



# IDSS COMMENTARIES (29/2006)

*IDSS Commentaries are intended to provide timely and, where appropriate, policy relevant background and analysis of contemporary developments. The views of the authors are their own and do not represent the official position of IDSS.*

---

## **SINGAPORE'S DARWINIAN IMPERATIVE: SURVIVAL IN A COMPLEX AND UNCERTAIN WORLD**

Kumar Ramakrishna and Tom Quiggin \*

28 April 2006

THE security and non-security government structures of Singapore must significantly alter themselves to ensure the ongoing security and prosperity that the citizens enjoy. If they do not, these structures themselves inadvertently risk becoming obstacles to the future of Singapore rather than the guarantors of its progress.

### **The Unsettling Strategic Environment**

Singapore exists in a complex and uncertain world where the rate of change in the external environment makes past experience of increasingly questionable value. It is also a small, highly specialized state which is vulnerable to shocks. This vulnerability places a Darwinian imperative on its survival mechanisms. With little strategic depth, the margin for error during a crisis of magnitude is small.

What underlines Singapore's vulnerability are those events whose occurrence is of relatively low probability but whose physical, social, economic and political impact would be disproportionately high. These threats would include SARS and transnational terrorism, both of which are not easy to comprehend as part of a conventional threat matrix.

The case of transnational terrorism illustrates why neutralizing it is no small task. Thanks to what Thomas Friedman calls the "democratization of information" due to globalization, an uncontrolled spread of information on the Web allows anyone to obtain detailed directions on how to manufacture high explosives such as TNT, PETN or TATP in their households. Worse still, information on the simple manufacture of chemical weapons is also spreading. Simultaneously, the availability of raw materials is rising while the costs are dropping. Some of the most esoteric ingredients can be bought in commercial form from conventional hardware stores or pharmacies. At the same time, Al Qaeda is no longer the only radical Islamist game in town. The new trend is toward locally formed, self-directed, self-trained and self-funded groups inspired by Osama bin Laden but carrying out localized operations. The 7/7 suicide bombers in London were one such group.

Detecting transnational terror threats in a complex and uncertain world is thus difficult. The problem is that it is hardly the only problem. National security managers across government must also contend with animal disease threats, pandemics, oil supply shocks, oil price shocks and environmental threats, all of which can have an adverse effect on the welfare, prosperity and stability of Singapore society. Given the complex and uncertain external environment, it is utterly unrealistic to think that the structures and processes of the

past will serve us well in the future.

### **The Problem with Current Structures and Processes**

There are three key problems with current governmental structures and processes, which are in fact common everywhere. The first issue is the over-dependence on the “centre” – normally the institutional apex of ministries and agencies - to collect, analyze and control the incoming information that the state needs to operate. In today’s world the centre simply cannot cope with the multitude of incoming information. To adapt successfully it must more effectively decentralize intelligence collection, analysis and control to as near the street level as possible and become more of a policy guidance and senior decision- making operation instead. This process of “intelligence decentralization” must take place not only within the overall governmental “centre” outward to the ministries and agencies, but within the ministries and agencies as well. In one Canadian municipal police force, for example, emergency phone operators and dispatchers are being trained to become aware of unusual incidents that may involve terrorism or national security-related incidents, no matter how minor the issue. When they do notice an unusual pattern or event, a notation is passed to the force’s intelligence section for analysis and possible follow-up.

The second problem is that of expanding the understanding of the kinds of signals in the environment that may well have a security implication. In the past it was reckoned that it was sufficient for the defence, home affairs and foreign ministries to focus on security threats while the non-security agencies focused on conventional issues such as public health, transportation and community relations. Today, the boundaries are not that cut and dried: a seemingly innocuous flu outbreak may well be a bioterrorist attack. Buses and trains may be subjected to terrorist bombs. Radical religious ideas may be circulating within the body politic, undermining community ties and fueling terrorist recruitment. The upshot of all this is that the business of preserving national security today is now the preserve of both the traditional security as well as the non-security agencies.

The third problem is that of institutional “stove-piping”. This refers to the deeply entrenched habit of government agencies the world over of operating in “information silos” detached from one another, even if they are working in say, the same national security domain. Part of the reason for this stove-piping is sheer bureaucratic rigidity. Organizations are hierarchical and information tends to flow vertically up from the street level to the apex, rather than horizontally. Another reason for institutional stove-piping is more banal: bureaucrats in any domain tend to jealously guard information from one another. Whatever the cause, institutional stove-piping is no laughing matter. The 911 Commission Report, put out by the US Congress in 2004 demonstrates in detail how the inability of the CIA, the FBI and other US national agencies to coordinate and act on intelligence in a timely and effective manner played a role in the catastrophic intelligence failure that led to the attacks on September 11 2001.

### **Implications for Singapore**

In order to anticipate and hopefully prevent strategic shocks to Singapore, one key requirement is clear: the ability to collect and analyze information, especially “faint or weak signals” means that the intelligence net must be cast a lot further out. This means that many more “street level” officers in both traditional security ministries such as defence, foreign and home affairs as well as non-security sectors such as public health, transportation,

environment, information, communication and the arts, for instance, must be geared toward scanning the environment and dissecting the multitude of cross-cutting, intersecting strands of information. In particular, they must be trained to ask if there is any wider security dimension to the bits and pieces of information they are receiving. Moreover, these officers must be sensitized and empowered to share their information laterally across formal institutional boundaries. Rather than vertical bottom-up information flows alone, there is an increasing need for horizontal information sharing and analysis within mid-level intergovernmental task forces as well. The task of such inter-agency task forces would be to piece together seemingly disparate and scattered bits of information to form a coherent picture of a looming security threat, be it transnational terrorism, pandemics or something else.

For this to happen, government agencies must be prepared for some restructuring so as to ensure that a government-wide working methodology is put in place to allow the “centre” to become less operationally-driven and more an overall policy guidance body. At the same time, the task of synthesizing integrated intelligence pictures should be left to interagency bodies much nearer to the street level.

If the structures of government cannot be changed and bureaucratically entrenched information silos cannot be broken, gradually coalescing threats that could have been detected earlier could well surprise decision makers – and the nation - with potentially grievous costs. On a more positive note, Singapore, as a proactive, well-organized, small state with a reputation for always being ahead of the curve, is perhaps best equipped amongst the smaller nations in the world today to deal with the onrushing “inevitable surprises” of the 21<sup>st</sup> century. The Republic, if it learns its lessons right, may well have a historic role to play in showing the way forward in coping with the strategic uncertainties of living in today’s “runaway world”. This would be a challenge worth accepting.

---

\* Kumar Ramakrishna is an Associate Professor and Acting Head of the Centre of Excellence for National Security (CENS). Tom Quiggin is a Senior Fellow and Coordinator of the Risk Assessment and Horizon Scanning Programme at CENS.