Winning the Invisible War

An Agricultural Pilot Plan for Afghanistan

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INTRODUCTION

When this paper was undertaken in the summer of 2007, one of its purposes was to sound the alarm over Afghanistan and the critical need for comprehensive action across all sectors of society to prevent that country from becoming a failed state. The second purpose was to lay out the major areas that needed immediate attention, largely within the civil side of reconstruction and development. The third was to propose specific pilot plans for rejuvenating the agricultural sector. These plans were developed by experienced American farmers and other experts with long careers in government, agriculture, and development. The principle participants are co-authors.

Now, six months later, it appears that the Bush administration and NATO are taking that warning seriously. At least three studies are underway: one at Central Command; a second at the State Department; and a third at NATO. Those studies need not take much time to finish. The issues are clear.

At the strategic level, what happens in Afghanistan and beyond its borders can have even greater long-term consequences than how the struggle to bring a measure of stability and order to Iraq turns out. Failure would be disastrous for the United States and the region. Afghanistan could again become a breeding ground for insurgency and terrorism, possibly worse than before the Taliban government was overthrown in 2001. The thriving drug trade also presents major national security and domestic criminal dangers. And what happens in Iraq, Iran, and Pakistan will influence and be influenced by conditions in Afghanistan.

The cohesion and viability of NATO, the most successful military alliance in history, rests on prevailing in Afghanistan. That NATO, an alliance with two million people in uniform, cannot find four additional maneuver battalions and a handful of helicopters for Afghanistan makes this point. If the alliance cannot show that the Afghan government is making substantial reforms on the civil and economic fronts to become a functioning state, NATO members will find ways to lessen support to the point of withdrawal.

Withdrawal that leaves Afghanistan a failed or failing state would weaken the political bonds of the Alliance. NATO would not implode immediately, but, it could become moribund and ineffective because of its demonstrated inability to act decisively and in concert to protect the interests and security of its members. The specter of the League of Nations, which lacked any power to enforce the peace, comes to mind.

The Taliban[1] is gaining strength, and poppy production continues to increase, despite the counter-narcotic campaigns waged by the Afghan government and its foreign allies. The conflicts in Afghanistan and Iraq could merge, depending on developments in Pakistan, namely, the consequences of clashes in Pakistan between radical and moderate Islam and between democracy and authoritarianism—intensified by the assassination of former Prime Minister Benazir Bhutto—and, in Iran, namely, political decisions on acquiring nuclear weapons.

It is our assertion that the current Afghan government and its allies, principally NATO and the United States, are not winning the battle in the civil sector to create crucial judicial, legal and police reforms essential to governance and are losing the fight in curtailing corruption and drug production and creating employment opportunities. While NATO and other forces are capable of coping with the current military and security threats posed by the Taliban and other insurgents—although conditions in the south are deteriorating—unless or until civil reforms are put in place, tactical success will not bring political or strategic victory.

[1] The definition of Taliban is by no means clear, with some full-time, part time, and even amateur Afghans participating in the insurgency.

THE MAJOR PROBLEMS AND DYSFUNCTIONALITIES

A multi-front war is being waged in Afghanistan. On the security side, military forces from some three-dozen states are dealing with the largely Taliban-inspired insurgency. The major combatants are NATO, with some 42,000 troops under the command of the International Security and Assistance Force (ISAF), and U.S. Central and Special Forces commands, with approximately 20,000 troops. Although the insurgency does not threaten the survival of the current government in the short term, the trends are ominous. By most press accounts, the insurgency is spreading, warlords are accumulating power, and the split between President Hamid Karzai and the Afghan legislature is growing. While Afghan security forces are in the process of being recruited, trained and equipped, the burden of maintaining security rests on NATO, the United States, and other outside states.

