

Foreword

In the three years since the first edition of *Deadly Arsenals*, the field of nonproliferation has been through a period of breathtaking change—all of which is reflected in this new volume. The threat brought to life by the attacks of September 11, 2001—that terrorists might seek and one day use nuclear, chemical, or biological weapons—swiftly rose to the top of an agenda that for 40 years had been focused on threats from states. North Korea's violation of its commitments and subsequent announced withdrawal from the Non-Proliferation Treaty (NPT), and its declaration that it had acquired nuclear weapons, underlined the treaty's Achilles heel that allows a state to exploit NPT membership to become a nuclear state.

North Korea's actions emphasized, as did the Iraq conflict, the glaring gaps in the international community's capacity for tough enforcement of nonproliferation commitments. The failure to find nuclear, chemical, or biological weapons in Iraq underlined how little outsiders can know about what happens within member states without inspectors on the ground. In 2003, news emerged that the A. Q. Khan network, based in Pakistan but involving engineers and businesspeople from more than a dozen countries, was able to traverse the world selling nuclear bomb designs and equipment necessary to produce nuclear weapons for years before it was stopped. Buyers included North Korea, Iran, Libya, and perhaps others. Existing laws and export practices proved manifestly inadequate to block these transfers of equipment and know-how. One dangerous consequence of this failure has been the accelerated pace of the Iranian nuclear program, which benefited substantially from partnership with the Khan network.

The news is not all bleak, however. Since the signing of the NPT in 1968, many more countries have given up nuclear weapons programs than have begun them. There are fewer nuclear weapons in the world and fewer nations with nuclear weapons programs than there were 20 years ago. This new edition, for example, does not include a chapter on Algeria, which reflects the international community's greater confidence in the peaceful intentions of that country's nuclear program. The new material in this volume on the United States and Russia reflects the fact that these two countries continue to work cooperatively to dismantle materials left over from the Cold War. The threats posed by weapons programs in the former Soviet republics have diminished considerably. And Libya has become an important success story and a model for other nations to follow as it verifiably dismantles its clandestine nuclear and chemical weapons capabilities.

With the first edition of *Deadly Arsenals*, we set out to produce the most complete and authoritative resource available anywhere from nonclassified sources

on the spread of nuclear, chemical, and biological weapons and their means of delivery. The widespread use of that volume and the warm feedback we have received from scholars, government officials, and experts from around the world have reinforced our belief that this project, while highly labor intensive, is well worth the effort. I am confident that this second edition will earn the same reputation for comprehensive coverage, accuracy, clarity, and meticulous attention to detail. Though its content differs substantially from that of the first volume, reflecting the extraordinary pace of change in this field, users will find it to be the same reliable guide that its predecessor proved to be.

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