

Infrastructure Reconstruction: Lessons Learned in Iraq

Washington-area professionals gathered on February 17th for the nineteenth IRG Discussion Forum: Infrastructure Reconstruction—Lessons Learned in Iraq. Keith Crane, Senior Economist at the Rand Corporation; Robert Slockbower, Director, Regional Business Directorate, Southwestern Division, US Army Corps of Engineers; James Crum, Director of the Project and Contracting Office (PCO)-Washington at the Department of the Army; and Tom Wheelock, IRG Vice President, Infrastructure, discussed concerns regarding the adequacy of post-conflict planning; the respective roles of the US Agency for International Development (USAID) and the US Army Corps of Engineers (USACE); the involvement of local Iraqi companies and labor; the success of institutional capacity building; and the interaction between security and reconstruction.

The objectives of the Coalition Provisional Authority's (CPA) post-war infrastructure reconstruction efforts in Iraq centered on restoring essential services, rebuilding priority infrastructure, and providing institutional capacity building to ensure the sustainability of these undertakings. An initial assessment made in July 2003 looked at Iraq's infrastructure needs in the areas of communication, power, water, and sanitation, focusing on the cities of Baghdad and Basra. Later in 2003, a more detailed assessment

identified 6,000 projects, of which 2,500 were designated as critical, based on their expected positive impact on the Iraqi people in the areas of security, employment, the economy, essential services, and governance. At present, 1,837 of these projects are underway.

Teamwork Pays Off

Among the positive factors contributing to the success of reconstruction efforts during the early emergency phase of operations (March to June 2003) was the teamwork between USAID and USACE, which took advantage of their complementary strengths: USAID's ability to see "the big picture" and its experience in building capacity, providing technical assistance, creating jobs, and working with foreign ministries, nongovernmental organizations and donors; USACE's background in engineering, quality assurance, safety and environmental standards, and its effective relationship with military personnel. Moving experienced USAID contracting officers into the field as soon as possible also contributed to the success of early initiatives, as did the quick impact capability of USAID's Office of

Transitional Initiatives.

Negative factors impeding initial reconstruction efforts included inadequate planning and insufficient numbers of personnel deployed; the lack of immediate civil and military reconstruction capability and resources needed to meet objectives; US government contract regulations that inhibited contractors' ability to react quickly;

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and security concerns that increased both the cost and duration of reconstruction efforts.

Iraqi Involvement is Key

In its most recent phase, the work has made progress in several areas; however, a few challenges must yet be overcome. Successes include the employment of Iraqi subcontractors and the recruitment of Iraqi technical staff. As of October 2004, of 230 contracts given, Iraqi firms received 159. More than 350 Iraqi engineers now on staff with USAID, the USACE support team, and Bechtel have benefited from receiving intensive training. Moreover, these Iraqi subcontractors

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and engineers were able to continue reconstruction efforts during the spring 2004 insurgency.

Despite the challenges of the work, the average disbursement rate of committed funds in Iraq to date compares favorably with averages for 19 previous World Bank projects implemented over four-year periods. Historically, the average rate for these projects was 14% for the first year. In Iraq, the rate during the first year was 13

percent, and the rate during the second year was higher than the historical average of 22 percent.

Capacity Development Occurs at Many Levels

In retrospect, the \$18.6-billion, fiscal year 2004 reconstruction plan proved to be heavy on infrastructure, but light on development, job creation, and institutional capacity building. Sustained capacity building requires the ongoing involvement of parties at multiple levels. To be successful over the long-term, reconstruction efforts targeting infrastructure will require ongoing support and involvement of concerned Iraqi ministries. The effectiveness of that involvement likewise requires interagency cooperation and coordination among all parties