The reform of the civil sector, including counter-narcotics and job creation, is painfully slow. According to the division of labor established by the 2002 Berlin Conference, NATO members were assigned responsibility for whole governmental sectors. Germany is responsible for the Afghan national police, Italy for the judiciary, Japan for demobilization, and the United States for building and training the Afghan army. Reconstruction was to be the responsibility of the Afghan government and, later, ISAF provincial reconstruction teams (PRTs), which combine reconstruction workers and security forces. Despite nominal subordination of PRTS to ISAF, the national governments that provide the personnel have authority over the PRTs. Although stabilization and reconstruction should be a concerted, nation-wide effort, it is managed piecemeal via coordination and cooperation. No single entity is fully in charge or has the authority and responsibility to cross the many political and geographic boundaries.

Former U.S. Ambassador to Afghanistan Ronald Neumann pointed out that the nature of Afghanistan meant that there would be divided authority and responsibility, and that no equivalent of a General McArthur or L. Paul Bremer could fit the Afghan case. To a large degree, the failure of stabilization and reconstruction is attributable to poor command and control. Correction of that deficiency is crucial to Afghanistan's future.

As stabilization and reconstruction falters, drug production grows. The stark alternative of elimination and eradication of poppy growth will backfire. Destruction of poppies throughout the country—if achievable and sustainable—would create massive economic disruption and hardship, and no doubt recruit many more volunteers for the insurgency. Combining a program for licit sale of poppies, or temporary and massive increases in payments to farmers for cultivating non-narcotic crops, with other counter-narcotic measures may be the only way to constrain opium production.

Job creation is the major focus of this paper. Simply put, economic growth is essential to any form of long-term stability. Unless and until the problem areas and dysfunctionalities impeding economic growth are remedied, the prognosis for Afghanistan is grim. Five pilot programs are offered here as immediate steps toward economic growth and models for an expanded effort.

WHAT NEEDS TO BE DONE

First, the various ongoing assessments of Afghanistan must be completed in days or weeks and not months. From these assessments, a comprehensive campaign plan that coordinates all or most activities in the security and civil sectors must be drafted and approved by the administration and other participants, particularly NATO.

Second, there must be an effort to coordinate civil-sector reforms between and among the Afghan government and the outside states responsible for the various efforts. The idea of a high commissioner—an individual with the stature, gravitas, and authority to cajole, convince, or even coerce better coordination and integration—has been proposed before. By whatever title, such a position is essential. Whether the sponsoring group would be the European Union, the United Nations, or some other entity can be debated. However, without such an individual and the authority to act, the civil-sector reforms will continue to be inchoate and far less effective than the situation demands. (As this goes to press, there are reports that President Karzai has rejected the UN nominee for that post, Paddy Ashdown.) Coordination between the PRTs is essential. Because PRTs report directly back to national capitols, coordination is at best ad hoc. That must be corrected so that what happens in one province is related to neighboring provinces and to the national effort.

Along with a high commissioner, a rejuvenated agricultural reform plan is urgently needed. Ours is called “Project Plant-Rite” and is ready for immediate implementation. Project Plant-Rite would consist of five off-the-shelf programs developed by American farmers and agricultural experts. These programs could be started immediately and used as models or prototypes for a larger effort.

We propose that the ongoing assessment effort incorporate the state of agricultural reform and how projects like the ones proposed can make a difference (or where they may be redundant).

Finally, and not included in Project Plant-Rite, is a suggestion for the counter-narcotics effort. Currently, eradication is being stressed among the priorities of education and alternative job creation. We do not believe this will work and, indeed, could fuel the insurgency because of the negative economic impact. We suggest that limited use of licit purchases, along the lines argued by British Conservative MP Tobias Ellwood, be investigated first in Helmand Province. We understand the counter arguments, and this is not the place to review them. However, we believe that, unless an action like this is conducted on a trial basis, the broader counter-narcotics effort of reliance solely or largely on eradication will fail.

These efforts must be integrated under a comprehensive campaign plan that brings together security and reconstruction efforts and the plethora of governmental and nongovernmental organizations working in Afghanistan.

