

# Supply and Command

**Natural gas in western Burma set to entrench military rule**



**A report from the Shwe Gas Movement**



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## **About the Shwe Gas Movement**

The Shwe Gas Movement (SGM) is made up of individuals and groups of people from western Burma who are affected by the plans to extract natural gas from Arakan State as well as regional and international friends who share our concerns. SGM was initiated in late 2002 by the All Arakan Students' and Youths' Congress (AASYC) with the support of Arakan leaders and grassroots communities. AASYC is rooted in Arakan State and has offices in Thailand and Bangladesh.

Currently, the movement includes a campaign committee and network in India that involves journalists, professors, lawyers, NGO workers, and concerned individuals from both India and Burma. A similar network is based in Bangladesh. In addition, since the beginning of 2005, the Arakan Oil Watch has been providing a monthly Shwe Gas Bulletin as part of the movement. Several civil society organisations, including the Korean House for International Solidarity (KHIS), the Korean Federation for Environmental Movement (KFEM), Imagination for International Solidarity (IIS), EarthRights International (ERI), the Anti Gas Pipeline Campaign in Mizoram and the Other Media (India), the Students and Youth Against the Plundering of Oil and Gas from Bangladesh, and other international partners cooperate with the Shwe Gas Movement in information sharing, awareness raising, public actions, and other activities.

We assert that the extraction of natural gas must be stopped until the people of Burma, through a democratically-elected government, can decide on the use of their natural resources.

## **Activities**

- Research, information sharing, and network building
- Awareness raising and mobilization
- Direct public actions

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AASYC would like to thank everyone who made this report possible, especially our volunteer Matt Hill

**July 2006**

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## Note on Spelling

Throughout this report, place names are spelled according to the Arakan pronunciation. The table below provides the Burmese and Arakanese spellings of names most often used in the report to avoid any confusion.

| Burmese spelling | Arakanese spelling |
|------------------|--------------------|
| Danyawadi        | Dhanyawaddy        |
| Kyarnegan        | Krarnegan          |
| Kyauk Phyu       | Kyauk Phru         |
| Laymyo           | Laymro             |
| May-Yu           | Mayu               |
| Ponnagyun        | Ponnagywan         |
| Saigyaung        | Saichaung          |
| Sittwe           | Site-tway          |
| Vasali           | Vesali             |
| Yoma             | Roma               |

## Acronyms

|       |                                           |
|-------|-------------------------------------------|
| AASYC | All Arakan Students' and Youths' Congress |
| AYNG  | Arakan Youth Network Group                |
| IB    | Infantry Battalion                        |
| ILO   | International Labour Organisation         |
| LIB   | Light Infantry Battalion                  |
| MOGE  | Myanmar Oil and Gas Enterprise            |
| PCS   | production sharing contract               |
| SGM   | Shwe Gas Movement                         |
| SLORC | State Law and Order Restoration Council   |
| SPDC  | State Peace and Development Council       |
| tcf   | trillion cubic feet                       |

Note: The capital of Arakan State, now called Site-tway (Sittwe in Burmese) is also known as Akyab, its British colonial name.

## Brief Timeline

|               |                                                                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| August 2000   | Daewoo International Corporation signs a Production Sharing Contract (PSC) with the Myanmar Oil and Gas Enterprise (MOGE) to begin exploration of gas reserves in the A-1 block off the Arakan coast |
| December 2003 | Gas reserves found in the Shwe gas wells of the A-1 Block                                                                                                                                            |
| February 2004 | Daewoo International signs a PSC with the regime for exploration rights in the A-3 block                                                                                                             |
| October 2004  | A consortium of two Chinese and one Singaporean company signs a PSC with MOGE for gas and oil exploration rights in the onshore Block M (7,760 sq-km) in Kyauk Phru Township, Arakan State           |
| December 2004 | The same consortium buys exploration rights for the A-4 block off the Arakan coast                                                                                                                   |
| May 2005      | Essar Oil of India signs PSCs for exploration rights in the onshore block L and offshore block A-2                                                                                                   |
| October 2005  | Two Indian companies sign 10% and 20% stakes in Daewoo's PSC in the A-3 block                                                                                                                        |
| January 2006  | Burma's Ministry of Energy signs a Memorandum of Understanding with PetroChina for the sale of 6.5 trillion cubic feet (tcf) over 30 years                                                           |
| March 2006    | Gas reserves found in the A-3 block                                                                                                                                                                  |
| 2007          | Estimated commencement of pipeline(s) construction                                                                                                                                                   |
| 2010          | Estimated commencement of commercial production of the Shwe gas reserves                                                                                                                             |

## Executive Summary

A scramble for natural gas presently unfolding in western Burma is poised to provide the ruling military junta with its single largest source of income. The sale of the gas, mainly to regional neighbours, will further entrench the junta, insulating it from international pressure. The country's already abysmal human rights situation is set to worsen.

A consortium of Indian and Korean corporations, in cooperation with the regime, has been exploring gas fields off the coast of Arakan State after the discovery of a "world class gas deposit" in wells labelled "Shwe" (the Burmese word for gold) in late 2003. The Shwe wells are expected to lead to one of the largest gas yields in Southeast Asia. Burma's strategic location between two of the world's largest and most energy-hungry countries (China and India) has accelerated the exploration and extraction process.

Outcry over Burma's human rights record and its continued detention of democracy leader and Nobel Peace Prize laureate Aung San Suu Kyi has led to a series of actions by the international community, including moves to highlight Burma as a security threat at the UN Security Council. Yet the regime has continued its military expansion and offensives, particularly into ethnic border areas, in an effort to strengthen its hold. Since 1988, the number of infantry battalions based in the Western Command in Arakan and Chin states, the two western states that will be affected by the Shwe gas project, has increased from 3 to 43 battalions.

The increased militarization has led to human rights abuses including forced labour, confiscation of land and assets, extortion,

and violence. These abuses will surely be exacerbated by a further increase of troop levels to secure any gas pipeline in the area. Indeed, the effects of the project are already being felt by local fishermen. In April 2004, soldiers arrested fishermen inside an exclusion zone around exploratory rigs in the gas fields. The men were not aware of the restrictions as they had frequently gone fishing in that area. Regardless of this, they were beaten and thrown in jail.

Gas from the Yadana and Yetagun pipelines in the east of the country is currently Burma's largest source of legal export revenue. The Shwe project, however, would increase the junta's income from gas by at least 150%. The junta stands to profit by approximately US\$580-824 million per year or US\$12-17 billion over the life of the project. Previous gas earnings have been directly linked with military arms purchases and allow the regime to continue its oppressive grip on the whole of Burma's population in defiance of international pressure.

While the regime purchases more arms with gas revenues, the local population remains in poverty. Arakan and Chin states are both excluded from the national electricity grid; ninety percent of the population uses candles for light and firewood as their primary source of cooking fuel. People are denied their rights to participate in decision-making about any development projects, including the extraction of local resources.

Two proposed pipeline routes to India traverse four areas classified as crucial to the conservation of global biodiversity, including one of the ten most vulnerable ecoregions in the world. Clearance paths either side of a pipeline that would disrupt animal

migratory paths and the building of roads and infrastructure are of particular concern in these areas. The fate of at least three critically endangered animal species, the Arakan forest turtle, the dugong, and the Irrawaddy river dolphin, will also be put into question by the Shwe project. Environmental dangers involved in the commercial production and transport of natural gas such as chemical leakage and gas blowouts are a further concern.

Several ancient historical sites - including the third Dhanyawaddy City that dates back to 580 BC - that are significant not only to Arakan people but to the understanding of the history of Southeast Asia lie within twenty kilometres of the proposed Shwe gas pipelines. Given the SPDC's record of destruction and disregard for culturally and historically important sites, including those in Arakan State, this proximity makes them vulnerable to ransacking and destruction during the development of the Shwe pipelines and associated infrastructure such as roads and military barracks.

In order to address the potential social, economic, and environmental impacts of the Shwe gas project and to enable its benefits to be distributed equitably, Burma needs a democratic system of governance in which people can voice their concerns without fearing persecution. Without this, the Shwe project must not go forward.

The Shwe Gas Movement urges:

- all corporations and businesses involved in the Shwe project, either state or privately owned, to freeze all current business with the military regime and refrain from further investment and exploration until a dialogue can be held with a democratically-elected government.
- foreign governments, institutions, and civil society, particularly in the region, to pressure businesses involved in the Shwe gas project to freeze all current business with the military regime and refrain from further investment.
- the broader international community to continue to expose the dangers posed by the Shwe gas project.



# Part I:

# Overview

**The geopolitical significance of the Shwe gas**

**Investment in oil and gas in Burma**

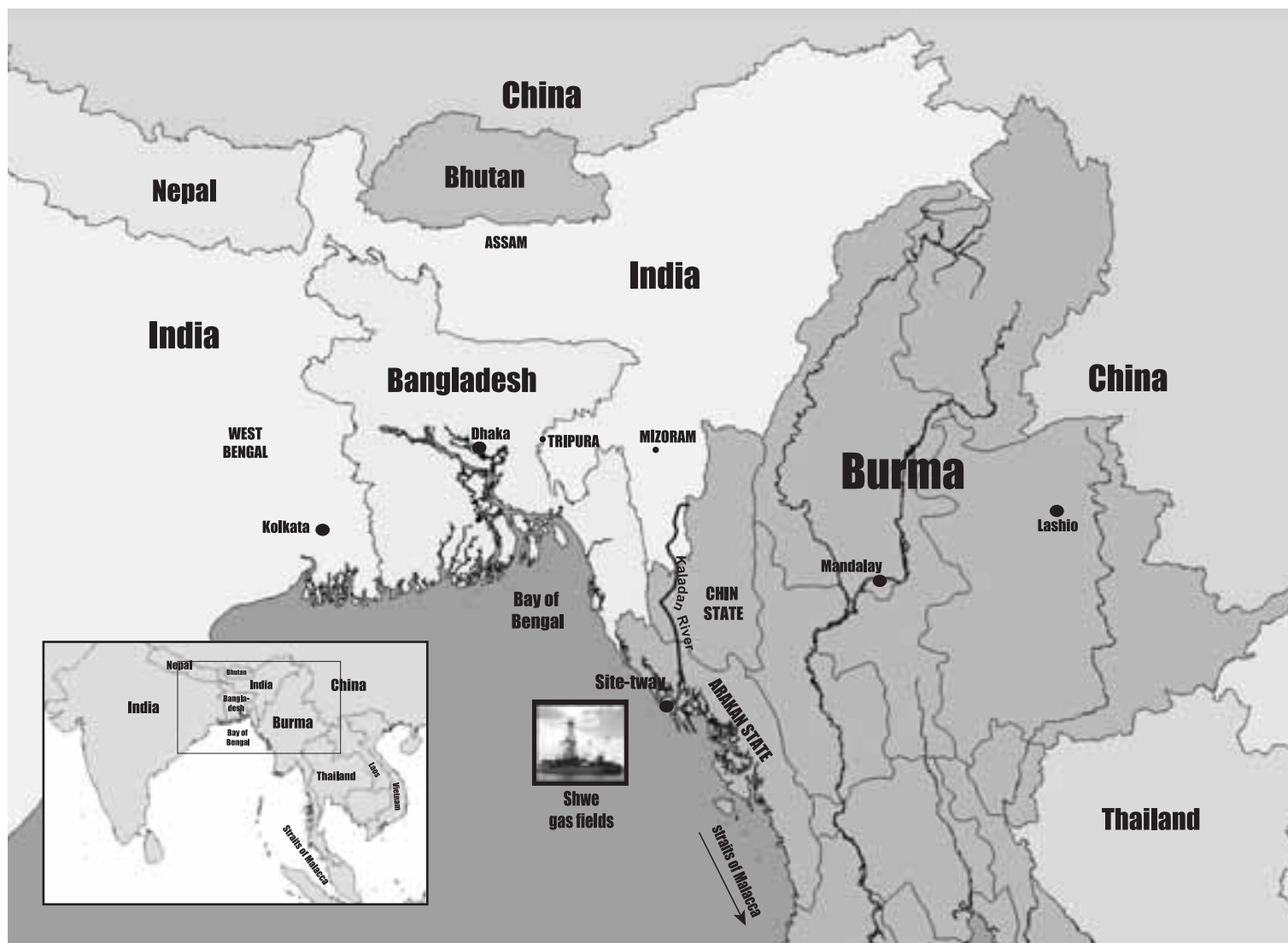
**The Shwe gas project**

**The route: the Kaladan River valley**

**Livelihoods along the Kaladan**

**Economic situation along the Kaladan**

**Current energy use in western Burma**



## The geopolitical significance of the Shwe gas

Peoples of Burma, renamed Myanmar by its ruling military regime in 1989, have endured the world's longest civil war and one of the world's most notorious military dictatorships. Outcry over the Southeast Asian country's human rights record and its continued detention of democracy leader and Nobel Peace Prize laureate Aung San Suu Kyi has amounted to a series of actions by the international community including United Nations General Assembly resolutions, moves to highlight Burma as a security threat at the UN Security Council, and economic sanctions by the United States and European Union. Regionally, even countries from the Association of South East Asian Nations (Asean), of which Burma is a member, have started to criticise the ruling State and Peace Development Council (SPDC). The junta, however, has two important means of resisting this pressure: abundant natural resources and a strategic geographic position.

Shwe, the Burmese word for gold, and the name of gas reserves recently discovered off the coast of western Burma, aptly describes what lies under the sea and its significance to the military regime ruling the country. With a conservative total market value of US\$37 billion, it will be the largest single source of income to date for the SPDC.

The junta has become adept at "resource diplomacy," giving neighbours a substantial slice of the country's natural wealth through trade and investment in return for revenue and political support. Located between China, India, and Thailand, Burma is able to play its neighbours against each other in their race for resources.

Being positioned between two of the world's largest and most energy-hungry countries and now holding one of Asia's largest gas reserves has raised the stakes in this "diplomacy." India and

China rely on crude oil imports for 70 percent and 40 percent of their needs respectively and are both engaged in a competitive global search for gas and oil. China has often come out on top, with India's Oil and Natural Gas Corporation (ONGC) losing to Chinese companies in Kazakhstan, Ecuador and Angola, and most recently Nigeria.<sup>1</sup> Discovery of the Shwe gas has made Burma the site of another competitive scramble between the two countries.

For China, Burma represents not only an opportunity to diversify its supplies of oil and gas, but also an alternative transportation route for its current imports. Over 80% of China's imported oil passes through the Straits of Malacca.<sup>2</sup> The Straits are one of the most important shipping lanes in the world, but are threatened by security threats from piracy and international naval disputes. Reports have emerged that China is interested in developing a deep sea port and connecting pipeline(s) in Kyauk Phru, Arakan's second biggest port. Kyauk Phru could then be used as a transfer point for Middle Eastern oil to China's inland provinces, thus providing an opportunity for China to reduce its dependency on the Straits.<sup>3</sup> Pipelines could also transport oil and/or gas extracted in Burma itself.

