



CONDITIONS THAT FOSTER WASTE IN A CONTINGENCY ENVIRONMENT

APRIL 2012

Lessons from Inspections of U.S.-funded Stabilization and Reconstruction Projects in Iraq

Unstable Security Environment

Basrah Children's Hospital was originally conceived as a state-of-the-art pediatric oncology facility. But the poor security situation left construction workers vulnerable to extortion, intimidation, and execution. One subcontractor bought protection from a local militia-controlled gang. Construction took four times longer than planned. Costs tripled. Millions of dollars of advanced medical equipment has yet to be put in service. Today, the hospital serves only as a general outpatient clinic.

Initial Plan:

\$50 M
18 months

Inpatient care/
oncology services

Outcome:

\$165 M
6 years

General outpatient care only

24+ workers killed



Lesson

Achieve a Secure Environment before Initiating Major Reconstruction Activities

Ineffective Project Planning and Oversight

The **Baghdad Police College** was meant to be a model training facility, capable of accommodating 4,000 new police cadets. But construction was so poor that diluted urine and fecal matter drained through the top floor into lighting fixtures and rooms below. The project was inadequately designed, ill-constructed, and inconsistent with its original objectives. The contractor repeatedly failed to comply with standard rules, and U.S. officials failed to adequately oversee the quality of the work.

Costs:

\$73 M
\$44 M U.S.
\$29 M GOI

Overpayments/Fees:

- USACE received \$2.6 M in management and administration fees, but failed to identify a single deficiency
- USACE did not properly review invoices; contractor paid \$2.6 M for inadequate/incomplete designs
- Contractor received \$5.3 M in base and merit award fees



Lesson

Ensure That Planning and Contract and Project Oversight Are Effective

Inadequate Infrastructure, Technical Expertise, or Commitment To Sustain Projects

Although the \$277 million **Nassiriya Water Supply** project was well constructed, the Iraqis could not sustain its operation. Designed to produce 10,000 m³ of potable water per hour, the plant was operating at 20% of daily capacity in February 2008. The plant's report claimed the water met international health standards, but no water-quality testing equipment was on site.

What Led to Poor Output?

- Lack of reliable power from the grid
- Old distribution system that leaked and could not withstand high-pressure flow
- Illegal taps on the transmission line
- Disconnection of the plant's main control system because operators did not know how to use it

In 2007, the U.S. government initiated the \$12.7 million **Missan Surgical Hospital** project, which the GOI agreed to accept, operate, and maintain after completion. The GOI chose a construction site 3.1 km from

the nearest water source. Less than three months before the originally scheduled completion date, U.S. officials still lacked details on the water source, including water quality and access route. In 2009,



Lesson

Design Projects That the Host Nation Wants and Can Maintain and Sustain

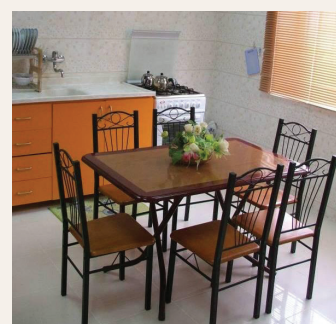


the GOI had not yet identified doctors and nurses to work at the hospital, procured the required furniture and medical equipment, or submitted an annual operating budget. As of April 2012, construction still continued.

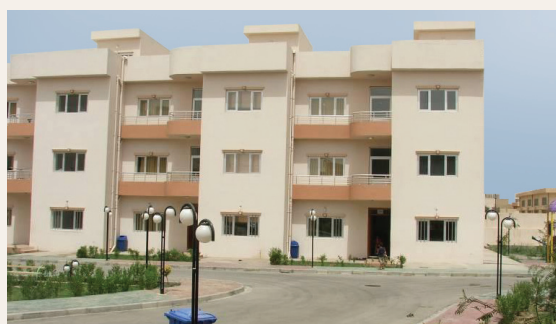
Starting in 2004, the United States spent \$40 million to build the **Khan Bani Sa'ad Correctional Facility**, but terminated the project before completion. In 2007, Iraq's Ministry of Justice said it had no plans to complete, occupy, or provide security for the half-finished prison, but U.S. officials unilaterally transferred it, along with more than \$1.2 million in construction materials, to the GOI. In June 2008, SIGIR found the construction materials had been looted. The facility apparently will never be used.

From 2005 to 2010, SIGIR inspected a cross section of U.S.-funded reconstruction projects throughout Iraq and issued 170 reports on its findings. The lessons described here are drawn from those inspections. For the complete report of 13 lessons learned, including a comprehensive summary of SIGIR's inspection activities, see *Iraq Reconstruction: Lessons in Inspections of U.S.-funded Stabilization and Reconstruction Projects* at www.SIGIR.mil/lessonslearned/Lessons_Learned_Dec21.pdf.

When Conditions Are Right ...



The \$3.7 million **Erbil Orphanage and Senior Citizen Assisted Living Center** was the first of its kind in Iraq. It was built according to a detailed design in the relative safety of northern Iraq. The contractor engaged local officials and incorporated their suggestions, and USACE provided on-site quality assurance support. The quality of work by the contractor was the best SIGIR had observed in more than five years of performing project assessments, and the facility was maintained in immaculate condition. The facility provides a safe home for 345 children and 60 senior citizens.



... and When They Are Not



The \$108 million U.S.-funded portion of the **Falluja Wastewater Treatment System** cost three times more than expected, took three times as long to complete, and will serve only a third the residents originally envisioned. The project began in 2004, but planning did not account for the volatile security environment, nor did it realistically estimate project costs and completion schedules. Trenches and pipes laid by contractors were being blown up, and

workers were killed. Geotechnical and survey work, as well as quality-assurance activities, were repeatedly hampered by terrorist groups. U.S. officials did not communicate with appropriate GOI reconstruction officials, and a series of ineffective contracting engagements led to cost overruns and project delays. When SIGIR last visited the project in April 2011, the plant was not yet operating, and construction of house connections through most of the city was still in progress, reliant on GOI funding.