A PLAN FOR AGRICULTURAL REFORM—OPERATION PLANT-RITE

Priority 1: Construction of state-of-the-art processing and warehouse facilities in the Kabul and Kandahar locales

This priority focuses on building the capacity of Afghan farmers to take advantage of potentially lucrative export markets. By financing the rapid construction of a network of state-of-the-art processing, refrigeration, and storage facilities, this component of Plant-Rite stands to bridge the gap between farm and export markets.

The Afghan agriculture export sector flourished in the years before the Soviet invasion in 1979. Afghan farmers dominated the international market in pistachios and supplied significant amounts of other, perennial, horticultural products, especially dried fruit and nuts.[2] The Afghanistan Ministry of Agriculture has identified this large export market as a crucial opportunity for high-profit, agricultural activities.[3] India is often mentioned as the leading market for such products, and its fantastic levels of economic growth in recent years may further increase demand.

The need for a network of processing and storage facilities is urgent. Efforts to date by international donors to build processing/storage facilities have focused on the local level, e.g., sorting, cleaning, and storage facilities funded through smaller, community-driven projects. Such efforts are important but contribute little to the export side. In the absence of a network of facilities that links regions and Kabul and Kandahar, the most that donor efforts are likely to achieve is the creation of more robust local and regional agricultural markets.

The export opportunities are large and have exceptional and unique benefits, such as high profit margins, immediate and high demand, and possibilities for earning foreign exchange. While the international donor community has taken important steps in funding projects to improve finance (micro-credit) and general infrastructure (roads), Plant Rite fills an important need for linking such initiatives to markets in countries around Afghanistan. Unfortunately, given difficulties in the security arena, as well as sluggish progress in some areas of reconstruction, relying on the domestic private sector or foreign direct investment to fill this need is not a feasible solution, especially if a premium is placed on short-term impact. If the maximum value of the current Afghan government and international donor community efforts is to be extracted, a specific and ambitious program to build the foundations of a horticultural export economy is critical.

Off-the-shelf plans for state-of-the-art processing and warehousing facilities have been drafted by a group of California growers, processing equipment manufacturers, controlled-climate storage experts, and agricultural building designers. The plans can be implemented now, and the machinery, refrigeration, and processing facilities will greatly enhance the output and value of Afghanistan's primary food exports of dried fruits, raisins, and almonds. The enhanced product quality and values will, in turn, create more reliable markets and higher purchase prices for the growers' goods. We estimate that 12,000 additional jobs will be created. (Costs and benefits of each proposal are summarized in associated tables.)

Two central processing and refrigeration centers will be constructed in Kabul and Kandahar. Six companion field receiving and pre-processing stations will be developed in strategically

[2] <http://www.adb.org/Documents/Reports/Afghanistan/Agriculture/Rebuilding_Agriculture_Sector_AFG.pdf>.

[3] Master plan www.agriculture.gov.af/fills/English%20summary%20for%20masteplan.doc.

located, outlying, farming areas to facilitate moving high-value produce to the central processing facilities. Cold-chain product-handling systems using truck-mounted, refrigerated containers will improve the field-to-receiving-station handling of high-value, perishable crops during harvest.

Estimated Costs	
Central Facilities	$ 3.5 million
Improved Processing Machinery	8.5 million
Primary Receiving Stations	4.0 million
Technical Assistance	2.0 million
Total Investment	$18.0 million
Estimated Employment Enhancements	12,000 jobs

Priority 2: Restoration and expansion of vineyards, fruit and nut orchards, and field crops.

This priority focuses on the importance of building long-term, sustainable alternatives to poppy production. In concert with the other recommendations, aggressively funding a coordinated program to restore and expand the use of high-value fruit, nut, and vegetable crops will enable and equip the individual farmer with the knowledge and materials to choose "not poppy" and build a sustainable, long-term livelihood.

