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Regional Outlook

Burma and Nuclear Proliferation: Policies and perceptions

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Executive Summary

Before 2000, the idea that Burma might one day become a nuclear power was considered fanciful. Ever since it regained its independence in 1948, Burma had been a consistent supporter of global nuclear disarmament and had played an active role in international organisations dedicated to that end. Nor could it claim the strategic rationale, economic strength or technological expertise to support a nuclear industry, let alone develop a nuclear weapon. Yet, in 2000, the ruling State Peace and Development Council announced that it planned to purchase a small nuclear reactor from Russia. Construction was due to begin in 2003, but was repeatedly postponed, probably due to financial problems. A new agreement was signed in May 2007.

The response to the regime's announcement of a nuclear research program was almost uniformly negative. There was widespread scepticism that Burma could manage such a complex and demanding project, a sentiment shared by the International Atomic Energy Agency. There were also concerns that Burma would be unable to keep secure any radioactive materials produced by the program. There were even claims that the regime secretly planned to use the reactor to build a nuclear weapon. These claims were rightly dismissed as far-fetched and self-serving, but they seemed to be given some substance in 2003 by reports that Burma was developing close links with North Korea, a notorious proliferator of nuclear and ballistic missile technology. Despite the lack of any supporting evidence, some activist groups claim that Burma already possesses nuclear weapons and the means to deliver them.

It is highly unlikely that Burma currently has any intention of acquiring nuclear weapons, from North Korea or anywhere else. Claims that it might try to do so in the future are equally speculative, but are made a little more credible by Burma's exaggerated threat perceptions. Ever since the armed forces took back direct power in 1988, the regime has been the target of a range of external pressures, including from some of the world's most powerful countries. The aggressive rhetoric that has accompanied these pressures, and the support openly shown for Burma's opposition movement, has helped create a siege mentality among Burma's leaders. Even now, they fear intervention by the United States and its allies – possibly even an invasion – to restore democracy to Burma.

These concerns have already prompted the regime to consider the acquisition of ballistic missiles. There have also been suggestions that a few Burmese generals envy North Korea's apparent ability to use its nuclear weapons capabilities to fend off its enemies and win concessions from the international community. It is important not to over-react to these reports. Even if confirmed, they probably reflect the views of a very small minority in Burma's military hierarchy. Such reports, however, illustrate the scope for misperceptions, on both sides, which can lead in turn to policy errors and even more serious misunderstandings.

Author's Note

After the Burmese armed forces (or *Tatmadaw*) crushed a pro-democracy uprising in 1988, Burma's name (in English) was officially changed from its post-1974 form, the 'Socialist Republic of the Union of Burma', back to the 'Union of Burma', which had been adopted when Burma regained its independence from the United Kingdom in January 1948. In July 1989 the military government changed the country's name once again, this time to the 'Union of Myanmar'. At the same time, a number of other place names were changed to conform more closely to their original Burmese pronunciation. These new names were subsequently accepted by the United Nations and most other major international organisations. Some governments and opposition groups, however, have clung to the old forms as a protest against the military regime's continuing human rights abuses and its refusal to hand over power to the civilian government elected (by a landslide) in 1990.

In this study the better known names, for example Burma instead of Myanmar, Rangoon instead of Yangon, and Irrawaddy instead of Ayeyarwady, have been retained for ease of recognition. Quotations and references have been cited as they were originally published.

On taking back direct political power in September 1988, the Tatmadaw created the State Law and Order Restoration Council (SLORC). In November 1997 the regime changed its name to the State Peace and Development Council (SPDC). Also, in October 2005 the regime designated the newly built town of Naypyidaw, near Pyinmana, as the capital of Burma. For most of the period covered by this study, however, the seat of government was in Rangoon. When used in this study, the terms 'Rangoon regime', or simply 'Rangoon', are used as shorthand for the military government that was created in 1988.

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1. Introduction

If a policy is to have the desired impact on its target, it must be perceived as it is intended; if the other's behaviour is to be anticipated and the state's policy is a major influence on it, then the state must try to determine how its actions are being perceived.

(Robert Jervis)¹

Before 2000, the idea that Burma might one day become a nuclear power was considered fanciful. Indeed, so unlikely was it seen to be that major military institutions in two Western countries used such a scenario as the basis for classroom training exercises. As a test of strategic analytical skills, these institutions asked their students – military officers and civilians from a wide range of countries – to consider the implications of Burma, supplied with nuclear weapons and ballistic missiles by another pariah state, precipitating an international crisis. In one case, the threat was immediate, with the notional nuclear-armed missiles aimed at a neighbouring country allied with the United States (US). In the other case the threat was less direct, and formed the basis of an attempt by Burma's military government to exercise leverage over other countries, mainly through the United Nations (UN). In both exercises, the students were asked to assess the dangers posed by Burma's actions and to consider how the international community might respond.

After 2000, however, these fictional scenarios seemed to be coming true. That year, Burma announced that it planned to purchase a nuclear reactor from Russia. Given Burma's instability and low level of technical development, this was itself a cause for concern. When the Russian deal appeared to break down in 2003, there were fears that Burma had turned to North Korea to acquire nuclear technology and possibly also nuclear weapons. At the same time there was speculation that, even if Burma did not want its own nuclear weapons, it could be enlisted to support North Korea's nuclear program and perhaps even to hide a few North Korean weapons from the US and international monitoring agencies. These stories, which were given wide circulation in the news media, followed reports that the Rangoon regime was trying to purchase some ballistic missiles from Pyongyang. The Burmese government strongly denied that it was seeking to acquire any strategic weapon systems, but suspicions clearly remain.²

As with so many issues relating to Burma's security, and security policies, the real picture is difficult to discover and interpret. There is very little hard, verifiable information available to test perceptions, and to put the rumours and sensationalist press reporting into a clear perspective. This problem is compounded by the highly charged atmosphere that often surrounds consideration of Burma-related issues. The public debate tends to be dominated by Burmese expatriates, foreign activists and specialist academics, many of who have strong personal views and specific policy agendas. Yet Burma's approach to global disarmament, its plans for a research reactor and its possible interest in acquiring nuclear weapons (and the missiles to deliver them) all demand careful and objective analysis. For, if the news reports are true and Burma does indeed pose a nuclear proliferation risk, there would appear to be little that the international community can do to dissuade Burma's military leadership from its present course.

2. Burma and the Nuclear Non-Proliferation Regime

Despite a few rather odd suggestions to the contrary, there was never any sign before 2000 that Burma had seriously considered the construction of a nuclear reactor, let alone the acquisition of nuclear weapons.³

Ever since Burma regained its independence from the United Kingdom (UK) in 1948, successive Burmese governments have sought to enhance the country's security and counter nuclear threats by opposing the manufacture, deployment and use of nuclear weapons by any state, anywhere in the world. This stance was not always appreciated. For example, one observer described the approach taken by Burma's first government:

On general issues of disarmament and control of nuclear weapons, the Burman position has been consistently that of a small nation having no responsibility in this field of international relations and therefore able to express freely whatever viewpoints appeal to it. This is not to say that the Burma government has acted irresponsibly, but to point up the fact that Burma is in reality a spectator in the nuclear weapons contest, with all the spectator's freedom to criticize all contestants and umpires as well.⁴

Even so, this policy survived the 1962 *coup d'état* that ousted U Nu's elected government and brought General Ne Win to power. The new Revolutionary Council (RC) believed that nuclear weapons reduced the areas of international understanding and heightened international tensions. As such, they were considered 'futile and self-defeating'.⁵ Under Ne Win's 26-year rule, Burma established an impressive record of supporting international legal instruments designed to limit nuclear weapons proliferation and use.⁶

Burma has been a full member of the International Atomic Energy Agency (IAEA) since it was created in 1957. Burma was also a founding member of the Geneva-based Eighteen Nation Disarmament Committee (ENDC), which was established in 1962. It was among the first countries to become a State Party to the 1963 Partial Test Ban Treaty, banning nuclear weapons tests in the atmosphere, in outer space and under water.⁷ Burma has signed and ratified the 1967 Outer Space Treaty, which prohibits the placing into orbit around the earth of any objects carrying nuclear weapons, the installation of such weapons on celestial bodies, or any other manner of stationing weapons of mass destruction (WMD) in outer space. Similarly, Burma has signed (but not yet ratified) the 1972 Seabed Treaty, prohibiting the emplacement of nuclear weapons, other WMD or related structures, on the ocean floor beyond the limits of a 12-mile seabed zone. Since 1979, Burma has been an active member of the Conference on Disarmament (CD), the body that eventually grew out of the ENDC.⁸

The same policy approach has been followed by the State Law and Order Restoration Council (SLORC) and the State Peace and Development Council (SPDC), under which Burma has been ruled since 1988. In 1992, Burma became a State Party to the 1968 Nuclear Non-Proliferation Treaty (NPT), which prohibits the transfer by nuclear weapon states, to any recipients whatsoever, of nuclear weapons or of control over them. In 1994, Burma signed a Regional Cooperative Agreement with the IAEA, under which Burmese technicians have attended a range of seminars and training programs.⁹ The following year, Burma entered into a safeguards agreement with the IAEA, as required under the NPT. Burma has always supported the concept of nuclear free zones, and in 1995 signed the Treaty on the Southeast Asia Nuclear Weapon-Free Zone. This agreement, which was ratified in 1997, includes a reaffirmation by the ten signatory states of the obligations assumed under the NPT, and contains a ban on the development, manufacture, possession,

control, stationing or transport, testing or use of nuclear weapons.¹⁰ In 1996, Burma signed the Comprehensive Nuclear Test Ban Treaty, which it described as ‘an essential step towards nuclear disarmament’.¹¹

In the United Nations General Assembly (UNGA), the CD and other multilateral forums, Burma’s military government has reaffirmed its longstanding opposition to nuclear weapons and pressed for their complete abolition. In 1995, Burma tabled for the first time a draft resolution on nuclear disarmament in the UNGA’s First Committee, which deals with proliferation and international security issues. The resolution was subsequently adopted, setting a pattern that has been followed every year since.¹² In 1996, the Burmese Foreign Minister explained Burma’s position to the UNGA:

The proliferation of arms, particularly weapons of mass destruction, remains the greatest potential threat to mankind’s survival. All states, large and small, nuclear and non-nuclear, have a vital interest in ensuring the success of negotiations on disarmament ... It is essential that nuclear weapon states show the political will to accommodate the concerns of non-nuclear weapon states to achieve a mutually acceptable basis for universal disarmament.¹³

In 2000, Burma was elected Chairman of the UN’s First Committee. According to a later Burmese Foreign Minister, this was in recognition of the country’s role ‘as an advocate for disarmament’.¹⁴

Over the past decade, Burmese representatives to the UN and associated bodies have reiterated Burma’s ‘firm belief that the total elimination of nuclear weapons is the only absolute guarantee against a nuclear disaster’.¹⁵ As recently as 2007, they have emphasised a number of key themes. These include calls for legally binding security assurances to non nuclear weapon states, pending the total elimination of nuclear weapons; encouragement of states to accede to the NPT; strict adherence to the provisions of the NPT by States Parties to the treaty; implementation of the undertaking by the nuclear weapon states to eliminate their nuclear arsenals; the establishment of nuclear weapon-free zones; and the recognition and encouragement of unilateral measures taken by nuclear weapon states for nuclear arms limitation.¹⁶

Publicly at least, Burma’s military government has consistently pursued a strong nuclear disarmament agenda in world forums and fully abided by its obligations under the relevant international instruments. This policy approach also seems to be reflected in the steps taken by the regime since 2000 to acquire a nuclear reactor.

