

Post War Issues #5: Preventing Iraq's Rearmament

Mar 11, 1991



Brief Analysis

Iraqi efforts to acquire unconventional weapons became a major concern even before the invasion of Kuwait in 1990. Chemical weapons produced during the 1980s were used in large quantities against Iranian soldiers and Kurdish civilians. Iraq developed extended range ballistic missiles, and built an infrastructure for development and production of the next generation of missiles. Iraq conducted research on biological weapons and may have initiated production of biological munitions before the war. An active nuclear weapons development program was under way, which was expected to produce nuclear weapons within three to ten years.

Iraq acquired the technology and raw materials for these unconventional weapons programs from foreign countries. For example, West German companies built plants to produce chemical agents and precursor chemicals (the chemicals needed to produce the chemical agents). Similarly, Iraq imported many of the precursor chemicals from West Europe, the United States, Japan, and elsewhere, often in direct violation of export control laws. Iraq followed the same pattern of activity for its nuclear, biological, and missile programs. U.S. officials have stated that all Iraqi unconventional weapons facilities were extensively damaged or destroyed during the war. As a result, Iraq may no longer be capable of producing or developing unconventional weapons. This destruction is even more significant because Iraq depended on foreign technology. Without assistance from foreign suppliers, Iraq will have extraordinary difficulty in rebuilding its unconventional weapons capabilities.

Iraq almost certainly will attempt to revive its unconventional weapons programs. Indeed, the experience of the last war may have significantly increased the importance for Iraq of unconventional weapons. It might be argued in Baghdad that the United States would have been reluctant to face an Iraq armed with nuclear weapons. Moreover, the strategic concerns that led Iraq to pursue unconventional weapons have not disappeared. Iraq remains adjacent to Iran, a country with three times its population. Suggestions that Iran may be playing a role in the current disturbances in Iraq merely highlight the nature of the continuing tensions between the two countries.

Nuclear Weapons

The significance of the damage inflicted on Iraq's nuclear program is uncertain. The best available evidence suggests that Iraq intended to rely on highly enriched uranium for its nuclear weapons, using centrifuges to generate the fissile material. There is no reliable evidence that Iraq had initiated mass production of centrifuges (hundreds or thousands are needed to produce highly enriched uranium in quantity). There is no evidence to indicate that the progress of this program depended on Iraq's two small research reactors. As a result, the destruction of the reactors had no impact on Iraq's ability to produce nuclear weapons. More significant were the attacks aimed at research and development facilities. However, if Iraq is able to replace the lost facilities, it will be able to resume its efforts.

Long-term controls will be needed to prevent Iraq from acquiring nuclear weapons. This will require measures to ensure that the Iraqis are unable to rebuild their nuclear research and development facilities. Equally important, it will be necessary to limit its ability to acquire the raw materials and production capability needed to produce a

uranium enrichment facility. This will depend in large measure on the willingness of European countries to enforce export regulations. In addition, third world countries with nuclear research capabilities, such as Brazil and Pakistan, will have to be convinced not to assist Iraqi nuclear activities.

Chemical and Biological Weapons

Iraq might be able to resume production of chemical and biological weapons by the middle of the 1990s, unless technology flows to Iraq are stemmed. Chemical and biological weapons facilities rely mainly on technology also used for legitimate commercial production processes. Production of chemical agent may require equipment similar to that used to make pesticides, or even less toxic substances. Similarly, biological agents can be produced in equipment used to make pharmaceutical products. As a result, it is inherently difficult to ensure that equipment acquired for ostensibly legitimate purposes will not be diverted to production of chemical or biological agents. Unless a careful watch is kept on Iraq, it could rebuild its chemical and biological weapons capabilities with relatively little difficulty. The required plants need not be large, and often can be used to produce legitimate products. If Iraq is allowed to rebuild destroyed or damaged petrochemical and pharmaceutical facilities, it would be importing equipment potentially suitable for manufacture of chemical and biological agents.

Controls on Iraq

The United States needs to take an active role to ensure that Iraq is not able to rebuild its unconventional weapons capabilities. In the long run, it may not be possible to prevent a resumption of Iraq's strategic weapons programs. However, the U.S. should make sure that the Iraqis have to pay a high price if they decided to pursue such a path. Nor is there any reason to tacitly condone their activities, as was done all too often during the 1980s.

The United States currently has or is putting in place regulations that will prevent the U.S. from assisting countries like Iraq from building unconventional weapons programs. As a result, so long as enforcement and intelligence agencies are provided with the resources needed to do their job, it should be possible to prevent such exports from the United States. The real problem is making sure that other countries are equally vigilant. In the past, many countries neglected to enact export control regulations or failed to enforce them. As a result, proliferating countries were able to acquire technology and raw materials with little difficulty. Only if this pattern of behavior is broken will it be possible to keep Iraq from rearming itself. This suggests that the United States needs to elevate the importance of bilateral diplomacy aimed at encouraging export control enforcement in other countries. In the past, other concerns all too often impeded such efforts. For example, it appears that the United States began to complain in 1984 to the West German government that German-based companies were playing a central role in Iraq's chemical weapons program. No serious action was taken, however, and the Germans allowed the companies to continue operating for years. The U.S. cannot afford to be so complacent in the future, even if it means tensions with some of its closest allies.

Fortunately, there are indications that many countries are coming to recognize the importance of export controls to prevent proliferation of unconventional weapons. West Germany and Japan, among others, have toughened their export control regulations, and are beginning to put teeth behind enforcement efforts. Moreover, there are indications that the efforts of the Australia group -- originally organized to prevent export of precursor chemicals needed to make chemical agents -- might be extended to cover chemical production equipment. Efforts to gain multilateral adherence to similar export regulations should be a high priority. At the same time, the U.S. should continue efforts to negotiate a Chemical Weapons Convention, which would institute a global ban on the production and possession of chemical weapons and provide for inspection methods to ensure compliance. The U.S. should also continue efforts to strengthen the Biological Weapons Convention, which prohibits possession of biological weapons. Ultimately, however, the effectiveness of such treaties depends on international willingness to demand compliance and on the effectiveness of export controls.

W. Seth Carus, a fellow at The Washington Institute, was the John M. Olin Foundation Fellow at the Naval War College Foundation for 1989-90. He is author of the Institute studies [The Poor Man's Atomic Bomb: Biological Weapons in the Middle East \(http://www.washingtoninstitute.org/templateC04.php?CID=77\)](http://www.washingtoninstitute.org/templateC04.php?CID=77) and *The Genie Unleashed: Iraq's Chemical and Biological Weapons Programs* (Policy Paper #14, 1989). He is co-author, with Hirsh Goodman, of *The Future Battlefield and the Arab-Israeli Conflict* (Transaction Books, 1990) and, with Patrick Clawson, of *Iraq's Economic and Military Vulnerabilities* (Policy Focus #14, October 1990). ❖

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