oil and gas corporations. They instead sell licenses to private corporations and then collect various taxes and revenues from those corporations. Revenues and taxes go directly to provincial ministries of finance.</td>
</tr>
<tr>
<td><strong>Institution that manages extractive industries</strong></td>
<td>The Alberta Energy Regulator is privatized and operates at an arm’s length from the government. Senior management primarily has industry backgrounds. Fully funded by levies on extractive licenses.</td>
</tr>
<tr>
<td></td>
<td>The Oil and Gas Commission is a province-owned enterprise within the structure of the government.</td>
</tr>
<tr>
<td><strong>Management style</strong></td>
<td>Obliged by law to send any bid for review to an inter-departmental board. Predatory management of natural resources, especially the “Oil Sands Project,” has had devastating impacts on affected communities and the environment. Fast processing of license applications for extracting companies (seven weeks from application to license). Poor land use planning for the province; lack of transparency and public participation.</td>
</tr>
<tr>
<td></td>
<td>Stakeholder workshops and consultations high on the agenda. Maintains strong oversight from provincial government. Responsible for assessments and consultations within the institution but partners with related ministries, such as the Ministry of Environment, in accordance with legislation.</td>
</tr>
</tbody>
</table>

Two provinces, two approaches
Argentina covers an area four times the size of Myanmar, with a multi-ethnic population of approximately 42 million. It has a democratic federal political system, based on 23 regions and one autonomous [capital] city. Argentina’s provinces have considerable self-autonomy and enact their own constitutions and freely organize their own governments.

**Management powers and collective response**

Until the early 1990s natural resources were under full ownership and control of the central government of Argentina. Conflicts between resource-rich provinces and the central government were common and were mainly about centralized decision-making and limited financial benefits returning to the affected provincial areas.

In order to collaborate and protect their interests in negotiations over the sale and revenues of resources with the central government, ten resource-rich provinces created an interprovincial institution, the Federal Organizations of Oil Producing States (OFEPHI), in 1984.65
Timor-Leste

Timor-Leste regained independence in 2002 after a referendum that ended 24 years of Indonesian occupation. Members of the armed and civil resistance movement became central figures in the new government. Both the land area and population are comparable to those of Arakan State, with most of the population engaged in agriculture. Timor-Leste is among the most oil-revenue-dependent countries in the world with oil and gas providing more than 93% of the national budget in 2014. The oil and gas reserves in its two existing fields are set to be depleted in 2016 and 2020 respectively.\textsuperscript{63}

Timor-Leste established a petroleum fund under provisions of the Petroleum Fund Law in 2005 to manage oil revenues in a sustainable way. The Timor-Leste Ministry of Planning and Finance conducted a public consultation on the concept of establishing a Petroleum Fund in October 2004 and the parliament conducted public consultations and hearings on the Petroleum Fund Act, which was passed unanimously as Law No. 9/2005 in July 2005.\textsuperscript{64} The Petroleum Fund was established in September 2005 with 204.6 million USD in royalties that had been accumulated since 2000. By the end of 2014 the Fund had grown to 16.5 billion USD, but it is now decreasing, as withdrawals are larger than incoming revenues.

The Timor-Leste government has saved 69% of its oil revenues in the Permanent Fund since its inception in 2005. One of the original aims of the Fund was to build up a large enough balance so that all government expenditures would be covered entirely by the interest generated by Fund. In this way all of the revenues themselves could be saved for the future, when the resources are depleted. In 2013, within eight years of establishing the permanent fund in Timor-Leste, the interest generated was higher than the disbursements to the national budget, indicating the potential to contribute to self-sufficiency. Maintaining this, however, has been a challenge, as the government since 2009 has spent higher amounts from the petroleum fund than the target limit, or the "Estimated Sustainable Income" (ESI) (see graphs on page 43).

Despite the challenges, the Petroleum Fund Law:

- provides mechanisms that assist Timor-Leste to sustainably manage its petroleum revenue
- details the parameters for operating and managing the Fund
- defines the asset allocation and risk limits
- governs the collection and management of receipts associated with petroleum wealth
- regulates transfers to the government budget, and
- provides for government accountability and oversight of these activities.