3. Burma's Nuclear Research Program

While firmly opposed to the manufacture, storage and use of nuclear weapons, Burma has not been averse to exploiting the peaceful uses of nuclear technology, as far as its limited resources have allowed. In 1956, a 'nuclear power department' was formed within the Union of Burma Applied Research Institute. The department handled most matters relating to radioactive materials, usually in the form of isotopes, required by the country's health, education and agriculture sectors. Some of these functions were later devolved to individual ministries, but they were given a boost in 1996 by the creation of a Ministry of Science and Technology.¹⁷ Until the advent of the SPDC, however, there was no suggestion that Burma might ever wish to build its own nuclear reactor.

Burma's reactor project dates back at least to December 2000, when the Minister for Science and Technology, U Thaung, paid an official visit to Moscow and held discussions with the Russian Minister of Atomic Energy. U Thaung expressed interest in the construction of a nuclear reactor in Burma, 'with the capacity of ten megawatt for peaceful research'.¹⁸ He spent four days in Russia, during which time he inspected a number of institutes that specialised in the training of nuclear scientists. He reportedly told his hosts that he wanted to send Burmese technicians to Russia, to learn how to operate nuclear reactors. There were press reports around the same time that the Burmese had also approached China and India, and made its interest in a nuclear reactor known to potential vendors there too.¹⁹ U Thaung created a Department of Atomic Energy in his Ministry, which appears to have been made responsible for pursuing this project, including the conduct of feasibility studies and the maintenance of contacts with the IAEA in Vienna.

In October 2001 it was revealed in trade magazines that, the month before, the SPDC had formally approached the Director General of the IAEA, Mohammed el Baradei, for assistance in obtaining a nuclear research reactor.²⁰ According to *Nucleonics Week*, the Agency initially decided to ignore this request as 'it has no confidence that Burma either needs a reactor or has the infrastructure and funding required to support such a project'.²¹ The IAEA's concerns about Burma were broadly similar to those raised in connection with other less-developed countries, where there was a worrying absence of adequate safety standards and physical protection for research reactors. More specifically, the Agency had doubts about Burma's low economic status, its poor technological base, and the virtual collapse of its public education system under the SLORC and SPDC.²² Another reason suggested for the IAEA's reluctance to assist the Burmese was that, since the Agency was a UN body, any support to Burma could have triggered questions from the International Labour Organisation (ILO). The previous June, the ILO had adopted a resolution objecting to the widespread use of forced labour in Burma. 'Forced labour, critics allege, is used to produce agricultural goods which, Russian officials have said, could be the basis for a barter deal for a reactor'.²³

Despite these reservations, an IAEA inspection team was sent to Burma in June 2001. The team's assessment, however, simply confirmed the Agency's original views.

By the beginning of 2002 rumours were circulating in Rangoon that, without the IAEA's help, Burma could not meet the cost of the reactor project.²⁴ However, the Russian ambassador had signalled his country's willingness to receive at least part of the payment in primary goods such as teak, fish and rice, and a deal was eventually struck.²⁵ In May, it was announced in Moscow that Russia's Atomic Energy Ministry (Minatom) had agreed with the SPDC to 'cooperate in designing and building a nuclear studies centre that will include a research nuclear reactor with a thermal capacity of 10 megawatts and two laboratories'.²⁶ According to the Russian statement, Minatom had undertaken to

design the centre, help choose the site, deliver the nuclear fuel, and supply all essential equipment and materials. Russian experts would assemble, install and help operate the centre's 'main technical equipment'. The agreement included structures for the disposal of nuclear waste and a waste burial site. Russia would also train Burmese technicians to help build and operate the reactor.

In July 2002, Foreign Minister U Win Aung, accompanied by the ministers for defence, energy, industry and railways, travelled to Moscow to finalise the deal. At the time, Russian Foreign Minister Igor Ivanov described Burma as a 'promising partner in Asia and the Pacific region'.²⁷

There was initially some speculation that the nuclear facility would be built in Rangoon, to serve the main university there.²⁸ According to several sources, however, a ground breaking ceremony for the nuclear facility was scheduled to take place at a secret location near the town of Magwe, in central Burma, in January 2003.²⁹ The reactor and associated equipment were to be delivered later that year. The regime said that it expected the facility to be built 'within a few years'.³⁰ In late 2002, however, the deal with Russia was shelved, apparently because the SPDC could not reach agreement with Moscow regarding the payment of costs. According to the *Bangkok Post*, 'Rangoon wanted to make a 10 per cent advance payment but the Russians wanted 25 per cent'.³¹ By late 2005, the SPDC had apparently found the necessary funds and discussions resumed.³² In April 2006 it was reported that a new cooperation agreement had been signed with the Kurchatov nuclear research centre, 'opening the way for a revival of the controversial project'.³³ Despite some news stories referring to construction of the reactor, and even its completion, the UK government revealed in early 2006 that 'there is no evidence that this matter has progressed beyond the signing of a memorandum of understanding'.³⁴

This statement was confirmed on 15 May 2007, when it was unexpectedly announced that Russia and Burma had signed a new agreement in Moscow 'on the establishment of a nuclear research centre in Myanmar'. The signatories were U Thaug and the head of Russia's Nuclear Power Agency (Rosatom), Sergey Kiriyenko. According to the Agency's press release:

The sides have agreed to cooperate on the establishment of a centre for nuclear studies in the territory of Myanmar (the general contractor will be Atomstroyexport). The centre will comprise a 10MW light water reactor working on 20%-enriched uranium, an activation analysis laboratory, a medical isotope production laboratory, silicon doping system, nuclear waste treatment and burial facilities.³⁵

It was also announced that the centre would be 'controlled by IAEA', and that Russian universities were 'supposed to train 300-350 specialists for the centre'.³⁶ The agreement was 'expected to promote mutually beneficial economic and scientific ties' between the two countries, a possible reference to Russian interest in Burma's natural gas reserves and the SPDC's interest in Russian arms.

Burma's Deputy Foreign Minister claimed at the time that Burma had been planning to build a nuclear reactor for 40 years, ever since it joined the IAEA.³⁷ Yet the reasons behind Burma's interest in such an installation have never been made clear. Several official statements have emphasised that the reactor was to be used for 'peaceful medical purposes', and the 2007 press release refers to the production of radioisotopes, of which there has been a shortage in Southeast Asia.³⁸ The Foreign Minister, however, was reported in 2002 as saying that the reactor could be used 'possibly to generate nuclear power', adding that Burma was interested in studying 'the different uses of nuclear energy'.³⁹ Burma's official Ministry of Energy website refers to nuclear energy 'only as an option' for the future, and states that it is 'only at the stage of initiating study' into nuclear power as a possible alternative source of energy.⁴⁰ Even so, in 2003 a member of the Department of Atomic Energy told a conference in Japan that 'nuclear power production [is] desirable

for [the] long term' and suggested that Burma could consider the construction of several additional reactors, in the 100–400 megawatt range, to be introduced around 2025.⁴¹

Yet the construction of even one of these expensive, highly specialised and technically advanced facilities seemed an illogical thing to do. Burma was still on the UN's list of least developed countries and could barely maintain its civil infrastructure. Its level of technological development was generally low. Isotopes could be produced far more economically and reliably elsewhere. While it suffered from electricity shortages, Burma had abundant natural gas reserves and was constructing several new hydroelectric power stations.⁴² It is hard to escape the conclusion that the main impetus behind the nuclear reactor project was status and prestige, driven by the enthusiasm of the Minister for Science and Technology, who believed that nuclear research was necessary for 'a modern nation'.⁴³ Senior officials have also drawn attention to the large number of countries, including several of Burma's regional neighbours, which already had nuclear reactors. One was reported as saying that 'it was imperative for developing countries like Burma to seek to narrow the development gap and avoid their being marginalised'.⁴⁴

When it was first revealed, news of Burma's nuclear reactor project prompted a strong international response. A number of concerns were expressed, relating largely to the safety and security of any reactor built in Burma. With the 1986 Chernobyl disaster in mind, the Thais were worried about Russia's involvement in the project, and the nature of the facility that was to be built. Also, there were fears in Thailand and other neighbouring countries that the Burmese would be unable to operate the reactor properly.⁴⁵ The IAEA team that visited Burma in 2001, to assess the country's preparedness to use and maintain a nuclear reactor safely, did nothing to dispel these fears. Its report was highly critical of the country's general standards, which were 'well below the minimum the body would regard as acceptable', even for conventional power plants.⁴⁶ Burma's record of earthquakes was also raised. In 1975, for example, Burma experienced several major tremors around the ancient capital of Pagan, destroying or damaging many large temples and pagodas. Pagan is less than 100 kilometres from the area believed to have been chosen for construction of the nuclear reactor.

There were also security concerns. By 2000, most of Burma's major insurgent groups had negotiated ceasefire agreements with Rangoon, but some were still fighting the regime and posed a threat to a nuclear reactor. The National Council of the Union of Burma, a broad-based alliance of opposition forces, condemned the project, describing it as a serious security, environmental and health risk.⁴⁷ It can be expected that extensive measures will be taken to protect any facility built, but it would remain an attractive target. Despite the crushing of a pro-democracy uprising in 1988, and the imposition of tight controls over popular protest, there was also the danger of civil unrest, arising from decades of repression by the military government and its inept handling of Burma's economy. A nuclear reactor would represent a potent symbol of the regime's penchant for costly high status projects, pursued at the expense of basic services like health and education. With the international terrorist threat in mind, the US State Department immediately sought assurances from the SPDC that it could safely secure such sensitive facilities and materials. As one observer wrote, 'In light of the risks of terrorists using improvised explosive devices and "dirty bombs", the movement of radioactive and fissile materials into and out of a tinderbox country [like Burma] must worry security analysts'.⁴⁸

After the initial announcement of the project, very few details were made available about the reactor, its location, or the safeguards being put in place to ensure that it is built and operated according to international standards.⁴⁹ This information gap inevitably encouraged speculation and gave rise to additional concerns about aspects of the project.

There have been a number of unconfirmed reports that the reactor is no longer going to be built near Magwe. In April 2003, for example, the expatriate Democratic Voice of Burma (DVB) reported that two freighters carrying 5,000 tons of Russian equipment for the construction of a nuclear plant had arrived at the naval base on Zadetkyi Kyun, an island

off the southern-most tip of Burma. The DVB report also stated that the reactor was going to be built on Kalagok Island, north of Ye in Mon State.⁵⁰ An earlier DVB broadcast had reported that a group of 32 Russian experts, led by officers from Burma's Ministry of Energy, had been seen surveying the island.⁵¹ In a related story, it was stated that more than 300 acres of land on Kalagok Island had been appropriated by the Rangoon regime, to be used as the site of the reactor.⁵² However, it is highly unlikely that a nuclear reactor would be built in such an isolated, undeveloped and potentially vulnerable location. Claims of another construction site, in a protected defence complex near Maymyo, are more plausible but equally lacking in evidence.⁵³

There have also been several stories that large numbers of Burmese have already gone to Russia for training in nuclear technology. Between 200 and 300 were reported to have studied there in 2002, and an additional 328 officers were said to have departed for Moscow from Mandalay in 2003.⁵⁴ A report in the expatriate press has claimed that '1,000 Burmese, including army officers and civil engineers, are receiving nuclear training in Russia'.⁵⁵ Technical training was always part of the deal negotiated with Moscow but, even if these figures are accurate, it does not necessarily follow that all have been sent for nuclear-related training. For example, the Burmese armed forces have acquired a range of arms and equipment from Russia over the past decade.⁵⁶ Such contracts usually include training packages, including specialist instruction in the source country. In 2005 the Russian Foreign Ministry stated that 'the approximately 1,000 [Burmese] students are studying in Russia on a commercial basis and are in no way related to agreements in the nuclear sphere'.⁵⁷ The UK government, however, has revealed that 'some' of these students were studying nuclear technology.⁵⁸

Another story that surfaced in the news media was that Pakistan had been helping Burma with its nuclear reactor project, or was at least highly supportive of it. In 2001, there were rumours circulating in Bangkok that Burma had sought Pakistan's help with construction of a reactor, but that this had been refused. These rumours were denied by the Thai authorities, and later news reports sourced to US intelligence officials included an assurance that there had not been any nuclear technology transfer from Pakistan.⁵⁹ In 2003, however, one Indian publication stated that 'In his meetings with Russian president Vladimir Putin, General Pervez Musharraf has been pressing for a civilian nuclear reactor for Burma'.⁶⁰ To support these and similar claims, attention was drawn to the close relationship that had developed between the military governments of Burma and Pakistan, and their shared strategic ties with China.⁶¹ There were also suspicions that Burma was harbouring two renegade nuclear scientists from Pakistan.

