

A Strategy for Herat's Economic Development

TASK FORCE FOR BUSINESS &
STABILITY OPERATIONS (TFBSO)



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A Strategy for Herat's Economic Development

EXECUTIVE SUMMARY

Between May 2010 and January 2011, the Task Force for Business and Stability Operations (TFBSO) assessed the economic development potential of Herat, Afghanistan. The purpose of this assessment is to help the Task Force and local leaders focus their efforts and resources toward those areas with greatest potential to accelerate Herat's economic development. The primary audience for this document is public sector leadership in Herat.

This effort included a number of visits to the region, an in-depth analysis of publicly available information and economic data, dozens of interviews with local officials and business and community leaders, and consultations with international development and industry experts. This perspective also builds upon the foundation established by the Afghan National Development Strategy (ANDS), Herat's annual Provincial Development Plan (PDP), its draft Provincial Development Strategy (PDS), and is complementary to concurrent Private Sector Development – Sector Committee (PSD-SC) efforts. A number of conclusions have emerged:

- A focused, well-coordinated effort aimed at creating employment and income growth has the **potential to achieve transformative economic impact over the next 10 years.**
- Successful execution of Herat's economic development strategy could **grow the provincial economy by more than \$1 billion over the next 10 years** (from \$1.2 billion in annual output to more than \$2.4 billion by 2020, or nearly 7 percent growth per year).¹
- **Priority economic sectors** will drive economic growth in Herat:
 - Agriculture

¹ Current provincial output estimated to be comprised of \$295 million in agriculture, \$425 million in industry, and \$465 million in service-related industry

- Extractive industries
- Light industry
- **Strategic investments in transportation infrastructure and other enabling services** will help accelerate economic development and establish Herat as a critical transportation, industrial, agricultural and cultural hub that links together not only Afghanistan, but Afghanistan with the Middle East, Central Asia, and South Asia.
- **Smaller niche and emerging industries**, ranging from traditional handicrafts to information technology, will also contribute to growth and lay the foundation for an increasingly diversified economy in Herat in the decades ahead.
- While government investment can help create a favorable environment, the **private sector will be the principal engine to accelerate growth.** However, local public sector leaders have a special role to play in accelerating private sector growth in Herat by advocating to the central government, the international donor community, and private sector investors on behalf of business development in Herat.

Taken together, the analysis of Herat's economic potential reaffirms that Heratis' own vision for the future of their province and their city is bold but realistic. Standing at the historical crossroads of different civilizations, Herat has the potential to help unify Afghanistan and link the entire country to the world beyond its borders. If the right decisions and investments are made in the coming years, Herat, and its population of approximately 400 thousand people, could emerge as both a beacon of prosperity and stability inside Afghanistan and an exemplar of Afghanistan's considerable human and economic potential to investors outside of Afghanistan. Consider its productive river valley, its vast, largely untapped natural resources, its burgeoning industrial base, and its unique history and cultural heritage. Above all, during the past decade, the leaders and people of Herat have demonstrated their commitment to achieve a new future. They will write the next chapter in Herat's long history as they work together to develop their province and ensure its peace, stability, and prosperity.

Herat has the potential, therefore, to continue to blossom as the center of industry and commerce in western Afghanistan and showcase the development potential of the entire country. Success in Herat will hopefully inspire others – in Afghanistan and beyond – to imagine a much brighter future along a new "Silk Road" that knits the region more closely together.

Priority economic sectors will drive growth in income and employment for Herat

Agriculture is the foundation of Herat's economy, representing an estimated ~35 percent of provincial output and ~70 percent of employment.² Herat has the potential to add an estimated \$125 million to \$270 million in annual agricultural output over the next 10 years (equivalent to approximately 10 percent to 25 percent of current provincial economic output).³ Herat's agriculture opportunities include staple cereals like wheat, existing high-value crops like certain fruits and nuts (e.g., raisins) as well as new high-value options like saffron. Opportunities for growth include yield enhancement and value creation through better crop selection and growing techniques, improvements in food storage and processing, and better market linkages with domestic and international customers. In order to achieve accelerated growth in the agricultural sector, Herat will need to:

- Improve farming techniques
- Build strong market linkages from farm to customers, both domestic and international
- Expand irrigation networks
- Invest in basic infrastructure in rural areas (roads, rail, cold storage, etc.)
- Facilitate micro-credit for the farming sector to provide financing for farmers to invest in machinery and other productivity improvements

Extractive industries have both near-term growth potential deriving from expansion of the marble industry, and medium- to long-term growth potential from undeveloped natural resources (such as barite, limestone, tin, copper, lithium, iron ore, oil and gas). Improvements in credit facilities to marble producers, completion of important transportation projects (e.g., road from Herat to Chest-e-Sharif, rail link to Iran) and more efficient marble extraction and processing could add 1,800 jobs and \$26 million annually to current marble output.⁴ Natural resources with medium- to long-term potential include copper, oil and gas, tin, lithium and iron ore. The economic potential for some or all of these resources is limited by the still-to-be-validated scale of many deposits, the time required for development (likely 5+ years in many cases), uncertainties over

² See Exhibit 9 of this report

³ See Exhibit 15 of this report

⁴ Current estimate of marble revenue in Herat is \$3.8 million

mineral rights and royalties, and the cost of transport to market. However, these resources have the potential to create enormous value for Herat, and for Afghanistan more broadly, if properly developed. In order to develop the potential of the marble industry as well as relatively untapped natural resources, public sector leaders in Herat will need to:

- Work with the Ministry of Mines (MoM) to improve the structure and application of mining laws in Herat by leveraging relationships at the highest level of the MoM to ensure local private sector interests receive adequate attention and consideration
- Address critical marble industry bottlenecks such as transportation infrastructure from supply to demand markets and expand credit availability to improve extraction and processing technologies and processes
- Support the Afghan Geological Survey efforts and ensure information is readily available to private sector investors
- Position Herat as a region attractive to international extractive industry companies and with the potential for downstream mineral processing and refining.

The **light industry** sector includes a variety of small- and medium-sized enterprises, such as water bottling, food processing, plastics, steel, and basic machinery. Herat's industrial park is a great asset to the city and provides a lever for significant economic advancement. The light industry sector has the potential to contribute an estimated incremental \$515 million and nearly 35,000 jobs to the Herat economy over the next 10 years (equivalent to more than 40 percent of current provincial output).⁵ To capture this potential, Herat will need to:

- Create and sustain a supportive business environment
- Improve communication and coordination among private sector organizations
- Target investments at strategic linkages in priority value chains.

⁵ See Exhibit 30 of this report

These priority sectors are dependent on supporting sectors such as **construction, transportation, and infrastructure**.

Furthermore, **niche industries** can reinforce Herat's distinctive "brand" (e.g., wooden handicrafts and carpets) and lay the foundation for the development of new, **emerging industries** with long-term growth potential (e.g., information technology and alternative energy). Together, such industries will help diversify Herat's economy.

Herat's public sector can help accelerate growth by focusing efforts in three areas

In order to achieve Herat's economic potential over the next 10 years, the provincial and municipal governments should prioritize economic development efforts in three critical areas:

1. Create and sustain a "business-friendly" environment, for example:
 - Reduce corruption and bureaucracy in local and central government
 - Prioritize local business interests at the national level by leveraging relationships with the central government to resolve priority issues
 - Resolve the issue of land ownership and mineral rights to encourage private sector development
 - Increase access to capital for businesses
 - Improve service delivery and management of the industrial park and other potential investment zones
 - Work with other leaders in other provinces and municipalities to address matters of common concern, and present constructive, cooperative solutions to the central government
2. Establish provincial-level branding and trade promotion efforts, for example:
 - Launch a Herat-focused branding, trade, and investment promotion initiative, perhaps as a public-private collaboration among the government and the regional AISA office, and private sector business organizations such as the Afghan Chamber of Commerce and Industry (ACCI)
 - Support trade delegations and meetings to showcase Herat's distinctive assets and potential
3. Prioritize strategic infrastructure projects:

- Near-term projects such as Herat Airport upgrades to enable direct international flights, the road to Chest-e-Sharif road, the completion of the Ring Road, road improvements within Herat City, and the hydropower dam on the Hari Rud
- Medium-term investment including rail to Mazar-e-Sharif, road linkages in and around Herat City and extensions into rural areas, further airport upgrades, and irrigation system improvements
- Long-term initiatives such as infrastructure for natural resource and mineral development (e.g., roads, power supply), and the development of cargo airport operations and an intermodal transportation hub

INTRODUCTION

In May 2010, the office of the Governor and the office of the Mayor invited members of the Task Force for Business & Stability Operations (TFBSO) to assist with Herat's economic development efforts. In response to that invitation, and in order to strategically plan their assistance, the TFBSO has worked to answer two fundamental questions:

1. What development priorities have the potential to unlock the greatest economic value for Herat and create the most growth in employment and prosperity?
2. What can leaders in the public sector do to help Herat realize its economic development potential?

This perspective builds on the goals and direction set forth by the Afghanistan National Development Strategy (ANDS), as well as Article 10 of the Constitution.⁶ This perspective is also informed by the strategic direction set forth in Herat's draft 3-year Provincial Development Strategy (PDS) and the 600+ prioritized investment projects identified in Herat's latest annual Provincial Development Plan (PDP) (Exhibits 1 & 2). It is complementary to ongoing concurrent efforts by the Private Sector Development – Sectoral Committee (PSD-SC) to develop a private sector development implementation plan. Along with a multitude of supporting documents and activities (e.g., The Afghanistan Compact, sector development strategies, and the July 2010 Kabul Conference), these documents consistently reinforce the importance of economic development to the goals of achieving stability, cohesiveness, and sustainability in Afghanistan. The purpose of this strategy is to help local leaders focus their efforts and resources in those areas with the greatest potential to accelerate Herat's economic development. The purpose of this assessment is to help Task Force and local leaders focus their efforts and resources toward those areas with greatest potential to accelerate Herat's economic development.

The primary audience for this document is public sector leadership in Herat. Therefore, special attention has been given to the public sector's role in Herat's economic development. Having said that, this perspective should also be useful to a variety of other stakeholders, including Herat's private sector, the

⁶ "The State encourages and protects private capital investment and enterprises based on the market economy and guarantees their protection in accordance with the provisions of the law."

international donor community, NGOs, and potential investors. This perspective should help all stakeholders focus their resources in those areas that are likely to have the greatest impact. As well, it helps clarify the roles required by various stakeholders and, hopefully, can facilitate greater communication, coordination, and integration of efforts among the diverse groups working to promote economic development in Herat.