India is also looking for alternative energy sources, as a gas deal with Iran and proposed pipeline through Pakistan has many diplomatic hurdles to overcome. Working with Burma presents several advantages to India beyond the gas itself: a land route through Burma to broader Southeast Asia would advance its "Look East" policy; gaining Burmese assistance in cracking down on armed separatists in northeast India would facilitate opening that area up to mineral exploration; and a gas deal would help mitigate China's growing influence in the region. India's increased trade and recent arms sales to Burma are an indication of its shift toward working with the regime.<sup>4</sup>

In developing its plans to transport gas from Burma, however, India has had to contend with the third party of Bangladesh. Since 2004, India has promoted a pipeline that would run from Burma's Arakan State through Bangladesh to bring gas to Kolkata. Bangladesh rejected India's offer of an annual US\$125 million transit fee and other one-off grants, proposing instead additional demands such as a reduction in trade-deficits with India and the development of trade corridors to Bhutan and Nepal. In addition, some Bangladeshis became concerned that the pipeline might be connected with a domestic grid and that Bangladeshi gas would be exported to India. Bangladesh has its own history of successful domestic gas production which is now filling a major part of its electricity generation and cooking needs. This was only made possible following a hard-fought battle by Bangladeshi movements prioritizing their peoples' basic needs above export. Bangladeshi peoples' movements are also resisting the Shwe pipeline in solidarity with the people of Burma.

After two years of negotiations, Indian consortium members now appear to have given up on Bangladesh and are instead advocating a pipeline around Bangladesh through India's northeast states of Tripura and Mizoram. This would make the pipeline 40% longer than originally planned. However, active insurgencies against the central Indian government and widespread suspicion that the pipeline might facilitate further natural resource exploitation and militarization there make this route a questionable solution.

In addition to the huge energy resources at stake, regional power politics are also a key factor as neither China nor India wants the other to exert too much influence in Burma. Underlying India's economic and political interests in Burma are a desire to counter China's growing influence on the country. In some ways, the Shwe project can be seen as a microcosm of the contest for global resources and political clout in the region between the

two rising Asian giants. In 2006 Burma signed a Memorandum of Understanding with PetroChina for the sale of 6.5 trillion cubic feet (tcf) of gas – gas reportedly from the exploration block where Indian corporations are operating. Indian diplomats only found out about the deal after it was done. This prompted an Indian presidential visit to Burma in March 2006 which included the signing of additional gas sales to India.

The tussle for energy resources and political influence between the two powerful countries has overshadowed the real stakes in the development of gas in western Burma – the impacts it will have on the people living there. In addition to human rights abuses and denial of livelihoods, relocation could increase internal displacement and cross-border refugee flows. Meanwhile, Burma's military generals continue to cash in on their neighbours' competitive fray and the Shwe gas project could well turn out to be the most infamous chapter in the chronicle of regional foreign investment propping up Burma's military regime.

### **Investment in oil and gas in Burma**

In the early 1990s, several foreign companies signed production-sharing contracts with the SPDC to develop offshore gas fields in the Andaman Sea and explore onshore fields in eastern Burma. The development of the Yadana and Yetagun gas fields offshore, including the construction of two pipelines, became the subject of intense controversy and several lawsuits in US and French courts due to forced relocations, forced labour, and gross human rights abuses associated with the project.

In 2002, Premier Oil pulled out of the project after pressure from the British public, selling their share to Petronas of Malaysia. Unocal of the US settled a lawsuit with fourteen plaintiffs from Burma in 2005, offering compensation and funds to villagers. Unocal has now been sold to Chevron, and their activities in Burma are restricted from expanding due to US sanctions against

the SPDC. Total, a French company, also settled a lawsuit out of court; some argue that France's weak support for EU sanctions against Burma is related to Total's stake in the gas fields. In 1992, Petro-Canada, then a state-owned company, halted on-land oil exploration after public pressure within Canada.

Despite these pull-outs, over the 1990s investment in Burma increased, most notably from Asian countries. Four of the top five international investors in Burma are located in Asia. Singapore tops the list, followed by Britain, Thailand, Malaysia, and Hong Kong.<sup>5</sup> The "new generation" of gas and oil investors in western Burma follows this trend. Two consortiums operating on and offshore of Arakan State are made up of companies from South Korea, India, China, and Singapore. This mix is spiced up by Burma's own Asia World Company, run by the son of a famous drug lord. Meanwhile, Malaysian and Thai interests, together with the help of western drill ships, continue to explore for gas offshore of eastern Burma. "Western" companies are also involved in the Shwe project. Subcontractors from Italy, Belgium, Norway, New Zealand, Canada and the US have been or are involved in work such as drilling and conducting studies (see Appendix 1).

Asian countries have not placed sanctions on Burma; Asian companies rarely face corporate lawsuits or large public campaigns. However, South Korea and India both have long democratic traditions and strong people's movements and the Shwe project has sparked reactions from citizens in both countries concerned about the human rights situation in Burma. In an increasingly globalised economy, public image and litigation impacts companies regardless of their country of origin. Meanwhile, the junta remains difficult to do business with: Transparency International ranked Burma as one of the top five most corrupt nations in the world in 2005. It seems that Asian corporations may face similar challenges as their western counterparts.

## Natural gas

Globally, most natural gas is used to generate electricity through power plants but it is also used for cooking. Gas is also becoming a popular alternative motor fuel. Natural gas is formed naturally in the earth when over 200 million year-old organic material decomposes under pressure. Although natural gas - consisting mainly of methane - is a common feature in many places around the world, only large pockets of trapped gas are considered for commercial extraction.

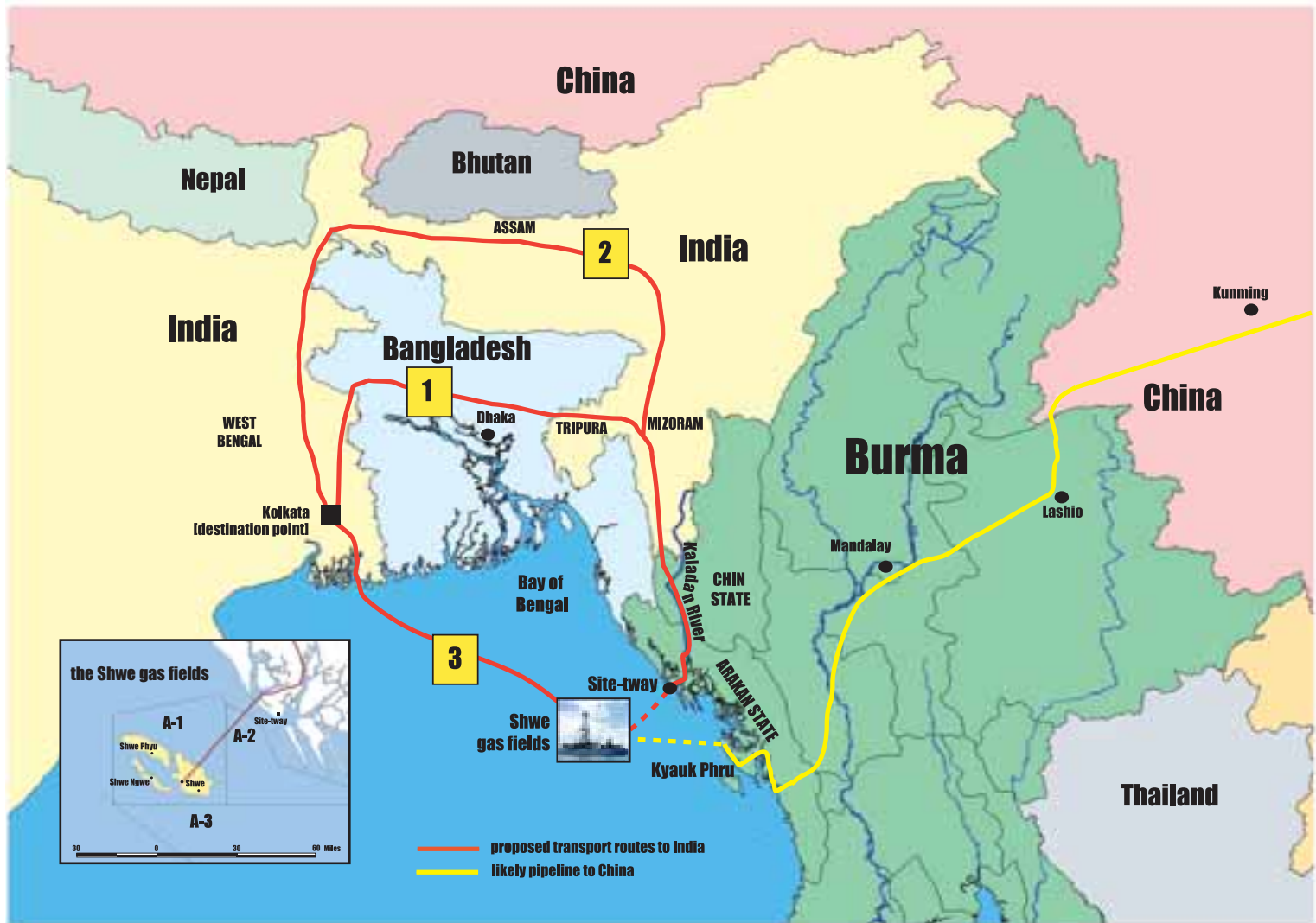
Natural gas is removed from the earth by drilling wells into the seabed or ground. In most wells, the pressure of the gas is enough to force it to the surface. The original size of a gas deposit is measured in cubic feet. One cubic foot of natural gas on average produces approx. 1,000 British Thermal Units (BTU) of energy.

There are 3 main ways of transporting natural gas:

- **Pipelines** Natural gas is extracted and pumped directly through pipelines to reach an end destination.
- **Liquefied Natural Gas (LNG)** Natural gas is cooled down to -161 degrees Celsius, at which point it becomes liquid. This reduces the volume of the gas by approximately 600 times, making transport easier. The liquefaction and re-gasification processes require very expensive plants.
- **Compressed Natural Gas (CNG)** Natural gas is compressed at high pressure, reducing the original gas volume by approximately 200 times.

Information from: [www.indiaonline.com/auto/feat/lpga.html](http://www.indiaonline.com/auto/feat/lpga.html)

## Proposed transport routes for Shwe Gas\*



\* for a detailed description of the transport routes please see Appendix 3

## The Shwe gas project

In August 2000, Daewoo International Corporation of South Korea signed a Production Sharing Contract (PSC) with the Myanmar Oil and Gas Enterprise (MOGE) in order to explore, produce and market underwater gas reserves in the Bay of Bengal off the Arakan coast. MOGE is a fully state-owned enterprise within the SPDC's Ministry of Energy. In 2001 and 2002, Daewoo sold stakes in its contract to three other companies: the overseas arm of the Oil and Natural Gas Corporation of India (ONGC Videsh), the Gas Authority of India, Ltd. (GAIL), and The Korean Gas Corporation (KOGAS). Several additional companies from the EU and North America have been subcontracted by the consortium to provide services in the exploration process (see Appendix 1).

In January 2004, Daewoo announced that they had struck a "world-class commercial-scale gas deposit" amounting to 4.2-5.8 trillion cubic feet (tcf) in its offshore exploration block A-1, in wells called Shwe. Subsequent estimates of the discovery went as high as 20 tcf. Today, most agree that the Shwe wells hold a minimum of 10 tcf while the whole A-1 block could yield up to 14 tcf.<sup>6</sup>

The systematic lack of transparency and disclosure of information in Burma makes it difficult to determine the SPDC's share

of the income from the Shwe gas project. The SPDC share will depend on many factors, including the exact size of the gas reserves, the quality of the gas, the end user price, production costs, and MOGE's stake in the project consortium. However, based on the SPDC's standard procedures in production sharing contracts (PSCs), the experience of the Yadana/Yetagun (Burma's largest gas project to date), information from industry analysts, and media reports, it is possible to create a conservative estimate of the SPDC's share of the profits from the Shwe project.

According to the standard procedures of PSCs in Burma, the SPDC collects a 10% royalty of the gross sales price of the gas and a 30% tax on the net profits of the gas after a three year tax holiday. The end user price of the Shwe gas would most likely be similar to that of gas currently sold to Thailand out of Burma's Yadana and Yetagun pipelines. Based on that rate and the consideration of contract procedures as mentioned above, the gas would provide, on average, US\$580 million per year to the junta for twenty years, or US\$12 billion. If the A-1 yield reaches 14 tcf, the revenue could reach US\$824 million per year or US\$17 billion. This does not include contract fees to MOGE and several other bonuses that could be paid to individual generals. As shown in the table below, the SPDC's expected income from the A-1 block alone will be at least 150 - 210% more than the combined yearly income from the Yadana/Yetagun gas projects.

**Table 1: The junta's estimated share of the profits: Shwe vs. Yadana/Yetagun\***

| Gas fields      | Gas reserves (tcf) | End user price/Mmbtu (million Btu) | Production costs over 20 years | MOGE stake in the project | Total revenue      | MOGE/SPDC total net income | MOGE/SPDC net income per year over 20 years |
|-----------------|--------------------|------------------------------------|--------------------------------|---------------------------|--------------------|----------------------------|---------------------------------------------|
| Yadana/Yetagun  | 9.7                | US\$3.70                           | US\$3.8 bn                     | 15 - 20%                  | US\$21.1bn         | US\$8bn                    | US\$400m                                    |
| <b>Shwe A-1</b> | <b>10-14</b>       | <b>US\$3.70</b>                    | <b>US\$2.3bn</b>               | <b>0%</b>                 | <b>US\$37-52bn</b> | <b>US\$12-17 bn</b>        | <b>US\$580-824m</b>                         |

\* for a full explanation of calculations please see Appendix 4

## The international consortium in the A-1 and A-3 blocks



### **Daewoo International** 60% share in the PSC

Daewoo International (DI) is South Korea's leading export trading company. In addition to its stake in the Shwe project, Daewoo Motors has a car assembly plant which is a joint venture with Myanmar Automobile and Diesel Industries (MADI). Daewoo also supplies IT services to Burma's regime and has timber manufacturing and clothing interests in Burma.\*



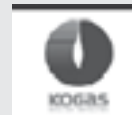
### **ONGC Videsh, Ltd./OVL** 20% share in the PSC

ONGC Videsh Ltd./OVL is the overseas arm of the India's state-owned Oil and Natural Gas Corporation (ONGC). It has investments in other countries that have been criticised for their human rights record, including Vietnam, Indonesia, Libya, UAE, Venezuela, and Algeria. This is the company's first investment in Burma.



### **The Gas Authority of India, Ltd. (GAIL)** 10% share in PSC

The Indian government holds a 67% equity stake in GAIL, the largest gas transmission and marketing company in the country. GAIL states that "we are writing a new genetic code for ourselves to achieve all round excellence in our endeavour towards services for Nature and the People - The Ultimate Customer."\*\*



### **The Korean Gas Corporation (KOGAS)** 10% share in the PSC

KOGAS was initially fully owned by the South Korean government. Today the government is the largest stakeholder, holding 26.86%; others include Korea Electric Power Corp. (KEPCO) (24.46%), local governments (9.86%), and individual investors (38.82%).\*\*\* This is the company's first investment in Burma.