In 2001 it was reported that two Pakistani scientists had fled to Burma following the 11 September terrorist attacks in New York and Washington. Dr Suleiman Assad and Dr Muhammad Ali Mukhtar were accused of leaving Pakistan when the US asked to interrogate them about their alleged links to terrorist leader Osama bin Laden, who Washington feared wanted to develop a nuclear weapon.⁶² A request to grant the scientists 'temporary asylum' in Burma was reportedly made to the SPDC by President Musharraf.⁶³ According to another report, the Pakistani government gave the SPDC assurances that the two scientists were not terrorists, nor in any way linked to the Taliban.⁶⁴ They were later said to be conducting 'unspecified research' with their Burmese counterparts at Sagaing, near Mandalay.⁶⁵ However, regardless of any possible connection to Al Qaeda, there is no evidence linking these scientists to Burma's nuclear reactor project. Indeed, the two Pakistanis may have never gone to Burma. Both Islamabad and Rangoon have strongly rejected claims that they were hiding there. The Pakistan government has even denied ever employing any nuclear scientists named Assad or Mukhtar.⁶⁶

Given Burma's status as an international pariah, the military regime's failure adequately to explain its nuclear ambitions and the climate of ill-informed speculation that usually surrounds security developments in Burma, it is not surprising that some unlikely scenarios have been canvassed in the news media. Even so, it took a major leap of imagination

to interpret Rangoon's ill-conceived plans for a small research reactor as cover for a clandestine nuclear weapons program.

4. Nuclear Weapons and Ballistic Missiles

Following the announcement of Burma's nuclear reactor project, a few commentators and expatriate groups immediately expressed fears that Burma would become a 'rogue terrorism state', and try to develop a nuclear weapon.⁶⁷ They pointed out that the notorious Pakistani scientist A.Q. Khan had been to Burma and met senior military officers.⁶⁸ One Indian publication hinted darkly that Burmese officials had attended meetings in Singapore and Malaysia that were related to nuclear weapons.⁶⁹ No target was specified, but Burma's MiG-29 fighter aircraft were seen as providing an appropriate delivery vehicle for such a weapon.⁷⁰ Even if a nuclear weapons option was not available, it was argued, the presence of a nuclear reactor would at least give the Rangoon regime the capability to develop a 'dirty bomb', which could spread radioactive material through a conventional explosion.

At first, these suggestions were dismissed as rather far-fetched, and self-serving. An attempt to develop a nuclear weapon seemed completely out of character for a country that, ever since Independence, had a history of active participation in global disarmament initiatives. Although the SPDC expected increased revenues from natural gas sales, there would be enormous practical difficulties to overcome, and serious political risks to manage. Also, many of the claims made in the news media were clearly based on speculation and unsubstantiated rumours. A number seemed to be aimed at winning support for the anti-Rangoon cause from the Bush Administration, which had recently invaded Iraq on the premise that it was developing WMD. A few Burmese exiles and 'defectors' said they could reveal details of the SPDC's nuclear weapons and uranium enrichment programs, but none of their claims could be proven and some were incredible.⁷¹

Even so, the possibility of Burma acquiring a nuclear weapons capability started to attract attention. Reports began to appear in the news media that, after the Russian deal was shelved, the regime had asked North Korea to help build its nuclear research facilities. Given North Korea's reputation as a WMD proliferator, this in turn raised the spectre of a Burmese nuclear weapons program.

Fears of a North Korean connection were given greater substance by the news that, after a lengthy hiatus, Pyongyang was developing closer links with Rangoon. Contacts between Burma and North Korea had been severely restricted since 1983, when three North Korean terrorists attempted to assassinate South Korean President Chun Doo Hwan, during a state visit to Burma. Chun survived the bomb attack, but 17 South Korean officials (including four Cabinet ministers) and four Burmese citizens were killed.⁷² Not only was it a grave violation of Burma's sovereignty, but Ne Win considered the incident a personal betrayal by President Kim Il-sung. Diplomatic ties between the two countries were abruptly severed. In the years that followed, Rangoon rejected several attempts by Pyongyang to restore relations. However, the military and economic sanctions imposed on Burma after 1988 forced the regime to look for new sources of arms and technical assistance, including from North Korea.⁷³

Given the closed nature of the Rangoon and Pyongyang governments, details of bilateral contacts are difficult to obtain. However, it seems that during the 1990s Burma purchased 20 million rounds of 7.62mm ammunition, and between 12 and 16 130mm M-46 field guns, from North Korea.⁷⁴ In early 2002 the SPDC held discussions with Pyongyang on the possible purchase of one or two small submarines.⁷⁵ The frequent visits of North Korean freighters to Rangoon since then, and the secrecy surrounding their cargoes, suggest that other conventional arms and military equipment have been delivered. These suspicions have been strengthened by evidence of North Korean technical experts visiting Burmese

military bases. In 2003, for example, it was reported that between 15 and 20 North Korean technicians had been seen at the regime's main naval facility at Monkey Point in Rangoon.⁷⁶ They were thought to be helping Burma equip some of its naval vessels with anti-ship missiles. North Korean engineers also appear to have constructed underground military facilities for the SPDC at Taungdwingyi and the new capital of Naypyidaw.⁷⁷

The SPDC has also shown interest in purchasing some short-range ballistic missiles (SRBM). In the late 1990s, there were rumours circulating in Rangoon that China had agreed 'in principle' to sell Burma a batch of M-11 SRBMs, but none were delivered.⁷⁸ Since 2003, there have been reliable reports that the SPDC has tried to acquire a number of Hwasong (Scud-type) SRBMs from North Korea.⁷⁹ A secret meeting to discuss such a deal was reportedly held in Rangoon in August 2003, while another was supposedly held in Phuket, Thailand, that October.⁸⁰ In 2004 the US government said that it 'had reason to believe' North Korea had offered Burma SRBMs, prompting Washington to register its concerns with the SPDC 'in unambiguous language'.⁸¹ Despite claims by some activists that Burma has acquired SRBMs since then, and routinely test fires them at a site near Minhla, no ballistic missile shipments to Burma have yet been detected.⁸² The ability of these weapons to deliver WMD, however, has made them of continuing interest to strategic analysts.

This interest grew after November 2003, when the *Far Eastern Economic Review* (FEER) published an article suggesting that North Korea had taken over from Russia as the primary source of Burma's nuclear technology.⁸³ North Korean technicians were reportedly seen unloading large crates and heavy construction equipment from trains at Myothit, 'the closest station to the central Burmese town of Natmauk, near where the junta hopes to build a nuclear research reactor'.⁸⁴ In addition, aircraft from North Korea's national airline, Air Koryo, were reportedly seen landing at military airfields in central Burma. The clear implication of the article was that Pyongyang was providing equipment and materials to help build a nuclear reactor. These developments apparently coincided with the arrival in Rangoon of representatives of the Daesong Economic Group. As reported by the FEER:

Daesong-affiliated companies have a documented history of exporting sensitive missile technologies. In the past, North Korea has also used Daesong-affiliated companies to purchase and import dual-purpose technologies used in Pyongyang's nuclear-weapons programme.⁸⁵

The small research reactor Burma was getting from Russia was said to be unsuited for the manufacture of fissile material, but Pyongyang had the expertise to provide Rangoon with other options.⁸⁶

The FEER story triggered a spate of other reports on Burma's supposed nuclear weapons ambitions, ranging from the plausible to the highly imaginative.

In 2003, the DVB stated that 80 Burmese military officers had gone to North Korea to study 'nuclear and atomic energy technology', and Dictator Watch has claimed that North Korea is training 25 Burmese nuclear physicists.⁸⁷ In 2004, an Indian commentator claimed that North Korea had signed an agreement to build a nuclear reactor in Burma. The value of the deal was said to exceed \$200 million, to be paid in cash and timber.⁸⁸ There were also claims that Burma had purchased uranium from Pakistan and North Korea.⁸⁹ Around the same time, stories appeared alleging that Burma was exporting uranium (and even heroin) to North Korea as part of a barter deal, in return for ballistic missiles and nuclear weapons expertise. Before shipment, the uranium was reportedly being processed into 'yellow cake' at secret facilities in Thabeikkyin, north of Mandalay, and at Ongyaw, near Kyaukse.⁹⁰ Another report stated that the Burma Army's 'Nuclear Battalion' was testing high explosive nuclear triggers at a research complex in the Setkhya Mountains, southwest of Maymyo. It was even claimed that North Korea had already provided Burma with a number of nuclear weapons, either for its own use or to hide them from the US and international monitoring agencies.⁹¹

There is no evidence to support any of these stories. Given the arms sales that have occurred, it is possible that a few Burmese servicemen have attended training courses in North Korea, but it does not automatically follow that they studied nuclear technologies, peaceful or otherwise. The SPDC has denied that Pyongyang has provided any instruction to Burmese officials, while the UK government has stated that it has 'no specific information' on the matter.⁹² The Ministry of Energy has identified five uranium deposits in Burma, but they appear to be small and none are being commercially exploited.⁹³ In 2005 and 2006, the UK government stated that no uranium was being processed in Burma, nor did it have any operational enrichment facilities. The UK was not aware of any Burmese uranium exports.⁹⁴ Washington has dismissed suggestions of heroin being used in barter deals.⁹⁵ Since 1988 the regime has greatly expanded Burma's defence industries, but there is no reliable evidence of any secret nuclear-related plants. Nor are there any grounds to believe that North Korea has given, or would ever give, Burma nuclear weapons, either to use or to hide on its behalf.

In considering all these issues, it is noteworthy that, in their efforts to have Burma cited by the UN Security Council (UNSC) in 2005 and 2006 as 'a threat to international peace and security', the US and UK did not at any time refer to Burma's supposed nuclear weapons program. On one occasion, the US Permanent Representative mentioned Burma's attempts to acquire 'nuclear power capabilities', but even then he based his public comments on 'press reports' of Burmese plans for a reactor.⁹⁶ None of the US's major intelligence agencies have referred to a Burmese nuclear weapons program in their periodic appearances before Congressional committees. Suggestions that the US-led initiative in the UNSC was based on attempts by the SPDC to buy nuclear weapons technology from Pyongyang are incorrect.⁹⁷ When questioned about this subject in parliament, the UK government stated that it was 'not able to corroborate' any reports about the alleged transfer of nuclear technology from North Korea to Burma.⁹⁸

For its part, the SPDC has repeatedly denied that it has any plans to acquire WMD.⁹⁹ In 2002, the Myanmar Information Committee stated that Burma had 'no desire' to develop nuclear weapons, but had the right 'to develop nuclear facilities for peaceful purposes'.¹⁰⁰ In 2003 a spokesman for the military government stated that:

There has been speculation going on for quite some time regarding Myanmar and North Korea military-to-military exchanges ... Logically, why would Myanmar want to develop WMDs (weapons of mass destruction) when the country needs all her strength and resources in pursuing a peaceful, stable and smooth transition to a multiparty democracy and an open-market economy.¹⁰¹

Burma's nuclear reactor, which was apparently still on the regime's list of priority projects, was said to be for 'peaceful research purposes'.¹⁰² The spokesman further stated that Burma was 'everyone's friend and nobody's ally or enemy'. He said that it had no ambition to arm itself with nuclear weapons and firmly rejected the idea that Burma would ever threaten any of its neighbours.¹⁰³

The thought of Burma acquiring nuclear weapons, and ballistic missiles to deliver them, is the stuff of nightmares in the Asia-Pacific region and in world centres like Vienna and New York. Such a scenario remains highly unlikely, but it is made more credible by the regime's political isolation, its continuing fears of external intervention, and its preparedness to do almost anything to survive.