Over the last 9 months, the TFBSO team has engaged a variety of stakeholders and global economic development experts to inform its understanding of Herat's development needs. The scope of these efforts falls into four areas:

1. Regular visits to Herat between May 2010 and January 2011 to conduct site visits and interviews with diverse public and private sector stakeholders (Exhibit 3)
2. A thorough review and analysis of publicly available economic and development data on Herat and Afghanistan, as well as non-public information provided by leaders within Herat's public and private sectors
3. Research on global economic development trends, best practices, and case studies of development successes and failures from around the world
4. Discussions with international experts across the diverse industries and business functions relevant to Herat's future.

This document offers a perspective on Herat's economic development priorities. While the impact of the economy touches and is touched by other aspects of life, it does not directly assess or offer recommendations related to Herat's other development needs (e.g., health, education, security).

FUNDAMENTAL PRINCIPLES FOR ECONOMIC DEVELOPMENT

A number of fundamental principles guide the approach to economic development proposed here:

- **Prioritized sectors and industries.** Successful development strategies identify those priority economic sectors and industries that will drive long-term, sustainable growth in income and employment for a country or region. Initiatives and investments then should be prioritized to support these sectors and industries, and target specific bottlenecks to their development. The principal challenge is to focus resources to unlock the potential in the country's or region's most competitive sectors and industries. There is no "optimal mix" of sectors and industries for every country, but, rather, opportunities defined by a particular region's unique assets.⁷
- **Integrated value-chain perspective.** A value chain is a series of processes or activities that products pass through in order to be transformed from raw materials (or seeds, land, and water in the case of agriculture) to finished goods in the hands of a consumer. At each activity the product gains some value.⁸ Development initiatives that do not consider the linkages across an entire value chain from beginning (supply) through the end (demand) risk failure. For example, supply-side agricultural policies that focus only on crop yield improvements risk failure if linkages are not established to specific customers, whether other businesses (e.g., food processing companies) or individual consumers. Singular efforts to address only one link in the value chain in isolation thus often do not unlock a value chain's full potential.
- **Balanced focus on local and export-driven opportunities.** Many recent economic development plans for Afghanistan have focused on "tradable" or exportable goods such as select agricultural products (e.g., fruits, nuts, and saffron), carpets, and natural resources. Such strategies emphasize growth through better connections with regional and global markets. However, with a few exceptions, local, non-tradable goods and services – such as infrastructure, retail trade and local business services – also drive economic output and employment growth. Exhibit 4 shows that the majority of

⁷ McKinsey Global Institute, "How to compete and grow after the recovery: A sector approach," September 2009

employment growth typically comes from such non-tradable sectors. Many of the sectors that drive economic growth serve local economies.⁹ Import substitution is often a major opportunity and the majority of developing-world employment is engaged in local production and service industries.

As a case in point, Afghanistan imported approximately \$5.9 billion of goods in 2009-2010, 22 percent of which arrived through Herat (Exhibit 5). Of these imports, approximately 30 percent could be near-term opportunities for import substitution by local production.¹⁰ The rapid growth of industries located within Herat's industrial park (such as plastics and food processing) underscores the potential for profitable import-substitution businesses in Herat.

- **Infrastructure as a critical enabler to economic development.** Capital-intensive infrastructure projects should directly support priority economic sectors and industries to help integrate entire value chains. In contrast, failed development strategies often take a “build it and they will come” approach and do not adequately link infrastructure development to the specific needs of value chains in priority industries.
- **Private sector as the principal engine of long-term economic growth.** In developing economies, the private sector has the potential to lead both job creation and income growth. The ANDS correctly stresses that private sector-led growth is critical to long-term, sustainable economic development: “The ANDS strategic objective is to enable the private sector to lead Afghanistan’s development within a competitive market-based economy in which the Government is the policy maker and regulator of the economy, not its competitor.”¹¹
- **Public sector as a strategic supporter.** It is important to recognize the complementary and interacting roles of the public sector (government) and private sector in promoting and sustaining economic development. Coordination and communication among these stakeholders is critical. The appropriate government role varies by sector and industries, with the public sector promoting economic development through diverse means including

⁸ Michael Porter, *Competitive Advantage: Creating and Sustaining Superior Performance*, 1985

⁹ See retail trade, wholesale trade, construction, post and telecom, real estate, and education in Exhibit 10

¹⁰ For example, animal and vegetable fats and oils, plastics / rubber and articles thereof, prepared food stuffs, and vegetable products

¹¹ Afghanistan National Development Strategy 1387-1391, page 7

trade policy, allocation of public budgets, subsidies, provision of essential services, and sometimes even ownership of critical elements of the economy. The public sector plays a critical role by establishing the conditions for an attractive business environment and, at times, by making strategic investments in infrastructure and other enablers.

Exhibit 6 offers a simplified framework to communicate the essential components of an economic development strategy. At the center of this framework are the priority economic sectors and industries that drive growth in income and employment. These priority sectors and industries, in turn, help define specific infrastructure (e.g., roads, power systems) and enabling service requirements (e.g., water systems, sanitation, telecommunications, and financial services). Lastly, the overall business operating environment surrounds and enables both industry and infrastructure development. This element of the framework encompasses the diverse factors that affect the profitability and ease of doing business in a specific region (e.g., security, business regulations, tax policies, rule of law, etc.).

All of these elements influence each other and create a unique dynamic for economic growth in a region. The purpose of an economic development strategy is to ensure that these elements are mutually supportive and that investments are prioritized to unlock the most value across priority sectors and industries.

HERAT'S STRENGTHS AND CHALLENGES

Effective economic development strategies build on local strengths and potential successes. Herat has strengths that it should use to accelerate its economic development, while it also has challenges that could slow such progress. Herat's greatest strengths include:

- **Fertile agricultural land and water for irrigation.** Herat has a thriving agriculture sector supported by relatively abundant sources of water and fertile river valleys. Once world-famous for the quality of grapes and other products grown in the area, a visit to Herat City markets today testifies to the diversity and quality of high-value agriculture crops cultivated in the province. Herat is one of twelve provinces in Afghanistan that maintains a wheat surplus and there is ample opportunity to increase the amount of land under cultivation in the province.¹²
- **Great potential in natural resources.** Past development projects and recent geological surveys indicate that Herat likely possesses a wide variety of natural resources that includes industrial minerals (e.g., limestone), metallic minerals (e.g., tin, copper, iron), and energy minerals (e.g., coal, oil and gas).¹³ Herat's white marble is considered "world-class."
- **Secure business environment.** Relative to most of Afghanistan, Herat's business environment is favorable. Physical security improved from late 2009 to early 2010. Herat province had between 21 to 40 civilian casualties in the first quarter of 2010, among the lowest in the country for major population centers.¹⁴ In the second quarter, the ANA and ANP combined had less than 10 casualties in Herat province as compared to more than 100 in Helmand and Kandahar.¹⁵ There has been, however, an increase in security incidents in the lead up to the parliamentary elections in mid-September 2010 and then their aftermath. In terms of corruption, although still an important challenge, according to the United Nations the western region of Afghanistan is estimated to have the lowest prevalence of bribes affecting the population.¹⁶ Recent initiatives to improve the quality of

¹² Ministry of Agriculture, Irrigation and Livestock, "Afghanistan Prospects Report," May 26, 2010

¹³ USGS and AGS surveys, 2010

¹⁴ SIGAR, 1Q Quarterly Report to Congress, April 2010

¹⁵ SIGAR, 2Q Quarterly Report to Congress, July 2010

¹⁶ UNODC, "Corruption in Afghanistan," January 2010

governance and institutions are showing signs of success. For example, new leadership at Herat's Customs House has resulted in an 84 percent increase in reported collections from solar year 1387-1388.¹⁷

- **Relatively good enabling infrastructure.** Compared to other areas of Afghanistan, Herat enjoys generally good infrastructure. Herat has a relatively stable supply of electricity imported via lines from Iran and Turkmenistan, though cost and vulnerability are issues.¹⁸ The city has paved highways to two international borders and the Ring Road within the province is complete. Wireless telecommunication is reliable and there is a functioning airport with direct flights to Kabul. A rail link to Iran is expected to be complete in the coming years.
- **Location along the ancient Silk Road at the crossroads of modern transcontinental trade routes.** Herat is situated at a strategic location for trade and transport. According to the Asian Development Bank, the beginning of the reconstruction of Afghanistan “has opened up new opportunities for economic cooperation and for reestablishing historical ties and potential economic links both within and beyond the region.”¹⁹ In fact, many argue that “removing the impediments to continental transport and trade across Afghanistan’s territory” is one of the most promising ways forward and that the only economic strategy which can achieve success is “one that focuses on reestablishing Afghanistan’s traditional role as a *hub of transport...linking Europe and the Middle East with the Indian sub-continent and all of South and Southeast Asia.*”²⁰ Herat’s Customs House accounted for almost \$200 million, or roughly one quarter of Afghanistan’s total customs revenue last year.²¹ Furthermore, almost \$1.4 billion worth of goods were transported across Herat’s border (Exhibit 7).²² Today, over 200 trucks arrive in Herat daily, carrying goods from Iran and Turkmenistan. A

¹⁷ Customs House data provided during an interview on July 8, 2010

¹⁸ There are challenges associated with electricity that should not be understated. Since all power is imported from Iran and Turkmenistan, long-term sustainability is an issue. Current efforts are underway to develop local production capabilities.

¹⁹ “Connecting Central Asia: A Roadmap for Regional Cooperation,” Asian Development Bank, 2006, page vii

²⁰ S. Frederick Starr and Andrew C. Kuchins, “The Key to Success in Afghanistan, a Modern Silk Road Strategy,” Central Asia-Caucasus Institute & Silk Road Studies Program in cooperation with the Center for Strategic & International Studies (CSIS), May 2010

²¹ Customs Statistics Unit, Afghanistan Customs Department, Ministry of Finance

²² Ibid.

rail extension linking the city of Herat to the Iranian rail network at Mashhad is currently ~40% complete, but has stalled in recent months due to border issues and resource constraints. This linkage has the potential to accelerate and lower the costs of Herat's trade with the international community via the port of Bandar Abbas. Herat currently has a functioning airport with approximately 10 regular domestic flights per day (both commercial and private aircraft). The terminal has an approximate capacity of 1,000 passengers per day. The ANDS has identified the development of Herat's airport as a national transportation priority, and improvements are currently planned.