\textbf{Case Study 4}

\textbf{Decentralized revenue management systems}
How it works: All petroleum revenues and returns on investment are deposited in the Petroleum Fund with the aim of saving them for future generations. Assets are managed in offshore investments sheltered from domestic economic risks. The operational management of the Petroleum Fund is currently carried out by the Central Bank of Timor Leste, which invests the Fund's capital according to guidelines established by the Ministry of Finance and mandates developed by the Investment Advisory Board. The Ministry of Finance is required to seek advice from the Board before making decisions on any matter relating to the investment strategy or management of the Fund. External investment managers oversee investments made by the Fund.

Democratic governance: Expenditures from the Fund are integrated into the budget process. The annual State Budget Law, proposed by Government and enacted by Parliament, sets the maximum amount to be transferred from the Fund to the Budget in a given year. 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.

Governance mechanisms have been put in place to assist transparency and accountability, including the timely publication of quarterly reports and annual financial statements. The Parliament's independent Consultative Council advises on matters related to the Fund, although there is no requirement for Parliament to follow the Council's recommendations. An internationally recognized accounting firm carries out independent external audits, and audit reports are adapted and made public online. The Ministry of Finance and Central Bank have websites to publicize the legal regime, transparency arrangements, and financial reports; keeping these information portals updated and maintained is essential.

Recognizing how important it is that citizens understand the savings regime and governance measures, the government has held many public discussions on the Petroleum Fund throughout the country. 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. Timor Leste became an EITI compliant country in 2010.

CSO involvement: The Petroleum Fund Consultative Council was formed under the Petroleum Fund Law. The Council's role is to advise Parliament on the performance and operation of the Petroleum Fund, as well as monitor the effectiveness of appropriations from the Fund in benefiting current and future generations. The Consultative Council includes two members elected by Parliament, two representatives of Non-Governmental Organizations (NGOs), a representative of a religious organization, and a representative of the private business sector. Members
Petroleum Fund savings balance

The graph shows how an effective revenue system can quickly build up savings.

Annual revenues saved and contributed to the national budget

In 2013, the interest generated was higher than the disbursements to the national budget, indicating the potential to contribute to self-sufficiency. Yet since 2009, the government has spent more than the target limit.

serve five-year terms and also include former Presidents of the Republic, former Presidents of Parliament, former Prime Ministers, former Ministers of Finance, and former Directors of the Central Bank.66

Challenges: Although the Timor Leste revenue management system is seen as among the most progressive in the world, the country is challenged by how to free itself from its dependency on oil revenues before oil reserves are depleted (forecasted for 2020). Although the Petroleum Fund Law specified limits on the amount of oil revenue that could be spent by the national government (the “Estimated Sustainable Income”), the government has in recent years exceeded these set “sustainable” amounts and gradually reinterpreted the law from being a rule to a benchmark. Thus, critics believe that the country will face a crisis once the oil revenues dry up and that the Petroleum Fund could be depleted as early as 2026.
Ensuring stable revenues

Prices for agricultural, fisheries and low-tech industrial products are relatively stable, and therefore such sectors can provide a stabilizing influence to a country’s economy. The prices of high-value natural resources, such as oil, gas, and gemstones, however, are linked to global pricing and throughout history have been extremely volatile (see graph on the right). Revenue fluctuations caused by such price instability can destroy economies by creating wasteful spending and inflation when prices are high and a lack of capital when prices are low.

The graphs below compare government revenue growth with expenditures in two resource rich countries, Norway, which has adequate measures against revenue fluctuations, and Venezuela, which lacks effective measures (although improvements have been made since 1998).

A functioning system aims to maintain a stable economic growth (red color) while minimizing the inflation rates (green color). The surplus revenues that originate from sales of natural resources is then saved in a national savings fund and a specific stabilization fund that is used when there are revenue deficits.
Alaska, US

Alaska is the largest state in the US. It is twice as large as Myanmar but has a population of only 700,000 people. The state has vast natural resources, such as oil, natural gas, and coal. Upon the discovery of a large oil deposit in Prudhoe Bay in 1969, the state revenue jumped from having been fairly stable at around 200 million USD annually to 1.2 billion USD in 1970. Revenues from the oil and gas sector contribute over 80 percent of Alaska’s overall state revenues.

By 2000, the oil resources were nearly depleted. Alaska is facing a major challenge as production levels and exploited reserves decline. The state is considering two alternatives: to diversify its incomes to other sectors, and oil and gas exploration into new areas.

The Alaska Permanent Fund

In 1976, Article 9, Section 15 of the Alaska State Constitution established the Alaska Permanent Fund in 1976 to better safeguard oil revenues.