The key objective of this recommendation is to connect and enable the individual farmer with the larger, infrastructure-related initiatives of Plant Rite. The priority is to provide information, training, and raw materials to enable farmers to make the transition from cereals and poppy production to high-value, high-profit crops for export. These include specifically grapes, raisins, almonds, walnuts, pistachios, and apricots, and possibly pomegranates, mulberries, oilseed crops, and vegetables for drying (such as peppers and tomatoes).

The terrain, climate, and tradition of gardening in Afghanistan make it an excellent place to grow high-value fruits and nuts. For most Afghanis, agriculture is their source of livelihood. Over 75 percent of Afghanis live in rural areas. Before the expansion of the opium trade, legal agricultural production was half of Afghan GDP. High-value horticulture provided 48 percent of Afghanistan's pre-1979 export revenue and 60 percent of the world's dried fruit.[4]

Since the Soviet invasion, lack of security and destruction of both general and agricultural infrastructure have made earning a living in licit agriculture difficult. International assistance to date has had an unfortunate tendency to focus on short-term measures—distribution of seeds, tools, and fertilizers; funding alternatives to poppy with a seasonal rather than sustainable effect. The logic of the proposed initiative is to provide the key necessary ingredients for a rapid and sustainable move toward high-value crop production. Those ingredients include:

- Instruction for Afghan farmers on all phases of farming these high-value crops, including planting, fertilizing, pruning, irrigation, harvesting, and processing;
- Information and analysis for "best-fit" and expanded production. Technical work will include satellite surveys, soil analyses, and improved irrigation systems to help determine the best fit crops, as well as opportunities for expanding existing vineyards; and,
- New, high-yield plantings of nut- and fruit-tree stock grown in California nurseries via tissue culture will be air freighted to Afghanistan. Through this method, a full year of the tree-into-production growing cycle can be saved.

[4] Food and Agriculture Organization (FAO), "Crops and seeds programme," 2004, <http://www.fao.org/world/afghanistan/proj_ag_hort_en.htm>; "The Gardens of Eden," *The Economist*, Sept 19, 2002.

The reality for farmers in Afghanistan is that the choice in favor of producing poppy is made easier because of the informal training in production provided by drug networks and the comparative ease with which opium can be stored and transported. This portion of Project Plant Rite will rectify this imbalance and provide the techniques, information, and stock for farmers to choose to produce high-value crops for export. Other efforts by international donors in the agricultural sector have made some improvements; adopting Project Plant Rite's comprehensive approach with a clear mandate and strong leadership can build on those efforts.

Estimated Costs:	
New Orchard/Vineyard Planting Stock	$2.5 million
Orchard/Vineyards Planning and Soils Development	1.0 million
Cropping Management/Irrigation Training	0.5 million
Total Cost:	4.5 million
Employment/Income Enhancement	6,000 families

Priority 3: Development of groundwater and repair of large-scale water resources facilities

This priority focuses on the importance of large-scale solutions to the key limiting factor in agricultural productivity in Afghanistan—water. By opening up new, large-scale sources of the fresh water so critical to all agriculture, especially high-value vineyards and orchards, this recommendation provides a critical input for long-term, sustainable, agricultural production.

Shortage of water is a critical barrier to fostering new agricultural opportunities in Afghanistan.[5] The ability to grow poppy in arid conditions reinforces this importance, as farmers in regions without a sustainable source of fresh water will find it difficult to earn income without resorting to illegal products. In particular, the southwest region of Helmand is both arid and home to much of Taliban activity. Without a large-scale water solution, areas like Helmand will be difficult to turn to long-term, non-poppy agriculture. This priority approaches the large-scale water supply issue through exploration for new freshwater sources using cutting-edge, megawatershed, geologic techniques.[6]

As is well known, restoration of the Kajaki Dam in Helmand Province is USAID's largest project in Afghanistan. Built in 1953, the dam has the potential to store 1.7 billion cubic feet of water for irrigation and to supply power to several million people. Successfully restoring the Kajaki Dam to full operation would be a critical improvement in infrastructure. The villages and security forces around the dam have been the target of Taliban attacks the last 2 years. The security situation has placed an indefinite hold on the larger components of rehabilitation, including construction of a road to the dam and transmission lines for distributing power. An alternative large-scale water supply is needed.