- **Educated population with strong historical ties to business.** Herat has an estimated male literacy rate of 43 percent and its female literacy rate of 28 percent²³ is the third highest in the country.²⁴ Moreover, Herat University is the second largest university in the country (next to Kabul University), with an enrollment of over 6,000 students.²⁵ Herat University is one of Afghanistan's leading educational institutions with over 11 faculties, and more than 30 departments.²⁶ Of special significance, among Afghan universities, it is a leader in information technology and the school has an advanced, well-equipped IT center with German-trained Herati computer scientists.²⁷
- **Active industrial park.** In 2005 the Herati business community established an industrial park outside of the city and adjacent to the airport. The park is now a thriving center for private sector business operations, with 180+ active businesses, employing approximately 10,000 workers from more than 15 types of industries.²⁸ Next to Kabul, no other Afghan city has such a concentration of light industrial production.

²³ MRRD Provincial Profile and Central Statistics Office, "National Risk and Vulnerability Assessment," 2005

²⁴ Central Statistics Office, "National Risk and Vulnerability Assessment," 2007-2008, page 13

²⁵ Kabul University is the largest with 13,500 students; Balkh and Nangarhar Universities are third and fourth with around 5,500 students each. Afghanistan Central Statistics Office, "Statistical Yearbook 2008-09", page 39

²⁶ Interview with Herat University chancellor, May 20, 2010

²⁷ Site visit and interview with Herat University IT Department faculty, 20 May 2010. Bernd Mahr and Nazir Peroz, Establishing Academic Structures in Computer Science at Herat University (Frankfurt am Main, IKO – Verlag für Interkulturelle Kommunikation, 2006)

²⁸ Herat industrial park business survey, January 2011

It is also important to recognize the challenges faced by Herat and to ensure its development agenda is realistic and practical. Herat faces many of the same challenges that Afghanistan faces as a nation. Such challenges include, but are not limited to: limited public funds to provide reliable essential services; reliance on donor support for major investment projects; large infrastructure needs; security and corruption concerns; limited private sector finance mechanisms, and perceptions of poor product quality resulting from 30 years of war and underdevelopment.

Herat also faces some specific challenges that should be considered independently from broader national concerns. A few examples include:

- Herat's image outside of Afghanistan is not differentiated from the rest of the country. Regionally-driven branding and trade promotion efforts could help to ensure Herat's image is distinctive and truly reflective of its strengths.
- Though Herat has significant natural resources, national policies and laws may slow the development of these resources and then limit Herat's share of the resulting benefits. International media attention has focused on the Aynak copper mine and the Hajigak iron-ore deposits, but significant mineral deposits exist throughout Afghanistan. Provincial leaders outside of Kabul must work with both the central government and the international private sector to attract private sector investors and prioritize Herat's natural resources within the Ministry of Mines (MoM) agenda.
- Due to limited national infrastructure, Herat is not yet tightly integrated with the economies of other major Afghan cities. For instance, 223 kilometers of the Afghan Ring Road that will connect Herat to Mazar-e-Sharif has still not been completed.²⁹ However, Herat has two international borders and is well-connected with major regional economies outside of Afghanistan. This situation has potential long-term economic as well as social and political implications for Herat and the goal of a unified, prosperous Afghanistan.

²⁹ Ministry of Finance, "Asian Development Bank Provides \$353.5M to Complete Final Sections of Afghan Ring Road and Tajik-Afghan Powerline," January 19th, 2011

A PRIORITIZED SECTOR STRATEGY HAS POTENTIAL TO DRIVE SIGNIFICANT INCOME AND EMPLOYMENT GROWTH IN THE NEXT 5 TO 10 YEARS

A focused, well-coordinated effort aimed at creating employment and income growth has the potential to transform Herat's economy during the next 10 years. As summarized in Exhibit 8, **Herat's economy has the potential to more than double its annual output – growing from approximately \$1 billion per year today to more than \$2.4 billion by 2020 – and add over 550,000 jobs to the provincial economy.** Private sector-led growth could drive such a transformation, but only if there is the concomitant opening of opportunities for local and international investors, strategic investment in infrastructure and supporting services, and coordination with the central government and international donors.

Three priority economic sectors hold the potential to drive such growth and prosperity for Herat during the coming decade:

1. Agriculture
2. Extractive industries
3. Light industry

For each of these sectors, this strategy assesses Herat's potential investments that could unlock the greatest value, and the steps required to achieve success.

In addition, transportation and construction services are significant enablers to private sector growth. A number of local service industries also play a role in creating and sustaining a business-friendly operating environment (e.g., retail trade, finance).

Finally, several local niche and emerging industries could build upon Herat's heritage of culture and history as well as lead Afghanistan into the 21st century. Existing industries like handicrafts and carpets, as well as new industries like cultural tourism can build upon and highlight Herat's unique heritage and cultural traditions. As well, emerging industries such as information technology (IT) and alternative energy (e.g., wind power) can help meet business needs of priority sectors while laying the foundation for sustainable long term growth. Although these industries may not significantly contribute to Herat's employment and GDP growth in the near term, they provide opportunities for Herat to develop a distinctive "brand" and position the province that is leading Afghanistan's

development into the 21st century while simultaneously preserving its deep history and culture.

Priority sector – Agriculture

"Agriculture is the dominant factor in the Afghan economy, in food security, in livelihoods, sustainable resources, and national security. Agriculture will determine whether Afghanistan will succeed or fail."

Mohammad Asif Rahimi, Afghanistan's
Minister of Agriculture, Irrigation, and
Livestock

Agriculture is the foundation of Afghanistan's economy and must be a core pillar of Herat's economic development strategy. Currently, agriculture accounts for ~35 percent of gross domestic product, ~70 percent of national labor force employment, and ~70 percent of national exports (Exhibit 9). The Afghanistan National Risk and Vulnerability Assessment reports that 36 percent of households in Herat derive income primarily from agriculture and 20 percent derive income primarily from livestock.³⁰ Agriculture generates an estimated \$325 million – or roughly a third – of Herat's \$1 billion provincial output.³¹

An analysis of developing economies indicates that the agricultural sector is a primary driver of growth in most of those economies (Exhibit 10). From 1985 to 2005, agriculture was one of the top three growth sectors in 17 of the 25 developing countries sampled.³²

The agricultural sector can drive economic development in Herat by increasing exports and by replacing imported food products with locally grown crops. Products such as certain fruits, nuts, saffron, and cashmere are able to compete in regional and global export markets. However, insufficient storage, processing, packaging, and transport facilities currently limit export potential. Tradable agricultural commodities such as fruit and nuts could provide important sources of revenue to enable investment in strategically important capital goods to further accelerate development. Moreover, limitations of basic infrastructure mean that many farms are not efficiently connected to local markets – let alone national,

³⁰ Afghanistan National Risk and Vulnerability Assessment, 2005, page 130

³¹ See Exhibit 8 of this report

³² Global Insight data, McKinsey analysis

regional and global markets. Transportation delays mean that a significant proportion of Herati agriculture production is lost due to spoilage every season. Some reports suggest up to 70% of crops can be lost in a season to such wastage.

In Herat (and, Afghanistan in general) agricultural products such as wheat, dairy, meat, and poultry are not exported. Though Herat often maintains a grain surplus,³³ Afghanistan also continues to import about one-sixth of its grains annually.³⁴ However, wheat quality in Herat is often low and marginally suited for bread production. In making flour, therefore, Herati wheat is often blended with imported wheat to improve baking qualities.³⁵ Herat imported approximately \$285 million worth of agricultural products, foodstuffs, and animal products in 2009-2010 alone.³⁶ The potential to replace agricultural imports with provincially-grown products is significant and would create sustainable demand for Afghan agricultural products. Moreover, import substitution can protect the country from external supply shocks. The 2010 floods in Pakistan, for instance, underscored the strategic importance of ensuring food security in Afghanistan. Such demand is likely to grow as the consumption of processed foods and meats increases with population and income growth. In order to replace agricultural imports with locally grown products, Herat will need to increase agricultural productivity (in terms of quantity, quality, and consistency of supply), improve crop selection, and establish better linkages between farmers and local, regional and international markets.

Priority crops

It is important to focus on crops that will have the greatest economic impact. The three largest agricultural categories are cereals (e.g., wheat), livestock, and perennial horticulture, such as fruits and nuts (Exhibit 11 and 12). While saffron is currently a small market in Afghanistan, Herat's ideal growing conditions and global demand make it a potential high-value option for some farmers in the long-term. In fact, saffron has the potential to be as profitable per hectare as

³³ Ministry of Agriculture, Irrigation and Livestock, "Agriculture Prospectus Report," September 8, 2009

³⁴ SIGAR, Report to Congress, July 30, 2010, page 99

³⁵ 100% imported wheat is preferred but a blend is used for buyers who cannot afford the best quality flour. Borlaug Institute assessment

³⁶ Assumes Herat's profile of imports is similar to the national profile shown. These categories account for 22 percent of national imports and Herat accounted for 22 percent of national imports. See Exhibit 5 in this report

opium – if not more profitable.³⁷ Cultivation requires less fertilizer and water than other licit cash crops. Furthermore, the harvest and processing of saffron is labor-intensive and could generate significant employment.³⁸ However, Herati farmers are currently not able to realize the full potential of saffron for several reasons. First, poor processing infrastructure results in the export of raw saffron, leaving Herati farmers with relatively low returns.³⁹ Second, farming techniques are suboptimal and often include the use of chemical fertilizer, which decreases the value of saffron.⁴⁰ Third, lack of roads and other infrastructure increases the cost of transportation to world markets where saffron can capture global prices.

For farmers with sufficient scale (typically greater than two hectares), shifting to higher-value crops requires technical knowledge, seed stock, and, in some cases, enhanced irrigation to support a shift from low-water-intensity grains to higher-water-intensity fruits and vegetables. It is difficult to move farmers with 1 to 2 hectares in production to higher-value crops, as they likely use all of their production for sustenance. However, yield enhancement may provide these farmers with some additional space to cultivate higher-value crops. On farms with less than 1 hectare of land, farmers generally utilize all capacity for family sustenance. In these situations, yield enhancement does not result in a movement to “cash crops” because increased production will likely remain at or below sustenance levels. In Herat, up to 40 percent of farmers have 1 hectare or less, half have between 1.2 and 6 hectares, and only 10 percent have over 6 hectares.⁴¹ Therefore, crop switching is immediately viable to only about 60 percent of Herat’s farmers. For the remaining 40 percent, techniques such as land sharing and cooperative farming must be implemented before crop switching can have an impact.