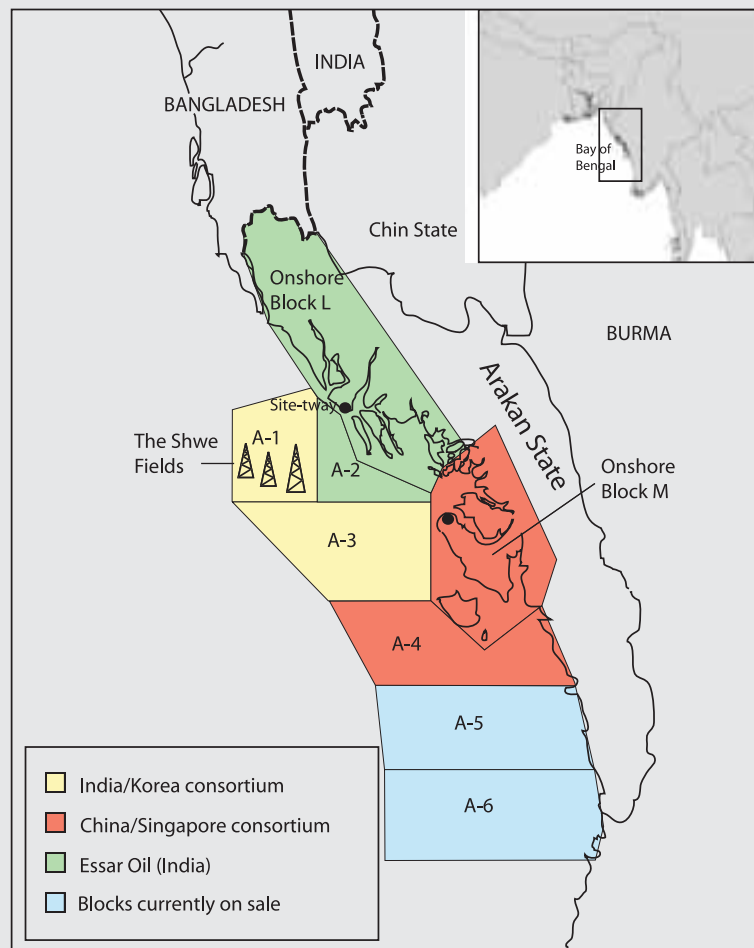
Several companies are or have been on contract to operate in the A-1 and A-3 blocks; details are provided in Appendix 1. Details of the companies working in the A-2 and A-4 offshore blocks and the onshore blocks M and L are provided in Appendix 2.

**Table 2: Companies operating in western Burma**

| Company | Country of origin | Operating blocks | Share |
|---------|-------------------|------------------|-------|
| Daewoo  | South Korea       | A-1 & A-3        | 60%   |
| KOGAS   | South Korea       | A-1 & A-3        | 10%   |
| ONGC    | India             | A-1 & A-3        | 20%   |
| GAIL    | India             | A-1 & A-3        | 10%   |

| Company      | Country of origin | Approved block | Date of approval              |
|--------------|-------------------|----------------|-------------------------------|
| CNOOC        | China             | A-4<br>M       | December 2004<br>October 2004 |
| HQCEC        | China             | A-4<br>M       | December 2004<br>October 2004 |
| Golden Aaron | Singapore         | A-4<br>M       | December 2004<br>October 2004 |
| Essar Oil    | India             | A-2, L         | May 2005                      |

## Map of the exploration blocks and companies



The announcement of the Shwe discovery has triggered a race to explore additional fields on and off the coast of Arakan State. Currently, there are a total of seven corporations from India, Korea, China, and Singapore exploring for gas and oil in off-shore blocks A-2, A-3, and A-4, as well as onshore blocks M and L (see map at left). It is unclear at this point how much additional income may wind up in the junta's coffers from these blocks. The A-3 block is already estimated to hold two tcf of gas in one field alone, which will likely add another US\$100-120 million per year to the junta's gas revenues.<sup>7</sup>

Development of the Shwe wells in the A-1 block is most advanced, however, with commercial production expected to begin in 2009-2010. In order to meet this time frame, pipeline construction would need to begin sometime during 2007. Gas is expected to be transported either overland or by sea for use in India. Overland routes would traverse Arakan and Chin states.

A Memorandum of Understanding signed between the junta and PetroChina, a publicly-traded company based in Beijing, for the sale of gas from the A-1 block has reinforced the possibility of an overland pipeline from Arakan State through central Burma to China's southern province of Yunnan. According to recent news reports, plans were approved by the Chinese government in April 2006 and construction is expected to begin this year.<sup>8</sup>

### "a thoroughly unreliable Burma"

In its report to the Norwegian Foreign Ministry, the International Peace Research Institute concludes that together with the non-traditional threats that Burma poses, i.e. illegal drugs trafficking, human trafficking and refugees, the spread of HIV/AIDS, and recent concerns about avian influenza, the SPDC's penchant for playing its neighbors against each other over resources makes it a "thoroughly unreliable" business partner. (from *Energy Security in Asia: China, India, Oil and Peace*, a report to the Norwegian Ministry of Foreign Affairs, April 2006.)

\* [http://www.burmacampaign.org.uk/dirty\\_list/dirty\\_list.html](http://www.burmacampaign.org.uk/dirty_list/dirty_list.html)

\*\* [www.gailonline.com/gti/aboutgail-left.html](http://www.gailonline.com/gti/aboutgail-left.html)

\*\*\* [www.times.hankooki.com/lpage/tech/200308/kt2003081718275711790.htm](http://www.times.hankooki.com/lpage/tech/200308/kt2003081718275711790.htm)

## The Kaladan River valley





### The route: the Kaladan River valley

According to the Indian-Korean consortium, the most likely pipeline route to India for the Shwe gas will go through Arakan State, following the Kaladan River valley (see map at left). With approximately three million inhabitants, Arakan State accounts for about 6% of the total population of Burma. Situated on the Bay of Bengal, it benefits from the natural resources of forests, the sea, and the fertile Kaladan River valley. Most people engage in rice farming and fishing, the cornerstones of identity and daily survival. The state is divided into five districts and 17 townships. The capital city, Site-tway, has a population of approximately 150,000 and is located on an estuarial island at the confluence of the Kaladan, Mayu, and Laymro rivers.

Arakan was an independent state for over a thousand years. At its height in the mid-16<sup>th</sup>- mid-17<sup>th</sup> centuries, the then-capital city Mrauk-U was not only a provincial but world city, drawing wealth from the coastal trade with Bengal, Burma, and beyond.<sup>9</sup> Since the invasion of the Burmese in 1784 to the present day,

Arakan has been a state of Burma. Separated from Burma's other ethnic nationalities by the Arakan Roma mountain ranges, the Arakanese peoples have customs and languages of their own.

The proposed overland pipeline routes destined for India would also traverse Paletwa, the southernmost township of Chin State. Chin State is marked by high mountains and deep valleys and is home to some of the most biodiverse forests left on the planet (see section Environmental Damage). The population of the entire state is estimated at half a million and includes several tribes and more than 40 sub-groups.

Connecting Arakan and Chin States is the Kaladan River. Approximately 350 kilometres in length, it runs from its source in Mizoram, India, cuts a narrow valley through the mountains of Chin State and finally empties into the Bay of Bengal at Site-tway in Arakan State. The lower part of the river opens up to form a fertile plain that stretches approximately 110 kilometres and covers a total area of 3,640 square kilometres from upper Kyauktaw Township to Site-tway. Pristine forests and endangered animals lie along the river's upper reaches, where several ethnic groups live. In all, approximately one million people live in the townships along the river.<sup>10</sup>





### **Livelihoods along the Kaladan**

Arakan and Chin states are natural resource-based economies depending on the two main sectors of agriculture and fishing. Trading is also an important economic driver.

#### *Farming*

Over 65% of Arakan State's cultivated farmland (primarily paddy) is located along the Kaladan River valley, one of few large, flat areas in the region and economically one of the most important farming areas in the whole of western Burma. Site-tway District alone, an area which consists of seven townships on the Kaladan River, produces 77% of the state's total rice production. However, initiatives by the SPDC to integrate Arakanese rice production into the national export sector are neglecting local consumption needs, resulting in skyrocketing rice prices.

Agriculture is also the main occupation in Paletwa Township of Chin State; staple crops include potatoes, maize, millet, sweet potatoes, plums, and apples in the higher altitudes. Rice, oranges,

mangoes, limes, and bananas are grown in the lowlands along the river itself.

#### *Fishing*

In addition to the important fishing stocks of the sea, local populations rely heavily on the rich Kaladan River and its many tributaries. Almost every family uses a paddle boat for small-scale fishing and local transport. According to government records, Site-tway District is home to the majority of Arakan State's fishing boats, 75% of which are without an engine.

Licenses granted to foreign trawlers in the Bay of Bengal have resulted in a decrease in local catches and rising prices. In addition, since about 1990, SPDC officers have joined with wealthy businessmen to develop large-scale commercial shrimp farms. This has resulted in confiscated lands, a decrease in water resources for local people, and fewer grazing grounds for buffaloes and cows.

#### *Transportation and trading along the rivers*

Rivers are a main transportation route, especially as roads are not in good condition. The Kaladan River is a lifeline for rural folk to get access to needed goods and markets. A 1996 UNDP Human Development Survey stated that while 30 motor-driven boats were registered in the upper Kaladan in Paletwa Township, there were no cars, motorbikes or bicycles in use, emphasizing the importance of the watercourse. In Arakan State, boats travel up and down the river selling and trading firewood, bamboo as building material, and fish to villages along the way. Some traders collect goods, travelling down to Site-tway and from there sometimes trading out to Rangoon and Bangladesh. The Kaladan also facilitates trade between Mizoram in India, bringing dried and fermented fish as well as betel nuts from Site-tway to Mizoram, returning with steel utensils and pressure cookers.



### Economic situation along the Kaladan

Burma's economy has been crumbling under years of economic mismanagement by the military. Economists estimate that prices in Rangoon have jumped at least 20 percent for basic commodities in May 2006 alone due to the latest inflation spiral. In Arakan State, the economic situation began to deteriorate rapidly in 1996 when the practice of selling fishing concessions along rivers and creeks became popular, crippling local fishermen's livelihoods. Fishing exclusion zones around exploratory rigs in the sea, restrictions on the transporting of rice between townships, and other draconian measures have further weakened the economy.

The rising prices of everyday goods are putting a strain on families. Even those with once good-paying jobs now struggle: "I get 25,000 kyat (US\$25-30) per month as a teacher. It used to be an ok salary, but now with the rising prices it is not enough." (Interview 3) There is an exodus of young people leaving to seek jobs, and some are turning to risky work to survive:

*"Our villagers are facing many difficulties because of the economic crisis. Most of the local young people go to Rangoon and other foreign countries to seek jobs. In our town, there are no regular jobs. According to local police, a few local women are working at a nearby road construction site as sex workers in order to get money for survival." (Interview 8)*

The situation is leading to a sense of desperation and is resulting in gambling and increased crime. A woman from Site-tway describes the situation:

*"The locals are struggling to have two regular meals a day. The worst thing is the two and three-number lottery which opens twice a week or month. It is quickly gaining a popular reputation in the town and more people are getting eager to try their luck on it. The tickets cost ten kyat; if you win you can get 800 kyat. People get so carried away that they gamble away all their savings."*

*"As prices get higher, there are more thieves, gangs, and criminals. The bribe reigns everywhere among government servants and for access to business and the authorities. People are losing the custom of mutually helping one another." (Interview 9)*





### Current energy use in western Burma

While the regime exports valuable energy resources to neighbouring countries, ordinary citizens receive neither electricity nor gas. Over 90% of people in Arakan and Chin states use candles for light and firewood as their primary source of cooking fuel.

### Electricity

*“There is no electricity in our village - only the richest man in the village has a generator that he uses for his TV. We use paraffin light - candles are too expensive. We use firewood for cooking. Our family used to make charcoal, but the government said that the forest is owned by the government and if we make charcoal too many trees will be cut, so now we don't use charcoal. Rich people still use it though.” (Interview 1)*

Arakan and Chin are the two states with the least electricity consumption in the whole of Burma (see Table 3). Both states are excluded from the national power grid that travels through the central portion of Burma, providing electricity to Burma's capital Rangoon. In Arakan State the average electricity consumption per person is 3 megawatts (MW) per year, while in Rangoon the average is 520 MW.<sup>11</sup>

Arakan's capital city of Site-tway, with an estimated population of 150,000, relies solely on six diesel generators built during the British colonial period. The generators run irregularly for approximately three hours per day. The reliance on diesel puts the city's energy supply at the mercy of volatile market prices. As world prices for oil increase, operating the generators is becoming more and more expensive. In January 2004, the authorities sold the management of the city's generators to an

Arakanese business group called Impaukwa. The group had to buy diesel on the open market; since the takeover it has not been able to turn a profit. In December 2005, Impaukwa wrote to the SPDC that they were losing money and wanted to terminate the contract.

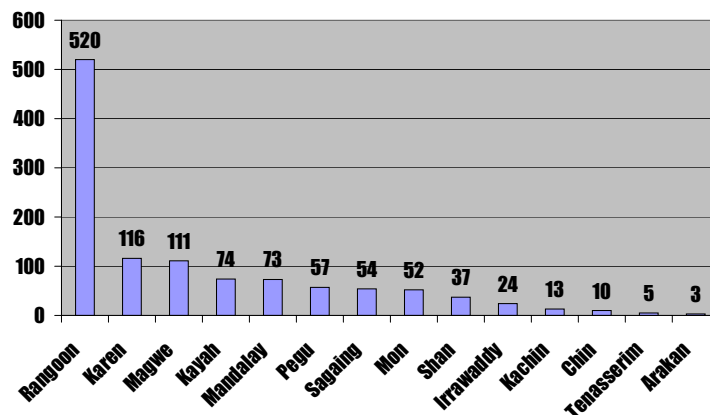
Paletwa once had an operational hydropower station (from 1992-94) but the station is no longer functioning. Today the town has one old generator; it runs for a mere three hours a night three days a week. The power is so limited that no one can use irons or have more than two light bulbs per house.

In addition to intermittent and scarce service, cost is prohibitive. Electricity prices in Site-tway are 350 kyat per unit, or more than ten times the unit price in Rangoon.<sup>12</sup> The option of receiving an additional electricity supply from a private company is also out of reach for ordinary citizens. Average monthly salaries for civil servants are equivalent to half the monthly fee for receiving an additional 2-3 hours of privately generated electric power.

In other towns throughout the valley, the situation is worse than in the Arakan capital - old and unreliable government generators run infrequently and light bulbs are too dim to read by, while in rural villages there is almost no access at all. A young man from the town of Kyauktaw explains:

*“In Kyauktaw there is government-supplied electricity two hours per day, between 7-9 p.m. In other places where I’ve lived there is no government electricity available at all. A few villagers have generators and sometimes sell electricity to neighbouring houses. Most people, including myself, use candles for light. Paraffin is cheaper but it is more dangerous for our health.”* (Interview 3)

**Table 3: Electricity consumption/per person in megawatts\***



\*figures published in *The New Light of Myanmar*, February 2006.