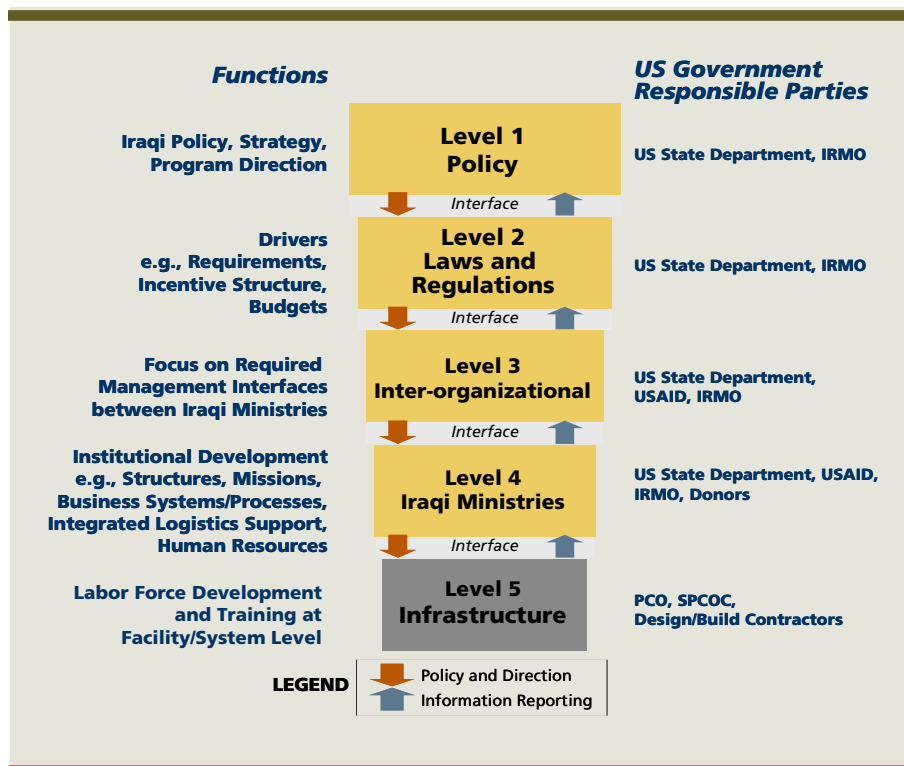
involved—USAID, USACE, the State Department, Iraq Reconstruction Management Office, donors, and contractors as well as the ministries. Changes in national laws, regulations, and policies may also be required.

Flexible Management Critical to Reconstruction Success

The ability of managers to alter strategies and plans based on changing circumstances has been and will remain critical to the present and future success of reconstruction efforts. Many assumptions during the pre-planning stages have had to be

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Figure 1: Five Levels of Capacity Development



adjusted. Some differences between early expectations and the current situation include:

- ♦ A permissive security environment vs. “combat construction.”
- ♦ Major requirements for Coalition design and construction capability vs. the adequacy of Iraqi engineering and construction capability for moderate-scale projects.
- ♦ Mixed small-, medium-, and large-scale infrastructure projects vs. current emphasis on small-scale projects executed by Iraqi contractors using labor-intensive methods.
- ♦ Little involvement with maneuver commanders vs.

including reconstruction as a line of operation for maneuver commanders, which provides stability and increases economic security.

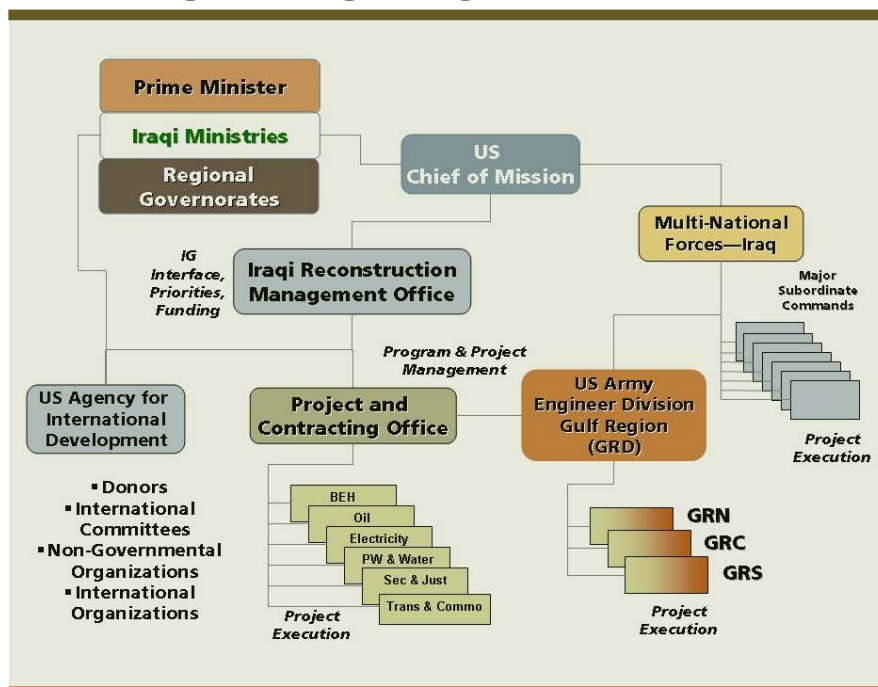
- ◆ Design-build contractors selected for six primary sectors vs. multiple acquisition avenues, including design-build contractors, the USACE, maneuver commanders, Iraqi firms, and ministries.

