Post-Conflict Agricultural Development: Lessons Learned in Eight Provinces in Iraq

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Abstract

Applications of rapid rural appraisal and needs assessment strategies in a post-conflict environment in central Iraq are the foci of this paper. The project objectives evolved into a systems approach using qualitative and quantitative methods to improve agricultural practice, extension and training, community development, security, and policies for governance. The design called for a case study and a description of pre-deployment activities of an assessment team, initial organization and adjustments, and techniques for internal and external communication. Particular attention was given to agricultural specialties, crosscutting constructs, and data collection and analysis protocols in eight provinces in Iraq from May-December, 2008. Findings focus on 13 agricultural specialties: agricultural business, agricultural economics and market development, agricultural engineering and farm machinery, aquaculture, crop production and management, extension education, higher agricultural education and vocational-technical education, horticulture and cold chain, livestock production and animal health, organizational management and leadership, soil fertility and reclamation, water and irrigation systems, and youth development. The protocol identified 11 crosscutting constructs: cooperation, economic competitiveness, education and training, environmental stewardship, future view, governance, health and wellness, land tenure, receptivity to change, security, and sustainability. We concluded that engagement is essential; process is important—more important than one may think!; and reflection is not simply additive; it is exponential and synergistic. Nine lessons learned have implication for best development practice. Practical implications point to strategies that transform from kinetic action to development practice. The experience describes critical roles of agricultural and extension education as a conduit from conflict to a civil society.

Key words: agricultural development; education, extension; post conflict; rapid rural appraisal, assessment, smallholder farmer
Introduction

Modern-day prophets deduced that we live in a hot, flat, crowded, and conflict-filled world that is metamorphic. Over time, subtle changes in form and function coalesce as global trends that include changing demographics, environmental degradation, advancing technologies, increasing migration, and global terrorism (Barnett 2005, 2009; Friedman, 2006, 2008; Kennedy, 1993; Naisbitt, 1990). There are, however, pervasive historical attributes that benchmark these trends. Scholars recognize Babylon as the cradle of civilization beginning in the Fertile Crescent circa second millennium BC. The Mesopotamian region—situated in the Tigris and Euphrates river basin—was among the first to practice intensive, year-round agriculture beginning in 5300 BC. Hieroglyphics of Mesopotamian plows date back to 3,000 BC. Herodotus, circa 460 BC, reported the use of screws of Archimedes to draw water from the Euphrates to irrigate the Hanging Gardens of Babylon. Kohn (2006) described summaries of war spanning more than 4,000 years. Durant (1944), in the story of civilization, concluded, “No great nation is ever conquered until it has destroyed itself” (p. 659).

A sea change occurred on September 11, 2001 (9/11) that thrust the United States into a new period of international policies and relationships. The invasion of Iraq on March 20, 2003 by a US-led multinational coalition force was another turning point. The Middle East—particularly Iraq—became a focal point for conflict and now, albeit slowly, post conflict development. Over time, military and civilian leaders including General David Petraeus, Ambassador Ryan Crocker, L. Paul Bremer, and Paul A. Brinkley, recognized that development, particularly agriculture and rural development, as an essential element for national and regional stabilization. They all agreed that a sustainable environment coupled with agricultural employment are critical for any collective future. When and how agricultural development is provided is vital to stabilization and peace. Not everyone agreed; the when and how lacked consensus for the then and now. Clarity of mission, communication of mutual goals, and consistency in programs are central to an effective agricultural development program plan. There was substantial disagreement regarding the strategies for economic policies, reconstruction, and the role of more than 200 state-owned enterprises (SOEs). Bremer and The Coalition Provisional Authority issued 100 orders in April 2004, including #81—introducing genetically modified crops or organisms to Iraq—and naming Monsanto and Syngenta as beneficiaries. This action changed Iraqi law and proved to be unfavorable to agricultural development success. Macro and micro-policies—cultural, economic, political and social—must be compatible with self-directed development and must work in concert among collaborating agencies, e.g., USAID, USDA, Department of State, Provincial Governments, and the Government of Iraq. Not easy. Not orthodox. Essential.