*Site-tway's only source of electricity: colonial-era generators that provide just three hours of power a day*



The lack of electricity in towns impacts other vital services:

*“The hospital in Ponnagywan is a small one. There are not enough medicines, doctors, nurses, and equipment. Especially, there is no continual supply of electrical power...”* (Interview 6)

### **Fuel for cooking and heating**

In addition to the lack of electricity, the supply of gas for cooking and heating is scant. This has a significant impact on people's everyday lives, largely confining activity to daylight hours and requiring a continuous hunt for wood, the main fuel for cooking and heating water. In rural areas this can involve a daily 3-hour walk. Two villagers describe the situation this way:

*“In my family we share the duty of collecting firewood. Most other families also share the work like that. Last time I went looking for wood, I spent about 4 hours from the house and back to collect enough for 2-3 hours of cooking or heating. The SPDC cuts big trees and we are left to use the*

*branches for firewood.*

*“I’ve never seen anybody using gas. One person from our village went to Rangoon and told us that we can use gas for cooking, but most people do not believe that.”* (Interview 1)

*“I have never seen anyone using gas for cooking in Kyauktaw. For cooking I use firewood from the forest. I spend one day per week to collect firewood about from 1 mile away. It takes me three trips to carry the wood on my shoulders. Most people in the village do the same. Five to ten years ago it was much easier to find firewood than nowadays.”* (Interview 3)

Far from alleviating the current energy situation in Arakan and Chin states, the Shwe project, tragically, will extract a local resource for the benefit of an oppressive military regime and its business partners. Ordinary folks will have no choice but to continue their daily search for wood even after the gas begins flowing and passes them to reach neighbouring countries.

*transporting firewood  
along the river*



# Part II:

# Concerns

**Concern 1: Increased militarization and human rights abuses**

**Concern 2: Entrenching Burma's military regime**

**Concern 3: Environmental damage**

**Concern 4: Destruction of cultural sites**

**Concern 5: Lack of local participation in decision-making**



The Shwe project is currently in the offshore exploration phase only.<sup>14</sup> Already, fishing livelihoods have been restricted and destroyed due to the establishment and violent enforcement of exclusion zones at sea. After examining available news reports about project details, on the ground research about the current situation in Arakan and Chin states, and the case study of Burma's previous large-scale gas pipeline project, the Shwe Gas Movement is deeply concerned about further imminent dangers of the Shwe gas project.

These dangers include the exacerbation of an already dismal human rights situation, the provision of the largest single revenue source to the military dictatorship, the environmental destruction of areas of outstanding biodiversity and habitats of critically endangered species, and the vulnerability of several ancient historical sites. In addition to inflicting harm, the project does not stand to provide benefits to the local population. A non-renewable resource will be extracted and transported to neighbouring countries while local people remain uninformed and continue their daily search for wood for fuel; military rule makes it impossible for them to participate in any decisions about the use of their resources.

## **Concern 1: Increased militarization and human rights abuses**

The Yadana/Yetagun case (see following page) clearly shows that investment in large-scale development projects and associated infrastructure in Burma leads to increased levels of troop deployments.<sup>15</sup> With those deployments come human rights violations against local populations. In Arakan State, a pattern of increased militarization and abuse is already evident. A large-scale project such as the Shwe will exacerbate this situation.

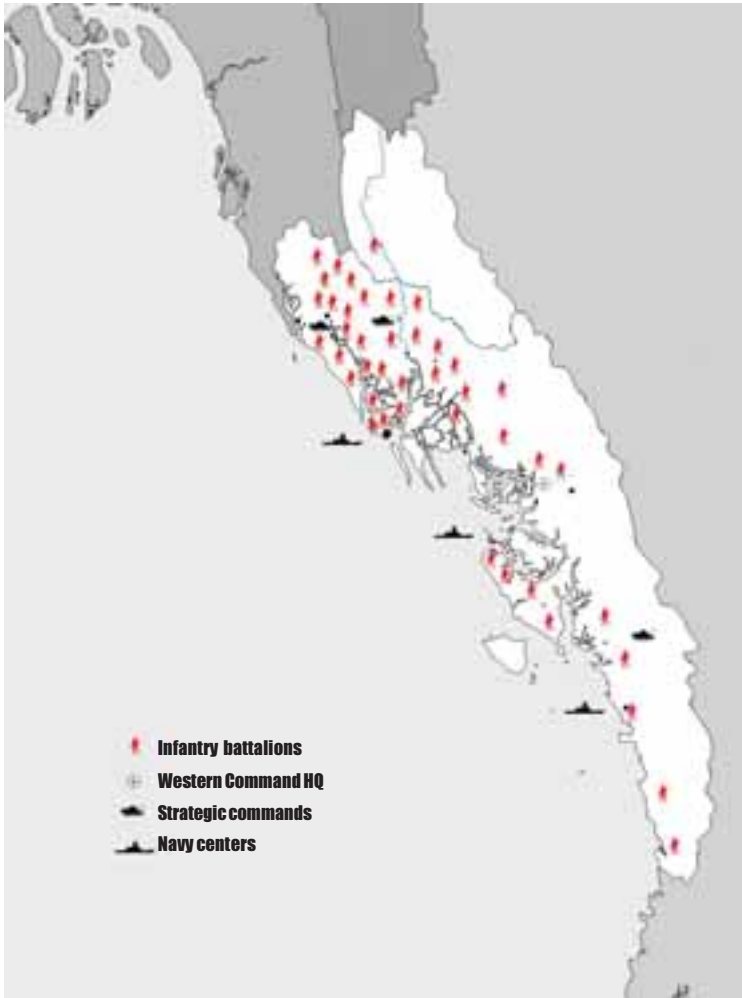
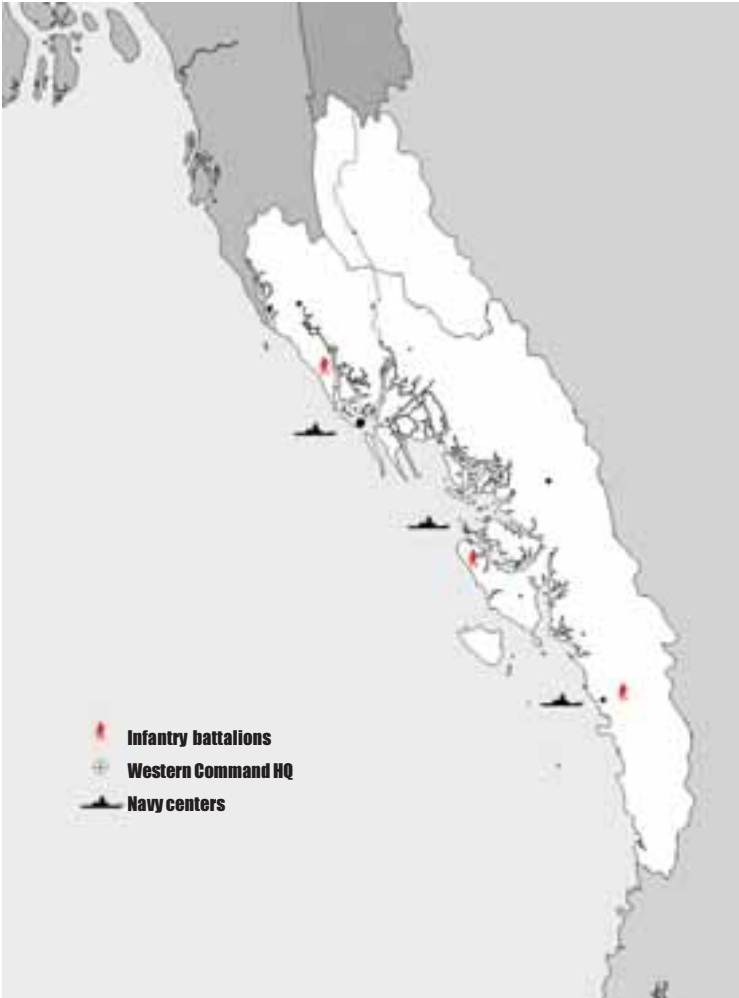
### **Militarization**

Since 1988, the number of infantry battalions<sup>16</sup> based in the Western Command, an area that includes Arakan State and Paletwa Township of Chin State, has increased from 3 to 43 battalions. In addition, there are ten specialized battalions (such as engineering and communications), three tactical command centers, and three navy bases. The Western Commander, headquartered in the town of Ann in Arakan State, controls many of the lucrative businesses in the state as his permission is needed for any licensing and procedures.

As in other areas of Burma, the arrival of more battalions has brought increased forced labour and land confiscation to make way for barracks, outposts, and other military infrastructure. Extortion and violence have also increased. The following section outlines the various human rights abuses currently being committed by Burma Army troops in the areas of the proposed pipeline routes. These abuses are *already* part of daily life in the Kaladan valley. The construction of gas pipelines will bring in more troops with strict orders to ensure security.

***"Because of the pipeline, there were villagers who had to die, villagers had to do work for the soldiers, and some had to flee away from the village." <sup>13</sup>***  
**(a villager from the Yadana pipeline area in eastern Burma)**

**Burma Army battalions in western Burma, 1988 and 2006**





### Yadana and Yetagun: A case study

The Yadana and Yetagun gas pipelines in eastern Burma are currently the largest single source of income for the junta. While there are obvious differences with Shwe, this project provides a valuable case study of the key components of a large natural resource extraction project undertaken by Burma's junta together with foreign investors.

In its hallmark study *Total Denial Continues*, EarthRights International found that human rights abuses were 1) not isolated occurrences but rather part of a larger predictable pattern of abuse and 2) that abuses were not incidental but were a direct result of company investment in the Yadana/Yetagun projects. Abuses, including conscripting thousands of forced labourers and porters for the benefit of the pipelines, forcibly relocating villages to secure a pipeline corridor, and murdering and raping local civilians, have led to several lawsuits.

After years of drawn out legal battles, the two corporations involved in the project, Unocal and Total, both agreed to settle separate multi-million dollar cases in US and French courts. In

the early 2006 settlements, the corporations agreed to compensate Burmese plaintiffs as well as set up a fund to benefit villagers from Burma. A third corporation, Premier Oil, pulled out of the project in 2002 after international pressure.

Excerpts from *Total Denial Continues* provide a grim forewarning should the Shwe project advance:

- A mobilization of troops swiftly and fiercely brought the populations of the project area under control. An area that previously had no permanent army outposts was suddenly flooded with troops, involving at least 16 battalions (p.23).
- Villages 15 to 20 miles both north and south of the pipeline were forced to move closer to SLORC outposts....indicating the creation of a "secure corridor" (p. 43).
- Villagers from throughout the region, ranging from as young as 13 to over 60 years old, were forced to build and maintain military barracks, working from sunrise to sundown (p. 36).
- The military conscripted villagers as porters, forcing them to carry heavy loads of supplies and keeping them under prison-like conditions.
- The military transformed the economy along the pipeline, forcing villagers to grow food, hand over crops, and pay for the privilege of surviving on their own lands (p. 119).
- The environmental impact of the pipelines construction was not analyzed before it went ahead even though they pass through primary evergreen forest and the home of several endangered species. Along with a permanent access road for the pipelines came hunters and loggers (p. 150-52).



## Forced labour

*Forced labour....occurs where work or service is exacted by the State or individuals who have the will and power to threaten workers with severe deprivations, such as withholding food or land or wages, physical violence or sexual abuse, restricting peoples' movements or locking them up. – Definition by the International Labour Organisation<sup>17</sup>*

Forced labour in Burma has been documented as both widespread and systematic in Burma for years. The military regime has been condemned internationally, and the International Labour Organisation has taken unprecedented steps to pressure the regime to eliminate the practice.<sup>18</sup> It still continues, however.

From 2001-2005 incidents of forced labour were reported in Mrauk-U and Kyauktaw townships in Arakan State and Paletwa Township in Chin State, within the routes of the proposed Shwe pipelines.<sup>19</sup> Villagers were forced to do work including repairing

roads, barracks, and outposts. Interviews with local residents reveal that villagers have been forced to work at stone quarries, haul rocks to road sites, clear and construct roads, build bridges, and plough and harvest on military farms.<sup>20</sup> Children as young as ten years old have been forced to work.

*There is forced labour in every village in our area. In 2003, I had to plough a military farm for three days and work in a stone quarry for six days near Kyaukseik village together with 17 other people. This year [2005] I was also forced to gather and transport stones for a bridge at a stone quarry for five days.” (Interview 1)*

Forced labour also includes portering, or being forced to carry things without payment. A trader from Paletwa Township explains his experience:

*“I was asked to porter several times. I had to carry basic rations from our village to the military camp either by hand or using my boat. I had to do that once or twice a month, however they demanded.” (Interview A12)*

Interviews indicate that several villages have been forced to purchase, plant, and maintain tree seedlings alongside car roads in Ponnagywan and Kyauktaw townships. No one was paid for their work, nor provided with food or water while they worked. Some had to walk more than one hour to get to the work site. According to one interview:

*“I had to plant trees for four days. There were a lot of people at the work site. There were children aged only nine and ten years old working, as well as elderly villagers and women.” (Interview A1)*

Labour can also come in the form of collecting materials for the army for free:

*“Each house has to give a certain amount of wood or 300-500 kyat to the army’s brick-making factory. The local army sergeant collects the funds walking from house to house.”* (Interview 3)

*“The villagers must collect drinking and washing water, betel nut, mango, alcohol, and coconut every day for the Burma Army troops in our village. Six-seven houses organize to send water and other things. The soldiers never pay for these items, but we have to send them.”* (Interview 1)

Several interviewees were forced to maintain roadsides:

*“People are also forced to clear the side of the Kyauktaw-Site-tway road regularly. One person has to go from each house. The last time I went for this was in April 2005.”* (Interview 3)

The endless work leaves villagers with no time to fend for their own livelihoods:

*“It affected our family situation because we are very poor. If I cannot work for my family for two days, there is no food for two days.”* (Interview A3)

Refusal to work or supply goods to troops is not an option. When asked if he had ever seen anybody refuse forced labour, one interviewee replied:

*“In September 2004 I saw six young men, aged 20-24, refuse to work. First soldiers beat one of them in*

*the head and kicked his back...they all worked in the end.”* (Interview 1)

Another simply said: “I didn’t want to work for them but I could not deny their order. They have power and guns.” (Interview A7)

After years of fruitless efforts in trying to stop the practice of forced labour in Burma, the ILO governing body in March 2005 stated that “...no adequate moves have been taken by the Burmese military regime (the “Government” of Myanmar) to reduce forced labour in Burma/Myanmar...” While an ILO Liaison Officer has been in Rangoon since 2003, he has received death threats and has been restricted in carrying out his duties. Villagers trying to get information to the ILO have also faced persecution:

*“A teacher in xx village tried to send messages to the ILO but did not succeed. He sent the information to UNICEF in Maungdaw, but the SPDC found out and came to arrest him. First he was shackled and forced to stand with his hands around a cactus for 3 hours, and then he was imprisoned at Ponnagywan police station for 1 month.”* (Interview 1)

**Given that forced labour is currently ongoing in Arakan and Chin states and that the ILO is not allowed to effectively do its job in Burma, the Shwe Gas Movement is gravely concerned that the Shwe project will exacerbate the current situation and could well lead to further incidents of forced labour.**



## Land confiscation and seizure of assets

*No one shall be arbitrarily deprived of his property*  
– Article 17 of the Universal Declaration of Human Rights

It has been well-documented that the Burma Army steals land, food, and timber from areas near its bases.<sup>21</sup> Evidence is mounting that land confiscation in particular is increasing with troop deployments throughout the country.<sup>22</sup> This is largely due to the military moving towards a mode of ‘self reliance’ in which foot soldiers must provide for their and their families’ basic needs.