5. Burma's Threat Perceptions

Over the last 20 years, Burma's strategic environment has changed significantly. Before then, the Rangoon government was recognised as a thinly disguised military dictatorship, but it was accepted in world councils and given considerable assistance by the international community. The regime saw its greatest threats as local insurgencies, pressure from Burma's larger and more powerful neighbours and, at a further remove, entanglement in the strategic competition between the superpowers.¹⁰⁴ As a result, Burma's armed forces were geared solely to fight guerrilla wars. China and India were managed through tactful diplomacy, while a strictly neutral foreign policy, reliance on the UN and a focus on global disarmament helped Burma avoid Cold War rivalries.¹⁰⁵ Internal unrest still worries the SPDC but, since 1988, Burma's external threat perceptions have been turned on their head. China, India and Russia have become the regime's closest supporters. The US and UK, once seen as friends, if not potential allies, are considered serious threats to Burma's sovereignty and the continued existence of the military government. Even the UN is now regarded with suspicion.

These changes have profoundly affected the regime's strategic calculations and prompted new thinking about Burma's security policies. Among other developments, they have encouraged the growth of the armed forces and emphasised the need for a credible deterrent capability.

Since 1988, the regime has made a concerted effort to expand and modernise Burma's armed forces, consistently reserving about 35 per cent of the national budget to this end. After decades of being essentially a small, lightly armed infantry force geared to regime protection and counter-insurgency, Burma now boasts a large, reasonably well-integrated, well-armed, tri-service defence force capable of major conventional military operations.¹⁰⁶ These enhanced capabilities greatly raise the stakes faced by a hostile neighbour and help act as a deterrent against invasion. Yet, despite all the improvements in Burma's armed forces over the past 20 years, defence analysts in Burma have noted trends in modern warfare with growing concern.¹⁰⁷ Even with a new command structure, fresh recruits and more modern weapon systems, Burma's armed forces are unlikely to be able to withstand a major assault by the US, or a multinational coalition led by the UN.

After the 1988 military takeover there were real fears in Burma of external intervention. Among the SLORC's first arms purchases were search radars and anti-aircraft guns, hardly the kinds of weapons needed to counter rural guerrillas or urban dissidents.¹⁰⁸ SLORC Chairman Senior General Saw Maung referred to a US fleet off Burma's coast as a potential invasion force.¹⁰⁹ Since then, the regime has often expressed fears that the US and its allies might attempt forcibly to restore democracy to Burma. These concerns were perhaps greatest after the regime ignored the results of the 1990 general elections which, being surprisingly free and fair, were won easily by the opposition parties. Since 2000, the military government seems to have become more confident of its ability to resist international pressures, but it is still sensitive to calls for regime change, and to other perceived threats to Burma's independence and sovereignty. According to a secret document leaked to the *Asia Times*, as late as October 2005 Burma's Ministry of Defence was studying ways of resisting US attempts to overthrow the regime, including through a direct invasion of the country.¹¹⁰

To most observers, the idea that Burma might be invaded by the US or a UN-led multinational force seems bizarre. Such a dramatic step has never been seriously contemplated, nor is likely to be. Viewed from the point of view of the country's military leadership, however, it is not difficult to see how the SPDC might feel threatened, or why it is at least nervous about the possibility of external intervention.

The regime has long been subject to harsh criticism from Western leaders. Implicit in most of these comments has been a demand for regime change. In 2003, for example, US Secretary of State Colin Powell referred to 'the thugs who now rule Burma' and his successor has labelled Burma 'an outpost of tyranny' to which the US must help bring freedom.¹¹¹ In 2005, President Bush told an international audience that the Burmese people 'want their liberty – and one day they shall have it'.¹¹² In his 2006 State of the Union speech, immediately after references to the US invasions of Iraq and Afghanistan, Burma was ranked alongside Syria, Iran and North Korea as places where 'the demands of justice, and the peace of the world, require their freedom'.¹¹³ In the UK, Prime Minister Blair has been reported as saying that the SPDC was a 'loathsome regime' that he would 'love to destroy'.¹¹⁴ Also, senior members of Congress have repeatedly characterised the SPDC as 'repressive and illegitimate' and in 2007 a leading UK parliamentarian told a visiting Burmese minister that Burma was a 'pariah state' ruled by 'a wicked regime'.¹¹⁵ In stark contrast, public comments about Burmese opposition figures like Aung San Suu Kyi have been uniformly complimentary and supportive.

To an isolated, insecure and fearful group of military officers in Burma, all these statements could be interpreted as evidence of an intention to impose political change on Burma, against which they needed to prepare.¹¹⁶

Also, global developments over the past few decades have sharpened Burma's concerns that it might fall victim to a larger, more powerful state. In the past, this fear was focussed on China but the worry is now that, in a post-Cold War world dominated by the US, the Western democracies will be able to impose their liberal, democratic and humanitarian agenda on Burma. Since 2002, there have been numerous calls for Burma to be included in President Bush's 'axis of evil'.¹¹⁷ The armed interventions in Haiti, Panama, Somalia, Kosovo, Bosnia, Afghanistan and Iraq (twice) are all viewed as examples of the US's determination, unilaterally if necessary, to intervene in the affairs of other states and overthrow regimes whose policies are inimical to Washington. The 1999 multinational operation in East Timor, where a separatist movement was able to win independence from its parent state, is cited by members of Burma's military hierarchy as another example of the way in which the US and its allies are forcibly reshaping the world order.¹¹⁸ In this process, the UN is seen as unwilling or unable to defend the interests of its smaller and weaker members.

It is always difficult to determine what Burma's military leadership is thinking, particularly with regard to matters of national security.¹¹⁹ However, faced with these perceived threats, the regime's strategic planners seem to have fallen back on Burma's traditional strengths – both real and imagined. These include Burma's armed forces, its highly varied geography and the patriotism of its people. Developments in Burmese military doctrine suggest that, faced with an invasion by modern armed forces, the regime would attempt first to deter an assault with the threat of high casualties. It would next mount a conventional defence of Burma's borders, followed by a prolonged guerrilla war conducted by the population at large. Large numbers of Burmese citizens would be mobilised as militia units, to sap the will of an invader until a counter-offensive could be organised or external assistance arrived. The regime clearly recognises that it could not win a direct force-on-force confrontation with a coalition like that which attacked Afghanistan or Iraq, but it seems to feel that it could force an enemy to think twice about invading, and then buy time until the international community forced a ceasefire.¹²⁰

This doctrine, however, has two major flaws, which must be recognised by the SPDC's more honest and clear-sighted strategic planners. The first is that the support of the Burmese people cannot be relied upon. The majority are intensely patriotic, but they owe their loyalty to the country – not necessarily to the military government. There are many, both ethnic Burmans and members of the minority races, who would welcome the downfall of the current regime.¹²¹ Also, the SPDC's plan to appeal to the international community must now be looking very weak. The Bush Administration and its allies have demonstrated a preparedness to invade another country despite the lack of an immediate

or obvious threat, and in the face of strong opposition from both their critics and traditional partners, including in the UN. Also, in 2007 a move to censure Burma in the UNSC was only prevented by the SPDC's new allies, China and Russia.¹²² Any faith that the regime might have had in support from that institution must now be severely undermined. Direct assistance from China is possible but, given the regime's suspicion of Beijing's long term aims, any help from that quarter would be a mixed blessing.

It is in these circumstances that a nuclear deterrent could have some appeal to Burma's leaders. Of concern to strategic analysts is the possibility that the SPDC may have drawn the same conclusions from the 2003 Iraq War that North Korea seems to have done, and will seek to acquire a nuclear weapon as a bargaining chip to protect itself against the US and its allies. According to one report, some Burmese generals 'admire the North Koreans for standing up to the United States and wish they could do the same'.¹²³ The SPDC could argue that North Korea's possession of a nuclear retaliatory capability has been the main reason why the US and its allies, or the UN, have not taken tougher action against Pyongyang, despite its long record of provocative behaviour. Viewed from this perspective, the possession of nuclear weapons has given North Korea a higher international profile, a stronger position at the negotiating table and the proven ability to win concessions (including funds, food aid, fuel oil and technical assistance) from the international community. Iran's nuclear weapons program may have a different outcome, but there are reportedly a few generals in Burma who feel that the SPDC should at least consider the benefits of such an approach.¹²⁴

Possession of nuclear weapons and ballistic missiles would be more than symbolic. If Burma's military government ever felt seriously threatened, it is not difficult to imagine a situation in which it might actually consider using them. For example, faced with an imminent invasion, and with Kuwait's role in the Iraq war in mind, any ballistic missiles acquired from Pyongyang could be aimed at Thailand, a US ally and Burma's 'nearest enemy'.¹²⁵ This might help dissuade the Thai government from allowing its territory to be used as the launching pad for a major ground and air assault against its western neighbour. SRBMs may not be very accurate but, if launched from a Burmese site near the Thai border, they could easily reach greater Bangkok, a city of nearly nine million people. Even if armed only with a conventional warhead, such a threat would certainly concentrate the minds of Thai leaders. If it possessed WMD, Burma would have the option of visiting even greater destruction upon its neighbour.

Such a dramatic policy shift by the Burmese government is not in prospect. However, the mere possibility of Burma one day acquiring nuclear weapons and SRBMs has already had an impact on the region's strategic environment.

6. Implications for Regional Security

In considering the wider implications of these developments, it is important not to over-react. All the news reports and public comments that have appeared since 2000 need to be kept in proper perspective. There is little verifiable information about Burma's interest in acquiring SRBMs.¹²⁶ There have been several official statements about Burma's nuclear reactor but circumstances change and, as with all such pronouncements by the military government, their reliability is questionable. Nor is there much hard evidence regarding Burma's developing bilateral relationship with North Korea, and there is no evidence at all for the SPDC's reported aim of acquiring a nuclear weapon.

Also, even if a few of the open source reports are accurate, it is likely to be several years before Burma can take delivery of any strategic weapons, integrate them into its existing order of battle and deploy them operationally. Conceivably, North Korea could hand over some of its current inventory of missiles but, given the threats that it believes it faces, Pyongyang is unlikely to deplete its own arsenal for a quick infusion of cash or barter goods from Burma. New missiles would probably need to be built for Burma, and that would take time. Similarly, if the nuclear reactor project goes ahead, it would take about three years to build and bring on line, even if the entire facility was imported from abroad.¹²⁷ Any development of a nuclear weapon would take at least 10 more years, assuming that the political will was there, the technical expertise could be found, and the resources could be made available. For a country like Burma these would constitute formidable obstacles, even if no attempts were made by the international community to halt the program.

