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# RSIS COMMENTARIES

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## **Nuclear Energy in Southeast Asia: Will it Enhance Human Security?**

Ryan Clarke, Nur Azha Putra, Mely Caballero-Anthony and Rajesh Basrur

14 May 2010

*The debate on nuclear energy appears to place too much emphasis on the operational security aspects at the expense of millions of impoverished people in Southeast Asia. While there is wide consensus amongst experts in favour of the nuclear option in energy security, it is still unclear whether nuclear energy could make electricity available to masses.*

### **Nuclear Energy for Human Security**

TWO ISSUES come to mind when assessing the viability of nuclear energy in Southeast Asia through the lens of human security. First, can nuclear energy be deployed without compromising human safety and accelerating already-worrying signs of environmental degradation in the region? Second, can nuclear energy really enhance human security? Both questions are particularly salient as political stability in the region can be tenuous and that the region itself is vulnerable to natural disasters, namely earthquakes and typhoons.

Hence, if human security is to be understood as ultimately about human development and welfare, it naturally raises the question whether nuclear energy can enhance human development. In the context of Southeast Asia, can nuclear energy alleviate poverty? Or will it simply be a means to an end – a national strategy to secure economic growth via energy security through the diversification of respective national energy mixes and resources? Or will the nuclear energy project in the region create new conflicts and exacerbate environmental degradation, such as the controversial hydroelectric dam projects which have led to the deterioration of river ecosystems and population displacements in Laos, Cambodia and Thailand?

At the recently concluded conference on ‘Nuclear Energy and Human Security’ organised by the Centre for Non-Traditional Security Studies of the S. Rajaratnam School of International Studies (RSIS), nuclear experts and policy analysts agreed on one thing: while nuclear energy has the potential

to deliver sustainable energy security and human security, it will not be possible without sound national governance.

### **The Criticality of Good Governance**

Good governance and proper regulation in managing potential nuclear energy programmes is an absolute necessity. It plays a key role in ensuring that nuclear energy brings about real progress in the realm of human security. Furthermore, best practices that ensure non-discriminatory access will also lay the groundwork for larger regional frameworks later down the line.

Nonetheless, there is one primary question to ask when thinking about ASEAN nations that are seriously debating initiating nuclear energy programmes: will the additional electricity generated be loaded onto the existing grid structure or will it spark the development of new grids? Vietnam, for instance, has achieved somewhat of a revolution in its rural electrification programme. The government has constructed a major line that runs the entire length of the country (north to south), which enabled the development of various sub-grids into new areas in the countryside. Economists and other development experts have also hailed the government for ensuring that the Vietnamese people enjoy non-discriminatory access. Nevertheless, these experts also warned that while an extended national electricity grid would reach more households, it would also inevitably lead to an increase in the national demand for energy.

As far as human security is concerned, Vietnam's rural electrification programme plugs its people into the national economy, which then gives them a stake in its future. Going one step further, the effective provision of electricity may also play a decisive role in consolidating national identities, enhancing the "we" feeling, especially in multi-ethnic nations such as Vietnam and others, which have suffered from internal instability, or outright civil war.

However, other ASEAN nations that are debating the nuclear option, such as Indonesia and the Philippines, do not enjoy a Vietnam-type situation, partly due to their fragmented, archipelagic geography. Given the current political and economic climate in Southeast Asia, effective and consistent governance is thus a key variable. It is critical in ensuring that nuclear energy is made available and affordable to households in the countryside, rather than just for urban and coastal industries. This is not simply an act of philanthropy; it is a crucial factor in sustainable national development.

### **Role of Civil Society**

However, it is important to note that governance is not simply about formulating incentives and disincentives to guide the flow of electricity generated from nuclear power. Governance must also translate itself into various forms in order to effectively manage operational, environmental, and proliferation risks. This is something which will inevitably involve a multi-level approach with the active participation of non-governmental and civil society organisations (NGOs and CSOs).

Aside from effectively harnessing scientific expertise and technical know-how, there must be strict adherence to international treaties on proliferation. This will require a strong regional enforcement mechanism. Further, local CSOs and NGOs must be adequately consulted by governments -- though not simply appeased -- in order to benefit from their local knowledge, avoid unnecessary environmental damage, and to ensure that a critical mass of the community is on board.

On the other end, CSOs and NGOs must realise that their role, similar to that of academics, is to provide objective analysis with the aim to inform and influence policy in a rational manner. These organisations should be considered important nodes within the framework of nuclear energy governance, not as antagonists outside of it.

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