Purpose and Objectives

Recruited by the Department of Defense (DoD), particularly MG Richard Lynch of the Multi-National Division-Center (MND-C), Team Borlaug, a team of agricultural scientists and specialists, was commissioned to conduct rural agricultural assessments, provide technical training, conduct problem-solving research, formulate agricultural policies, and advise local, provincial, and national level leaders on improving the Iraqi agricultural economy. This paper discusses the focus on 13 agricultural specialties, 11 crosscutting constructs, and nine lessons learned that guided a rapid rural assessment (RRA) in eight provinces of central Iraq in 2008. The project objectives evolved into a systems approach engaging qualitative and quantitative
methods for improving crops, farm machinery, feed mills, feed and forages, fish farming, irrigation, livestock, poultry, soils, and water.

**Methods and Data Sources**

After months of negotiations with DoD, a university team of 14 agricultural scientists and specialists, dubbed Team Borlaug, were recruited for an initial six-month deployment in Iraq to conduct rural agricultural assessments in Babil, Dhi Qar, Diwaniyah, Karbala, Maysan, Muthana, Najaf and Wasit provinces. Three days of team building activities, including clarification of constructs and specialties for planning and logistics, occurred prior to deployment to the first province.

**Team composition.** Identification of content specialties and staffing decisions were made based on a preliminary field study in Baghdad and discussions about training needs with U.S. Army commanding officers at Fort Hood Texas and Fort Drum New York during April and May 2008.

Agricultural specialties were
1. Agricultural business
2. Agricultural economics and market development
3. Agricultural engineering and farm machinery
4. Aquaculture—fish production
5. Crop production and management (cereal grains, rice)
6. Extension education
7. Higher agricultural education and vocational-technical education
8. Horticulture and cold chain
9. Livestock and poultry production, management, and animal health
10. Organizational management and leadership
11. Soil fertility and reclamation
12. Water and irrigation systems
13. Youth development

The initial phase of the RRA in each province began with a holistic view—big picture connections—that included geographic information systems and contacts with provincial council leaders, including the governor. Team Borlaug (TB) set a goal to spend 65% of work time “outside the wire” observing and engaging a full range of people and practices.

**Conceptual framework.** Crosscutting constructs—undergirding categories that explain phenomena—were identified and interview protocols and questions were organized (Shinn & Briers, 2008). Bowen (2006) noted, “A grounded theory is generated by themes, and themes emerge from the data during analysis, capturing the essence of meaning or experience drawn from varied situations and contexts” (p. 2). These constructs gave rise to reverse engineered hypotheses, which in turn, gave the researchers opportunity to “ride with a loose rein but a firm knee.” Loosely using Glaser’s (1993, 2006) protocols and Bowen’s (2006) sensitizing concepts, the team assumed a 360° observation viewpoint for several practical reasons—command, contexts, processes, products, safety, and utility. Team members continuously reviewed protocols for operational effectiveness and efficiency.
Crosscutting constructs included
1. Cooperation
2. Economic competitiveness
3. Education and training
4. Environmental stewardship
5. Future view
6. Governance
7. Health and wellness
8. Land tenure
9. Receptivity to change
10. Security
11. Sustainability

**Interview protocols.** The team adopted informal semi-structured interview protocols by framing opening conversations and questions. Typically, interviews spanned an hour or so but some were as long as four hours entwined with a meal by the host. The first order of the day was to initialize a relationship. The team focused on only a few constructs and each interviewer—usually three—pursued a particular theme. General opening questions included themes like “tell me about your role and scope in agriculture”—details of personal experience—or “how do you see today: better, same, worse than yesterday? Why?” Or—“if we could do one thing to improve Iraqi agriculture, what would it be?” Sustainability was one among 11 subsuming constructs. Exploratory questions included themes like “Can you continue to do what you are doing? Why?” Or—“What change is needed to sustain your family? Why?” The interviewer committed to “hearing twice, seeing twice, and speaking once.” The hosts responded with gracious hospitality and brutal honesty.

Procedures for field observation included triangulation of reality—look twice, listen twice, talk once—procedures. Semi-structured interviews opened with trust-building crucial conversations and agricultural contexts interwoven with subsuming constructs. Key questions were framed for each specialty and construct. Two professional interpreters—bi-cultural, bi-lingual assistants (BBAs)—participated in most field interviews and the team often divided into smaller groups when appropriate. Team members recorded their field notes independent of each other. Generally, the notes were recorded in real time; however, sometimes the interviewer would record his field notes after an interview—during travel time or at the end of the day.

**After-action review.** The team adopted after-action review (AAR) as a field technique to systematically discuss an event, focus on performance standards, share what had happened and why it happened, and to learn how to get maximum benefit from the experience. The AAR was an integrative step in reporting accurate observations, identifying potential strategies, and recommending alternative courses of action (Clark, 2009; Department of the Army, 1993; Dilworth, 2009; USAID, 2006).