In international affairs, however, the perception often becomes the reality. Countries make national policy on what they believe to be the case, or fear might happen, as much as on the objective truth.¹²⁸ Already concerns have been expressed, both in the region and further afield, about Burma's potentially dangerous relationship with North Korea and the destabilising policies the SPDC seems to have adopted.

Thailand is nervous about the regime's apparent wish to acquire a power projection capability, something that at present Burma does not possess. The Thais are also worried about the safety and security of any nuclear reactor built in Burma, fears that cannot have been allayed by reports of North Korea's possible involvement.¹²⁹ While a distant prospect, the possibility alone that the SPDC might try to develop a nuclear weapon with Pyongyang's help is a concern. Thailand is unlikely to respond in kind, but already its military leaders have recommended that it should at least keep pace with Burma's developing conventional defence capabilities. Bangkok's purchase of F-16 fighters and advanced medium-range air-to-air missiles from the US, is probably part of this broad strategy.¹³⁰ Any acquisition of SRBMs by Burma could prompt Thailand to do the same.¹³¹ One of Bangkok's first responses to suspicions of a Burmese nuclear weapon program would be to turn to the US for support, thus further complicating Washington's relations with the countries of the Asia-Pacific region, including China.¹³²

Even if Burma has no intention of building a nuclear weapon, or finds after investigation that it lacks the ability to do so, the prospect alone of such a development carries the risk of misinterpretation or manipulation by other countries, and thus adds to the potential for greater instability in the region. For example, some analysts have already cast Burma in the role of a Chinese satellite, which is being encouraged to develop its military capabilities in order (with Pakistan) to complete Beijing's encirclement of India.¹³³ Burma's acquisition of strategic weapon systems like SRBMs would fit that scenario, which has been modified by a few observers to include the SPDC's reported interest in acquiring a nuclear weapon. As one Indian commentator has put it:

The suspicion is that China is financing the deal, both to prop up Burma as a nuclear fallback to North Korea, in case North Korea is busted by the US, and also to set up a nuclear rival in India's eastern flank.¹³⁴

Should North Korea fail to provide Burma with nuclear weapons, so the thesis runs, then Pakistan 'may decide to become a more brash partner in the China-North Korea-Burma deal', and do so itself.¹³⁵ This line of argument is easily demolished, but even more sober assessments of Chinese security policy allow for the provision of WMD technologies to 'strategic proxies', able to distract the US and discourage its engagement activities in the Asia-Pacific region, in particular the Taiwan Strait.¹³⁶

Any prospect of Burma being used as a Chinese stalking horse in the region, let alone a nuclear-armed strategic partner against India, would be a cause for concern. However, Beijing's influence with the Rangoon regime has never been as strong as sometimes portrayed. It could even be argued that the Chinese are wary of its smaller southern neighbour.¹³⁷ Also, Indian fears of encirclement by China, with Burma being used to secure India's eastern flank, have been greatly exaggerated.¹³⁸ Some expressions of concern probably reflect partisan positions taken by sectors of the Indian polity or armed forces, interested in securing certain responses from New Delhi. For its part, the Rangoon regime has shrewdly manipulated fears of increased Chinese influence in Burma to win greater concessions from regional governments.¹³⁹ Beijing may welcome such perceptions of its influence in Burma, but it is unlikely to be happy about the prospect of the SPDC acquiring a nuclear weapon, given Burma's proximity to China, its internal instability and the unpredictable behaviour of its leaders.

Beijing has also demonstrated a degree of nervousness over Pyongyang's own rather erratic and aggressive policies. Despite some suggestions to the contrary, a closer relationship between two pariah states on China's borders would not be seen as a strategic asset. China may even resent Pyongyang's interference in what until now has been considered by some a Chinese sphere of influence.¹⁴⁰ Beijing would also worry about the possible response of the US to closer Burma-North Korea ties. The Bush Administration has taken a very hard line towards both countries over a range of issues, and has made the issue of WMD proliferation in particular a high policy priority. Developments since 2000 can only mean even greater attention to the region from Washington, something that Beijing probably would not welcome.

Successive US Administrations do not seem to have given a high priority to Burma.¹⁴¹ This is curious, given Burma's critical geostrategic position and, since 1988, its burgeoning relationship with China. Since 2000, however, there have been signs that Washington is paying Burma closer attention. In particular, the US is becoming 'increasingly worried that the renewal of ties between Burma and North Korea could prompt the two internationally isolated regimes to establish military cooperation'.¹⁴² When Burma's nuclear reactor project was announced, the State Department was quick to remind the regime of its obligations under the NPT.¹⁴³ Also, concern that Burma may buy ballistic missile or nuclear weapons technology from Pyongyang was apparently one of the issues raised when senior US and Burmese officials met in 2003.¹⁴⁴ The subject came up again when another US official spoke at Harvard University in 2006. He reportedly said that US concerns had been heightened by the development of Burma's relations with North Korea, in particular the potential for a transfer of nuclear technology.¹⁴⁵

Burma's strategic importance has also been recognised by the US Congress. For example, Senator Mitchell McConnell has warned that Rangoon's continuing military expansion program could destabilise Southeast Asia.¹⁴⁶ Referring to developments since 2000, the Chairman of the Senate Foreign Relations Committee, Richard G. Lugar, called Burma a potential 'source of instability throughout South and Southeast Asia'. Noting the contacts between Burma and North Korea, he stated 'the link-up of these two pariah states can only spell trouble':

These developments have been largely overlooked as we concentrated on the war in Iraq, challenges in the Middle East and unpredictable developments on the Korea peninsula. But they are the seeds of a major threat to Asian security and stability. The world should take notice, and the United States needs to make Burma a priority in its relations with Russia, China, India and ASEAN [Association of South East Asian Nations] so that we can forge a multilateral plan to turn the generals from their dangerous course.¹⁴⁷

Congress is concerned that North Korea is trying to sell 'missile technologies and related parts' to Burma, and has asked to be kept informed about North Korea's arms exports.¹⁴⁸ The Senate Foreign Relations Committee is monitoring nuclear-related developments in Burma.¹⁴⁹ Due largely to this increased level of interest, an inter-agency task force was established in 2004 to monitor 'weapons-related issues' in Burma.¹⁵⁰

If Burma succeeds in purchasing some SRBMs, it would be destabilising for the entire region, as the sale would spread technologies that lend themselves to the delivery of WMD. Burma already has a record of clandestine chemical weapons production, and has been accused of biological weapons use.¹⁵¹ It is now supposed to be interested in nuclear weapons. In this atmosphere of fear and suspicion, the security stakes in the region would go up, raising the prospect of other countries feeling obliged to expand their own inventories of strategic weapons. Even before then, the sale of SRBMs or nuclear components to the Rangoon regime could conceivably lead to pre-emptive action against Burma by one of its neighbours, in an attempt to remove a potential security threat. While it may only be against a particular missile or reactor site, there would be the danger of such an attack escalating into a wider conflict. Also, the sale of strategic weapons to Burma raises the possibility of military action by the US and its allies. Thus, rather than deter external intervention, any efforts by the SPDC to acquire strategic weapon systems could have the opposite effect.

Such military action could occur at an early stage. For example, if North Korea tried to send SRBMs or nuclear components to Burma by air, China is unlikely to give permission for use of its air space. Should Pyongyang try instead to send such material to Burma by sea, then that would raise the possibility of the ships being intercepted and their cargoes seized. The US is working with its allies and regional governments to implement a Proliferation Security Initiative (PSI), aimed specifically at interdicting 'shipments of WMD and missile related equipment and technologies'.¹⁵² Under the PSI, the US would likely act to prevent any SRBMs or WMD technology from reaching Burma. The Bush Administration has already flagged its intention to deal with such an eventuality 'vigorously and rapidly'.¹⁵³ It could use the US armed forces to achieve this, or Washington could ask a regional country to act on its behalf. They may be reluctant to interfere in the affairs of a fellow ASEAN member, and the legal basis of an interdiction in international waters is still unclear, but a country like Thailand or Singapore could feel that its long term security interests were best served by taking such action.

North Korea has repeatedly stated that any attempt by the US or its allies to interdict its ships on the high seas would be tantamount to a blockade, and thus constitute an act of war.¹⁵⁴ Burma does not have the same strategic weight, or the same options for retaliation as North Korea, but it is unlikely to let such an action go unanswered. Depending on the circumstances, and which country was involved in any seizure, this could go beyond a verbal or diplomatic response, and include some form of military action. Once again, it is important not to over-react to hypothetical scenarios, but it can be seen how a possible Burmese interest in WMD could have much wider implications.

7. Burma and the International Community

Burma's developing relationship with North Korea and the possibility, however faint, that Burma might become a WMD proliferation risk, have prompted several countries and multinational groupings to express their concerns to the SPDC. Given the regime's record to date, however, there is little reason to believe that it will take any notice of these representations and change its current policies.

Since 1988, Burma's military government has been the target of consistent and often harsh criticism from powerful members of the international community, including in the UN. It has been denied assistance from international financial institutions. It has also suffered economic sanctions, travel bans, restrictions on defence contacts and arms sales, and other forms of diplomatic pressure. These measures may have had some impact, but they have clearly been insufficient to dissuade Burma's military leadership from pursuing its core policies, such as the maintenance of a strong central government dominated by the armed forces. Repeated accusations by governments and world bodies, of widespread human rights violations, forced labour, involvement in narcotics trafficking, environmental degradation and other activities, all appear to have fallen on deaf ears. Throughout this period, the regime has also shown that it is prepared to pay a very high price to protect Burma's sovereignty and independence. Indeed, it has been argued by some observers that the uncompromising stance taken by the US, UK and other countries over the past 20 years has in fact encouraged the regime's nationalist tendencies and hardened its resolve to resist external pressures.¹⁵⁵

In an attempt to draw Burma out of its isolation, and win political and economic reforms from the regime, some countries and multinational groupings like ASEAN have tried a policy of 'constructive engagement'. Yet this approach too has proven largely unsuccessful. The regime has usually pocketed any inducements offered and then failed to make any significant concessions. When it has made a few tentative moves towards dialogue, for example by releasing a few political prisoners or agreeing to discuss the question of forced labour with the ILO, it has invariably been criticised for giving too little and imposing too many conditions on policy changes. Feeling resentful and betrayed, the regime has retreated even further into isolation and refused to acknowledge the concerns of the international community. While there are clearly exceptions, many in the armed forces now seem to feel that Burma is better off trusting to its own resources and having as little as possible to do with the outside world.

This isolationist view is encouraged by the fact that, despite all the pressures brought against it by the international community, the military government is stronger now than at any time in the past 20 years. It is more firmly entrenched in power and faces a much weaker domestic opposition. Most major insurgent groups have laid down their arms, while the others have been significantly weakened. With its increased order of battle, ASEAN membership and expanded bilateral ties, the regime is militarily more powerful, diplomatically better connected and strategically more influential than ever before. Burma's economy has fluctuated since 1988, but the discovery of large natural gas deposits over the past few years promises to give the SPDC a useful buffer against hard times, and an important bargaining chip in relations with its energy hungry neighbours. In other ways, the country continues to suffer, but the armed forces constitute a virtual state within the state, and are protected from the hardships faced by most Burmese.

The SPDC's fears of an invasion seem to have diminished in recent years, as Burma has become stronger, the military government has felt more secure, and as more countries seem to have accepted that the political situation in Burma is unlikely to change soon.