Crop selection often takes a number of crop cycles or growing cycles before achieving widespread results. First, extension workers reach out to an entrepreneurial farmer in order to convince him to dedicate a small portion of his

³⁷ Saffron farmers may profit up to \$5,000 per hectare whereas opium poppy farmers profit \$4,622 per hectare. DACAAR, “Afghanistan Saffron Manual,” 2008 and Glaze, “Opium and Afghanistan: Reassessing U.S. Counternarcotics Strategy,” Oct 2007

³⁸ DACAAR, “Afghanistan Saffron Manual,” 2008

³⁹ Borlaug Institute assessment

⁴⁰ Furthermore, production organic saffron could increase the potential price. The US Department of Agriculture has organic standards that could be certified by non-private or private entities. Wyeth and Malik, “A Strategy for Promoting Afghan Saffron Exports,” 2002

⁴¹ Borlaug Institute assessment

plot to a new crop. After a successful growing cycle, a few other early adopters may choose to try the crop. Following additional growing cycles, other farmers in the community may choose to adopt. Even under ideal conditions, it may take a number of growing cycles for widespread adoption throughout the village or farming community to take hold.

Demand considerations are a necessary input into crop selection decisions.⁴² The capacity for the combined local and export markets to absorb a sudden shift in production must be considered before large-scale crop switching is undertaken. Examples in Africa have shown 100x increases in production in high-value crops in a single year. Unfortunately, local and export markets can often only absorb a 2x to 3x annual increase, resulting in rotting “high-value” crops and frustrated farmers. In order to avoid these scenarios, initiatives to improve crop yields (i.e., supply-side initiatives) need to be matched with other initiatives to foster linkages to customers (i.e., demand-side initiatives). Agricultural initiatives in Herat cannot be successful without establishing a system of production, markets, processing, and distribution as integral components.⁴³ Thus, it is critical to identify end markets for the new crops that are needed in advance, including specific buyers and their capacity to absorb new supply.

Dry fruits and seeds have surpassed carpets as Afghanistan’s primary export in the last few years.⁴⁴ However, despite the quality of Afghan fruits and seeds, large amounts of these products are not certified for export. For example, in terms of perceived quality, Afghanistan ranked no. 1 out of 10 major suppliers of dried fruits and nuts to India (beating out competitors such as the U.S. and Turkey). However, in a recent OTF Group survey of UK dried fruit and nut importers, over 80 percent indicated that they could not purchase dried fruits and nuts from Afghan exporters who do not comply with an internationally recognized certification system. The Ministry of Commerce and Ministry of Agriculture should provide export certification and up-to-date market research for exporters to help them identify and sell to the best markets in the world.

Livestock

⁴² This is the challenge that the UN WFP Purchase for Progress (P4P) program is attempting to address. P4P is just starting to ramp up in Afghanistan now.

⁴³ Public-private partnerships can play an essential role in creating and advancing market linkages. Borlaug Institute assessment

⁴⁴ The World Bank, “Afghanistan Economic Update,” October 2010

There is significant potential for income and employment growth in the livestock sector over the medium term, particularly since livestock numbers remain in recovery from wartime lows. In Afghanistan, livestock demand is more dependent on the domestic market than the export market. It will take a few more years for domestic demand to achieve a rate of growth that can support large-scale supply increases. A small proportion of livestock products is exportable and therefore can grow ahead of domestic demand. In the medium term, as demand becomes stronger and numbers recover from wartime lows, livestock will be a significant source of growth in farm incomes and a stimulus to the rural economy.

The livestock sector will eventually need significant efforts to improve the nutritional status of animals including a large increase in feed stock and the development of feed mills. One option to increase feedstock is the intercropping of feed crops (e.g., alfalfa and clover) in orchards and other available farmland. Substantial technical assistance will be required to improve veterinary services and animal health. Expanding agribusiness for meat and milk processing is also important. The development of livestock-focused agribusiness will require substantial assistance to the private sector to build trade associations, access credit, and adopt best practices.

Ongoing Food and Agriculture Organization (FAO) efforts such as the Poultry Project can have significant impact in Herat, where only 18% of households have poultry livestock.⁴⁵ The Poultry Project is designed primarily for women and provides poultry starter kits for beneficiaries. Beneficiaries receive training in poultry management, feeding, diseases, and bio-security.⁴⁶ In addition, FAO established a Dairy Union and constructed a dairy plant in Herat as part of its development of an integrated dairy scheme for Afghanistan. Such programs may have limited impact in the short-term given their scale, but the impact will increase as market linkages and storage facilities improve.

Historically, livestock has been a particularly important sector for the Kuchi population, which represents ~6% (~100,000 people) of Herat's population, depending on the season.⁴⁷ However, today, only a few thousand follow the

⁴⁵ MRRD Provincial Profile and Central Statistics Office, "National Risk and Vulnerability Assessment," 2007-2008

⁴⁶ FAO in Afghanistan August 2009 newsletter

⁴⁷ MRRD Provincial Profile and Central Statistics Office, "National Risk and Vulnerability Assessment," 2007-2008

traditional livelihood of nomadic herding because many can no longer support themselves from their livestock alone. Others have become farmers, settled in cities or immigrated.⁴⁸ Regeneration of the livestock sector may have significant social benefits by reconstituting a foundation of livelihood for the Kuchi population.

Irrigation

An essential limitation to crop production in Afghanistan is a lack of irrigated land. Of the total area available for farming in the country, less than half is cultivated annually, mainly because of water availability problems.⁴⁹ Estimates show that long-term water availability is enough to irrigate 5 million hectares, significantly more than the 2.6 million currently irrigated.⁵⁰ Thus, Afghanistan has the water resources available to expand the area available for farming by nearly 100 percent.

A comprehensive irrigation strategy should include: water harvesting and watershed management, including more water storage structures, increased effectiveness control of groundwater use, and improved intake structures and corresponding on-farm water management.

Agriculture value chain

Herat faces a number of challenges across the agricultural value chain (Exhibit 13). These challenges result in multiple inefficiencies, including low yields, poor-quality products, and significant losses due to crop damage in the harvest and transportation to market. These challenges significantly decrease the value farmers can realize from their land. Furthermore, a lack of “downstream” processing and packaging capabilities causes farmers to sell their crops at peak production periods, reducing the ultimate price they receive for their produce. This scenario results in a “vicious cycle” where crops are exported at low prices, processed or stored in neighboring countries, and then imported back to Afghanistan and sold at high prices. Investment in downstream processing plants has the potential to generate significant value across Herat’s agriculture value chains. For example, though Herat is recognized widely for its high-quality grapes, a lack of suitable processing facilities limits the province’s potential as

⁴⁸ United Nations High Commissioner for Refugees, “World Directory of Minorities and Indigenous Peoples – Afghanistan: Kuchis 2008,” 7 Sep 2010

⁴⁹ John Mellor, Afghanistan Agricultural Master Plan (unpublished draft), 2009

⁵⁰ John Mellor, Afghanistan Agricultural Master Plan (unpublished draft), 2009

major exporter of raisons to global markets. Investment in a raison processing facility (to include the necessary equipment as well as technical and management expertise) is just one low-cost example of how downstream investments can unlock significant value throughout an entire agriculture value chain.⁵¹

Improvement potential

There are numerous examples in the past of successful transformations in the agriculture sector, such as the commercialization of small landholders in Kenya (Exhibit 14). These transformation programs typically involve significant agricultural extension activities, organization of farmer cooperatives, and targeted investments along specific product value chains to support private sector development. If Herat is successful, it has the potential to add \$125 million to \$270 million to its economy through development of the agriculture sector over the next 10 years, up to a 75 percent increase in Herat's current agricultural income (Exhibit 15).

Expansion of the agricultural sector may create incremental jobs in the short term, especially during peak harvest seasons. In the long term, however, improvements in farming practices are likely to lead to consolidation. Nevertheless, farmer income can increase through efficiency improvements. Increased market participation among farmers is also achieved by decreasing the amount of land used for subsistence farming and simultaneously increasing land used to produce higher-value crops for sale. Even modest improvements across Herat's agricultural value chain can create substantial growth for the agriculture sector as the total impact compounds individual improvements.

Recommendations

Unlocking potential in Herat's agricultural sector will require a long-term perspective and a systematic approach. In the near term, development efforts should include both investments on the farm, as well as further downstream along the value chain.

On the farms, the public sector can increase on-farm productivity in three ways (Exhibit 16):

⁵¹ Estimated investment required for a raison processing facility is ~\$1 million, which would include facilities and equipment. In addition, successful implementation would require technical and management expertise to attain International Organization of Standardization certification and connect with export markets.

1. **Expand and improve the irrigation network.** Herat should adopt a return-based approach, where irrigation investment is linked to the value of the crops it will be used to produce. As Afghanistan further stabilizes, this approach can help obtain private sector financing for irrigation projects. A focus on irrigation aligns with the July 2010 Kabul Conference ANDS Prioritization and Implementation Plan and is a central part of Kabul's National Water and Natural Resources Development Program.
2. **Expand extension programs to help improve the decisions and techniques used on the farm.** Changing individual behavior at the farmer level is difficult and requires effective extension programs. These programs should focus on the formation of cooperatives, optimizing crop selection, and improving farming techniques. Government sponsorship of extension activities to create a critical mass of well-equipped extension workers as well as the coordination of extension efforts among actors is an essential step for successful outreach.⁵² Enhancing the productivity of extension workers with strong training and necessary equipment (e.g., by equipping them with motorcycles for quick transport between farms) is important to accelerate a crop transition initiative. It is essential that budgets provide for operating expenses (travel, supplies, demonstrations, training, communications), which typically account for 25% of total costs.⁵³ Extension worker training should emphasize a shared approach that incorporates local knowledge and avoids paternalistic "top-down" interactions with farmers. Government-sponsored efforts are essential to coordinate extension programs among various actors in order to reduce overlap, maximize reach, and ensure extension workers are well-equipped and properly trained. The Ministry of Rural Rehabilitation and Development's National Comprehensive Agriculture Production and Market Development Program is the major provider of government-sponsored extension programs and should work in coordination with NGO extension programs.
3. **Facilitate credit for modernization efforts.** Low-interest micro credit is essential as a means for farmers to purchase mechanized farming equipment, invest in improved seed, fertilizers, pest controls, and processing. Improvements in irrigation practice, such as drip irrigation, also require

⁵² Empirical evidence suggests that widespread impact requires a minimum of one extension worker for every 200 farms

⁵³ Current budgets are allocated almost exclusively to salaries, but experts believe at least 25% must be dedicated to operating expenses. Borlaug Institute assessment

micro-credit backed capital investment.⁵⁴ Another potential method of access to capital for farmers could be through a commodities exchange (more on this later in the document). Despite the method, the introduction of mechanized equipment, where appropriate, is important to decrease spillage at harvest and capture other efficiencies. However, the introduction of any new technologies, particularly mechanization, should not substantially displace labor and employment on the farms.

