Reading the Nonproliferation Tea Leaves from *Beijing on Biohazards* Essays

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Even for those who closely follow official statements and other assorted writings from Beijing, gaining knowledge and insight into Chinese arms control policies and practices has historically been difficult, especially with regard to biological weapons issues. Determining China's views and priorities on these matters has also been a challenge. For this reason, this collection of essays is particularly welcome, given that it provides a new perspective on China's arms control policies. More importantly, these essays also provide evidence of a largely favorable broader trend. Ten or fifteen years ago, such a study by Chinese authors would have been impossible given China's categorization of these topics as sensitive and the lack of confidence from the Chinese about what motivations might lie behind U.S. efforts to explore these issues.

So, to begin with, these essays should be recognized not only for the substance they offer, but also for being one more important indicator of China's increasing willingness to be more open on current and emerging issues and to work with the United States and the international community on issues that only a few years ago they considered extremely sensitive and entirely off-limits for discussion with foreigners. This set of essays is remarkable, both for the technical substance they contain and the interesting information they provide, and also as a tangible marker for all who hope to encourage China to take a more open and responsible approach to the issues of arms control.

The question, then, is what is to be done with the interesting and unique foundation provided by these essays? Where are the potential areas for improvement? What should the next steps be? The Chinese approach to arms control has given rise to some persistent difficulties that do not seem to be lessening, even with this newfound openness. One issue that does not seem to change in the way that China views questions of nonproliferation and arms control is their insistence on a predominantly "demand-side" approach to the challenges of proliferation, perhaps best typified in Liu Jianfei's

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essay on the threat of biological weapons proliferation. This demand-side strategy is typified by a belief that the most sensible approach to nonproliferation is to deal first and foremost with the threat proliferators believe they are facing, thereby removing the reason behind their demand for access to and eventual use of biological weapons. Liu's emphasis on fixing what ails the international system exemplifies this approach and is conveyed by his flat statement: "The way to resolve the problem of biological weapons proliferation, whether at the state or terrorist level, is to get to the root of the problem: namely, to improve the international security environment."

Of course, Liu's statement fits into a longstanding debate in the nonproliferation community, but what is disturbing about the Chinese emphasis on it is that it too often removes the onus from potential proliferators and does not allow for enough concentration on the supply side of the equation. Supply side nonproliferation strategies focus on identifying and protecting dual-use technologies of significant proliferation risk and preventing them from getting into the wrong hands. The demand-side approach is also somewhat old-fashioned in that it is most pertinent to the way states might seek to acquire and potentially use biological weapons or other weapons of mass destruction, but has less relevance in the context of non-state actors, particularly those driven by ideologies or theologies. In short, a traditional demand-side approach is seriously constrained in addressing proliferation to non-state actors.

Secondly, the essays by Dr. Yang Ruifu and General Pan Zhenqiang, both of whom have military backgrounds, do not pull their punches in asserting that the United States is to blame for the problems of nonproliferation efforts. General Pan goes furthest along this track, saying that the American over-emphasis on bioterrorism in recent years actually obscures and makes even more difficult the possibilities of gaining traction internationally in efforts to strengthen the biological weapons nonproliferation regime. That argument has merits and demerits, but the idea that the blame belongs to the sole superpower is a consistent theme from the Chinese, perhaps because it absolves them of the responsibility to take a more proactive stance.

More generally, there is little comment in these essays on China's role and its interest in being a more active contributor in the global fight against the potential proliferation of biological weapons. For example, there is little real discussion in the

essays of whether China's burgeoning biotechnology and pharmaceutical industry is something that might pose a problem to the bioweapons nonproliferation regime. The fact that the new regulatory framework described in these essays apparently does not apply to all pertinent commercial facilities, as Wang Qian notes, raises all sorts of interesting questions about whether this new industry's rapid growth in a "cowboy capitalist" society without any regulatory checks on its safety poses any concern. In all fairness, Western nations are also struggling with how to govern some aspects of life sciences research and this industry, so these are sensitive and difficult issues. These very issues, therefore, are areas of research that should be probed further with Chinese technical experts and policy makers.