Revenues collected by the Alaska state government from the sixteen oil and gas companies operating in the state in fiscal year 2013

- Royalty: 2,624 million USD
  - The local share of extracted resource (in Alaska a minimum 12.5% of the total value of the natural resource)

- Corporate tax: 435 million USD
  - Tax on the profits generated by the investing companies, after other costs have been deducted

- Production tax: 4,219 million USD
  - Tax based on the total state value of the oil and natural gas from state lands

- Other taxes and fees*: 111 million USD
  - Including tax from federal government oil and gas operations on federal lands in Alaska, and property tax on the utilization of state-owned property, such as natural gas pipelines.
**How it works:** The permanent fund is managed by a state-owned corporation, the Alaska Permanent Fund Corporation (APFC), that manages the assets of both the Permanent Fund and other state investments. Any spending of the Fund must be approved by the state legislature.  

**Investing for the future:** According to Article 9 of the state constitution, “At least 25 percent of all mineral lease rentals, royalties, royalty sales proceeds, federal mineral revenue-sharing payments and bonuses received by the state be placed in a permanent fund, the principal of which may only be used for income-producing investments.”

The fund is invested in a range of assets including stocks, bonds, and real estate. For accounting purposes the fund is divided into two parts: the principal and the earnings reserve. According to Alaska’s constitution, the principal may not be spent and the earnings reserve may be spent only after approval by the legislature and for public purposes. This includes the Permanent Fund Dividend distribution.

**Permanent Fund Dividend Distribution:** Since 1982, the Alaska state government has directly paid more than 1,000 USD per year to every citizen who lives in Alaska, including all men, women, and children. This payment, called the Permanent Fund Dividend, comes from oil revenues in the Alaska Permanent Fund. The amount varies year to year depending on a complex formula of the returns to the fund. In 2008, the dividend reached a high of 3,269 USD (including a one-time supplement of 1,200 USD financed by that year’s state budget surplus), amounting to 16,345 USD for a family of five. In recent years, the dividend has averaged been between 1,000 and 1,500 USD per person.

Apart from contributing direct dividends to citizens and revenues to the state budget that pay education, health, and welfare programs, nearly 90 percent of the employees in the sixteen oil companies in Alaska are local residents. When this is added to employment and revenues from secondary industries and related service occupations, the industry forms a significant part of Alaska’s economy.

**Protecting against revenue fluctuations:** Alaska’s massive dependency on oil and natural gas industry has meant that its annual revenues fluctuate in relation to global oil and natural gas prices, making it difficult to plan future investments and development of the state. In order to protect against extreme revenue fluctuations, approximately 2-4 percent of the revenues are paid into a Constitutional Budget Reserve Fund (CBRF) that can be used to cover short-term deficits caused by revenue fluctuations. In order for the government to make a withdrawal from the Fund, the laws require a 75 percent vote in favor of a withdrawal in the state’s parliament.
Oversight: The Alaska Permanent Fund Corporation that manages the fund is overseen by a Board of Trustees. The Board consists of two members from the government and four persons from the public, all appointed by the Alaska State Governor. The public representatives serve four-year terms. 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. 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 the development and production of blocks 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. 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.
Canada vs. Norway

**Company shares vs. government and its citizens**

Determining the role of the government in the oil and gas industry is one of the first issues to consider when developing a policy on natural resource management. The graph at left illustrates the size of revenues and costs during the lifespan of an average oil and gas project over 30 years, highlighting some of the challenges in financing the high initial investment costs and how revenues in a best-case scenario will change over the project period.\(^7\)

Oil and natural gas extraction is an expensive and risky business. The easy option for any government is to have investing companies take the risks and bear the brunt of the initial costs in return for keeping a higher share of the profits. However, countries that have managed to develop their own state-owned industries with equity shares (part ownership) in extractive projects, insisted on high taxes and royalty payments to the government, have generally fared better.

The Province of Alberta in Canada has been a haven for investors in the oil sector due to its investor-friendly policies and low tax and royalty rates. When the Alberta government in 2007 said it would increase the total government share of oil and natural gas revenues by between 4-19 percent,\(^8\) companies exerted their lobbying powers and forced the government to maintain the old rates.\(^9\)

The economic policies of Norway represent the other end of the spectrum. When Norway found oil in the North Sea in 1969, it insisted that high equity shares (part ownership) in extractive projects and high taxes be paid to the government in exchange for...
exploration and production in the offshore oil fields. While the policy initially dissuaded some investors, the strong position has meant that oil fields have only been utilized when government—and its citizens—have received a considerable share of the profits, and oil and natural gas fields have been conserved for the future. In 1972, the government created a state-owned oil company, Statoil, which has since been awarded around 50 percent of all oil contracts in Norway (33 percent of Statoil was later sold to public shareholders). Norway currently collects a 50 percent production tax as well as a 28 percent corporate tax on oil sector investors. The tax, totaling 78 percent of corporate revenues, is one of the highest in the world on investing companies.