[5] Ben Berry, "Rebuilding Afghanistan's Agricultural Sector: Common Recommendations across NGOs and Governments," July 2007, http://ats.agr.gc.ca/asia/4349_e.htm

[6] "The Megawatershed Paradigm expands upon existing volumes of presumed accessible, sustainable groundwater resources by a multiple of 10 to 100 globally. Relative to other alternatives (such as dams and desalinization plants), Megawatershed exploration and development is the quickest, most cost-effective and environmentally progressive means of water development." From EarthWater Global at <http://www.earthwaterglobal.com/paradigm.htm>.

We propose the use of advanced geologic exploration techniques developed by American geotechnical specialists to locate and drill into megawatersheds.[7] Recent advances in fractured-bedrock hydrogeology and underground water analyses have opened the door to finding new sources of potable water in many parts of the world where periodic drought conditions exist. Afghanistan, with precipitation in its central, Hindu Kush Mountains, is a region where megawatersheds are likely to exist. Advanced drilling techniques can allow sustained recovery of these underground water resources. Preliminary geologic studies, funded by USAID, will facilitate subsequent exploration, location, and drilling.

Estimated Costs	
Megawatershed exploration and drilling (6–10 high-production wells)	8 million
Estimated numbers affected	500,000 people

Priority 4: Improve export sales linkages for Afghanistan's dried fruits, nuts and other crops

This priority focuses on building the capacity and business skills to link the anticipated larger quantities of high-value, agricultural products to prospective buyers. By providing near-term assistance to facilitate marketing, quality improvement, and business links with interested buyers, this effort will provide the necessary bridge from processing and storage to revenue-generating sales.

The conflict with the Soviet Union and rule of the Taliban precipitated a massive exodus of highly educated business professionals from Afghanistan. While some of these valuable people returned after the removal of the Taliban from power in 2001, there remains a significant shortage of educated professionals with international business experience. Without a program to help build even the basic skills needed for negotiating contracts and export, Afghan agricultural potential will remain unfulfilled.

Project Plant Rite will provide funds for technical assistance in marketing and advertising for export of high-value products. Agriculture groups seeking to export such products will require assistance in identifying potential export markets, ensuring quality in process, and communicating quality to potential buyers, and designing a marketing and branding strategy. The focus of these efforts will initially be South Asia and other regional markets.

As mentioned in Priority 1, the network of processing and storage facilities will include product-display areas that will allow buyers to inspect the methods of production for quality. In addition, the initiative will provide funds to recruit and pay for travel for potential regional and international buyers as a vehicle for building critical, first, business relationships. This approach will be similar to past assistance programs, such as in Iraq, that have sponsored visits of potentially interested business executives. These efforts help mitigate security-related concerns about doing business and build business relationships and market opportunities.

[7] Robert A. Bisson, Charles Sheffield and Sabine Sisk, "Megawatershed Exploration: A State-of-the-Art Technique Integrating Water Resources and Environmental Management Technologies," paper presented to IDA World Congress on Desalination and Water Sciences, 1995, http://www.earthwaterglobal.com/pubs/Megawatershed%20Exploration-%20A%20State-of-the-Art%20Technique%20Integrating%20Water%20Resources.pdf

Estimated Costs	
Marketing Training	$0.8 million
Product Trial Placements	$0.6 million
International / Invitational Travel	$1.1 million
Total Cost	$2.5 million
Employment Enhancement	5,000 jobs

Priority 5: Urban and village infrastructure/sanitation improvements–labor-intensive work activities

This initiative focuses on the importance of funding short-term, labor-intensive upgrades to village infrastructure throughout Afghanistan. By using a cash-for-work approach and focusing on such troubled sectors as water sanitation, the initiative will simultaneously and visibly improve quality of life, as well as provide a critical source of revenue for local residents.