In addition, there is also little sense in these papers of how important bioterrorism is to China specifically, rather than to the United States, the West, or the international community. None of the authors discuss why China, either domestically or in its role as a major global power concerned with nonproliferation, sees bioterrorism and proliferation of biological weapons as threats to China's domestic interests. Nary is there a mention of the problems that deliberate release of disease could cause at the upcoming 2008 Beijing Olympics or in other Chinese cities such as Shanghai, Shenzhen, Tianjin, or Shenyang. The Chinese have multiple security challenges to deal with; clarification on how big a threat bioterrorism really poses to China might provide a better sense of how committed the Chinese want to be in combating this problem. Also lacking in this set of essays is any discussion of the extent to which China is becoming a threat to the international community, not because it is developing biological weapons, but because it is becoming a potential source for the spread of technologies that could be used to contribute to a biological weapons program somewhere else. Wang notes that China's export control list is modeled on the control lists of the Australia Group, but this essay is silent on the Chinese government's track record and organization to enforce these controls. Given the expansion of this industry, as noted, it is reasonable to ask how thoroughly and vigilantly China's export controls are being implemented.

Finally, aside from Wang's comments, the other essays barely mention the problems of implementation of the new biosafety and biosecurity regulatory framework. China has ample regulatory rules and laws, but China also has a consistent problem of

implementation. Part of the problem may be that the Chinese government is taking a normative "top-down" approach to implementation. What is needed to implement a new regulatory system successfully and effectively are resources and training and an encouragement of normative acceptance of the framework at the grassroots level, in this case among the scientists and managers of the facilities working with these pathogens. In addition to Wang's points about the need for better bureaucratic organization at the top and the need to implement the new standards at all pertinent facilities in China, the essays by Drs. Li Jinsong and Hu Longfei briefly recognize that the importance of training and the need to grow a cadre of biosafety and biosecurity specialists in China at the institutional level. However, all of the authors appear to look outside of China for answers, namely toward collaboration with other technical specialists and to the standards set in other countries as models that China can continue to follow.

China is a very large, diverse country, so implementation at the local levels becomes all the more problematic because of the discrepancies in technical skill, financial revenues, and competing priorities, among other issues. The laboratory-acquired infections with SARS originated in Beijing's premiere laboratory for the handling of infectious pathogens, the Institute of Viral Disease Control and Prevention of the Chinese Center for Disease Control and Prevention. Since this institute is China's top-flight, most advanced, most specialized laboratory, it is reasonable to ask how successful the Chinese might be in implementing regulations in other, less-developed areas, particularly given the country's uneven distribution of resources.

Laboratory outbreaks are clearly not just a problem in China. In recent years the principal U.S. and Russian defense laboratories have had problems with laboratory acquired infectious, specifically of *Burkholderia mallei*, the causative agent of glanders, at the US Army Medical Research Institute of Infectious Diseases in May 2000 and of Ebola at the Kolstovo Center for Virology and Biotechnology in May 2004. In fact, the frequency of laboratory-acquired diseases is a matter of concern to workers, government authorities, and the public worldwide, so this is a subject matter ripe for international discussion and cooperation. All nations and facilities working with infectious diseases have a responsibility to ensure that such facilities have proper safeguards in place. Hu, Li, and Wang are all looking for international collaboration on these matters, and that is

welcome and necessary, but a considerable Chinese investment in resources and training will also be needed to ensure the successful implementation of these new regulations.

China may be making progress in this direction: General Pan states that the Chinese are taking a number of interesting steps to spread out resources and implementation capacities, which is very encouraging. The code of conduct he mentions will also be a very important step in moving forward with raising awareness and education of China's most senior scientists, but as Wang indicates, this educational process should extend through codes that apply to all Chinese specialists working in the life sciences. General Pan does observe, however, that the Chinese are not prepared to deal with the threat of biological weapons proliferation given the discrepancies across the country in terms of talent, knowledge, preparation, and resources. This observation is a powerful admission of a gap in the system of disease surveillance, disaster preparedness, and biodefense, an admission that would have been impossible for a Chinese statesman to make in an international publication ten years ago. Pan's statement simultaneously reveals the progress China has made in its efforts toward a nonproliferation regime and remarks on the areas in which they can continue to improve.

Beijing on Biohazards is a unique collection of essays, and like all good sets of papers, it raises more questions than it answers. This collection is a starting point, hopefully one that can continue to be built on through the relationship developed with these writers and broadened to include more Chinese technical and policy specialists. Those involved in biological weapons nonproliferation and disease outbreak prevention outside of China can make discoveries through these essays to facilitate that process.