Downstream, there are both near- and long-term needs (Exhibit 17):

1. **It is essential to create facilities and institutions that establish strong market linkages both within Herat and outside to export markets.** Farm-based, supply-side efforts to increase yield and grow higher-value crops must be paired with demand-side institutions and development. Capital projects such as roads to improve market access for rural areas and cold storage facilities must be developed in coordination with support for the food processing and packaging industries.⁵⁵ The example of cold storage investment illustrates that to be successful there must be workers and managers with technical and operational skills,⁵⁶ reliable utilities (depending on the project), and infrastructure investment throughout the value chain (e.g., refrigerated trucks are just as important as a cold storage building to ensure the produce does not change temperature at any point before reaching the point of sale). Without consideration of all these throughout the “cold chain,” investment can fail to deliver the desired impact. Proper training and capacity-building is an important component of creating market linkages. Capacity-building initiatives must include addressing the need for analytical capacity (testing laboratories for soils, water, foods, disease, etc.).⁵⁷
2. **In the longer term, other infrastructure investments like rail and potentially the airport can help decrease transportation costs and connect Herat with regional agriculture markets.** To prioritize funding, the

⁵⁴ Borlaug Institute assessment

⁵⁵ Creation of rural food processing centers with high quality control and uniform marketing and distribution systems is particularly effective.

⁵⁶ If successful, cold storage must be systematic and complete. When commodities enter the system, assurance must be made to maintain the system to the end-user. Borlaug Institute assessment

⁵⁷ Laboratory capacity should be developed in the private sector as well as at the Ministry and University level. Additional investment should be taken to improve diagnostic and analytical capacity for food quality, disease identification and input standards (e.g., fertilizers, feeds, and genetics). Borlaug Institute assessment

government should consider each investment within the context of the specific value chains that it will affect. An economic “returns-based” approach where infrastructure development is linked to output from specific agricultural commodities helps to ensure the financial viability of the investment. Additional long-term investment considerations include providing financial incentives for low-cost energy systems (e.g., wind, solar) to improve rural capacity and water use.⁵⁸

Priority sector – Extractive industries

"Afghanistan could be one of the leading producers of copper, gold, lithium, and iron ore in the world. I believe this has the potential to be transforming for Afghanistan."

Ian Hannam, JP Morgan mining expert

Herat has the potential to increase the value of the marble and industrial minerals in the near term, and preliminary surveys indicate the presence of other natural resources with significant medium- to long-term potential (Exhibits 18 and 19). Potential reserves include minerals suitable for local use (e.g., clay, gypsum, and limestone) as well as resources for which there are global markets (e.g., tin, copper, lithium, iron ore, oil, and gas).⁵⁹

Three factors affect the local government’s ability to have impact in this sector:

1. Mineral laws and regulation fall under the jurisdiction of the MoM.⁶⁰
2. Like many other places in Afghanistan, a number of Herat’s potential mineral deposits have not yet been fully surveyed to determine the type, quantity, and quality of the province’s natural resources.
3. The extraction timeline for minerals can vary substantially by mineral type and geological formation (Exhibit 20).

This section considers the actions required to support the extractive industries.

Marble

⁵⁸ The use of farmer-owned utilities such as the US Rural Electric Administration (1935) and US Soil & Water Conservation Districts (1935) have been shown to be extremely beneficial. Borlaug Institute assessment

⁵⁹ See Exhibit 20 of this report

⁶⁰ As stated in Article 9, Chapter 1 of the Constitution of the Islamic Republic of Afghanistan and Articles 4 and 6 of the Minerals Law (February 14, 2010)

Currently, the marble industry is the only mineral resource actively mined in significant quantities in Herat, other than industrial materials such as gravel.⁶¹ The quality of Herat's white marble is world-class and initial assessments indicate strong growth potential (Exhibit 21). International awareness of Herat's high-quality marble continues to grow, which increases marble's potential to be a viable export industry and generator of much-needed foreign exchange.⁶²

- **Processing steps** (in which stones are cut into blocks and slabs) account for almost 80 percent of the marble value.⁶³ Interviews and site visits indicate that Herat is losing a tremendous amount of value due to outdated mining techniques and a lack of downstream processing capabilities (Exhibit 22). Due to high capital requirements, private investment in the marble industry will greatly help increase growth. Herat should continue building on its initial achievements, such as those by the Chest-e-Sharif quarry, which became the first marble quarry in Afghanistan to modernize its extraction operations.⁶⁴
- **Transportation** remains an important bottleneck for the marble industry. Marble processors report that the road to the marble reserve at Chest-e-Sharif is impassable for their vehicles approximately 2 to 3 months every year.⁶⁵ The road to Chest-e-Sharif is an important artery for many sectors within the province and should be improved. However, a world class road may not be required, and less capital-intensive alternatives (e.g., gravel road improvements) could generate significant impact while maintaining lower maintenance costs. In addition, transportation of marble by road is significantly more expensive and less reliable than by rail.⁶⁶ Therefore, improvement of the east-west road and completion of the railway to Iran promise to have significant impact.

⁶¹ Actual quantities have not been confirmed

⁶² Despite this potential, it should be noted that, the current layer of excavated marble has significant levels of fracturing. At this level of fracturing, large, 20 tonne blocks of marble required by countries like China and Indonesia cannot be produced. It is unknown whether deeper deposit layers will have less fracturing.

⁶³ OTF/USAID, "Marble Cluster Strategy," February 2006

⁶⁴ USAID, "Afghanistan International Marble Conference Kicks Off in Herat," April 13, 2010

⁶⁵ The road is reportedly closed due to spring flooding. Site assessment visits, July 11, 2010

⁶⁶ Transport by rail is 40 percent less expensive than road based on data from the Indian Ministry of Rail for a distance of 1,100 kilometers. Another important consideration is the greater ease of damage caused by a terrorist attack on rail.

- These improvements across the marble value chain have the potential to increase value captured in this industry from \$3.8 million to over \$30 million per year – a 700 percent increase in value captured (Exhibit 23) – and create 1,800 additional jobs.⁶⁷

Industrial minerals

Herat has the opportunity to develop its deposits of clay, limestone, gypsum, and coal to create a large construction materials sector that could have substantial impact on GDP in the next 5 years. These raw inputs can be used to make a variety of materials used by the construction industry (e.g., cement, bricks, and dry wall). Many of these construction materials are currently imported – thus, creating a significant import substitution opportunity, provided sufficient quality standards can be met at competitive costs.⁶⁸ Extraction of these minerals does not require advanced technologies, and therefore could reach scale in the next 5 years with the appropriate level of investment (to include both extraction and downstream processing, such as a cement plant).

In order to realize the value of these industrial minerals, the most important challenge to address is mining rights and the responsiveness of the MoM to local private sector needs. The provincial and municipal leadership should advocate on behalf of local business interests to the MoM and help ensure local private sector needs are addressed. This will likely require a top-down approach leveraging relationships at the highest level of the MoM, at least until MoM establishes a more capable and responsive regional department in Herat. In addition to this challenge, significant energy and capital-intensive factories are required to process minerals. Coal from the northeast area of Herat may have the potential to meet these energy needs as the processing of industrial minerals expands,⁶⁹ and

⁶⁷ Revenue increase based on increased production from road to Chest-e-Sharif quarry, increasing amount extracted, improving extraction technology, and increasing downstream processing capacity. Employment estimate based on volume increase from 36,000 to 160,000 tons and a Palestine benchmark of 100 tons of production per worker; OTF/USAID "Marble Cluster Strategy," February 2006

⁶⁸ Global Cement Report (2009)

⁶⁹ The quality of coal affects its usage. For example, lignite can be used for power generation or ornamental stone and bituminous coal can be used in steam-electric power as well and heat and power applications in the manufacturing and to make coke. The quantity of coal from the northeast area of Herat that is usable for energy and coking purposes is currently unknown, based on interviews with USGS in August 2010 and USGS, "Fact Sheet 2005-3073," June 2005.

should be developed in coordination with an industrial minerals corridor in eastern Herat.

Other natural resources

Other potential opportunities for untapped resources in Herat include oil and gas, barite, copper, tin, and lithium and iron ore.⁷⁰ However, with the exception of alluvial tin and lithium,⁷¹ development of these resources is neither assured nor a near-term opportunity.

- First, the quality and reserves of these resources have not yet been fully validated. Further geologic surveys and sample analyses are required to confirm the size and potential quality of Herat's various mineral resources. Private sector investors and the MoM have limited resources, both in terms of capital and capacity. Development efforts are likely to be concentrated first where the largest, and highest quality deposits have been confirmed by geological surveys.
- Second, assuming promising deposits are validated, development of these natural resources is typically a long-term process.⁷² Exploration and feasibility studies alone can take one to three years, and even up to 10 years in some cases. Validating and developing previously undeveloped resources in emerging economies can present special operational challenges. Direct employment impact and value capture can often take 10 years or more (Exhibit 24), though ancillary jobs in infrastructure and artisanal production are sometimes created in the build up to full resource production. Major developments so far in Afghanistan highlight such potential challenges. For example, the tender process for the Aynak mine started in 2003, yet was not awarded to the China Metallurgical Group Corporation until November 2008; furthermore, Aynak mining operations are not expected to commence until

⁷⁰ USGS interviews, July 14, 2010; current mean estimate is 21 million barrels (\$1.7 billion) of oil and 45 billion cubic feet (\$200 million) of natural gas in the Tirpul basin based on USGS Fact Sheet 2009-3070

⁷¹ USGS experts estimate that alluvial tin and lithium could be extracted in 1 to 4 years and 4 to 6 years, respectively.

⁷² Alluvial tin and lithium are the exceptions as they could be extracted in 1 to 4 years and 4 to 6 years, respectively. USGS interviews, August 19, 2010. For lithium examples, see the work done at Namaskar-e-Herat. In optimistic cases, copper can be started at a small to medium-scale with local investors, which would necessitate relatively low capital investments. Moreover, though the deposit may be in the exploration phase, there are hundreds to thousands of jobs that could be created even in this near-term phase. There are also fees paid to national and provincial governments during the exploration phase. For examples, see the work done at Duser-Shaida deposit (copper) by the task force.