Locally-owned lands have been confiscated in the Kaladan River valley to make way for military-run paddy farms, cash crop plantations, and other projects, or for being “too close” to roads. For example, in July 2004, 1,000 acres of paddy farms were confiscated for a new military teak plantation. No compensation was given to the land owners (Narinjara News Service). In 2001, land was confiscated from villagers in Site-tway Township to

build a bus station. Authorities promised compensation but to this day no one has received any (Narinjara).

Land is often confiscated from local villagers when a military battalion moves into the area so that the troops have space for their camp. Additional acreage is then taken to provide food and income to the troops and their families at the expense of villagers:

*“Most of the land confiscation seems to be ordered on the eastern side of the Kaladan River when SPDC battalions build new outposts. They take surrounding land for their own living. Even when they move away, they maintain ownership and **villagers have to pay rent to use the land that was once their own.**”*  
(Interview 3)

Similarly, authorities from IB (Infantry Battalion) 20 and LIB 550 are forcibly occupying paddy fields and gardens in three villages of Ponnagywan Township. Authorities told villagers that they would have to plant paddy for army basic rations. Some gardens were ploughed by army tractors and turned into paddy fields. Said one interviewee: *“The owners have no chance to get back their lands.”* (Interview A3)

There are already indications of potential increases in confiscations and fears of relocations that may come as a result of the gas project:

*“I have heard that villages on the eastern side of the Kaladan River will have to move to make way for the pipeline in the future. Some government officials came to take measurements in Saichaung and Krarnegan last year. I learned this from villagers travelling to the area.”* (Interview 3)



*a signboard and fence mark off land that has been confiscated by the military*

### One family's story

*"The authorities occupied our family's paddy fields (about 6 acres) in 2002. When they took our land my mother was so upset she couldn't eat for 2 days.*

*Now we need to get permission from the authorities to plough in our own fields. If they agree, we have to pay them 60 baskets of paddy per acre. We cannot get enough food for ourselves after paying them that much, so we don't want to grow paddy anymore. In order to try to make money, my older brother and I now sell dried fish, salted fish, and fish paste.*

*There are 150 houses in our village on the eastern side of the Kaladan River. Most people depend on farming and trading but many village farms were taken over by Military Operation Command 9 in 2001-2002. If you are able to forward this news to any international organisation, it will be good for our villagers and a lot of other villages from Kyauktaw Township in Arakan State."* (Interview A4)

Property and assets are also confiscated according to the whim of Burma Army troops. Seizures occur at both the household and business levels. For example, in Ponnagywan Township, a private company worth 90 million kyat that buys cassava from local farmers was taken away from its owner, while in a nearby village, a 69 year-old woman lamented the robbery of prawn paste, dried fish, chili, and rice from her house when 50 soldiers moved through the village. It seems no one is immune: in Site-tway, a monk was forced to "donate" precious coins to the national museum.<sup>23</sup>

Even though the SPDC announced the abolishment of its rice procurement system – in which farmers were forced to sell a quota of their harvest to the authorities well below the market price – in 2003, forced paddy "purchases" by soldiers still persist. Local farmers from several villages in Kyauktaw Township were forced to sell their paddy to the Burma Army on a credit system this season, but do not know when, or if, they will be paid.<sup>24</sup>

**Land and assets confiscation is currently rife in the Kaladan valley; if more soldiers move in to secure a pipeline, this will only increase. In addition, relocations to make way for a pipeline are of particular concern for the Shwe project, as the Kaladan valley is a much more densely populated area than that of the Yadana and Yetagun pipelines.**



## Extortion

*Extortion is when the demand for money or assets is accompanied by threats that endanger the personal integrity or the life of the private actors involved*

- Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises

In addition to outright confiscation without compensation, various forms of extortion are practiced at every level of authority. The constant harassment by troops and government authorities to “donate,” “contribute” or pay “taxes” wears down families bit by bit, leaving them with few resources and little option but to send a family member away from home to seek income. Villagers must provide rice, firewood, and other materials to military battalions on a regular basis. In one village in Ponnagywan Township, residents even have to provide one bottle of oil per household to the local battalion’s stone crusher. In the same village, the township-level SPDC chairman recently ordered a

total of 70 million kyat from surrounding villages to build a temple. He later changed his mind about the construction and kept the funds to himself.<sup>25</sup>

A trader from Paletwa Township recalls:

*“Everyone in my village was forced to pay “ration money” to the military camp of IB 289. I cannot count how many times our village had to pay rice and money to the Burmese soldiers.” (Interview A11)*

One interview illustrates how natural resources are sold off and their use is then rented or taxed to local villagers:

*“I am from Kyauktaw Township. I am a fisherman and very poor - my family depends on me catching fish. But fishing is getting harder and harder. I have to pay a tax for my catching baskets of about 7,000 kyat to the local buyers each year. Sometimes I have to pay two times per year.*

*“Some rich men paid about 20 or 30 million kyat to the officers of the Fishery Sector Department in Site-tway in order to “own” parts of the Kaladan River and charge fishermen taxes. One man bought Pi Kauk brook (a tributary of the Kaladan River) and now every fisherman who catches fish there - with small nets or big nets - has to pay money to him.*

*“I use about 100 catching baskets. In August 2005, the brook “owner” came to me with soldiers from LIB 375 and confiscated all of my baskets. They took me away and police beat me many times so that I was senseless. They put me in Kyauktaw jail for 2 months because I could not pay the tax for catching fish in*

his brook.

*“You know, I could not pay that amount of money because I cannot collect that much money. It is a very difficult situation for us. There are 180 households in our village, and most people survive by fishing in the brooks and rivers. Very few people depend on the farms.”* (Interview A2)

Arbitrary taxation at every turn impedes traders along the Kaladan River as well, as increased numbers of Burma Army and police checkpoints have been set up. One trader explains:

*“From my village to the [Indian] border, I have to pay boat owner fees and taxes at over ten military and police customs gates. I cannot get good profits from trading. They charge money for everything; the boat fee is 1-2,000 kyat and they even demand 500 kyat for very small pigs that I transport.”* (Interview A1)

Extortion of all kinds impacts farmers, fishermen, and particularly traders, further restricting the local economy. Fishermen and traders may also face new obligations of transporting supplies or troops during the construction of pipelines:

*“I just wanted to do my own work as a fisherman. The problem with fishing is that we have to provide passenger boats to the military....we had to provide military supplies and food from place to place.”<sup>26</sup>*

**Extortion by soldiers and wealthy business interests is already occurring in the valley. Undue taxation for use of rivers, confiscation of assets and property, and violence related to “debt” collection are likely to be exacerbated by an increase in troop presence to secure a pipeline(s).**

The abuses described above are carried out in an atmosphere of violence in which Burma Army soldiers go unpunished. For example:

*“In 2001, a 23-year old woman was raped in the village by three drunk soldiers from Butheudaung battalion 18. They were personal assistants of the commander. The woman screamed very loudly and nearby families could hear her. In the morning she complained to the commander. He said that he would punish the assistants but he never did.”* (Interview 1)

There is precedent of corporations being held liable for human rights abuses carried out by the SPDC, who are their partners in these projects. Unocal and Total corporations both settled lawsuits to compensate villagers in the Yadana/Yetagun pipeline area who had suffered human rights abuses under the junta’s soldiers. In addition to the settlements, the impact on these corporations due to bad publicity surrounding their partnership with the military in Burma is immeasurable.

**Companies - and their shareholders - doing business with the SPDC on the Shwe gas project will be complicit in any acts of violence carried out by soldiers working on the Shwe project.**



### Livelihoods restricted and destroyed

*Those that had traditionally fished for their survival discovered their livelihoods similarly destroyed. In the name of pipeline security, the army has curtailed people's fishing opportunities. Those still allowed to fish find that it is hardly worthwhile, as the military takes their best catch.<sup>27</sup>*

Even though construction of pipelines has not begun yet, direct effects of the Shwe project are already being felt offshore as fishing areas are restricted. The A-1 Block, sprawling over nearly 4,000 square kilometres in the Bay of Bengal, is an area long-believed to hold abundant populations of fish and is a main fisheries resource for local fishermen. At any given time, up to three drilling rigs have been operating in the area; local sources confirm that movements have been restricted under the establishment of military-patrolled exclusion zones surrounding the rigs.<sup>28</sup> The exact areas and dates of exclusion are often confusing; leaving local fishermen at risk of arrest and

harassment and threatening their livelihoods.

In April 2004 four men were arrested for fishing inside the exclusion zone of the A-1 block. The men were not aware of the restrictions as they had frequently gone fishing in that area previously. Regardless of this, the men were beaten and thrown in jail. One of the men spent two months in jail and had to sell his boat in order to cover lawyer's expenses and get out of jail. His brother explained:

*"Two of his children were in high school, but after this incident he could no longer afford to pay the tuition and they had to drop out. Sometimes the family cannot afford to eat. They would like to sell their house but it is in very poor condition and he doesn't think anyone would buy it."<sup>29</sup>*

In January 2005 a local boat owner and three of his crew members were arrested and beaten for crossing three miles into an exclusion zone. The catch and boat were seized in lieu of a prison term and the men were threatened with death if they told anyone of the experience. The boat owner lamented:

*"I am a very poor man. I had only this boat to feed my family. I don't know how to get enough food ....Now my wife sells*



Photo: Ian

*vegetables in the local market...I cannot watch my wife working so hard every morning. I want Buddha to get the fishing boat back to me. I had been taking care of it since before I got married. That boat caught a lot of fish, not like other boats in our village.”<sup>30</sup>*

**As further blocks are explored, more exclusion zones are likely to be put in effect. Construction of permanent production facilities would further deny access by local fishermen, yet to date no debate has been held regarding possible alternatives or modes of compensation.**

Similar restrictions are likely to impact farmers in the Kaladan valley. Once cleared, any pipeline corridor would be protected by troops; this would involve restrictions on movement and provide ripe opportunity for further extortion by the military. To give an idea of what may happen, one farmer from the Yadana pipeline area explained his experience this way: *“Since 1996 we had to get permission papers to go out to our farms, to get vegetables, and to visit other villages...the soldiers do not allow us to go outside the village. If they saw anyone, they fined them 500 kyat, and if we could not pay them, they would put us in jail for two days.”<sup>31</sup>* The Kaladan valley is the most important farming area in western Burma, therefore any restrictions on agricultural production will have impacts throughout Arakan and Chin states.

Photo: AUSA



### **River palms provide important livelihood**

The tributaries of the Kaladan River are famous for the nipa palm (*Ra Ong Daw*), a plentiful local water plant that provides a favourite roofing material and beer.

*Ra Ong Daw* grows in the rivers along the banks and provides an important livelihood for local people who go out in boats during the cool season, November-January, to harvest. They cut down the largest and oldest palms to make way for new ones that will grow up during the rainy season. The palms are then cut into smaller pieces and woven into thatch. The thatch is then soaked for ten days in the river water to ensure that it is protected from insect damage. A roof made from *Ra Ong Daw* is cooler than any other and lasts 3-5 years.

The plants also bear fruits for three months out of the year, and the juice of the fruits is used to make a one-of-a-kind Arakan beer. Those whose houses are near the plants set up small “bars” to serve glasses of the local beer as a pastime. One Arakan man said “if our country’s situation improves, we can develop our beer to sell to other places because its flavour is absolutely unique.”

Making thatch and beer is an important livelihood for many poor villagers living along the rivers. Restrictions on boat travel would hinder this important small-scale industry while any change in the Kaladan river system will impact the *Ra Ong Daw* itself.

### Traditional small-scale oil drilling\*

Renan Taung (Oil Mountain) near Kyauk Phru on Rambree Island is one of the biggest traditional oil drilling villages in Arakan State. The entire village area is dotted with about 700 oil wells, each with an average size of four square feet. Most residents depend on oil drilling for their livelihood, giving the landowner 1/7 of their profits. This system has been in place since 1874, when the British controlled Arakan State.

Local people dig the ground for oil using bamboo and metal pipes. In a difficult manual process which is repeated again and again, they extract about one litre of oil each time they drive the tube deep into the earth. However, the spectre of unemployment looms large as foreign companies putting stakes in Burma's oil fields have arrived with modern drilling machines.

A consortium of Chinese and Singaporean companies (see Appendix 2) was awarded rights in 2004 for oil and gas exploration and has started test drilling in "block M" on Rambree Island. Altogether 150 workers from the Chinese consortium and 600 from Asia World Company are currently drilling in the 3,007 square mile block. Asia World Company, owned by Steven Law, has been subcontracted by the consortium to manage the project. Steven Law has been denied entry visa by the US government for his alleged involvement in laundering of drug profits.<sup>32</sup>

According to local sources, once the consortium began exploration, local farmlands located within the block were confiscated for exploration by the local authorities. Locally-owned private boats have been forced to transport army equipment as well as officials and workers of the companies. Oil workers have also cleared forest areas to facilitate transportation (see box: Mangroves destroyed to facilitate exploration).

"We are very worried about our future because the foreign companies are looking for oil with modern equipment, capable of sucking out much more oil in far less time," said Hla Shwe, a local resident.

\* This first appeared as the article "Foreign Investment in Oil Threatens Livelihood of Local People in Burma" in Mizzima News, May 26, 2005.



Photo: ioh



Photo: ioh

*"Huts" made of natural materials provide shelter around the well while workers drill*

## **Concern 2: Entrenching Burma's military regime**

Three decades of economic mismanagement by the military regime helped precipitate a popular democracy uprising in 1988. After cracking down on the uprising, massacring thousands of civilians, the bankrupt regime reversed its policy of economic isolationism and welcomed foreign investment in order to re-establish government control of the budget and balance of payments.<sup>34</sup> The entry of capital into the country further strengthened the power of the military regime, not surprising given how it spends its money. The United Nations Human Development Report of 2003 estimated that 0.4% and 0.5% of Burma's GDP is spent on health and education respectively. According to the Institute for Strategic Studies, however, the junta's military expenditures account for over 40% of its national budget.