At present, a short-term “bridging strategy” that includes small-scale projects that demonstrate immediate results and increase employment opportunities accounts for 80 percent of reconstruction efforts, but only 10 percent of reconstruction costs. Long-term infrastructure building needed to ensure future overall economic development represents only 20 percent of the program, but 90 percent of the program costs. For many of these projects, the gap between realizing infrastructure construction goals and getting the benefits of that construction to consumers in their communities and homes must still be overcome.

Economic Growth Continues on a Rocky Path

While reconstruction efforts continue, Iraq’s economic recovery is also underway, and several indicators suggest the economy grew rapidly in 2004. Oil output went from zero in April 2003 to 2.5-million barrels per day in September 2004; electric power output is up by more than 50 percent; imports of durable goods have been strong; and there is substantial investment in electric power and oil.

Figure 2: Organizing for Reconstruction



Despite these gains, the economy remains highly distorted; economic growth in 2005 is unlikely to be as strong as that of 2004, when the Iraqi reconstruction supplemental appropriation increased

investment; security expenditures boosted incomes; and a permissive business environment fostered growth of small businesses. To ensure continued economic recovery, the price system, which is

About the Speakers

Keith Crane, Senior Economist at the Rand Corporation, is recognized for his work in assessing post-conflict nation building, particularly, lessons learned from recent operations in Iraq. During fall 2003, Dr. Crane advised the Iraq CPA on economic policy. He holds a Ph.D. in Economics from Indiana University.

Robert Slockbower, Director, Regional Business Directorate, Southwestern Division, US Army Corps of Engineers, supported Operation Iraqi Freedom reconstruction from April 2004 through January 2005, with successive positions as Director of Construction and Director of Programs for the Project and Contracting Office. He has served in the Army for almost 30 years. Mr. Slockbower holds a Master’s degree in Civil Engineering from Lehigh University and is a graduate of the US Army War College, the Army Command, and General Staff College and the Armed Forces Staff College.

James Crum, P.E., Director of the Project and Contracting Office, Department of Army, leads an inter-disciplinary team that provides management coordination and support for the Iraqi reconstruction mission, including logistics, finance, personnel, strategic communications, legislative affairs, and contracting for the Secretary of the Army and the PCO team in Baghdad. Mr. Crum holds a Master’s degree in water resources planning and management from Stanford University and a Bachelor’s degree in civil engineering from Loyola Marymount University.

Tom Wheelock, IRG Vice President, Infrastructure, managed implementation of USAID’s initial \$1 billion contract for the reconstruction of Iraqi infrastructure and its follow-on \$1.8 billion construction contract. He served as chief of party for IRG’s Emergency Relief and Reconstruction project in Iraq. He holds a Master’s in Public Administration from Harvard University and a Bachelor of Science from the US Military Academy.

Figure 3: Program Budget



business environment fostered growth of small businesses. To ensure continued economic recovery, the price system, which is distorted at present by government-controlled energy prices and rationing of food products, must be rationalized. The current artificially low price of energy, which leads to waste, corruption, long lines, and shortages, is a particular problem. Recommendations to strengthen Iraq's economy include:

- ◆ Liberalizing the price of refined oil products and increasing the price of electric power to ease further shortages, blackouts, and long lines, and the political and security problems they cause.
- ◆ Introducing accounting and management systems for state-owned enterprises.
- ◆ Directing remaining supplemental spending toward the repair of existing infrastructure rather than toward new baseload generating capacity.

Of most importance to continued economic growth, however, is improved security. The decision to direct more supplemental spending to police training could therefore bring the best assurance for the continued and sustained improvement of Iraq's economy.

FORUM FEEDBACK

- ◆ Sustained change will occur only with the political will of the new Iraqi government. Generating this will and winning the backing of the Iraqi people will require ensuring fair regional distribution of critical projects and overcoming the lack of trust between Baghdad and other regions.
- ◆ The Iraqi oil ministry is committed to achieving parity with Kuwait for domestic prices of refined petroleum products.
- ◆ Changes in contract requirements—especially waivers to allow leeway in formal advertising processes—have facilitated reconstruction work and should be continued.
- ◆ While US authority officially ends once projects are handed over to the Iraqi government, a mentoring period will allow some continued transfer of institutional knowledge, principles, and controls.
- ◆ As more regional projects are undertaken, local governments and community organizations will likely become more involved, particularly with schools and health facilities.
- ◆ Experience in other nations indicates that price liberalization can occur without controversy by employing a good public relations campaign ahead of time to ensure the community is aware of and prepared for the expected price changes.

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