

Rural Urban Continuum for Productive Cities

A Spatial and Productive Approach to Stronger Rural - Urban Synergy

This discussion paper provides insights into leveraging fertile agricultural lands within the five main city regions of Afghanistan for strengthening economic inter-relationship between urban and rural areas. The ongoing unchecked spatial expansion of cities into peri-urban areas threatens the sustainability of agricultural use and food security. Fostering agricultural value-chains with infrastructure investments within the urban-rural continuum can alleviate poverty, increase livelihood opportunities, enhance domestic and international market access, and stimulate economy.

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Afghanistan's city regions play an important role in fostering complementary and synergetic relationships between the urban core, peri-urban areas and the rural hinterlands. The five main cities of Afghanistan, namely, Herat, Kabul, Kandahar, Jalalabad, and Mazar-e-Sharif, account for 69 percent of the total urban population on the one hand, and their city-regions contain vast amounts of fertile and irrigated agricultural land on the other. Afghans also experience significant food insecurity - one in every four Afghans is moderately food insecure¹. The agricultural production does not meet the growing demand, for instance, Afghanistan typically imports approximately, 1, 500, 000 metric tonnes of basic staple cereal grains wheat and wheat flour each year². Therefore, managing the delicate balance between urbanization and agricultural areas is a challenging but important policy endeavor within the rural-urban continuum.

Understanding existing dynamics in the urban-rural continuum

Urbanization is rapidly transforming the spatial, social, and economic landscape of Afghanistan, with spillover effects beyond the municipal boundaries. This dynamism is visible in the flows of people, goods, resources, capital, and services within the city region. Agricultural lands encompass a large proportion of total area within these city regions cultivating cereals, fruits and tree crops, for domestic and international consumption (see Box 1: Afghanistan's agricultural produce by region).

Unchecked spatial expansion of urban areas within the city regions

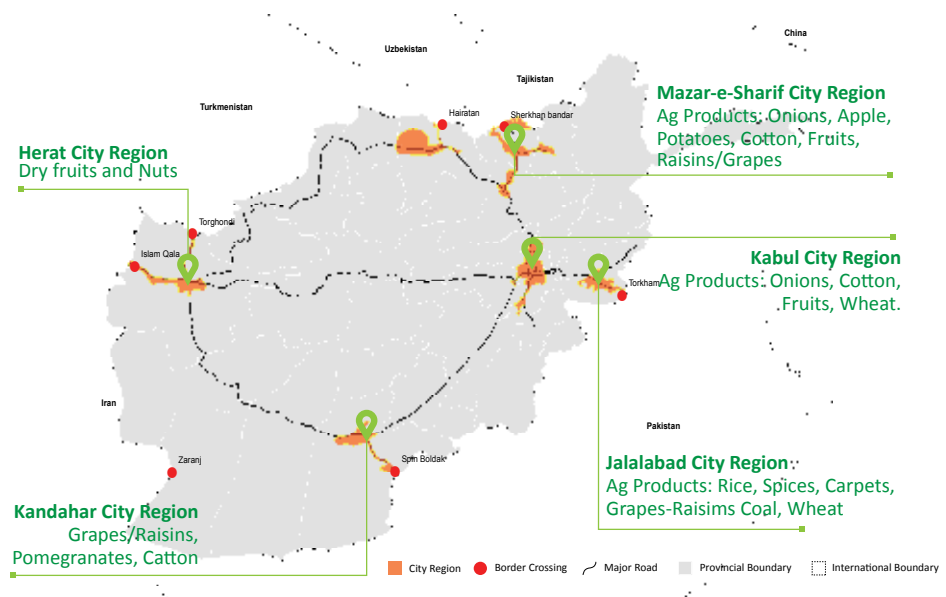
The spatial expansion of the five cities with highest urban population is occurring rapidly, spontaneously, and sprawling into the peri-urban areas and rural hinterlands at low densities. This has a direct adverse impact as fertile agricultural lands are converted into built areas, resulting in a loss of agricultural output. For instance, region surrounding the Kabul city such as Shomali Plains, are amongst the highest producers of grapes in Afghanistan, which are locally consumed and exported to Pakistan via Jalalabad. Unmitigated appropriation of agricultural lands within the city regions can disrupt livelihood opportunities, threaten natural environment, and break the natural and watershed networks.

Climatic limitations and infrastructure deficiencies

Afghanistan is characterized by an arid and semi-arid climate which receives limited amount of precipitation. The central and northeastern mountains receive abundant snowfall which is an important source of water. In contrast, the northern, western, and southern parts of the country receive less than 300 mm of rainfall per year and are susceptible to drought. Irrigation infrastructure is necessary for stable and sustainable agricultural production. However, lack of suitable irrigation infrastructure means Afghanistan has to depend, to a large extent, on rainfall for its agriculture production. This is evident from the agriculture sector's varying contribution to the GDP over past decades. Within

Box 1: Afghanistan's agricultural produce by region

The varied climatic conditions, topography and geology of Afghanistan lend themselves in creating a conducive environment to grow fruits and tree crops such as grapes, apricots, walnuts, pistachios, pomegranates, spices, and cereals. With only 12 percent of the country's total land area classified as cultivated area i.e. arable land and area under permanent crops, proper management of fertile lands is crucial for food security. The city regions, trading and transit hubs, and strategic border crossings, play an important role in providing domestic markets to the agricultural produce and linking them to international markets.



¹Food and Agriculture Organization. <http://www.fao.org/news/story/en/item/328056/icode/>. Accessed on April 19, 2016.