After a steep learning curve for team members, the AAR occurred at the close of every day with a 20-30 minute focused team dialogue—without judging success or failure—around performance issues of “sustain, improve, and tomorrow’s objective.” The AAR included all participants in the event—team members, military personnel, and civilian contractors. The AAR event analyzed things to sustain, to improve, while identifying steps in planning, preparing,
conducting, and using the results as a continuous improvement technique. AAR’s did not judge success or failure, but participants made an effort to discover why things happened. The technique focused directly on experience and accomplished objectives. Participants surfaced and internalized important lessons as a part of the discussion. The result of the AAR was more participation, more meaning extracted from the experience, and more lessons learned and shared.

Team Borlaug listserv. A team listserv served as a repository for individually recorded and transcribed field notes. General field observations, promising strategies, and tentative recommendations emerged from individual field notes. The aggregated notes proved useful as a basis for mid-term and final reports to collaborators. Initially distributed as a draft version, the final report solicited comments from collaborators as an open document. A monthly draft final report by province, along with a PowerPoint presentation, was developed and followed similar field observations, promising strategies, and tentative recommendations format. The final reports were translated into Arabic and later presented to the Governor, PC officials, the host Provincial Reconstruction Team (PRT) and invited collaborators. TB felt it critical that the assessment be presented to all parties at the same time with the same message. Distributed widely in both print and electronic forms, the report solicited comments. After a 21-day open comment period, the draft was revised and re-published as a final report. This single message approach met with resistance in some political camps. However, with diplomatic persistence, the policy proved valuable. All eight provincial assessments were synthesized into a single report that included a feasible provincial-level agricultural strategy nested with a memorandum of agreement or letter of intent strategy, individual projects and programs, and a supplemental budget recommendation to be included in the 2009 Government of Iraq budget.

Products

This rapid rural appraisal expanded from four to eight Iraqi provinces. One month was dedicated to each of the first four provinces—Babil, Najaf, Karbala, and Wasit—between June and September. In October, the team divided into three sub-teams working from a central operating base, COB Adder, and assessed Dhi Qar, Maysan, and Muthanna provinces in October. A seven-member team assessed Diwaniyah in November. The eight appraisals resulted in 3,325 hours of recorded semi-structured interviews conducted by a team ranging from seven to 14 specialists over a 188-day period that gave rise to 21 general observation categories. The composite report included 65 promising strategies for the implementation of 93 recommendations. Eight provincial reports and a composite MND-C report were produced giving direction and focus for sustainable agricultural development in the Multi-National Division-Center area of operations.

Deliverables. The deliverables included a feasible provincial-level agricultural strategy, nested with memorandum of agreement strategies and letters of intent. Strategies were included in the Government of Iraq 2009 budget. Breeze® and written documents describing specific and generalized observations, promising strategies, and potential recommendations in English served as individual internal midterm reports in each province. The team adopted the axiom “pale ink is better than brilliant memory.”
Governors, cabinet members, provincial reconstruction teams (PRTs), regional opinion leaders, and engaged community members who participated in providing assessment information received final reports in each province. These reports, delivered as oral and written reports in English and Arabic, described observations, promising strategies, and potential recommendations with appendices that include recommended pre-proposals for projects and programs.

As an interdisciplinary approach, this case relied on a logical framework as an explanation of accomplishments. Future beneficiaries received particular attention. The goal and purposes were continually under review with verification of indicators and testing of assumptions. Outputs and activities were subject to verification using indicators such as the extent of cooperation, economic competitiveness, education and training, environmental stewardship, future view, governance, health and wellness, land tenure, receptivity to change, security, and sustainability. The means of verification, as described by FOB commander Colonel Keith Sharples (personal communication, August 5, 2008), was similar to making sausage—not a pretty sight but resulting in a great product.

**Validation.** The primary means of verification included AAR briefs, field notes, civilian and military documents, maps, and command reviews. Assumptions—things accepted as true without proof, but from which a conclusion can be drawn—proved to be challenging. Our assumptions were often based on our own culture and values rather than the indigenous culture and value system.

There was merit in analyzing questions of purpose like, “What factors outside the control of the project may affect the ability of the project to achieve its purpose and objectives?” Equally challenging were output questions like, “What must be realized to implement recommendations on schedule?” and “What kind of decisions or actions outside the control of the project will likely reduce the effectiveness of the work?”