Gas is currently the regime's largest source of legal export revenue.<sup>35</sup> Income from the Yadana and Yetagun pipelines accounts for 30% of the country's *total* legal exports. This is three times as much as those from the next biggest export earner<sup>36</sup> but is still less than the potential income from the Shwe project. Income from the Shwe wells will increase the junta's gas earnings by at least 150% (see Appendix 4). Additional income from other on and offshore blocks that are currently being explored will increase the junta's revenues further.

The regime's poor human rights record has led most governments and many international organisations and institutions to condemn

Burma's state terror and pass sanctions and investment bans against the country. This approach, also supported by the majority of Burma's opposition movement, is meant to apply economic and political pressure on the regime and promote a process of democratisation.

At the same time, several countries, such as regional neighbours Thailand, India, China, and Malaysia, promote constructive engagement with the regime. According to their arguments, constructive engagement will promote economic development, integrate the country into the international community, and eventually instigate a full transfer to democracy.

To date, however, progress in democratisation and human rights has yet to show. Indeed, foreign investment in development projects has exacerbated the human rights situation due to the involvement of Burma's military in the projects. Thus, as argued by the Nobel Peace Prize laureate and winner of the 1990 elections in Burma, Daw Aung San Suu Kyi, "until we have a system that guarantees rules of law and basic democratic institutions, no amount of aid or investment will benefit our people."

Several small-scale, dispersed, and often illegal revenue-generating activities have helped keep the SPDC in power over the years. Logging, extraction of gems and minerals, and trade in heroin and methamphetamines have all provided revenue in the form of direct income, taxation, or bribes, and kept local level commanders satisfied. In contrast, the direct revenue that would come from a project such as Shwe is much more

***It must be appreciated that when corporations invest in Burma, they do not invest in the country's development - they invest in the junta.<sup>33</sup>***

centralised; it would mostly go directly to the central government's coffers, making it even easier to buy weaponry and further entrench the regime.

### Gas Earnings Linked to Military Arms Purchases

*Since 1988 the Burmese armed forces have doubled in size, making them the second largest in Southeast Asia and, by some calculations, the 15th largest in the world.<sup>37</sup>*

When the money from the Shwe project begins flowing into the junta's coffers, the military's ability to purchase more arms, and therefore strengthen its grip over the population of Burma, will increase. The link between gas revenue and arms purchases is clear. The regime has been on an accelerated arms-buying spree since 2002, roughly when Rangoon started receiving its first gas revenues from the Yadana pipeline.<sup>38</sup> Examples of this include:

#### *Helicopters*

In the year that Total, one of the corporations involved with the Yadana/Yetagun pipeline project, paid its US\$15 million signatory bonus to MOGE, the regime purchased 24 Soviet-era helicopters from the Polish company PZL. A Bangkok-based Polish diplomat at the time said, "the Burmese paid us with Total money."<sup>39</sup>

#### *Jet Fighters*

*Jane's Defense Weekly* reported in 2001 that Rangoon purchased 10 MiG 29 jet fighters from the Russian Aircraft-building Corporation for US\$130 million, and that the money came from Thai gas purchases.<sup>40</sup> The down-payment for the fighters (around \$40 million) came in the same week that the state-owned Petroleum Authority of Thailand paid Burma \$100 million in royalties for gas.

Before the Thais made this payment under the terms of its 1995 contract, Burma had almost depleted its foreign reserves.<sup>41</sup>



Photo: Yuro



Photo: AASVC

*Spending millions on MiG fighters, nothing on education*

## **Burma's main arms suppliers\***

### **China**

China has provided Burma with nearly 200 battle tanks of various types, more than 200 armoured personnel carriers, anti-aircraft weapons and artillery. The list of weapons for the air force and navy is as long.

### **India**

Burma has procured eighty 75 mm howitzers and various types of anti-aircraft weapons, including shoulder-fired surface-to-air missiles and rocket launchers from India.

### **Israel**

As a traditional arms supplier to Burma, Israel helps research and development programs for Burma's army and has provided military software, advanced electronic devices and intelligence training.

### **Russia**

In addition to selling Burma MiG jet fighters and other aircraft and equipment, Moscow is also reported to be training Burmese military personnel in nuclear science.

### **North Korea**

In addition to selling Burma artillery and ammunition, North Korea is reported to be involved in the construction of a nuclear reactor in Burma.

### **Pakistan**

Pakistan is a main supplier of ammunition for artillery, mortar, and small arms to Burma.

### **Singapore**

Singapore has assisted the Burmese military with research and development programs. It also supplies anti-aircraft weapons systems, ammunition, medium and small arms.

\* Information from the article "A Growing Tatmadaw," *The Irrawaddy*, March 2006.

Burma has acquired new weapons systems from numerous countries, including India, Singapore, Pakistan, North Korea, Ukraine, and Israel, to name a few. The country's principal supplier, however, has been China.<sup>42</sup> The air force has added more than 150 helicopters, fighters, ground attack, transport, and training aircraft to its fleet. The navy has also expanded, with new missile patrol boats, corvettes, offshore patrol vessels and riverine craft. Intelligence, communications, and logistics have been substantially upgraded, and the army has acquired a wide range of tracked and wheeled armour, towed and self-propelled artillery, air defence weapons, transport, small arms, and communications equipment.



### Concern 3: Environmental damage

The two proposed pipeline routes to India traverse four Global 200 Ecoregions, or areas classified by the World Wide Fund for Nature (WWF)<sup>43</sup> as most crucial to the conservation of global biodiversity,<sup>44</sup> including one of the 10 most vulnerable ecoregions in the world. Aerial photographs from the Yadana/Yetagun pipelines show clearance paths 30-40 meters wide,<sup>45</sup> enough to effectively separate fragile forests into two halves<sup>46</sup> and disrupt the migratory paths of animal populations. Such clearance would necessarily be repeated with a Shwe pipeline, and is of particular concern given its potential impact on critical areas. Burma's increasing border trade with India over the last ten years has led to the construction of several major roads passing through Chin State, causing deforestation. The further degradation of these environmentally sensitive areas is therefore of particular concern.

In addition to the primary effects of pipeline clearance and construction, secondary effects such as the building of roads

and infrastructure as well as the logging that may follow will all have negative environmental impacts. The rapid development of the military-controlled shrimp industry has devastated large areas of mangrove forests; those remaining along the Arakan coastline are also now further threatened by the infrastructure of the Shwe gas project. In addition, the impact on coral reefs off the coast has not been assessed.

Endangered species such as the Arakan forest turtle (*Heosemys depressa* or *Geoemyda depressa*), among the 25 most endangered turtles in the world,<sup>47</sup> inhabits the densely forested Arakan Roma mountains, while the dugong (*Dugong dugon*), cousin of the American manatee, and the Irrawaddy River dolphin (*Orcaella brevirostris*) are noted to inhabit the Kaladan River.<sup>48</sup> Without a proper environmental impact assessment of any project that would impact the river and its surrounding environs, it is uncertain what fate may befall these species.

There are several environmental dangers involved in the commercial production and transport of natural gas, including the leakage of chemicals used in the drilling process as well as potential gas blowouts. Once they reach the seabed, drilling wastes that include volatile organic compounds rob the water and bottom sediments of oxygen and as a result kill large proportions of life on the ocean floor, including shellfish beds.<sup>49</sup> Toxic brine generated in the exploration process is also often dumped on or offshore.

The coastal area of Kyauk Phru has an average annual rainfall of five meters and the Bay of Bengal is particularly prone to severe cyclones during April to June and September to November. The high winds, storm surges, and flooding of coastal areas increase the likelihood that the pipeline may be badly damaged or rupture during such an event.<sup>50</sup> Kyauk Phru also lies on an active fault line - the same fault line that triggered the 2005

Asian Tsunami - increasing the vulnerability of the environment should pipelines be built in the area.

**Without any mechanisms in place to ensure proper, environmentally sound assessments, planning, and procedures, the project could be disastrous.**

### **Ecoregions of outstanding biodiversity threatened by pipeline construction**

#### *Chin Hills-Arakan Roma Mountain Range*

The Arakan Roma Mountain Range feeds two important watersheds, the Brahmaputra and Irrawaddy Rivers, upon which tens of millions of people in Burma, Bangladesh, and India depend for their livelihoods.<sup>51</sup> Mountain forests in this ecoregion remain relatively undisturbed.

#### *Naga-Manipuri-Chin Hills Moist Forests*

This region is one of the 10 most vulnerable forests in the world.<sup>52</sup> Even though only 0.8% of the forest is currently protected,<sup>53</sup> large tracts of intact forest still exist in this ecoregion, a rarity in Southeast and Southern Asia.<sup>54</sup> This region is extremely remote; insurgency and counter-insurgency operations have further restricted the ability of researchers to study the area. There is insufficient baseline data on the region to make responsible decisions about if and how to complete such a project as Shwe in this sensitive area.<sup>55</sup>

#### *Mizoram-Manipur-Kachin Rainforests*

This area is a unique bio-geographic crossroads; animals and plants from the Indian, Indo-Malayan, and Indo-Chinese regions converge here.<sup>56</sup> Almost half of this ecoregion's natural habitat remains intact; as a result, wide-ranging species such as the tiger and Asian elephant travel freely in these large forests.<sup>57</sup>

#### *Meghalaya Subtropical Forests*

These forests are considered the centre of diversity for several primitive tree genera. They are home to more than 110 mammal species, including the tiger, Asian elephant, wild dog, smooth-coated otter, and capped leaf monkey.

Photo: Ian

*a road now cuts straight through the mangroves*



#### **Mangroves destroyed to facilitate exploration**

Mangrove forests provide a vital natural protection against cyclones, storm surges,

and tidal waves. The Rakhine (Arakan) mangroves, a subset of the Myanmar Coastal Mangroves, are also recognised for their biodiversity. During the dry summer, wild Asian elephants come down from the mountains to the mangroves to drink salt water. Bird life is rich in migrant and resident water birds.<sup>58</sup> A consortium of companies managed by Asia World, Co. is currently building roads and bridges in Block M that cut directly through the mangrove forests with little concern for the ecosystem. This infrastructure facilitates exploration of oil in the block which is being carried out by the same consortium. The area, until recently 60,000 square acres in size, has already been devastated by the establishment of shrimp farms and harvesting of firewood. A possible pipeline and/or development of a deep sea port nearby in Kyauk Phru would cause further destruction and make the people of Arakan State more vulnerable to damage from cyclones and storm surges.



### Bay of Bengal under threat\*

The Bay of Bengal has been identified as one of the world's sixty-four Large Marine Ecosystems. One-quarter of the world's population

resides in the countries on or near the shores of the Bay, with approximately 400 million living in its catchment area, many subsisting at or below the poverty level. The coastal and offshore waters of the region support numerous fisheries of great socio-economic importance to the countries bordering the Bay and provide for direct employment of over 2 million fishermen.

Sea-based sources of pollution by oil spills from tanker traffic and fishing vessels, and from oil exploration and production, threaten living marine resources and habitats in the Bay. No assessments of how the oil rigs at sea may impact marine life have been done. This is of particular concern given that the regime has proven unaccountable in the realm of environmental regulations and that the area under exploration is prone to cyclones. In addition, no studies of the potential impacts of LNG tankers traveling through the Bay have been disclosed.



Photo: IASIG

\* Information from *Bay of Bengal Large Marine Ecosystem Programme Prospectus* at [www.fao.org/fi/boblme/website/prospectus.htm](http://www.fao.org/fi/boblme/website/prospectus.htm)



Photo: Sooin Han

### Concern 4: Destruction of cultural sites

Several ancient historical sites that are significant not only to Arakan State but to the understanding of the history of Southeast Asia lie within twenty kilometres of the proposed Shwe gas pipelines. Given that the regime has a record of destroying culturally and historically important sites in Burma<sup>59</sup> and has been soundly criticized for its restoration efforts,<sup>60</sup> there is concern that the sites may be ransacked, destroyed, or improperly restored during the development of the Shwe project.

This concern is deepened by the fact that the treatment of important Arakan cultural sites by the regime has already been made clear. Despite the cultural significance of the third Dhanyawaddy City (dating from 580 BC – 326 AD),<sup>61</sup> the military built the Site-tway-Rangoon Highway right through the ancient city site in order to provide a quick route from central Burma to the Western Command. A route avoiding the site would have

been both cheaper and quicker but it was not chosen. The highway intersects the city walls and crosses the middle portion of the city (the area thought most likely to hold undiscovered artefacts), passing within a few metres of the ancient palace

site. According to villagers in the area, the palace site was saved only after local people were forced to donate historical artefacts to the military.



### **Sites threatened by the Shwe project:**

*Dhanyawaddy*  
The third Dhanyawaddy City dates to the period of 580 BC – 326

AD,<sup>62</sup> making it one of Southeast Asia's earliest civilizations (research is still being conducted to uncover the site of the first and second Dhanyawaddy cities estimated to exist from 3325 – 1507 BC and 1483 – 580 BC respectively). It contains crucial evidence of the origin of the Arakanese culture. This city is located 6-7 kilometres from one of the proposed pipelines.

### *Vesali*

Vesali is one of the oldest ancient cities in all of Burma, dating from AD 327 to AD 818.<sup>63</sup> The site currently faces partial excavation in a seemingly random manner using substandard equipment, and is another targeted by the Site-tway – Rangoon Highway. The proposed Shwe gas pipeline route, approximately 15 kilometres away, further increases risks posed to it by the military.

### *Lemro Era sites (four cities)*

Untouched remains of the Lemro Era potentially hold the key to as much as six centuries of Arakanese archaeological records covering the 9th to the 15th centuries.<sup>64</sup> The sites remain buried beneath a mass of sedimentation on the bank of the Lemro River making them the most untouched sites in the whole of Arakan State. For this reason, Arakanese researchers have been demanding the conservation of all related sites rather than their excavation by the military. The sites are approximately 15-20 kilometres from the planned pipeline route.

### *Mrauk-U*

Dating from AD 1430 to 1784,<sup>65</sup> Mrauk-U is an ancient Arakan capital and one of Burma's most picturesque sites with 150

temples. Sadly, however, the regime's restoration work in Mrauk-U "has left much of the exterior looking more like moulding clay than an ancient ruin."<sup>66</sup>





### **Concern 5: Lack of local participation in decision-making**

Burma has been ruled by military regimes since 1962. Pro-democracy uprisings have been crushed systematically, most prominently in 1988. As illustrated by the human rights situation in Arakan and Chin states, dissent is dealt with by force. Years of this oppression have subdued the majority of the people of Burma into silence, and few people dare to question orders and development plans by the military. Communication is limited by laws in which ownership of an unregistered fax machine or computer lead to prison sentences of between 7-15 years.<sup>67</sup> Understandably, Burma has the least Internet users per capita in the world.<sup>68</sup> Censors block a multitude of websites and the political use of computers is banned.

In this environment, the military, rather than consulting the people, gives orders regarding “the development of the nation.” Decisions are made behind closed doors, and agreements reached between the military and foreign corporations without public

knowledge.

The Shwe gas project follows this formula of autocratic development. The majority of the people of Arakan and Chin states have not been informed about the project, nor have they been consulted about the pipeline route(s). Not only are the people of western Burma largely unaware of the project itself, few know that they will not be able to use the Shwe gas, despite both Chin and Arakan States lacking access to the national gas and electricity grids.