Despite occasional statements criticising the regime's reluctance to reform, all political leaders in the Asia-Pacific region seem prepared to do business with Burma. With some notable exceptions, there are also signs that the regime's other critics have lost the influence they once enjoyed. There is little doubt, however, that the SPDC still feels it faces a hostile strategic environment, dominated by powerful countries seeking its downfall. It has successfully created a buffer of friendly states prepared to assist it in forums like the UN, but it remains deeply convinced that, ultimately, it can only rely on its own resources to survive. It has largely been with this in mind that it has expanded its military capabilities, increased its stockpiles of strategic materials and attempted to become more self-reliant in critical areas like food, fuel and arms production.¹⁵⁶

In these circumstances, there seems little that the international community can do to exercise greater leverage over the Burmese government, and persuade it to alter its current strategic trajectory. Above all, as long as the regime feels threatened by external forces, it is unlikely to rule out any option to protect itself and its country. At present, this does not appear to include WMD but, if circumstances change, the few senior military officers who are believed to advocate a nuclear deterrent may be paid greater attention.

8. Conclusion

Surveying developments in Burma since 2000, it is possible to see recurring tensions between policies and perceptions, on both sides of the political divide. This has contributed to certain misunderstandings and prompted some ill-judged actions, further complicating international consideration of the Burma question.

There is a tension between Burma's publicly stated and clearly demonstrated policy of global nuclear disarmament, and popular perceptions of a clandestine nuclear weapons program. These perceptions have no factual basis, but they have been encouraged by unsubstantiated rumours, inaccurate and often alarmist news reports, and some questionable strategic analysis. There is probably also an element of deliberate misinformation, designed to fuel concerns that Burma has become a proliferation risk. These stories, however, are made more credible by the military government's history of provocative and seemingly irrational behaviour, including an apparent disdain for international opinion and the accepted norms of conduct. They are also supported, at least in the popular mind, by Burma's shadowy relationship with North Korea, another pariah state with a history of clandestine nuclear weapons production and the proliferation of nuclear and missile technologies.

There is also a tension between the public policies of the US and its allies, and perceptions of these countries' attitudes on the part of the Burmese government. Ever since 1988, the major Western countries have emphasised their wish for peaceful political change in Burma, and sought to sway the regime through dialogue and diplomatic pressure, albeit of an uncompromising kind. However, their aggressive rhetoric, open support for opposition figures, funding for expatriate groups and military interventions in other undemocratic countries have all encouraged the belief among Burma's leaders that the US and its allies are bent on forcible regime change. This has created a climate of uncertainty, if not fear, in which the regime has felt the need to protect itself against external intervention, including a possible invasion of the country. While they still appear to be a very small minority in the armed forces, a few military officers have reportedly taken this logic even further and given some thought to the ultimate deterrent.

In these circumstances, there is a pressing need for accuracy and balance in reporting on Burma, whether it be in open sources such as the news media and academic literature, or within the classified environment of intelligence reporting and policy analysis. To avoid any disjunction between policies and perceptions, the same rigorous standards will need to apply both to those in Burma's strategic community who analyse the way the world sees their country, and to those outside Burma who try to understand how the Burmese leadership perceives the world. For, as Robert Jervis has written:

It is hard to find cases of even mild international conflict in which both sides fully grasp the other's views. Yet all too often statesmen assume that their opposite numbers see the world as they see it, fail to devote sufficient resources to determining whether this is actually true, and have much more confidence in their beliefs about the other's perceptions than the evidence warrants.¹⁵⁷

Jervis was writing at the height of the Cold War about the dangers of nuclear conflict between the superpowers, but his observations are still relevant to Burma and the issue of nuclear proliferation in the new century.

Notes

- 1 Robert Jervis, 'Deterrence and perception', *International Security*, vol. 7, no. 3 (Winter 1982/1983), p. 4.
- 2 See, for example, *Conference Report: Nuclear weapons proliferation 2016*, Conference organised by the Centre for Contemporary Conflict, Naval Postgraduate School, Monterey, 28–29 July 2006, p. 15.
- 3 See, for example, Max Singer and Aaron Wildarsky, *The Real World Order: Zones of peace/sones of turmoil* (London: Chatham House, 1993), p. 67.
- 4 W.C. Johnstone, *Burma's Foreign Policy: A study in neutralism* (Cambridge: Harvard University Press, 1963), p. 234. Usually, the term 'Burman' refers to Burma's dominant ethnic group but, in this case, it is used in the sense of the more customary national adjective, 'Burmese'.
- 5 *Foreign Policy of the Revolutionary Government of the Union of Burma* (Rangoon: Burma Socialist Programme Party, 1968), pp. 83–4.
- 6 In 1974 the Revolutionary Council transferred power to a new, ostensibly elected, 'civilian' parliament. This was largely a sham, however, and Ne Win continued to exercise supreme authority until 1988, when the armed forces crushed a major pro-democracy uprising and took back direct political power.
- 7 Burma signed the treaty despite strong criticism of the instrument by China, with which Rangoon was anxious to develop a closer bilateral relationship. Chi-shad Liang, *Burma's Foreign Relations: Neutralism in theory and practice* (New York: Praeger, 1990), p. 85.
- 8 Stockholm International Peace Research Institute, *SIPRI Yearbook 2006: Armaments, disarmament and international security* (Oxford: Oxford University Press, 2006), Annex A. Burma's Attorney General has ruled that, for international instruments signed by the Revolutionary Council between 1962–74, and by the new military administration after 1988, ratification should be considered automatic. This is based on the premise that, at the time, there were no higher organs of government in Burma to review the decisions to sign. Interview with Burmese official, Canberra, 27 February 2007.
- 9 Interview with Burmese official, Canberra, 27 February 2007.
- 10 *1995 United Nations Disarmament Yearbook* (New York: Centre for Disarmament Affairs, 1996), p. 254. See also 'Asia-Pacific, Southeast Asia becomes a nuclear free zone', *Jane's Defence Weekly*, 9 April 1997, p. 12.
- 11 Statement by HE U Ohn Gyaw, Minister for Foreign Affairs and Chairman of the Delegation of Myanmar in the General Debate of the Fifty-First Session of the United Nations General Assembly, New York, 27 September 1996', Embassy of the Union of Myanmar, Canberra, *Newsletter* 12/96, 18 October 1996. See also *UN Disarmament Yearbook 2002* (New York: Department of Disarmament Affairs, 2003), pp. 129–30.
- 12 See, for example, Statement by HE U Nyan Win, Minister for Foreign Affairs of the Union of Myanmar, at the High-level Segment of the Conference on Disarmament, Geneva, 22 June 2006, found at <<http://mission.itu.ch/MISSIONS/Myanmar>>.
- 13 Statement by U Ohn Gyaw, New York, 27 September 1996.
- 14 Statement by U Nyan Win, Geneva, 22 June 2006.
- 15 Statement by HE U Nyunt Maung Shein, Ambassador/ Permanent Representative, on Agenda Item 1 – Cessation of the Nuclear Arms Race and Nuclear Disarmament, Geneva, 13 February 2007, found at <<http://mission.itu.ch/MISSIONS/Myanmar>>.
- 16 Statement by U Nyunt Maung Shein, Geneva, 13 February 2007.
- 17 Interview with Burmese official, Canberra, 27 February 2007. Between 1974–76, as a member of the Australian Embassy in Rangoon, the author was responsible for contacts with Burma's Medical Research Institute, regarding the provision of radioisotopes from Australia.
- 18 Veronika Voskoboinikova, 'Myanmar shows interest in Russian research reactor', *Tass*, 22 December 2000.
- 19 'IAEA will ignore Burmese request for research reactor assistance', *Nucleonics Week*, 25 October 2001, p. 14; and Arun Bhattacharjee, 'India frets over Yangon-Pyongyang deal', *Asia Times*, 4 June 2004.
- 20 'IAEA will ignore Burmese request for research reactor assistance', p. 14. See also 'Launch of research reactor project', *Nuclear Engineering International*, February 2002, p. 6. The Burmese delegation to the IAEA first raised this issue with the Director General in September 2000. See 'Regular press conference held', *New Light of Myanmar*, 22 January 2002.
- 21 'IAEA will ignore Burmese request for research reactor assistance', p. 14.
- 22 During the late 1980s and 1990s, Burma's higher education institutions were closed 10 times, often for lengthy periods, in an attempt to quell civil unrest. Also, since the armed forces regained direct control of the national budget in 1988, the proportion allocated for the civilian education sector has been drastically reduced.
- 23 'IAEA will ignore Burmese request for research reactor assistance', p. 14. See also 'International Labour Conference adopts resolution targeting forced labour in Myanmar (Burma)', International Labour Organisation, Press Release ILO/00/27, 14 June 2000.

- 24 See, for example, Thomas Crampton, 'Burma seeks nuclear research plant', *International Herald Tribune*, 14 July 2001; and Julian Moe, 'US findings on Burma: An overview', *The Irrawaddy*, 7 November 2003.
- 25 Crampton, 'Burma seeks nuclear research plant'.
- 26 'Myanmar reactor', *Moscow Times*, 17 May 2002. Elsewhere, the plant is described as a '10 MW pool-type light-water nuclear reactor using low-enriched uranium fuel'. 'Myanmar to construct nuclear reactor with Russian supervision', *International Export Control Observer*, Issue 3, December 2005/January 2006, p. 34.
- 27 Bertil Lintner, 'Burma joins the nuclear club', *Far Eastern Economic Review*, 27 December 2001–3 January 2002, p. 26.
- 28 'IAEA will ignore Burmese request for research reactor assistance', p. 14.
- 29 See, for example, Bertil Lintner, 'Myanmar gets a Russian nuclear reactor', *Wall Street Journal*, 3 January 2002; 'Launch of research reactor project', p. 6; and Richard Stone, 'Planned reactor ruffles global feathers', *Science*, vol. 295, no. 5556, 1 February 2002, p. 782.
- 30 A.C. LoBaido, 'Nuclear politics in Burma', *WorldNet Daily*, 8 February 2002, found at <http://worldnetdaily.com/news/article.asp?ARTICLE_ID=26375>.
- 31 Maxmilian Wechsler, 'Nuclear claims deserve scepticism', *Bangkok Post*, 23 April 2006; and Nuclear Threat Initiative (NTI), 'Myanmar research reactor talks halted', found at <<http://www.nti.org/db/nisprofs/russia/exports/general/nuexdev.htm>>. Estimates vary widely, but the project is reputed to be valued at US\$150 million.
- 32 See Alison Hunter, 'Talks on Burma nuclear facility resume', *Mizzima News*, 30 September 2005; and Alison Hunter, 'Burma's nuclear ambitions: Progression or threat?', *Mizzima News*, 26 October 2005.
- 33 Sergei Blagov, 'From Myanmar to Russia with love', *Asia Times*, 12 April 2006.
- 34 The United Kingdom Parliament, 'Burma', answer from Mr Ian Pearson to Mr Clegg, *Hansard*, 16 January 2006. See also 'Developments in Burma', testimony of Matthew P. Daley, Deputy Assistant Secretary, Bureau of East Asian and Pacific Affairs, US Department of State, before the House International Relations Committee, Subcommittee on Asia and the Pacific, 25 March 2004, found at <<http://www.state.gov/p/eap/rls/rm/2004/30789.htm>>.
- 35 'Russia and Myanmar sign inter-governmental cooperation agreement', Press Service of the Federal Agency for Nuclear Energy, 15 May 2007. See also 'Russia to build nuclear centre for Myanmar with 20% U-235', RIA Novosti, 15 May 2007.
- 36 *Ibid.*
- 37 'Russia to build nuclear reactor in Myanmar', *New Scientist*/Reuters, 15 May 2007.
- 38 Larry Jagan, 'Yangon's nuclear ambitions alarm Asia and Europe', *The Straits Times*, 18 January 2002.
- 39 LoBaido, 'Nuclear politics in Burma'. See also Larry Jagan, 'Burma announces nuclear plans', *BBC News*, 11 January 2002.
- 40 Ministry of Energy, 'Nuclear Energy', found at <www.energy.gov.mm>.
- 41 Paul Kerr, 'US accuses Burma of seeking weapons technology', *Arms Control Today*, May 2004.
- 42 See, for example, 'Burma receives \$120 million loan from China to build hydroelectric plant', Radio Myanmar, 15 September 2000; and 'Burma-China sign MOU for construction of two small moveable LNG refineries', *Radio Myanmar*, 6 October 2000.
- 43 Lintner, 'Burma joins the nuclear club', p. 26.
- 44 'Burma to build nuclear reactor', *BBC News*, 21 January 2002; and Lintner, 'Burma joins the nuclear club', p. 26.
- 45 Interview, Bangkok, October 2001. See also Jagan, 'Yangon's nuclear ambitions alarm Asia and Europe'.
- 46 'Burma's nuclear plans worry IAEA', *Far Eastern Economic Review*, 21 February 2002, p. 11; and 'Launch of research reactor project'.
- 47 Phil Thornton, 'Burma the next Chernobyl', *Reportage*, September 2002, found at <<http://www.reportage.uts.edu.au/stories/2002/international/burma3.html>>.
- 48 Michael Roston, 'Nuclear archipelagoes? Secure nuclear materials in Southeast Asia', CSIS Pacific Forum, 21 June 2002, found at <<http://www.csis.org/pacfor/pac0225.htm>>.
- 49 LoBaido, 'Nuclear politics in Burma'.
- 50 'Freighters carrying "nuclear reactor" equipment arrive at naval base', *Democratic Voice of Burma* (DVB), 3 April 2003. The DVB report did not explain why this equipment was offloaded some 600 kilometres away from the intended construction site.
- 51 'Russians arrive for survey of Kalagok Island in Ye Township', *DVB*, 29 March 2003.
- 52 'Mon Council says SPDC building nuclear reactor on Kalagok Island', *DVB*, 25 March 2003.
- 53 'Nuke plant: From the plains to the hills', *Shan Herald Agency for News*, 31 August 2005, found at <<http://www.shanland.org/war/2005/Nuke-plant/>>.
- 54 'Burma goes nuclear', *Burma News Update*, no. 148, 21 February 2002; and 'Junta officers secretly depart for Pyongyang to study advanced technology', *DVB*, 25 November 2003.
- 55 Moe, 'US findings on Burma'.
- 56 Andrew Selth, *Burma's Armed Forces: Power without glory* (Norwalk: EastBridge, 2002), pp. 215–16.
- 57 'Myanmar reactor research talks halted'.