Poor infrastructure in both the Kabul capital area and rural Afghanistan has resulted in persistent health problems, especially among the poor. The Kabul area, with reportedly over three million residents, has no sewer or waste treatment facilities.

Poor infrastructure persists, despite significant efforts by the international donor community, including U.S. agencies. Simultaneously, unemployment and employment growing poppy continue to grow as problems in both urban and rural areas, contributing to dissatisfaction with the Karzai government and international donors and security forces. A re-energized commitment to labor-intensive, employment projects conducted at the local level and using local labor can make a significant improvement in quality of life. Using a cash-for-work approach, we propose a new initiative to improve infrastructure, especially in the area of water sanitation, in both urban and rural contexts. Projects could include improving existing water wells and/or construction of new wells, improved water distribution systems, construction of sanitary drains and sewage systems, and introduction of innovative approaches to sanitation, such as duckweed ponds.[8]

Project Plant Rite would provide funds for construction materials and related supplies, emphasizing the use of local materials, where possible. Project design would emphasize use of appropriate technology and attempt to blend, where feasible, with existing efforts by international donors and the Government of Afghanistan. The target outcome would be activities in 200–300 villages and the short-term employment of 6,000 people.

Estimated Costs	
Labor-Intensive Employment	$6.0 million
Construction Materials / Supplies	1.5 million
Operations Management	0.4 million
Oversight / Reporting/Evaluation	0.1 million
Total Cost	$8.0 million
Employment Enhancement	20,000 jobs

[8] Duckweed ponds have been used in Bangladesh and elsewhere to sanitize water and provide a food source for fish. See "Project Evaluation Summary," UN Capital Development Fund, Integrated aquaculture in Bangladesh, 1995, available at <http://www.uncdf.org/english/evaluations/bgd91co6_midterm.php>.

Priority 6: Enable access to agriculture information and collaboration, coordination, and information sharing among farmers, buyers, distributors, government officials, and others.

This initiative focuses on the importance of information links between the key elements of an export-oriented, high-value, agricultural program. By establishing the infrastructure for communication between farmers, government, and purchasers, the initiative will help improve productivity and maximize business opportunities.

The existing information infrastructure in Afghanistan, especially outside the major urban areas, is underdeveloped. Collection and dissemination of agricultural information is problematic. Farmers lack access to much useful information including technical information, market assessments and opportunities, disease early warning, weather, and other agriculture-related and business management information. In addition, the public and private sectors lack the ability to effectively coordinate activities and collect, develop, produce, distribute, and share information.

This initiative will install a network of upgraded communications and data facilities. By laying the infrastructure, it will enable technology transfers and improve public-private sector collaboration. Moreover, the communications network will include links for the proposed Kabul and Kandahar area processing and storage facilities to enable information sharing/business processing, crop extension services, marketing, pest monitoring and management, and other needs of the local farmers and those in the processing, storage, and export stages.

In addition, this initiative will create local job opportunities by providing additional means for the general public and local businesses to access communications and information technology through the implementation and use of telekiosks, Internet Cafes, and public call offices managed by locals.

Materials and funds for salaries would be provided and, where feasible, blended with existing international donor and Government of Afghanistan activities. The use of appropriate technology, local materials, and replicability of the interventions will be important design/implementation factors. If possible, this network should leverage the planned implementation of the ASAP AgNet. Use of public (the District Communications Network) and private-sector (Cellular, ISPs, and Internet Cafes) telecommunication means should be considered as well, including financing community towers to attract private cellular operators to offer services in rural areas.

Estimated Costs Hardware/Software, Operations, Training and Technical Support	$0.5–1 million
Employment Enhancement	Hundreds of jobs