As outlined in the section Current Energy Use, over ninety percent of the people in Arakan and Chin states use candles for light and firewood as their primary source of cooking fuel. While local people shoulder these burdens, the junta is selling off non-renewable local resources to its neighbours for huge profits. State-controlled media announce that energy exports will benefit the country; ideas of how the profits could help alleviate poverty at the local level, however, have not been disclosed. In addition, the current use of wood as a primary fuel source in western Burma is unsustainable and is contributing to environmental degradation; this issue is also not addressed by the project.

Similar to the experience leading up to the Yadana-Yetagun pipelines, a transparent and participatory process involving local stakeholders is nonexistent. The decision to go forward with the Shwe project has thus far excluded any public participation and independent environmental and social impact assessments that take into account the energy needs of people in western Burma. The experience of development projects in Burma, particularly of the Yadana-Yetagun pipelines, clearly demonstrates that stakeholder participation is not possible under military rule.



## Conclusion

The Shwe gas project in western Burma is poised to provide the ruling military junta with its single largest source of income. The income will further entrench the junta, allowing it to insulate itself from international pressure by selling off the resources of its people. An already abysmal human rights situation in the project area is set to get much worse as troops will move in to develop infrastructure and secure project interests. Indeed, exclusion zones around drilling rigs at sea have already deprived fishermen of their livelihood; several have been beaten and arrested. Environmentally and culturally significant areas are also at risk as no impact assessments have been conducted and development projects in Burma have a history of destructive impacts. The junta is exporting the resources of its people without their knowledge or consent despite severe energy shortages in western Burma.

The negative impacts of large development projects must always be weighed against their benefits. Democratic structures can ensure that this process is done openly and considers the interests of all concerned parties, particularly potentially affected people. In Burma, however, criticism of government-sponsored activities leads only to punishment and the media is heavily censored, prohibiting open debate about such projects.

In order to address the potential social, economic, and environmental impacts of the Shwe gas project and to enable its benefits to be distributed equitably, Burma needs a democratic system of governance in which people can voice their concerns

without fearing persecution. Without this, the Shwe project must not go forward.

The Shwe Gas Movement urges:

- all corporations and businesses involved in the Shwe project, either state or privately owned, to freeze all current business with the military regime and refrain from further investment and exploration until a dialogue can be held with a democratically-elected government.
- foreign governments, institutions, and civil society, particularly in the region, to pressure businesses involved in the Shwe gas project to freeze all current business with the military regime and refrain from further investment.
- the broader international community to continue to expose the dangers posed by the Shwe gas project.

*Many tactics are needed to show the corporations and governments involved with Burma's junta that the downside of resource extraction under present conditions – violence, human rights abuse, and environmental degradation – outweighs the short term profits to be made.<sup>69</sup>*

## **The vision of the AASYC and the Shwe Gas Movement**

The AASYC follows three development principles which its members, together with other civil society groups from Burma, developed as a part of the Ethnic Community Development Forum (ECDF). We believe that these principles are an integral part for the development of our country:

### **1. Grassroots ownership of development**

The people shall have, in fact and in law, the rights to own, use, manage, and continually conserve their natural resources and the heritages which have been handed down from generation to generation.

### **2. Participatory development**

The people shall have the right to make their own independent decisions in any development activity or project that concern them, and the right to receive benefits equitably. There shall be prior and informed agreement by the entire people and full guarantee with responsibility for security of life and livelihood.

### **3. Sustainable development**

Development towards fulfilling the present needs of people without destroying or losing their cultural heritage and without reducing or endangering the required needs of future generations.

The Shwe Gas Movement believes that in order for any development of the Shwe gas fields to be implemented under these principles, the following processes must be adhered to once there is a democratically-elected government in Burma:

- As natural gas is a valuable but non-renewable resource, the decisions regarding the usage must be made by all affected people, including the voices of indigenous minorities (this could take place through a future referendum under a democratic government)
- In order for people to effectively make these decisions, affected people need to access independently gathered information regarding the project. This must take place before any agreements are signed with corporations. Therefore there should be environmental and social impact assessments conducted and results made available to the public. Representatives of the people should participate in these assessments.
- It is our belief that, if local people decide to extract the natural gas, then at a minimum, the gas itself must first benefit the local people by providing cooking fuel, household electricity, and development of local industry. Proceeds from sales of natural resources must under no circumstances be used for the purchase of arms.



## Shwe Gas Movement activities

To help raise awareness about the Shwe gas project, the Shwe Gas Movement has held several seminars, workshops and forums in India, Bangladesh, Thailand, and Korea. We produce a monthly bulletin in Burmese and English, maintain a website with current developments, and produce other materials to keep people informed and updated. In addition, SGM has held two Global Calls to Action in which protests were held at the offices of Daewoo International and South Korean embassies in nearly twenty countries around the world. Join us!

## What You Can Do...

### 1. Sign our online petition at

[www.petitiononline.com/SHWE/petition.html](http://www.petitiononline.com/SHWE/petition.html) to demand an end to all gas pipeline projects until the people of Burma can participate in decisions about the use of their local natural resources and related infrastructure development without fearing persecution - until there is a democratically elected government in Burma.

### 2. Write to Corporations and Governments

Writing to corporations and governments can make a difference! Find pre-written letters that you can send by fax or post to the respective corporations and governments at [www.shwe.org/action/letters/](http://www.shwe.org/action/letters/)

### 3. Participate in direct actions

The SGM and its networks coordinate bi-annual international days of action. Contact us for details of the next action at [global@shwe.org](mailto:global@shwe.org). There may also be other actions arranged in your country.

### 4. Visit our website

For update news and information please visit [www.shwe.org](http://www.shwe.org)



Photo: AASVC

### 5. Sign up for e-newsletters

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Photo: AASVC

## Endnotes

<sup>1</sup> [www.cbc.ca/cp/business/060115b011518.html](http://www.cbc.ca/cp/business/060115b011518.html)

<sup>2</sup> <http://www.washtimes.com/national/20050117-115550-1929r.htm>

<sup>3</sup> Studies by the Chinese government in 2004 led to two alternative routes: one from ports in the Indian Ocean through pipelines in Pakistan and another from Burma into China. A favoured option appeared to be unloading cargo at an Arakanese deep sea port and sending oil by pipeline into Yunnan province. Although a decision has yet to be made, the Arakan coastline could become a key factor in China's energy plans. See [www.gasandoil.com/gocnews/nts43358.htm](http://www.gasandoil.com/gocnews/nts43358.htm)

<sup>4</sup> "Paranoid junta strengthens air defenses," *The Irrawaddy*, June 1, 2006.

<sup>5</sup> "Foreign Investment in Burma hits US\$7.6 billion," *The Irrawaddy*, November 18, 2005.

<sup>6</sup> "More gas found in Myanmar offshore," New Age Business and Xinhua, March 6, 2006.

<sup>7</sup> *Ibid.*

<sup>8</sup> PetroChina does not have its own PSC for exploration rights but would presumably buy gas directly from the regime. Conflicting news reports have been written about this sale. Some specify that the gas would come from the A-1 block while others leave details unspecified. See for example: "Gas Deal Fuels China's Plans for Myanmar," *The Straits Times*, February 2, 2006 and "Myanmar-PetroChina Agreement: A Setback to India's Quest for Energy Security," South Asian Analysis Group Paper No. 1681, January 19, 2006. The approval of a pipeline by the National Development and Reform Commission, a regulatory department of the Chinese State Council was reported in "Energy: Sino-Burma oil pipeline," an article in the China Daily online, April 18, 2006.

<sup>9</sup> *Burma's Lost Kingdoms: Splendours of Arakan*, Pamela Gutman, 2001.

<sup>10</sup> Unless otherwise noted, all statistics about livelihoods are government statistics from *Facts About Arakan, Akyab*, Office of the Western Commander (SPDC), 2000.

<sup>11</sup> Figures published in *The New Light of Myanmar*, February 2006.

<sup>12</sup> The price of electricity in Rangoon recently increased *tenfold* and now stands at 25 kyat per unit. This is still at least ten times cheaper than the prices in Site-tway. "Myanmar hikes electricity rates 10fold," *Agence France a Presse*, May 23, 2006.

<sup>13</sup> *Total Denial Continues*, EarthRights International, 2003, p. 68.

<sup>14</sup> Exploration and infrastructure development that could benefit a pipeline in the onshore Block M has also begun. However, this report primarily deals with the specific concerns of the development of gas from the offshore Shwe wells.

<sup>15</sup> This is true not only of the gas pipeline project. In the case of the Lawpita hydropower project in eastern Burma, for example, increased troop deployments to secure the project led to the laying of thousands of landmines, forced relocations, land confiscation, forced labor and other abuses. See *Dammed by Burma's Generals: The Karenni Experience with Hydropower Development – From Lawpita to the Salween*, Karenni Development Research Group, 2006.

<sup>16</sup> An infantry battalion in western Burma today is made up of approximately 250-350 armed soldiers.

<sup>17</sup> The International Labour Organisation is the UN specialized agency that formulates international labour standards in the form of Conventions and Recommendations setting minimum standards of basic labour rights. Definition from [www.ilo.org](http://www.ilo.org)

<sup>18</sup> *Entrenched: An Investigative Report on the Systematic Use of Forced Labor by the Burmese Army in a Rural Area*, EarthRights International, 2003.

<sup>19</sup> Narinjara News Service.

<sup>20</sup> Interviews used in this report were conducted by AASYC and AYNG fact-finders. Those with the numbering system "A1, A2," etc. were conducted by AYNG and the remainder were conducted by AASYC.

<sup>21</sup> *A Conflict of Interests: The Uncertain Future of Burma's Forests*, Global Witness, 2003, p. 28.

<sup>22</sup> See for example *The Impact of the confiscation of land, labor, capital assets and forced relocation in Burma by the military regime*, Dr. Nancy Hudson-Rodd, Dr. Myo Nyunt, Saw Thamin Tun, and Sein Htay, 2003, *No Land to Farm*, Human Rights Foundation of Monland, 2002, and *Our Land and National Resources in Burma*, The Nationalities Youth Forum, 2005.

<sup>23</sup> Research from AASYC fact-finding teams and Narinjara News Service, October 18, 2005 and March 19, 2004.

<sup>24</sup> "Burmese Army Not Paying for Purchase Paddy," Narinjara News Service, April 5, 2006.

<sup>25</sup> Research from AASYC fact-finding teams.

<sup>26</sup> *Total Denial Continues*, p. 114.

<sup>27</sup> *Ibid.*

<sup>28</sup> In February 2004, the Myanmar Dana magazine reported that boats were excluded from entering a 27 mile zone around well number 1 in the A-1 block from November 2003-January 2004.

<sup>29</sup> *Humanity Under Attack: Human Rights Abuses in Arakan State*, The Arakan State Human Rights Commission, 2006, p.63.

<sup>30</sup> *Ibid.*, p. 64.

<sup>31</sup> *Total Denial Continues*, 2000, p. 47-8.

<sup>32</sup> *The Irrawaddy*, Vol. 6, June 2000.

<sup>33</sup> *Destructive Engagement: A Decade of Foreign Investment in Burma*, EarthRights International, 1999.

<sup>34</sup> *Burma Sanctions Coalition Briefing*, Burma Campaign UK, 2002.

<sup>35</sup> [www.dfat.gov.au/geo/burma/burma\\_brief.html](http://www.dfat.gov.au/geo/burma/burma_brief.html)

<sup>36</sup> <http://strategis.ic.gc.ca/epic/internet/inimr-ri.nsf/en/gr119689e.html> quoting government sources of exports in FY 2002-03 as gas (30 percent), teak logs (11 percent), pulses and beans (9 percent), dried prawns and fish products (6 percent).

<sup>37</sup> “The Arms Keep Coming – But Who Pays?,” article in *The Irrawaddy*, June 2004.

<sup>38</sup> “Gas and Regime Preservation,” Bruce Hawke, article in *The Irrawaddy*, November 2004.

<sup>39</sup> *Capitalizing on Conflict*, EarthRights International, 2003.

<sup>40</sup> *TOTAL Oil – Fuelling the Oppression*, Burma Campaign UK, 2005, p.25.

<sup>41</sup> “MiGs spell trouble,” Bertil Litner, article in *Far Eastern Economic Review*, August 2, 2001.

<sup>42</sup> “A Growing Tatmadaw,” article in *The Irrawaddy*, March 2006.

<sup>43</sup> When it was founded in 1961, WWF stood for the “World Wildlife Fund.” As WWF expanded its work to conserve the environment as a whole, rather than focusing on selected species in isolation, the legal name became “World Wide Fund For Nature.”

<sup>44</sup> [http://en.wikipedia.org/wiki/List\\_of\\_the\\_Global\\_200](http://en.wikipedia.org/wiki/List_of_the_Global_200)

<sup>45</sup> *Total Denial Continues*, p. 151.

<sup>46</sup> *Ibid.*

<sup>47</sup> According to the “Top 25 Turtles on Death Row,” a list compiled by the Turtle Conservation Fund, 2003.

<sup>48</sup> All three species are listed on the World Conservation Union’s red list of threatened species. The Arakan forest turtle is listed as critically endangered. See [www.iucnredlist.org](http://www.iucnredlist.org)

<sup>49</sup> *Natural Gas: Bridging Fuel or Roadblock to Clean Energy?*, a Greenpeace report, 1993.

<sup>50</sup> *Another Yadana: The Shwe Natural Gas Pipeline Project (Burma-India-Bangladesh)*, EarthRights International, 2004.

<sup>51</sup> *Ibid.*

<sup>52</sup> <http://www.ecoworld.org/trees/articles/articles2.cfm?TID=243>

<sup>53</sup> *Ibid.*

<sup>54</sup> [www.nationalgeographic.com/wildworld/profiles/terrestrial/im/im0131.html](http://www.nationalgeographic.com/wildworld/profiles/terrestrial/im/im0131.html)

<sup>55</sup> *Another Yadana: The Shwe Natural Gas Pipeline Project (Burma-India-Bangladesh)*, EarthRights International, 2004.

<sup>56</sup> [www.nationalgeographic.com/wildworld/profiles/terrestrial/im/im0131.html](http://www.nationalgeographic.com/wildworld/profiles/terrestrial/im/im0131.html)

<sup>57</sup> *Ibid.*

<sup>58</sup> [http://www.worldwildlife.org/wildworld/profiles/terrestrial/im/im1404\\_full.html](http://www.worldwildlife.org/wildworld/profiles/terrestrial/im/im1404_full.html)

<sup>59</sup> In 1991, an old royal palace in Kengtung (Shan State) was destroyed against the protests of local abbots who wished to preserve the structure, which had figured prominently in modern Shan history. See “Raising the Setting Sun” in *The Irrawaddy*, June 2000.

<sup>60</sup> “Redesigning History” an article in *The Irrawaddy*, June 2005.

<sup>61</sup> *A Guide to Marak-U*, Tun Shwe Khine (M.A.), 1993, p.21.