- 58 The United Kingdom Parliament, 'Burma', answer from Dr Howells to Mr Clifton-Brown, *Hansard*, 10 July 2006. Most of the Burmese students in Russia were armed forces personnel.
- 59 See 'Reactor for Burma unlikely, says army', *Bangkok Post*, 18 January 2002; and W.J. Broad, David Rohde and D.E. Sanger, 'Inquiry suggests Pakistanis sold nuclear secrets', *New York Times*, 22 December 2003.
- 60 'Neighbours' envy', *News Insight.net*, 27 December 2003, found on the internet at <<http://www.indiareacts.com/fulldebate2.asp?recno=742>>
- 61 See, for example, Andrew Selth, *Burma's Secret Military Partners*, Canberra Papers on Strategy and Defence No. 136 (Canberra: Strategic and Defence Studies Centre, Australian National University, 2000), pp. 61–70.
- 62 Rahul Bedi, 'Nuclear scientists in Myanmar', *Jane's Intelligence Review*, vol. 14, no. 3, March 2002, p. 2; and Lintner, 'Myanmar gets a Russian nuclear reactor'.
- 63 Douglas Frantz, James Risen and David Sanger, 'Nuclear experts in Pakistan may have links to Al Qaeda', *New York Times*, 9 December 2001.
- 64 Bedi, 'Nuclear scientists in Myanmar', p. 2.
- 65 Arnaud de Borchgrave, 'Al Qaeda's nuclear agenda verified', *Washington Times*, 10 December 2001. See also Lintner, 'Burma joins the nuclear club', p. 26.
- 66 Pakistan has suggested that the US misinterpreted the attendance by two members of the Pakistan Atomic Energy Commission at an IAEA-sponsored meeting in Rangoon in 2001. Both of these scientists returned to Pakistan immediately after its conclusion. 'Nuclear Burma', *Washington Post*, 6 January 2002; and 'Burma to build nuclear reactor'. See, however, Rajesh Kumar Mishra, 'Nuclear scientific community of Pakistan: Clear and present danger to nonproliferation', *South Asia Analysis Group*, Paper No. 601, 7 February 2003.
- 67 See, for example, Kanbawza Win, 'The Burmese regime has nuclear weapons', *Kao Wao News Group*, 3 October 2004.
- 68 Kanbawza Win, 'The Burmese regime has nuclear weapons'. See also Esther Pan, 'Nonproliferation: The Pakistan network', Council on Foreign Relations, *Background*, 12 February 2004, found at <<http://www.cfr.org/publication/7751/>>.
- 69 'Neighbours' envy'.
- 70 Moe, 'US findings on Burma'.
- 71 Wechsler, 'Nuclear claims deserve scepticism'.
- 72 See, for example, *The Bomb Attack at the Martyr's Mausoleum in Rangoon: Report on the findings by the Enquiry Committee and the measures taken by the Burmese Government* (unofficial translation of the original Burmese report, held by the author); and *Massacre in Rangoon: North Korean terrorism* (Seoul: Korean Overseas Information Service, 1983).
- 73 Andrew Selth, *Burma's North Korean Gambit: A challenge to regional security?*, Canberra Paper No. 154 (Strategic and Defence Studies Centre, Australian National University, Canberra, 2004). In April 2007 Burma and North Korea reached an agreement to restore diplomatic ties. See 'DPRK restores ties with Myanmar', *Agence France Presse*, 11 April 2006; 'Pariahs embrace', *AsiaInt.com*, April 2006, found at <<http://www.asiaint.com/arl/ARL9576.asp>>; and Clifford McCoy, 'Rogues of the world unite', *Asia Times*, 28 April 2007.
- 74 'Burma buys AK-47 rounds', *Jane's Defence Weekly*, 2 February 1991, p. 139; and Bruce Hawke, 'Rice buys artillery for Myanmar', *Jane's Defence Weekly*, 5 August 1998, p. 8. See also 'Burma-North Korea arms', *Voice of America*, 4 August 1998.
- 75 Rangoon opted to purchase one Sang-O class boat, but was later forced to abandon the deal. Robert Karniol, 'Myanmar ditches submarine deal', *Jane's Defence Weekly*, 11 June 2003, p. 12.
- 76 'North Koreans return to Burma', *Far Eastern Economic Review*, 10 July 2003, p. 8. See also Bertil Lintner and S.W. Crispin, 'Dangerous bedfellows', *Far Eastern Economic Review*, 20 November 2003, pp. 22–4.
- 77 Bertil Lintner, 'Myanmar and North Korea share a tunnel vision', *Asian Age*, 19 July 2006.
- 78 If the rumours were true, there could be several reasons why the missiles failed to arrive, ranging from the cost to a reluctance on China's part to sell them. Interviews, Rangoon, November 1999.
- 79 The latest variants of this missile are capable of ranges of up to 500 kilometres, armed with a 770-kilogram conventional warhead. See J.S. Bermudez, *Shield of The Great Leader: The armed forces of North Korea* (Sydney: Allen and Unwin, 2001), pp. 276–7.
- 80 See, for example, 'Neighbours' envy'; and 'N.Korea ballistic missiles for Burma likely', *News Insight.net*, 14 October 2003.
- 81 Daley, 'Developments in Burma', 25 March 2004.
- 82 Roland Wilson, 'Analysis of Burma's nuclear program', *Dictator Watch*, January 2007, found at <<http://www.dictatorwatch.org/articles/burmanuclear2.html>>.
- 83 Lintner and Crispin, 'Dangerous bedfellows', pp. 22–4.
- 84 Lintner and Crispin, 'Dangerous bedfellows', p. 22. Natmauk is about 50 kilometres northeast of the town of Magwe, in central Burma's Magwe Division, and about 15 kilometres north of Myothit.
- 85 Lintner and Crispin, 'Dangerous bedfellows', pp. 22–4. The Daesong Group was a sub-division of Bureau 39, a secretive arm of the Korean Workers Party believed to be directly answerable to Kim Jong-il.

- 86 'Specialists to make nuclear reactor for Burma', *RIA-Novosti*, 23 January 2002, cited in *Rangoon Suspense: Report card*, Burma, 1 December 2001–31 March 2002 (Bangkok: ALTSEAN Burma, 2002), p. 23.
- 87 'Junta officers secretly depart for Pyongyang to study advanced technology'. See also Wilson, 'Analysis of Burma's nuclear program'.
- 88 The deal was said to include a scientific survey of possible construction sites. Bhattacharjee, 'India frets over Yangon-Pyongyang deal'.
- 89 'We want justice', *Burma Digest*, 9 April 2006, found at <<http://burmadigest.wordpress.com/2006/04/09/we-want-justice/>> See also 'Uranium search in Burma intensifies', *The Irrawaddy*, October 2006; and 'Nuclear reactor in Burma', *Burma Links*, March/April 2002, p. 4.
- 90 Roland Wilson, 'Nuclear proliferation and Burma: The hidden connection', *Dictator Watch*, found at <<http://www.dictatorwatch.org/articles/burmanuclear.html>>; Wilson, 'Analysis of Burma's nuclear program'; and 'Images of suspected uranium mine and refinery in Burma', *Dictator Watch*, March 2007, found at <<http://www.dictatorwatch.org/phshows/burmafacity.html>> These reports also claim that Burmese yellowcake is secretly being exported to Iran.
- 91 See, for example, Wilson, 'Nuclear proliferation and Burma'; and Bhattacharjee, 'India frets over Yangon-Pyongyang deal'.
- 92 Interview with Burmese official, Washington, March 2004; and The United Kingdom Parliament, 'Burma', answer from Dr Howells to Mr Clifton-Brown, *Hansard*, 10 July 2005.
- 93 The IAEA's online database of world uranium deposits lists no entries for Burma. On its website, the Ministry of Energy cites deposits at Magway (Magwe), Taungdwingyi, Kyaukphygon, Kyauksin and Paongpyin. See <www.energy.gov.mm> The total quantity of uranium in Burma is unknown, but is believed to be relatively small.
- 94 The United Kingdom Parliament, 'Burma', answer from Dr Howells to Miss McIntosh, *Hansard*, 18 July 2005. See also The United Kingdom Parliament, 'Burma', answer from Dr Howells to Mr Clifton-Brown, *Hansard*, 5 July 2006.
- 95 Daley, 'Developments in Burma'. In 2006, however, these claims were still appearing. See, for example, 'Financing nuclear projects with drug money', *Burma Digest*, 2 April 2006.
- 96 'US accuses Burma of nuclear goal', *Sydney Morning Herald*, 30 November 2005; and 'Burma denies nuclear ambition after UN move', *The Australian*, 5 December 2005. See also Judy Aita, 'United States seeks Security Council briefing on Burma', US State Department, 30 November 2005, found at <<http://usinfo.state.gov/eap/Archive/2005/Nov/30-264682.html>>.
- 97 Greg Sheridan, 'Burma seeks nuclear weapons alliance with N.Korea', *The Australian*, 5 July 2006.
- 98 The United Kingdom Parliament, 'Burma', answer from Ms Margaret Beckett to Mr Hague, *Hansard*, 5 June 2006.
- 99 'Burma rejects magazine report of missile, nuclear links with DPRK', *Agence France Presse*, 17 November 2003.
- 100 Myanmar Information Committee, 13 February 2002, cited in Kerr, 'US accuses Burma of seeking weapons technology'.
- 101 'Myanmar rejects report of military, nuclear ties with North Korea', *Associated Press*, 14 November 2003, reproduced in *BurmaNet News*, 14 November 2003.
- 102 'Myanmar rejects report of military, nuclear ties with North Korea'.
- 103 The spokesman did not, however, address the issue of Burma's possible purchase of SRBMs from North Korea, and whether North Korean technicians were working in Burma. See 'No Weapons of Mass Destruction (WMD) for Myanmar, Only the Weapons of Mass Development (WMD) for Myanmar', Myanmar Information Committee, Information Sheet No.C-2839 (I/L), Yangon, 17 November 2003.
- 104 See, for example, Andrew Selth, *Burma: A strategic perspective*, Working Paper No. 13 (Asia Foundation, San Francisco, 2001).
- 105 State-to-state relations with China were generally amicable, but until 1978 China also supported the Communist Party of Burma, which waged a guerrilla war against Rangoon in northern Burma. Relations with Thailand were never comfortable, but it did not pose an existential threat to the military government.
- 106 The actual size of Burma's armed forces is unknown but, at around 400,000, they are now the second largest in Southeast Asia. See Selth, *Burma's Armed Forces*, p. 296.
- 107 See, for example, Andrew Selth, 'Burma in a Changing World: Through a glass darkly', *AQ: Journal of Contemporary Analysis*, vol. 75, no. 4, July–August 2003, pp. 15–21.
- 108 Bertil Lintner, 'Myanmar's Chinese connection', *International Defense Review*, vol. 27, no. 11, November 1994, p. 12. See also Andrew Selth, *Burma's Arms Procurement Programme*, Working Paper No. 289 (Strategic and Defence Studies Centre, Australian National University, Canberra, 1995).
- 109 Tin Maung Maung Than, 'Myanmar: Preoccupation with regime survival, national unity, and stability', in Muthiah Alagappa (ed.), *Asian Security Practice: Material and ideational influences* (Stanford: Stanford University Press, 1998), p. 730, note 27. See also Yindee Lertcharoenchok, 'Burmese leader calls Thailand a "true friend"', *The Nation*, 13 April 1989.
- 110 Special Correspondent, 'Myanmar (Burma's) junta fears US invasion', *Asia Times*, 27 April 2006.