2012. Though the Aynak mine tender was a very large deposit and the MoM's first tender, limited ministry capacity, insufficient governance mechanisms, and the need for improved oversight of the tender process will likely slow future tender processes.⁷³ In another example, The Hajigak iron ore tender process recently had to be restarted after company complaints and withdrawals stalled the process.⁷⁴

- Third, mining rights and royalties are controlled at the national level.⁷⁵ The MoM conducts tenders for mining rights and the ministry may not prioritize Herat's reserves. While Herat will benefit in terms of job creation and income generated along the mineral value chain, Herat may not receive a significant share of royalties from the development of its resources.
- Fourth, high transportation costs decrease competitiveness in global markets (Exhibit 25). The preliminary estimated cost per tonne to transport materials to sea is \$115, which is prohibitively expensive for minerals with low-value per tonne. Completion of a railway link south through Pakistan or through Iran could decrease transportation costs by 40 percent.⁷⁶

Despite these reasons for caution, mineral extraction could become a core pillar of Herat's economy over the long term. For example, a recent survey estimated that the Dusar-Shaida copper deposit contained 4.34 million tonnes of copper valued at approximately \$29B.⁷⁷ The extraction of the Dusar-Shaida copper deposits would have significant impact on the province's economic output. Herat's public sector can also differentiate itself from other provinces in Afghanistan, despite its lack of direct control over the tender process, access to information/analysis, and tax subsidies. Mining investments are high-risk endeavors for companies to undertake. Therefore, the government should prioritize actions that reduce the perceived level of mining risk in Herat.

⁷³ The time required for the tender process will vary based on commodity, size, and other factors affecting interest in the deposit. Analysis of the Aynak tender is based on Yeager, "Aynak Copper Tender: Implications for Afghanistan and the West," (2009)

⁷⁴ Ministry of Mines, "Request for Expression of Interest Hajigak Iron Deposit," 23 Feb 2009; BusinessWeek, "Afghanistan to Seek Fresh Iron Ore Bids After Company Protests," 10 Feb 2010

⁷⁵ As stated in Article 9, Chapter 1 of the Constitution of the Islamic Republic of Afghanistan and Articles 4 and 6 of the Minerals Law (February 14, 2010)

⁷⁶ Estimate based on difference in costs of transport by road versus rail over 1,100 kilometers from the Indian Ministry of Railways. This figure, 1,100 kilometers, is an approximate distance from Herat to a sea port.

⁷⁷ Task Force for Business and Stability Operations, "Mineral Resource Team 2010 Activities Survey," January 29th, 2011

As of September 2010, the United States Geological Survey (USGS) plans to continue its work with the Afghan Geological Survey to validate the resource potential over the next few months for the Dusar-Shaida reserve and lithium deposits.⁷⁸ The results of these surveys could provide the information required to attract international investors to this sector critical to Herat's and Afghanistan's well-being.⁷⁹

Recommendations

Local and national governments should focus on four important areas to drive profitable growth in extractive industries and position Herat to attract investment in mining and processing (Exhibit 26).

1. **Improve structure and application of mining laws to enable private investment and development in Herat.**⁸⁰ A transparent legal structure and confidence in government stability and support are important factors to attract global mining companies. For example, many private companies have difficulty obtaining mining rights from the MoM in Kabul. These types of challenges must be addressed from the top, most likely leveraging relationships between the governor, the mayor, and the Minister of Mines. In addition, a long-term solution should include a dedicated liaison in the MoM for Herat. Afghanistan has made promising improvements, such as becoming a candidate country to the Extractive Industries Transparency International (EITI) in April 2010, but must continue to address corruption as a primary risk (particularly in the tender process). Furthermore, taxes/subsidies and attractive royalty structures should be designed to encourage investment and exploration.
2. **Address important bottlenecks in the marble industry.** First priorities in the marble industry are to encourage investment in marble extraction and processing operations (either through new private investment or improved credit facilities for existing operations) and to improve transportation networks required to connect marble supply with demand. In addition,

⁷⁸ USGS completed visits to Dusar-Shaida and lithium deposits in July and August 2010

⁷⁹ For more detailed information on specific deposits, see TFBSO, "Mineral Resource Team 2010 Activities Survey"

⁸⁰ This document focuses specifically on several factors that are most relevant to Herat, but they must be considered within a broader strategy to manage resources. Examples of actions needed to address the "resource curse" include establishing a fully independent central bank, maintaining sound fiscal and monetary policy, establishing a stabilization fund, requiring independent audits of industry and government, etc.

completing the Ring Road and the railway to Iran are “no-regrets” moves that will benefit marble and other industries. Herat has an opportunity, unique to Afghanistan, to develop its resources in a secure, friendly business climate. The central government, external government donors, and aid organizations should continually push for prioritization of Herat in national development discussions. Given that the only option for transport by rail to sea is through Iran (against whom significant sanctions have been established), waivers such as the Office of Foreign Assets Control (OFAC) waiver could help Herat access global markets to sell its superior-quality marble.⁸¹

3. **Support the Afghan Geological Survey.** Herat’s local government should encourage and support these surveys however needed. Additionally, Herat should take steps to ensure all available data are shared by AGS/USGS and incorporated into any branding and trade promotion efforts in Herat, such as on the AISA Web site.
4. **Position Herat to attract investment from global mining companies and ensure local value-added processing/finishing of minerals extracted in the province.** First, Herat can attract mining companies by using tax incentives on any products/income that are under provincial jurisdiction and by demonstrating a clear process to deal with land ownership issues near mining areas. Second, Herat should actively support the development of minerals processing centers within the province. This includes infrastructure requirements (e.g., the Ring Road and rail system), capacity-building (e.g., well-trained workforce), and other business-friendly reforms (e.g., efforts to reduce corruption). Although Herat may not possess the diversity and size of mineral resources found in other areas of Afghanistan, the province has the potential to attract investors by marketing its other competitive advantages and it should highlight these strengths to the national government, MoM, and private investors.

Priority sector – Light industry

“Unlike other industrial parks in Afghanistan, the Herati park has stable electricity and is located in a relatively secure part of the country, making it an attractive place for manufacturers to locate their business.”

⁸¹ The “Integrated Civilian – Military Campaign Plan for Support to Afghanistan” (2009) stresses the importance of the OFAC waiver to advance economic development initiatives in the western part of Afghanistan. Recent additional sanctions placed upon the Islamic Republic of Iran by the United States will reportedly make obtaining such OFAC waivers more difficult. Interview with US Commerce Official, July 2010

The light industry sector includes a variety of small- and medium-sized enterprises across a number of different industries (Exhibit 27). In addition to being an important sector in its own right, light industry adds downstream value to products in other sectors (Exhibit 28). Currently, this added value is often lost to regional competitors.

Herat's industrial park is a great strength on which to build and support a diverse set of light industry business enterprises (Exhibit 29). The industrial park currently supports 180+ active businesses and provides employment for an estimated 10,000 workers, despite only using 75 percent of its available land.⁸² The industrial park provides a secure area, reliable electricity, and other benefits to help businesses grow. However, site visits and interviews indicate a number of areas that could be improved to create a more business-friendly environment. For example, land rights within the industrial park continue to be an issue that hinders investment although some progress has been made on this front recently. Secure and judicially protected deeds to land can be used as collateral for borrowers, thereby expanding capital available to fund growth investments.

By leveraging the strengths of Herat's industrial park, the light industry sector has the potential to increase Herat's provincial output by up to \$515 million and add almost 35,000 jobs over 10 years (Exhibit 30).

Recommendations

Though each SME value chain has its own challenges, there are recurring, systemic factors that affect light industry businesses. The public sector can promote economic growth in the light industry sector in three ways, listed below. (Note: Recommendations 1 and 2 below apply to all priority sectors and are discussed in further detail in the final section of this paper, titled "Recommendations to focus public sector economic development efforts.")

1. **Create and sustain a supportive business environment.** Examples of this are access to favorable credit, land rights, fair trade policies, reliable electricity, stable relationships with government, reduced corruption.

⁸² Interview with Mr. A. Hussein Bamyani, Head of Herat Industrial Park, July, 10, 2010; Industrial Park Survey, Herat, January 2011

2. **Improve communication and coordination among private and public sector organizations**, including Afghan Chamber of Commerce and Industry (ACCI), Industrial Park Business Leaders Association, AISA, and Herat University. To support business needs, the public and private sectors must establish effective channels of communication and coordination (Exhibit 31). For example, vocational education classes can help close the gap between private sector business needs and existing labor force skills in two ways. First, training and apprenticeships in trades (e.g., masonry, electricians, plumbing) can address specific areas where Herat lacks sufficient skilled labor. Second, students without work experience may benefit from targeted programs to learn about potential job opportunities (e.g., seminars or career fairs) and specific applied skills (e.g., accounting, management) that are highly valued by the public and private sectors
3. **Limited, but targeted investments** and subsidies to remove bottlenecks in high-potential industries (e.g., carpet-washing facility).

Niche and emerging industries

While remaining a small portion of GDP and employment contribution in the near term, there are several “niche” and “emerging” industries that could reinforce Herat’s distinctive image and “brand,” as well as lay the foundation for the development of new industries with long-term growth potential.

First, a number of industries can leverage Herat’s rich heritage of culture and tradition. Handicrafts are exportable goods that provide a disproportionate level of employment to the female population while helping to enhance the global image of Herat and Afghanistan. Herat’s wooden handicrafts have a deep history. Rug and carpet manufacturing also builds upon Herat’s heritage while providing significant employment. Carpets represent up to 27% of Afghanistan’s exports,⁸³ however Herat makes only ~5% of total rugs in Afghanistan, and the local carpet industry has recently been under significant stress.⁸⁴ As long as carpets continue to be washed and cut in foreign countries like Iran and Pakistan, they will not be exported globally as Afghan products and therefore cannot be leveraged to create an indigenous brand.

⁸³ Afghanistan Customs house data indicates 5% of total exports while US Comtrade estimates carpets represent 27% of total exports. The Afghan Carpet Exported Exports Guild estimated \$150m in total Afghan carpet exports in 2005.

⁸⁴ OTF/USAID “Carpet Cluster Strategy”, Kabul, 2006

Herat may also support significant tourism in the medium-long term in addition to attracting business visitors. Herat – once visited by Alexander the Great and then the capital of Persia – has a number of cultural attractions such as the Jumah Mosque, the Herat Citadel, and the Fifth Minaret. In the near term, Herat should work to preserve these precious artifacts with the help of organizations like the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Aga Khan Foundation, and achieve UNESCO’s designation of its major centers as “world heritage” sites. The development of a high quality hotel⁸⁵ would facilitate travel to the region by businessman and potential investors, in addition to tourism travel.