**Assumptions.** Our founding premises may not be solid enough as a foundation for decision-making. Assumptions that change agents bring to the process must be systematically examined. Assumptions are critical to accurate interpretation and analysis.

Analysis and reporting phases were a combination of trust and relationships with facts and logic. Common shared meals were usually a part of diffusion and adoption process, reinforcing Shulman’s (2007) fifth element of judgment and design and sixth element of commitment and identity. Relationships are important.

In an era of global connections and rapid change, agriculture and education, as applied fields of study, are in continuous evolution. In other words, some things change—and some do not. Agricultural and extension educators must be able to discriminate.

**Recommendations, Educational Importance, Implications and Applications**

Recommendations included:

1. The general principles of rapid rural appraisal are valid in post-conflict settings. However, specific activities must be carefully monitored, adjusted, and evaluated. Team members must be diligent to anticipate and monitor unintended consequences due to culture and communication.

2. It is important to identify the individual mission statements and goals of collaborating agencies, including The UN Millennium Development Goals, State Department, USAID Strategic Objectives, and USDA-CSREES Goals. This recognition reduces territorialism.
and fosters collaboration. Chandrasekaran (2007) discusses the chaos that follows when there is conflict among mission statements.

3. A situational leadership model (Hersey, Blanchard & Johnson, 2001) is appropriate for post-conflict agricultural development teams that include phases of directing, coaching, supporting, and delegating.

4. The composition, specialization, and team attributes are critical to rapid rural appraisal. The single attribute—“it is not my job”—is replaced by “no one left behind.”

5. Strategies to develop local ownership are critical and include active meaningful engagement and shared recognition among participants.


Lessons learned included:

1. Communication is difficult but essential.
2. Share a common vision within and among groups—always open for comment.
3. Engage all people—use strategies that provide full engagement, respect, and dignity.
4. Use a systems approach within each agricultural sector. Einstein was credited with the saying “we can't solve problems by using the same kind of thinking we used when we created them.”
5. Invest in education for youth.
7. Land policy and land tenure are important factors. Hayek (1979) noted, “Private property is the most important guarantee of freedom” (p. 78).
8. Think new—think old; e.g., solar panels and wind power as well as older development models similar to Rural Electric Associations (REA), Works Progress Administration (WPA), and Civilian Conservation Corps (CCC).
9. Media are not always accurate or objective in reporting events—sometimes unintentional but occasionally intentionally incorrect. Ask for a pre-press review.

As authors, we concluded that (1) engagement is essential; (2) process is important—more important than one may think! and (3) reflection is not simply additive; it is exponential and synergistic.

**Educational importance.** Agricultural development is a critical link in the transformation from conflict to a civil society. Many countries in conflict have 70% of the population in rural areas and a majority of the population unemployed. When lack of employment and lack of education are combined, the result is often terrorists who are paid by revolutionary interests. Full employment in rural agriculture reduces political and economic unrest and contributes to a higher quality of life for all people.

On the eve of his change of command, September 16, 2008, General David Petraeus (Shanker & Farrell, 2008) stated “I don't use terms like victory or defeat... I'm a realist, not an optimist or a pessimist. And the reality is that there has been significant progress but there are still serious challenges” (p. A16). Five months later MG Michael Oates, in a February 13, 200 interview, forecasted permanent, irreversible security in southern Iraq (Gomez, 2009) noting that his troops' focus "has shifted to training Iraqis and providing security for teams of diplomats and engineers” (p. 6A).
Implications and applications. This rapid rural appraisal method and procedures have implications for many developing countries. In addition to use in post-conflict situations, rapid rural assessment should also be examined for use in countries that have tendencies to engage in conflict. As agricultural and extension educators, we have an obligation to share knowledge, improve the quality of lives and to improve the economic well-being of internal stakeholders.

Over time, subtle changes in form and function coalesce as global trends that include changing demographics, environmental degradation, advancing technologies, increasing migration, and global terrorism. Brinkley, Jerbst, Staal, Gilpin, and Serwer (2008) noted “effective economic reconstruction sends a number of positive signals in conflict-affected environments” (p. 1). Almost two decades prior, Naisbitt (1990) proactively advised us “… to take the initiative, accentuate the positives, and let the future trends work for us, not against us” (p. 324). It is still good advice. Norman Borlaug, father of the Green Revolution and recipient of the 1970 Nobel Peace Prize, said peace cannot be built on empty stomachs. Agricultural development, as an innovation maturity model, may be among the best strategies for cultivating justice while, at the same time, cultivating fields.

References