**Canada’s provinces: Ensuring equality**

The energy sector (oil, natural gas and hydropower) represents approximately 10 percent of Canada’s GDP. As the provinces maintain ownership and control of natural resources, resource-rich provinces such as Alberta and Saskatchewan have the highest per capita incomes of the country. In order to help balance the disparities between the resource-rich and resource-poor provinces, Canada has had an equalization policy since 1957, which became enshrined in the constitution in 1982.

*Sharing benefits equitably:* The equalization payment is based on the principle that each province be guaranteed a minimum revenue per capita. The central government generally receives relatively high taxes from resource-rich provinces. These and other types of central government revenues are then distributed as equalization payments to the relatively poorer provinces, and thereby create a re-distribution of wealth. The size of the payments is based on a formula to measure each province’s ability

---

**Equalization payments by province in dollars per capita, 2007-08**

---

<table>
<thead>
<tr>
<th>Province</th>
<th>Equalization Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE.1</td>
<td>$7,000</td>
</tr>
<tr>
<td>N.B. Man.</td>
<td>$5,000</td>
</tr>
<tr>
<td>N.S. N.L Qua.</td>
<td>$4,000</td>
</tr>
<tr>
<td>B.C. Ont.</td>
<td>$3,000</td>
</tr>
<tr>
<td>Sask. Ada.</td>
<td></td>
</tr>
</tbody>
</table>

---

*Note: The equalization payments are based on the principle that each province be guaranteed a minimum revenue per capita. The central government generally receives relatively high taxes from resource-rich provinces. These and other types of central government revenues are then distributed as equalization payments to the relatively poorer provinces, and thereby create a re-distribution of wealth. The size of the payments is based on a formula to measure each province’s ability...*
to raise local revenues. In 2014, resource-rich provinces such as Alberta, British Columbia, Saskatchewan and Newfoundland did not receive any payments.\textsuperscript{84} Canadian equalization payments are unconditional, and therefore it is up to the provinces that receive them to decide how they are used within the respective provincial budgets.

**Federal vs. Provincial shares**

In order to prevent conflicts between central and subnational governments, it is important to have clear division of ownership, management, and fiscal powers. In terms of revenues, the simplest way is to separate these powers is through the types of taxes and royalties collected by central and subnational governments.

For example in Argentina, the provinces collect all royalties from upstream oil and gas production, while the central government collects tax on the export of oil and gas as well as downstream sales of petrol. In Canada and the US, the subnational governments collect all royalties of locally-owned resources, while the central government collects royalties from federally-owned resources. In cases where the subnational governments own and profit from their own resources, the central governments still receive considerable revenues, as investing companies make corporate and employee income tax payments to both subnational and central governments. In Alaska for example, companies pay 35\% of their profits to the central government and an additional 9.4\% to the Alaska state government. In Alberta, Canada, companies pay 16.5\% of profits to the central government and an additional 10\% to the Alberta provincial government.\textsuperscript{85} Local collection of these taxes and revenues also provides additional indirect benefits for the central government, as increased self-reliance of subnational governments decreases the need for other payments from the central government, such as the Canadian equalization policy.


Arakan National Conference (ANC) statement regarding natural resources, April 2014.

The Myanmar Development Resource Institute’s Centre for Economic and Social Development (MDRI-CESD) and The Asia Foundation, Natural Resources and Subnational Governments in Myanmar: Key considerations for wealth sharing at http://asiafoundation.org/publications/pdf/1367


Revenue Watch Institute, Resource Governance Index, 2013.