Second, Herat has the potential to develop some niche emerging industries that will support modern growth and help establish the province as a vanguard of progressive development. One such industry is information technology (IT). The University of Herat has a large, well managed computer sciences department that graduates a number of skilled programmers each year. The NATO Public Diplomacy Division’s Virtual Silk Highway project (SILK) will link academic institutions in Afghanistan and Central Asia with high-speed internet connectivity and plans to include Herat University.⁸⁶ Herat could continue to leverage these capabilities by establishing an independent IT center that could provide direct IT support to city and regional development projects, and also serve as a business incubator for the industry. Another potential industry is alternative wind energy. Herat is known for heavy winds that blow from the northwest during May to September, but may provide a great environment to capture wind energy year long. In fact, USAID currently has a pilot program to test wind mills in the area and determine the viability of this potential energy source.

Supporting sectors

The creation of any good, from raw material to end-user, is dependent on several important supporting sectors. For example, a construction firm builds a factory that produces goods. Roads enable transportation of goods to market. Retail and wholesale traders sell the goods to consumers.

⁸⁵ Financing for this project may be partially available using proceeds from lease revenues collected by Herat from the US government for its new consulate in Herat City

⁸⁶ North Atlantic Treaty Organization website. The SILK project is supported by the Science for Peace and Security (SPS) division of NATO.

The transportation and construction sectors will benefit greatly from increased economic development in Herat. Implementation of major infrastructure projects will require significant capital. Herat's public sector leaders must prioritize among potential projects carefully. Public sector oversight of project execution is required to ensure Herat captures the full benefit of development in the region. For example, Herat should encourage maximum use of local labor for project execution. As well, Herat should encourage the use of locally sourced raw materials, such as indigenous limestone suitable for cement production. In addition to the short-term economic impact, local sourcing will help Herat become more self-reliant and build the skills and capabilities of its people.

Considerations for Herat's priority infrastructure projects

- **Improvements to strategic roads that connect Herat** to other provinces and rural areas to markets will help accelerate the growth of the transportation sector as well as other priority sectors that depend upon it. Such improvements include both the Ring Road, the east-west road connecting Herat City to neighboring provinces (and eventually Kabul), as well as secondary roads that connect rural communities to these primary transportation routes. The construction of a bypass around Herat City, for instance, has the potential to expand dramatically the number of trucks that can transit the area 24 hours a day, as opposed to the current rules that limit trucks to transit through Herat City only during the evening hours. While high quality major roads are important, in many cases, increased connectivity can generate substantial impact while using less capital-intensive improvements, such as gravel.
- **Rail linkages** have great potential to facilitate trade and decrease total cost of business; however, rail investments must be considered in the context of the security situation.⁸⁷ Unlike roads, low-tech sabotage can easily shut down an entire rail system. Mitigating security steps are possible, such as remote sensors, hiring of a robust security force, or agreements with local communities. Herat should first focus on completion of the planned railway from Iran to the city of Herat. In the medium term, the city should next consider a rail link north into Turkmenistan through Koshk. Completion of a Turkmen line would provide Herat with railways across both of its international borders. Over the longer term, Herat should support the

⁸⁷ As noted previously, the potential savings in transportation costs from rail versus road is 40 percent as estimated using data from the Indian Ministry of Rail.

completion of the proposed northern link to Mazar-e-Sharif, which would then connect to Uzbek rail via the recently completed Termiz line. As a final priority, Herat should also fully participate in ANDS ambitions for a Herat-Shirkhan, Bander-Kandahar-Spin, Boldak-Jalalabad link, although the timing of such a link is likely long term. Financing models for rail infrastructure typically vary based on the purpose of the rail network. Passenger trains tend to operate at a loss and require public financing to build, while freight rails can be economical when transporting materials over longer distances and therefore tend to receive more private financing.

- **International operations at Herat Airport** could increase connectivity for businesses and investors. The ANDS set a goal for Herat's airport to achieve full International Civil Aviation Organization (ICAO) compliance in the next three to five years.⁸⁸ The improvements required for international certification and flights must be fully understood and prioritized. While large-capital investment projects (such as a new runway and new terminals) certainly enhance the airport's status and capabilities, Herat's goal of achieving international status may depend more on less capital-intensive investments (e.g., immigration capabilities, security screening processes, runway lights). For example, Erbil Airport in Iraq expanded to include 31 international flights per week by the end of 2009 with an airport that included only one runway and three gates.⁸⁹ By upgrading the airport to international standards, Herat can create a direct link to global investors and markets. Before investing large amounts of capital into physical airport upgrades, local leaders must define the specific needs required to allow and attract international flights.

⁸⁸ Afghanistan National Development Strategy (ANDS) 2008 page 37, ANDS Update, 2010, page 107.

⁸⁹ APG via Innovate Schedule Data

RECOMMENDATIONS TO FOCUS PUBLIC SECTOR ECONOMIC DEVELOPMENT EFFORTS

The Task Force has identified agriculture, extractive industries, and light industry as three priority sectors that will help drive economic growth in Herat. Each of these sectors currently has bottlenecks that prevent growth and realization of the sector's full potential. However, some of these problems are outside the ability of the local government to address directly – particularly those factors related to macroeconomic policy and jurisdiction of the national government. Given limitations in capacity and funding, the provincial and municipal governments should focus their economic development efforts in three areas (Exhibit 32):

1. Create a “business-friendly” environment
2. Encourage locally-driven branding and trade promotion efforts
3. Prioritize strategic infrastructure projects.

1. Create and sustain a business-friendly environment

Herat has a unique opportunity to leverage current strengths and continue to improve its business-friendly environment. Herat should work to create an environment that nurtures and promotes private sector entrepreneurship, growth, and investment, particularly for small and medium-sized enterprises. A “business-friendly” operating environment includes four important elements (Exhibit 33):

1. Business operating factors such as reliable utilities, telecommunication, and skilled labor
2. Financial factors such as stable currency and inflation, fair tax regimes, and access to capital with reasonable lending terms
3. Business support such as availability of information, investor support services, and responsive public entities (e.g., local ministry departments and AISA)
4. Political/stability issues such as security, fair and transparent laws that are enforced, and limited corruption.

A recent survey of private sector businesses highlights several factors that adversely affect business growth (Exhibit 34).⁹⁰ Insecurity, corruption, government regulations, and unfair competition are the top-ranked problems by survey respondents in Herat.⁹¹ The government must comprehensively address these issues to create a business-friendly environment.

One clear problem voiced by the private sector is corruption. Of survey respondents, 54 percent indicate that bribes are required to conduct business in Herat (Exhibit 35). This data is in line with a Transparency International assessment, which ranked Afghanistan 179 out of 180 countries regarding the perception of public sector corruption.⁹² Local survey respondents in Herat indicate recipients of bribes are typically local government officials, national government officials, and customs officials.⁹³

The perception of corruption greatly deters investment and increases uncertainty, stunting private sector growth. However, there are several reasons to believe that improvement is possible. First, the western region of Afghanistan has lower incidences of bribery than the rest of the country.⁹⁴ Second, reported Customs House income increased almost 85 percent from solar year 1387 to 1388 when new leadership was installed.⁹⁵ Herat should continue to build on this success to change perceptions and ensure government actions are informed by the perspective and needs of private sector leaders.

The governor and mayor have the opportunity to prioritize local business interests at the national level and help the private sector work with the central government. This challenge must be addressed from the top down in the near term. Specifically, the governor and mayor should ensure strong engagement and advocacy with the central government so that local business needs are adequately and efficiently addressed. Wherever possible, they should also seek to build a shared agenda with leaders in other provinces and

⁹⁰ CIPE, "Afghan Business Attitudes on the Economy, Government, and Business Organizations," 2009-2010

⁹¹ Herat is relatively safe compared to other provinces and the high proportion of responses citing security as a primary concern may be due to Herat's relatively strong performance in other areas, such as electricity

⁹² Transparency International, Corruption Perceptions Index 2009

⁹³ CIPE, "Afghan Business Attitudes on the Economy, Government, and Business Organizations," 2009-2010

⁹⁴ UNODC, Corruption in Afghanistan, January 2010

⁹⁵ Customs House data provided during an interview on July 8, 2010

municipalities to address matters of common concern to the central government in a coordinated fashion. In the longer term, Herat must continue to work to ensure capable and responsive departments of national government entities are established in the province.

Herat's public sector must build upon recent progress and work to resolve the issue of land tenure policies and ownership rights (both within the industrial park, as well as throughout Herat).⁹⁶ Officially recognized property rights increase the value of land, improve ability to access capital by providing collateral, and decrease perceived risks to businesses. One potential process for resolving future conflicts that require central government approval is through the Private Sector Development Sectoral Committee (PSD-SC). For example, in an attempt to resolve the Herat industrial park land titling issue, the PSD-SC consulted with all involved parties (including local government, businesses, and commercial courts) and prepared a detailed letter explaining the case and a proposed resolution. The Herat governor then endorsed the letter to send to the Office of the President and Independent Directorate of Local Governance. Recognition of property rights and the existence of an effective process for resolving disputes will clearly demonstrate the rule of law to potential foreign investors and lending institutions.

Another factor that inhibits growth in Herat is insufficient access to capital. Meaningful private sector growth often requires significant capital expenditures for items such as modern equipment and raw materials that exceed the amounts provided by self-financing. Bank loans are a common way to finance private business growth. The vast majority of businesses in Herat, however, rely solely on profits and savings to fund growth, with only ~8% taking out bank loans (Exhibit 36). Moreover, self-financing with cash typically decreases the likelihood of long-term investments.⁹⁷ Without an environment conducive to bank loans, economic growth will be stifled.

The national government has recently managed macroeconomic stability and contained inflationary pressures. Nevertheless, Afghanistan's banking industry must continue to mature to develop the trust needed to allow people to use

⁹⁶ As of late 2010, there was some progress on this front as Super Cola in the Herat Industrial Park received its land title.

⁹⁷ When cash is used, the payback period required for investments is typically quite short because cash must also support ongoing operations. Therefore, businesses do not make investments that may generate significant returns over the long term in such a business environment. CIPE data from 2009-2010 survey

financial services more broadly, particularly in light of the Kabul Bank crisis in September 2010.⁹⁸ Lending terms have also been prohibitive for many private sector businesses in Herat. Interest rates reportedly remain high at ~12-22%, with banks typically favoring well-established families.⁹⁹ Banks also rarely extend loans beyond 2 years and continue to set difficult collateral requirements due to the uncertainty of repossessing unregistered land and other considerations.