- 111 'Time to turn up the pressure on the Burma Regime, Powell says', *Wall Street Journal*, 12 June 2003; and 'Rice names "outposts of tyranny"', *BBC News*, 19 January 2005.
- 112 'President discusses freedom and democracy in Kyoto, Japan', 16 November 2005, found at <<http://www.whitehouse.gov/news/releases/2005/11/print/20051116-6.html>>. See also *The National Security Strategy of the United States of America* (Washington, DC: The White House, September 2002), in which the Bush Administration speaks of using the US's 'unparalleled military strength and great economic and political influence' to extend 'the benefits of freedom' across the globe.
- 113 Address before a Joint Session of the Congress on the State of the Union, 31 January 2006, found at <http://www.c-span.org/executive/transcript.asp?cat=current_event&code=bush_admin&year=2006>. See also Ian Bremmer, 'Is Burma the next Iran?', *Slate Magazine*, 15 February 2006, found at <<http://www.slate.com/id/2135925/?nav=fo%22>>.
- 114 Geoffrey Wheatcroft, 'Saddam was a despot. True. This justifies the war. False', *The Guardian*, 22 April 2003.
- 115 'McConnell says Burma's ambassador to US should be sent home: Senator's remarks at press briefing, 18 June 2003', found at <<http://usinfo.state.gov/eap/Archive/2004/Jun/30-782132.html>>; and 'British MP tells junta minister: "you're a wicked regime"', *The Irrawaddy*, 7 March 2007.
- 116 See, for example, Selth, 'Burma in a changing world', pp. 15–21; and 'Myanmar (Burma's) junta fears US invasion'.
- 117 See, for example, Andrew Chang, 'Access to evil? Burma: A potential, but unlikely, partner for Iran, Iraq and North Korea', *abcNews.com*, 22 October 2002, found on the internet at <<http://abcnews.go.com/sections/world/DailyNews/burma021022.html>>; and Joshua Kurlantzick, 'Ran-goons: Why isn't Burma on Bush's "axis of evil"', *Washington Monthly Online*, April 2002, found at <<http://www.washingtonmonthly.com/features/2001/0204.kurlantzick.html>>. See also 'Burma and its place in the New World Order', *The Independent*, 7 June 2003; and 'A moral foreign policy', *Asian Wall Street Journal*, 13 June 2003.
- 118 In the minds of the SPDC, there are clear parallels between the demands of the East Timorese and those of several ethnic separatist groups in Burma.
- 119 See, however, Selth, 'Burma in a changing world', pp. 15–21; and *Myanmar: The military regime's view of the world* (International Crisis Group, Asia Report No. 28, Bangkok/Brussels, 7 December 2001).
- 120 Selth, *Burma's Armed Force*, pp. 94–5.
- 121 Given developments in Iraq after the 2003 invasion, it needs be said that a shared dislike of the military government does not translate into agreement on the nature of its replacement.
- 122 Judy Aita, 'Lack of UN action will not deter US push for reform in Burma', US Department of State, 13 January 2007, found at <<http://usinfo.state.gov/xarchives/display.html?p=washfile-english&y=2007&m=January&x=20070113115118AJatiA0.9608271>>.
- 123 Lintner, quoting a Bangkok-based Western diplomat, in 'Myanmar and North Korea share a tunnel vision'.
- 124 Interview with a senior Rangoon-based diplomat, Singapore, July 2006.
- 125 'Myanmar (Burma's) junta fears US invasion'.
- 126 It can be assumed, however, that the carefully worded statements on this issue made by senior US officials, such as Senator Lugar, reflect a greater awareness of developments than it is possible to gain simply from open sources. See R.G. Lugar, 'Seeds of trouble from Burma', statement issued on 28 September 2003.
- 127 Jagan, 'Yangon's nuclear ambitions alarm Asia and Europe'.
- 128 For an early, but still relevant, discussion of this issue, see Jervis, 'Deterrence and perception', pp. 3–30.
- 129 Interview, Bangkok, November 1999.
- 130 Lintner and Crispin, 'Dangerous bedfellows', p. 24.
- 131 See, for example, the chapters on Burma and Thailand in Jurgen Shwarz, W.A. Herrman and H-F. Seller (eds), *Maritime Strategies in Asia* (Bangkok: White Lotus, 2002); and 'Submarines, training ship for navy', *Asian Defence Journal*, December 2003, p. 40.
- 132 Andrew Selth, 'Burma and superpower rivalries in the Asia-Pacific', *Naval War College Review*, vol. 55, no. 2 (Spring 2002), pp. 42–60.
- 133 See, for example, Andrew Selth, 'Burma's China connection: Implications for the Indian Ocean region', *Indian Ocean Survey*, vol. 1, no. 1 (January–June 2005), pp. 29–48; J.M. Malik, 'Myanmar's role in regional security: Pawn or pivot?', *Contemporary Southeast Asia*, vol. 19, no. 1 (June 1997), pp. 52–73; and J.W. Garver, *Protracted Contest: Sino-Indian rivalry in the twentieth century* (Seattle: University of Washington Press, 2001), chapters 9 and 10.
- 134 'Neighbours' envy'. See also 'N.Korea ballistic missiles for Burma likely', *NewsInsight*, 9 May 2007, found at <<http://www.newsinsight.net/nati2.asp?reco=2363>>.
- 135 'Neighbours' envy'.
- 136 See, for example, Justin Bernier, 'China's strategic proxies', *Orbis*, vol. 47, no. 4 (Fall 2003), pp. 629–43.
- 137 See, for example, Kay Merrill, 'Myanmar's China connection: A cause for alarm?', *Asia-Pacific Defence Reporter*, vol. 24, no. 1 (January 1998), pp. 20–21; and Selth, 'Burma's China connection: Implications for the Indian Ocean region', pp. 29–48.

- 138 See, for example, Andrew Selth, *Chinese Bases in Burma: The Explosion of a Myth*, Regional Outlook Paper No. 10 (Brisbane: Griffith Asia Institute, Griffith University, 2007).
- 139 Garver, *Protracted Contest*, pp. 271–4.
- 140 Bertil Lintner, 'Myanmar gets a Russian nuclear reactor, vexing China's efforts to expand influence', *Wall Street Journal*, 3 January 2002. See also Lintner, 'Burma joins the nuclear club', p. 26; and 'Nuclear Burma', 6 January 2002.
- 141 This is not to overlook the fact that in areas like human rights and narcotics trafficking the US takes a harder line towards Burma than perhaps any other country. See David Steinberg, 'Burma/Myanmar and the dilemmas of US foreign policy', *Contemporary Southeast Asia*, vol. 21, no. 2 (August 1999), pp. 283–311; and D.I. Steinberg, 'What to do about Myanmar', *Asia Times*, 7 January 2003.
- 142 'Concern over Burma–North Korea ties', *Far Eastern Economic Review*, 16 October 2003, p. 14.
- 143 'Burma: Russian nuclear reactor', US Department of State, Office of the Spokesman, 23 January 2002, found at <http://www.state.gov/r/pa/prs/ps/2002/7414.htm>. See also 'US warns Myanmar on nuclear reactor aspirations', *Agence France Presse*, 22 January 2002.
- 144 'Burma: Russian nuclear reactor'. See also LoBaido, 'Nuclear politics in Burma'; and 'Concern over Burma–North Korea ties', p. 14.
- 145 Alvin Powell, 'US pushes for regime change in Burma', *Harvard Gazette*, 23 February 2006, found at <http://www.news.harvard.edu/gazette/2006/02.23/09-burma.html>. See also 'Burma's increasing importance to US national interests', *AsiaViews*, 26 July 2006.
- 146 'US Senate approves sale of AMRAAM missiles to Thailand', *The Nation*, 17 July 2001.
- 147 Lugar, 'Seeds of trouble from Burma'.
- 148 'Congress seeking report on DPRK sales to Burma', *Yonhap News*, 6 December 2003.
- 149 Lintner and Crispin, 'Dangerous bedfellows', p. 24.
- 150 'North Korean nukes in Burma?', *Far Eastern Economic Review*, 15 April 2004, p. 10.
- 151 For an analysis of claims regarding Burma's use of chemical and biological weapons, see Selth, *Burma's Armed Forces*, pp. 233–44.
- 152 Nick Hordern, 'Stopping the flow of WMD', *Jane's Intelligence Review*, August 2003. See also 'Concern over Burma–North Korea ties', p. 14.
- 153 Daley, 'Developments in Burma'.
- 154 'DPRK party organ says US sanctions, blockade "directly bring" war', *KCNA*, 14 January 2003.
- 155 David Steinberg, 'Minimizing the miasma in Myanmar', *Spero News*, 24 January 2007. For two contrasting views on the sanctions debate see John Badgley (ed), 'Reconciling Burma/Myanmar: Essays on US relations with Burma', *NBR Analysis*, vol. 15, no. 1 (March 2004); and *The European Union and Burma: The Case for Targeted Sanctions* (London, UK: Burma Campaign, 2004).
- 156 For example, in 2006 the SPDC launched a nation-wide effort to grow physic nuts, from which it hoped to produce biodiesel fuel, thus reducing Burma's dependency on imported oil. See, for example, Yeni, 'A Nutty Idea', *The Irrawaddy*, September 2006.
- 157 Jervis, 'Deterrence and perception', p. 4.