<sup>62</sup> *Ibid.*

<sup>63</sup> *A dictionary of Rakhine* (Burmese Version), Oung Hla Thein, 1997, p.92.

<sup>64</sup> *A Guide to Marak-U*, Tun Shwe Khine (M.A.), 1993, p.22-24.

<sup>65</sup> *Burma’s Lost Kingdoms: Splendours of Arakan*, Pamela Gutman, 2001 and *Ibid.*

<sup>66</sup> Myanmar (Burma) Lonely Planet Country Edition, 2005.

<sup>67</sup> <http://www.myanmar.com/gov/laws/computerlaw.html>

<sup>68</sup> [http://hdr.undp.org/statistics/data/indic/indic\\_116\\_1\\_1.html](http://hdr.undp.org/statistics/data/indic/indic_116_1_1.html)

<sup>69</sup> “Out of Burma: Cross-Border Resource Extraction,” Edith Mirante, Shwe Gas Bulletin, March 2005.

## **Appendix 1:**

### **International companies that are or have been operating in the A-1 and A-3 blocks**

#### **Serica Energy - Canada/International**

- Owns the *Galaxy Driller*, a semi-submersible rig used in the A-1 and A-3 block since December 2005
- Serica Energy is a publicly traded company listed on the AIM Market of the London Stock Exchange and in Toronto, Canada on the TSX Venture Exchange with the share symbol ‘SQZ

#### **China Oilfield Services Ltd - China/International**

- Owns the *Nan Hai 2* semi-submersible rig stationed in the Mya well in the A-3 Block
- Operating on a 60-day contract in early 2006 which, according to Daewoo, is worth US\$6 million

#### **Helicopters NZ - New Zealand**

- Contracted by the Daewoo consortium to transport senior officials and engineers between the Shwe fields and mainland (Rangoon and Site-tway)
- Two New Zealanders pilot the helicopter and are living at a hotel in Site-tway

#### **Swire Pacific Offshore - Singapore, Hong Kong/International**

- Owns the offshore support vessel *Pacific Rover*
- Is a branch of Swire Pacific, Ltd., under John Swire & Sons (HK) Limited, which is part of the International Swire Group

#### **Ryder Scott Co. - US**

- Contracted in 2005 by the Daewoo consortium to officially certify the quantities of gas in the A-1 block

#### **Frontier Drilling - Norway**

- Owner of the *Frontier Duchess*, a drill ship used in the A-1 block in early 2005 and in the M-9 block in August 2005

#### **Snamprogetti - Italy**

- Conducted a Pre-Feasibility Study of potential pipeline routes in western Burma in late 2004

#### **Suz Tractebel - Belgium**

- GAIL, Ltd. commissioned Suz Tractebel company as a technical consultant to carry out studies for preparing a detailed feasibility report (DFR), environment management plan (EMP), and rapid risk analysis (RRA) for the Myanmar-India gas pipeline project via northeastern Indian states

## **Appendix 2:**

### **Companies involved in the A-2 and A-4 offshore blocks and the onshore blocks M and L**

#### **The China National Offshore Oil Company (CNOOC) - A-4 and M blocks**

The 70% state-owned company - the third largest oil company in China - handles offshore exploration and production and accounts for more than 10% of China's domestic crude production.<sup>1</sup> CNOOC made an unsuccessful bid for the US corporation Unocal, including its stakes in Burma's Yadana gas field, in 2005.

#### **China Huanqiu Contracting and Engineering Corporation - A-4 and M blocks**

The engineering corporation, administered by the state-owned China National Petroleum Corporation (CNPC), receives over 70% of its budget from overseas contracts.<sup>2</sup>

#### **Asia World Co., Ltd. - M block**

One of Burma's largest conglomerates, Asia World's business includes construction, transport companies, and a deep water port in Rangoon, as well as import-export of consumer goods. The company is run by Stephen Law (U Tun Myint Naing), son of infamous drug lord Lo Hsing Han. Law is married to a Singaporean businesswoman and more than half of Singaporean investment in Burma is said to go through partnerships with Asia World. The US government has previously denied entry visa to Stephen Law for his alleged involvement in laundering of drug profits.<sup>3</sup>

#### **Golden Aaron Pte., Ltd - A-4 and M blocks**

The managing director of Singapore-registered Golden Aaron Pte., Ltd. is U Tun Myint Naing also known as Stephen Law,<sup>4</sup> who is also the owner of Asia World Co. (see above).

#### **Essar Oil -A-2 and L block**

Essar Oil was formed in the 1990s as the first privately owned Indian petroleum company. Over 60% of its shares have been publicly traded on the New York Stock Exchange since March 2005.

#### **PetroChina**

After restructuring in 1999, China's state-owned CNPC injected most of its assets and liabilities relating to its exploration and production, refining and marketing, chemicals and natural gas businesses into the newly formed PetroChina. PetroChina has been listed on the New York Stock Exchange and the Hong Kong Stock Exchange since 2000. In January 2006 Burma's Ministry of Energy signed an MOU with PetroChina for the sale of 6.5 trillion cubic feet (TFC) over 30 years.

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<sup>1</sup> [http://www.geni.org/globalenergy/library/national\\_energy\\_grid/china/china\\_country\\_analysis\\_brief.shtml](http://www.geni.org/globalenergy/library/national_energy_grid/china/china_country_analysis_brief.shtml)

<sup>2</sup> <http://www.hqcec.com/EN/About/Profile/index.htm>

<sup>3</sup> *The Irrawaddy*, Vol. 6, June 2000.

<sup>4</sup> *Living Colour Magazine*, April 2005. <http://www.ibiblio.org/obl/docs3/LC2005-04.html>

### **Appendix 3:**

#### **Detailed description of proposed transport routes**

##### **Proposed Route 1**

An 897 km pipeline would run underwater from the Shwe fields to Site-tway Township, follow the Kaladan River valley through Arakan and Chin States, enter into Mizoram and Tripura States in India, and pass through Bangladesh, finally reaching Kolkata. Construction cost is estimated at US\$ one billion.

##### **Proposed Route 2**

A 1,200 km long pipeline would run underwater from the Shwe fields to Site-tway Township, follow the Kaladan River valley through Arakan and Chin States, enter into Mizoram in India, and pass through West Bengal, finally reaching Kolkata. Construction costs are estimated at US\$1.3 billion.

##### **Proposed Route 3**

A pipeline would run underwater from the Shwe fields to a Liquefied Natural Gas (LNG) terminal on the Arakan coastline. The gas would be frozen to -161 degrees Celsius and shipped to India's West Bengal and Kolkata by a LNG tanker. The estimated cost of the LNG terminal is US\$3-5 billion. Another alternative for this route is for an underwater pipeline to run from the Shwe fields to a terminal where the gas would be filled onto Volume Optimized Transport (Votrans) boats. The gas would then be regularly shipped as Compressed Natural Gas (CNG) to West Bengal and into Kolkata. The US company EnerSea Transport LLC is currently cooperating with GAIL to develop this technology. No cost estimates for this alternative have been made public.

##### **Possible Route 4**

No tentative routes for the gas bound for China have been made public. However it is believed that the project would be part of parallel developments on Rambree Island including the construction of a deep-sea port, road construction, and an oil pipeline from the island to Yunnan province in China.

Additional routes, including one that would travel through Bangladesh, have been discussed but at this time appear to have been disregarded.

#### Appendix 4:

#### The junta's estimated share of the profits: Shwe vs. Yadana/Yetagun

| Gas fields     | Gas reserves (tcf) | End user price/Mmbtu (million Btu) | Production costs over 20 years | MOGE stake in the project | Total revenue | MOGE/SPDC total net income | MOGE/SPDC net income per year over 20 years |
|----------------|--------------------|------------------------------------|--------------------------------|---------------------------|---------------|----------------------------|---------------------------------------------|
| Yadana/Yetagun | 9.7                | US\$3.70                           | US\$3.8 bn                     | 15 - 20%                  | US\$21.1bn    | US\$8bn                    | US\$400m                                    |
| Shwe A-1       | 10-14              | US\$3.70                           | US\$2.3bn                      | 0%                        | US\$37-52bn   | US\$12-17 bn               | US\$580-824m                                |

#### Calculations of the Burma regime's net income from the Shwe wells

Calculations have been made based on the following assumptions:

- The gas has a heating value of 1,000 British Thermal Units per cubic foot (BTU/cf)
- The end user price is US\$3.70 per million BTU<sup>1</sup>
- Three scenarios of gas reserves of 10, 12, or 14 trillion cubic feet
- Under the standard Product Sharing Contract, foreign corporations pay 10% royalty on the total sales price of the gas to the Myanmar Oil and Gas Enterprise (MOGE)
- Under the standard Product Sharing Contract,<sup>2</sup> foreign corporations pay annual 30% income tax on their net profits to the Myanmar Oil and Gas Enterprise (MOGE) during contract years 4-20
- Construction and operating costs were based on input from a Myanmar oil industry analyst
- All amounts are given in US dollars

#### Scenario 1: Gas reserves of 10 trillion cubic feet

$10,000,000,000,000 \times 0.001 \times \$3.70 = \$37,000,000,000$

Total revenue: \$37bn

Construction costs: \$1.3bn

Operating costs: \$50m x 20 years = \$1bn

Consortium net income: \$37bn – \$3.7bn (10% in royalties) – \$2.3bn (construction and operating costs) - \$7.91bn (tax to MOGE years 4-20) = \$23.09bn

MOGE net income: \$3.7bn (royalties) + \$7.91bn (tax) = US\$11.61bn

Average MOGE net income over 20 years = \$580 million/year

#### Scenario 2: Gas reserves of 12 trillion cubic feet

$12,000,000,000,000 \times 0.001 \times \$3.70 = \$44,400,000,000$

Total revenue: \$44.4bn

Construction costs: \$1.3bn

Operating costs: \$50m x 20 years = \$1bn

Consortium net income: \$44.4bn - \$4.45bn (10% in royalties) – \$2.3bn (construction and operating costs) – \$9.6bn (tax to MOGE years 4-20) = \$28.05bn

MOGE net income: \$4.45bn (royalties) + \$9.6bn (tax) = US\$14.05bn

Average MOGE net income over 20 years: \$703 million/year

### Scenario 3: Gas reserves of 14 trillion cubic feet

$14,000,000,000,000 \times 0.001 \times \$3.70 = \$51,800,000,000$

Total revenue: \$51.8bn

Construction costs: \$1.3bn

Operating costs: \$50m x 20 years = \$1bn

Consortium net income: \$51.8bn – \$5.18bn (10% in royalties) – \$2.3bn (construction and operating costs) – \$11.302bn (tax to MOGE years 4-20) = \$33.02bn

MOGE net income: \$5.18bn (royalties) + \$11.302bn (tax) = US\$16.48bn

Average MOGE net income over 20 years: \$824 million/year

### Calculations of the Burma regime's income from the Yadana and Yetagun wells

Calculations have been made based on the following assumptions:<sup>2</sup>

- The heating value of the Yadana and Yetagun gas is approx. 712 and 1,040 British Thermal Units per cubic foot (BTU/cf) respectively
- The end user price is US\$3.70 per million BTU
- The Yadana and Yetagun gas reserves are 6.5 tcf and 3.2 tcf respectively
- According to the standard Product Sharing Contract, foreign corporations pay 10% royalty on the total sales price of the gas to the Myanmar Oil and Gas Enterprise (MOGE)
- According to the standard Product Sharing Contract, foreign corporations pay a 30% income tax on their net profits during contract years 4-20 to the Myanmar Oil and Gas Enterprise (MOGE)

### Yadana

Total revenue \$505m/year x 20 years: \$10.1bn

Construction costs: \$1.184bn

Operating costs: \$50m x 20 years = \$1bn

Consortium net income: \$10.1bn – \$1.010bn (royalties) – \$2.184bn (construction and operating costs) – 1.497bn (tax) – \$1.036bn (MOGE 15% stake in consortium) = \$4.373bn

MOGE net income: \$1.036bn (15% stake in consortium) + \$1.01bn (royalties) + \$1.497bn (tax) = \$3.543bn

Average MOGE net income over 20 years: \$177 million/year

### Yetagun

Total revenue \$550m/year x 20 years: \$11bn

Construction costs: \$0.65bn

Operating costs: \$50m x 20 years = \$1bn

Consortium net income: \$11bn – \$1.1bn (royalties) – \$1.65bn (construction and operating costs) – \$1.674bn (tax) – \$1.687bn (MOGE 20.45% stake in consortium) = \$4.889bn

MOGE net income: \$1.687bn (20.45% stake in consortium) + \$1.1bn (royalties) + \$1.674bn (tax) = US\$4.461bn

Average MOGE net income over 20 years: \$223 million/year

<sup>1</sup> This is based on the end user price of the gas from the Yadana/Yetagun pipelines (see footnote 2) and recent reports. See for example <http://www.thehindubusinessline.com/2006/05/08/stories/2006050802890100.htm>

<sup>2</sup> [http://www.energy.gov.mm/MOGE\\_3.htm](http://www.energy.gov.mm/MOGE_3.htm)

<sup>3</sup> “The Burma -Thailand Gas Debacle,” *The Irrawaddy*, November 2004.

## **Photos**

### **Front cover from left to right:**

The oil rig *Fronteir Duchess* in the A-1 block, (AASYC); decreasing fish catches due to exclusion zones at sea and restrictions on the rivers will impact everyone, (AASYC); increasing income for the junta will allow them to purchase more arms, (Alain Evrar/Impact Photos)

### **Back cover:**

*Top left:* Koreans protest Daewoo International's involvement in the Shwe gas project

*Bottom left:* Daewoo engineers and SPDC officials on an oil rig (MRTV)

*Top right:* A helicopter from New Zealand that has been contracted by Daewoo to transport senior officials and engineers (tab)

*Bottom right:* Daewoo's office in Rangoon (tab)



***When there is no rule of law and no parliament – no foreign government should enter into any agreement with the junta....when democracy is restored, the people will remember how their cause was betrayed.***

**- Prof Manoranjan Mohanty, Institute of Chinese Studies, University of Delhi, India**

***We people of Bangladesh have the right to speak up and debate about our natural resources. So too should the people of Burma.***

**- Kamrul Alam Sabuj, of the Bangladeshi network, Students and Youth Movement against the Plundering of Oil and Gas**

***Until we have a system that guarantees rules of law and basic democratic institutions, no amount of aid or investment will benefit the people.***

**- Daw Aung San Suu Kyi, Nobel laureate and head of the National League for Democracy (NLD) in Burma**

***“Human life and rights can not be exchanged for investment....We must not accept moneymade with the blood and sweat of our neighbours.”- from a joint statement signed by 24 Korean civil society organisations***

# Supply and Command

## Natural gas in western Burma set to entrench military rule

In January 2004, Daewoo International Corporation of South Korea announced that they had struck a “world-class commercial-scale gas deposit” in the Bay of Bengal off the Arakan coast of western Burma. The reserves are poised to provide the ruling military junta with its single largest source of income, and have triggered a scramble for further gas finds.