The modernization of Afghanistan's banking system, therefore, remains critical and the local government should take steps to support and promote access to loans.¹⁰⁰ To do this most effectively, the barriers and obstacles for financial institutions must be fully understood. For example, the lack of a bankruptcy law is a significant impediment, as it is an important factor in assessing the risks of investing or extending credit. A recent report ranked Afghanistan last out of 183 countries for closing a business, which increases the difficulty of reallocating resources to more productive uses and suppresses the entrepreneurialism needed to drive economic growth (Exhibit 37).¹⁰¹ One area to emphasize would be to provide micro-credit to farmers in order to buttress the agricultural sector.

More fundamentally though, private businesses tend to lack basic awareness of lending institutions and their processes for evaluating loans. Specific capacity building to close the gap of understanding between businesses and lending institutions would likely increase access to capital for the private sector. In the short-term, this could take the form of business-to-bank workshops that increase community awareness of bank loan opportunities.

Over the long-term, private businesses would also benefit from other access to capital sources. One option could be to develop a commodities exchange in Herat. Such an exchange would provide a forum where buyers and sellers can trade contracts for raw materials or agricultural products that specify a product price, often for delivery sometime in the future. Producers could rely on contracts for future orders to justify near-term investments that they might otherwise avoid. Such an exchange would also have wider benefits for economic

⁹⁸ Among other issues, a run on deposits led to a loss of liquidity at Kabul Bank, which had previously accounted for ~57% of all bank loans in 2009. The World Bank, "Afghanistan Economic Update," October 2010

⁹⁹ "Regional Highlight Herat Province," Quarterly Newsletter, October-December 2010, Peace Dividend Trust.

¹⁰⁰ There are currently 13 banks with 19 branches operating in Herat. Banks only started registering though in 2003. Expert interviews.

¹⁰¹ IFC, "Doing Business 2010 Afghanistan," 2009

growth. In other developing areas, building commodities exchanges has increased the amount of agricultural output that eventually reaches the market by connecting producers with a wider range of consumers.¹⁰² Such undertakings have also galvanized significant infrastructure investment and led to improved product quality due to market transparency. Given the importance of capital financing to economic growth, it will be important for the local government to improve a variety of access to capital options for businesses throughout Herat.

Business consistently cite lack of protection from imports as an issue that adversely affects business growth.¹⁰³ Afghan import tariffs are low compared to neighboring countries that comprise the majority of trade, particularly in agricultural products.¹⁰⁴ Though producers can apply for exemptions through AISA for raw materials and intermediate goods, such efforts have been less transparent and lead to corruption.¹⁰⁵ Trade policies that encourage in country value-add production and access to export markets will improve the business environment.

The industrial park is an important asset that Herat should use to attract businesses and investors. Leaders from both the public and private sector have cited the Herat industrial park as major economic success story within Afghanistan, and the park should serve as a light industry hub for years to come. The park's management can drive the growth of business and investment in the park through effective zoning and planning practices, efficient delivery of services, and improved responsiveness to the needs of park businesses. The first order issue should be to strengthen industrial park management,¹⁰⁶ which is currently under-resourced and ill-equipped to provide adequate services to industrial park business owners. Zoning and planning are required to ensure utility infrastructure (e.g., park expansion, canalization, waste water, power upgrades, roads, lighting, perimeter walls) is properly sequenced and funded to meet business needs as the industrial park grows. Without proper planning, businesses will suffer from delays or shortages of capacity of key utilities; this

¹⁰² Prior to the establishment of the Ethiopian Commodities Exchange, only 1/3 of overall agricultural output reached the marketplace. The construction of the commodities exchange in 2008 has since resulted in ~1 million small farmers trading on the exchange in only 2 years. ECX-UNDP Knowledge Forum, "On the Making of a Market: Global Learning from Commodity Exchange Experiences," 2010.

¹⁰³ Site assessment visits, July 11, 2010

¹⁰⁴ WTO Country Tariff Profiles; UNCTAD TRAINS database

¹⁰⁵ Producers can apply for a 1% tariff rate on imports of selected raw materials and intermediate goods through AISA in Yousofi, "Trade and Tariff Policy Framework for Afghanistan," 17-18 June, 2008

¹⁰⁶ Currently under the Ministry of Commerce & Industries directorate

will limit potential growth and drive up costs for companies. While planning for the infrastructure to support these services is vital, management must also deliver consistent service to support maintenance and daily operations. Globally, highly successful industrial parks and economic cities outsource management responsibilities to private firms; Herat may consider such a private sector partnership in the future.

The public sector should work to ensure public services are more visible, while working to improve service delivery. Both citizens and businesses will benefit from a better understanding of how best to utilize available public goods. However, the private sector must take a leadership role to fill critical capability gaps by establishing business services that improve financial management, marketing/sales, tax/legal compliance, and general business operations.

Herat government leaders may also be able to address a number of other areas to improve the overall business environment (e.g., government regulations, tariff regime and trade policies, crime, high fees for permitting). A clear understanding of these problems is required in order to determine the actions required for a solution. To effectively identify and address these issues, Herat government leaders should continue to forge strong communications and collaboration with the private sector through organizations such as the ACCI and the Industrial Park Business Leaders Association, and sector trade organizations such as the Marble Association. Furthermore, government bodies like AISA must be both proactive and responsive to private sector needs.

2. Encourage locally-driven branding, trade, and investment promotion

Herat has a unique opportunity to build upon its strengths by implementing a provincial-level branding, trade, and investment promotion campaign, potentially through a public-private partnership with the local government, the regional AISA office, and business organizations such as the local chapter of ACCI. The objectives of such a campaign would be to increase exports, attract foreign direct investment, support international outreach and, in the long term, promote tourism (Exhibit 38). Case studies demonstrate the success of other states and countries in distinctly branding their regions and most important economic sectors, resulting in substantial economic growth (Exhibit 39). Such an effort could have a unifying effect that leads to sincere collaboration on the part of public and private sectors actors.

Such a campaign should brand Herat as regionally distinctive and target communications and interactions based on priority industries:

- **Geographic promotion.** Herat can develop a marketing campaign with messaging that focuses on local strengths, such as relatively good security, a strategic geographic location bordering Iran and Turkmenistan, and a dynamic private sector. One example of such a regional promotion strategy is the Kurdistan Regional Government's "Kurdistan: Gateway to Iraq" campaign. In addition, Herat can forge relationships with international partners to promote its image abroad (e.g., Sister Cities International, UNESCO, Aga Khan Foundation).
- **Sector and industry promotion in Herat.** Herat should promote specific sectors by hosting trade conventions, developing international road shows to promote local products, and hosting site visits for important potential investors in priority sectors. A prime example of success was the 2010 spring international marble conference hosted in Herat. The public sector can support these activities by coordinating among private sector associations, providing targeted funding, and increasing visibility of these events. For businesses within priority sectors, Herat can promote the quality of locally produced products. The "Afghan First" program is another potentially large, near-term opportunity. This program encourages U.S. and ISAF contracting officers to prioritize spending with local Afghan companies wherever possible. Resources are available through AISA, the Afghan First website, the Regional Contracting Center, and other sources to ensure that capable local firms are known to contracting officers and that local businesses are trained in how to submit proposals and meet contract requirements.
- Infrastructure support, taxes, and regulations are levers to create a business-friendly framework that supports branding, but a successful marketing campaign is vital to maximize the impact of these supporting levers. The government should collaborate with AISA and representatives of the local business community to establish a Herat-specific Web site and ensure that its industrial park is included on the main AISA Web site. Herat must ensure

investor inquiries are adequately addressed, a goal many investor support agencies do not meet.¹⁰⁷

In order to effectively execute such a campaign, the government should identify stakeholders who have sufficient resources to push this effort. This initiative will likely benefit from a public-private partnership involving local government, the regional AISA office, and private sector leaders. While care should be taken to ensure initiatives align with AISA's national trade and investment promotion strategy, Herat must find ways to drive impact from the local level in order to ensure Herat's strengths and products are adequately represented.

3. Prioritize strategic infrastructure projects

A select number of major infrastructure projects can unlock value across priority sector value chains by: 1) better connecting markets; 2) increasing reliability and safety of business trade; and 3) decreasing transportation costs, product quality losses, and speed-to-market. The scale of these projects will require significant donor assistance, both to finance and to assist implementation. Herat's public sector can facilitate this process best by clearly communicating their priorities to donors and the central government and by making strong, fact-based business cases for prioritized projects. Examples of important infrastructure improvements are outlined below and in Exhibit 40:

Near term (completed in less than 2 years)

- Targeted upgrades to Herat's airport to achieve ICAO certification and begin international flights
- Improvement and completion of the road from Herat City to Chest-e-Sharif
- Completion of the Ring Road connecting Herat to Mazar-e-Sharif
- Road improvements within Herat City
- Completion of the hydropower dam on the Hari Rud River
- Completion of the railway connecting the city of Herat to Iran (if security permits)

Medium term (completed in 2 to 5 years)

¹⁰⁷ IFC Global Investment Promotion Benchmarking (2009) reports that significant positive impact can be gained by focusing regional investment authorities on two key tools for investment promotion: Web site and inquiry servicing.

- Addition of railway connections to Turkmenistan through Koshk, and to Mazar-e-Sharif; development of railway linkages in and around Herat City; construction of a railhead near the Herat industrial park
- Other required airport upgrades to increase volume capacity and encourage direct flights from regional neighbors
- Continued road expansion and improvement to: connect rural areas to economic market centers, relieve traffic congestions via a truck bypass route around Herat City, and to form a commuter ring around Herat City to demarcate city borders
- Targeted expansion and rehabilitation of provincial irrigation system

Long term (completed in 5 or more years)

- Targeted road investments to access natural resource reserves and attract international private sector investors
- Inclusion in the proposed ANDS railway link for Herat-Shirkhan, Bander-Kandahar-Spin, and Boldak-Jalalabad.
- Support for private sector development of indigenous power generation and other services to support business and population growth
- Continued development of the Herat airport to support a cargo airport operation.

□ □ □

Extensive expert assistance was provided to inform the perspectives offered in this economic development strategy, including Herati citizens as well as numerous stakeholders from the international support community. After 30 years of war in Afghanistan, there are significant gaps in basic economic data and information. Throughout this document, great care has been taken to leverage existing data and make informed judgments from that limited fact base. Having said that, nothing can substitute for the opinions, historical perspectives and insights from the public and private sector leaders who work to create economic growth and prosperity in Herat every day. The purpose of this economic development strategy is to help local leaders focus their efforts and resources in those areas with the greatest potential to accelerate Herat's economic development. With such coordinated and prioritized efforts, Herat has enormous

potential for economic growth and can become a bright example of success for the whole of Afghanistan.

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