Calculations and oil and gas project information is from Myanmar’s Ministry
55 Ibid.
57 This is done through provincial ministries, such as the Alberta Department of Energy and the BC Ministry of Natural Gas Development.
65 The proposal suggested that provincial shares for oil sands should increase by 17%, crude oil by 4% and natural gas by 5%. The Alberta Royalty Review Panel, Our Fair Share, September 2007.
66 What Canada and Alberta Could Learn from Norway, at http://credb.ca/norways-oil-gas-policy/
## Appendix I
Companies investing in Arakan State 2002–today

### Oil and Gas Sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Companies</th>
<th>Total Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>Daewoo International Corporation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Korea Gas Corporation</td>
<td>2</td>
</tr>
<tr>
<td>India</td>
<td>Oil and Natural Gas Corporation (ONGC)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Gas Authority of India Limited (GAIL)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ESSAR</td>
<td>1</td>
</tr>
<tr>
<td>Australia</td>
<td>Woodside Energy</td>
<td>5</td>
</tr>
<tr>
<td>China</td>
<td>Chinnery Assets/China National Petroleum Corporation (CNPC)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>China National Offshore Oil Corporation (CNOOC)</td>
<td>1</td>
</tr>
<tr>
<td>Japan</td>
<td>Mitsui Oil Exploration CO., Ltd. (MOECO)</td>
<td>2</td>
</tr>
<tr>
<td>US/EU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>ConocoPhillips Myanmar E&amp;P Pte. Ltd.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Chevron (Unocal Myanmar Offshore Co. Ltd)</td>
<td>1</td>
</tr>
<tr>
<td>Great Britain</td>
<td>BG Asia Pacific Pte. Ltd.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Ophir Energy Development</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Shell Myanmar Energy Pte. Ltd.</td>
<td>2</td>
</tr>
<tr>
<td>Norway</td>
<td>Statoil Myanmar Private Limited</td>
<td>1</td>
</tr>
</tbody>
</table>
### Oil and Gas Sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Companies</th>
<th>Total blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myanmar</td>
<td>Myanmar Petroleum E&amp;P Co., Ltd. (MPEP)</td>
<td>2</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Myanmar Petroleum Resources Ltd. Exploration &amp; Production (MPRL E&amp;P)</td>
<td>1</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Royal Marine Engineering Co., Ltd.</td>
<td>i</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Parami Energy Development Co., Ltd.</td>
<td>i</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Myanmar Oil and Gas Enterprise (MOGE)</td>
<td>2</td>
</tr>
</tbody>
</table>

### Mining Sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Companies</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Gold finder</td>
<td>Titanium</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Boulle Mining Group</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>Myanmar SIMCO Song Da Limited Joint Stock Company (MYSICO)</td>
<td>Marbel-Nayputaung Mine</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Myanmar Government</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2
International norms on the participation of affected and indigenous peoples in decision-making

Communities directly affected by extractive industries are always the ones who have the most to lose, through lost or polluted agricultural lands and fishing grounds leading to substantial changes in their lives and livelihoods.

Large-scale projects are implemented by powerful businesses and/or national governments, often using police or the army to quell opposition, and at best conduct various social and environmental impact assessments and identify levels of compensation, rather than reconsidering the validity of the projects. In comparison with the companies and government, the communities are the weakest in terms of political power, formal education, and funds. Solving these inequalities must be a top priority for policy makers aiming for sustainable development and peace.

International instruments such as the UN Declaration on the Rights of the Indigenous Peoples (UNDRIP) and Convention 169 of the International Labour Organization have attempted to rectify some of these inequalities. Myanmar has ratified the UNDRIP but has not yet ratified the legally binding ILO Convention 169.

The United Nations Declaration on the Rights of the Indigenous Peoples (UNDRIP), ratified by the Myanmar government, states that affected indigenous people have the right to participate in decision making and that a process of Free, Prior and Informed Consent must be used prior to any project approval:

"Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision making institutions."
(Article 18)

"States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them."
(Article 19)
The ILO Convention 169, which has only been ratified by 20 UN member countries, is a legally binding international instrument that specifically addresses the rights of indigenous peoples to participate in decision making on issues affecting their lives. Prior consultation to any project also remains a cornerstone of the convention:**

"The peoples concerned shall have the right to decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control, to the extent possible, over their own economic, social and cultural development. In addition, they shall participate in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly"

(Article 7)

Arakan State’s coastal fisheries, agricultural lands, and deep-sea natural gas deposits make it one of Myanmar’s richest states, yet social and economic indicators consistently rank it among the poorest. Why? Ownership and control of resources by the central government and foreign investors has created resource curse in Arakan and the country as a whole. Drawing on Arakan Oil Watch’s decade-long work with communities affected by natural resource investments and experiences from resource-rich countries around the world, this report proposes six critical components to lift the curse and move forward toward a more stable society and prosperous economy.