²<http://www.fews.net/central-asia/afghanistan/food-security-outlook-update/august-2015>

⁷UN-Habitat (2016). Harnessing City Economies. Discussion Paper #4. UN-Habitat: Kabul

⁸According to USAID report Connecting to opportunity published in 2013, over 20 million mobile subscription exists in Afghanistan

⁹Zhang (2009). Competitiveness and Growth in Brazilian Cities: Local Policies and Actions for Innovation

¹⁰Habitat III Issue Paper # 10: Urban-Rural Linkages. May 2015.

Rural Urban Continuum for Productive Cities

the city regions, the irrigation infrastructure is relatively better. For example, 72 percent of land within the Mazar-e-Sharif city region is “irrigated agricultural land,” and in Kabul city region, almost 40 percent of the total land is under agricultural use³. However, the conflict has prevented adequate investments in the economic infrastructure and technology necessary for optimum agricultural production. For example, lack of refrigeration and storage facilities, significantly curtail the export potential of raisins to international markets. However, the conflict has prevented adequate investments in the economic infrastructure and technology necessary for optimum agricultural production. For example, lack of refrigeration and storage facilities, significantly curtail the export potential of raisins to international markets.

Broken rural-urban value chains and market access

Agricultural products and their lifecycle symbolize the synergy and interrelationships between rural and urban continuum. Agricultural products navigate a complex network of actors, processes, and relationships of food production, processing, and marketing to reach the consumers. Inefficient processes and supply chains result in loss or wastage of about one-third of the total food produced globally, a large share of which occurs in urban and peri-urban areas⁴. Well-functioning supply chains and value chains in Afghanistan are either under-developed or non-existent. Poor connectivity is a major issue that prevents market access to urban centers and trading hubs. Other factors limiting agricultural competitiveness in Afghanistan are – poor packaging, large number of intermediaries, poor quality control, and unconducive business climate.

Harmonizing urban and agriculture productivity in the city regions

It must be noted that in the 1960s, Afghanistan had a 60 percent market share of global market in the dried fruits sector. Therefore, as the country embarks on its

transformation decade, safeguarding and strategically managing land use in the peri-urban areas and within the city regions holds importance for the overall economic growth and food security. Several factors contribute to the formation and sustainability of the rural-urban inter-relationships pertaining to agricultural sector, of which three key strategies pertinent to Afghanistan are discussed in the following paragraphs.

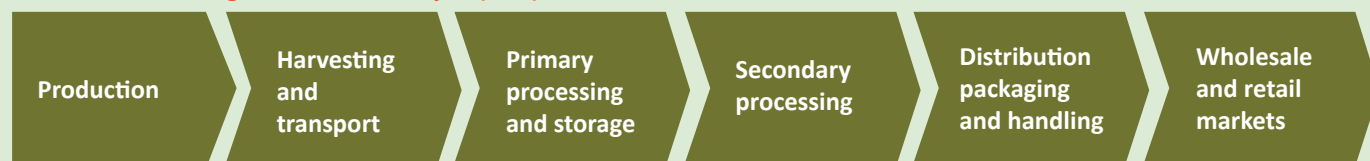
Functional Integration

Enhance the value chain by promoting horizontal and vertical integration. Existing studies highlight the lack of well-functioning farmer and trader associations. For example, as the majority of raisin producers are small-scale farmers, this limits economies of scale, bargaining power, as well as knowledge transfer. Furthermore, these small-scale farmers have limited capital and capacity, which prevents formation of vertically integrated enterprises which enjoys efficiency. The government must develop the capacity of farmer and trader associations and promote new ones where none exist. These associations can plug the existing capacity gaps and foster innovations by improving access to credit, increasing collective bargaining power of the producers for better selling price, building technological know-how to improve cost effectiveness and quality of production, disseminating knowledge on import and export permits, among other benefits. National government must promote intergovernmental cooperation to facilitate export of raisins and other products

Spatial Integration

Afghanistan’s city regions increasingly encompass greater fertile land areas located near major urban centers, which provide them with better access to transport infrastructure and large markets. A significant number of people commute to Kabul and other major cities to access wholesale markets and end consumers. For example, the daily traffic to Kabul city center is growing rapidly and has doubled since 2009⁶. (see Discussion Paper 6 – On the Move in Kabul City region). Commercial footprint of Afghan cities is generally lower in comparison to economically well-functioning

Box 3: Understanding Value Chain Analysis (VCA)



VCA is an analytical tool used to help a country or a city to create an enabling business environment. By dissecting and analysing how much value is being added at each segment of activities from the stage of raw material to end consumers, it allows us to identify weaknesses that are hindering industries from becoming more competitive.

Some identified constraints may be industry specific while others may be cross-cutting across all industries. A proper VCA goes beyond intra-industry scope and also integrates policy and regulatory environment that binds enterprises’ operations. Hence, the analysis has

significant implications for both public and private sector in designing strategies for growth and competitiveness.

The process of VCA can be simplified into three stages: 1) Map out the industry value chain ranging from raw material to end users in qualitative and quantitative terms⁵ 2) Set benchmark against international competition and best practices in order to understand which specific segment of VC or policy is presenting challenges vis-à-vis competition 3) Combine with the understanding of the institutional and regulatory factors that underlies performance measures to enable both public and private sector to design strategies to mitigate hindrances while enhancing competitiveness.

³State of Afghan Cities. 2015. <http://unhabitat.org/books/soac2015/>

⁴FAO (2011a). Global Food Losses and Waste – Extent, causes and prevention, <http://www.fao.org/docrep/014/mb060e/mb060e.pdf>

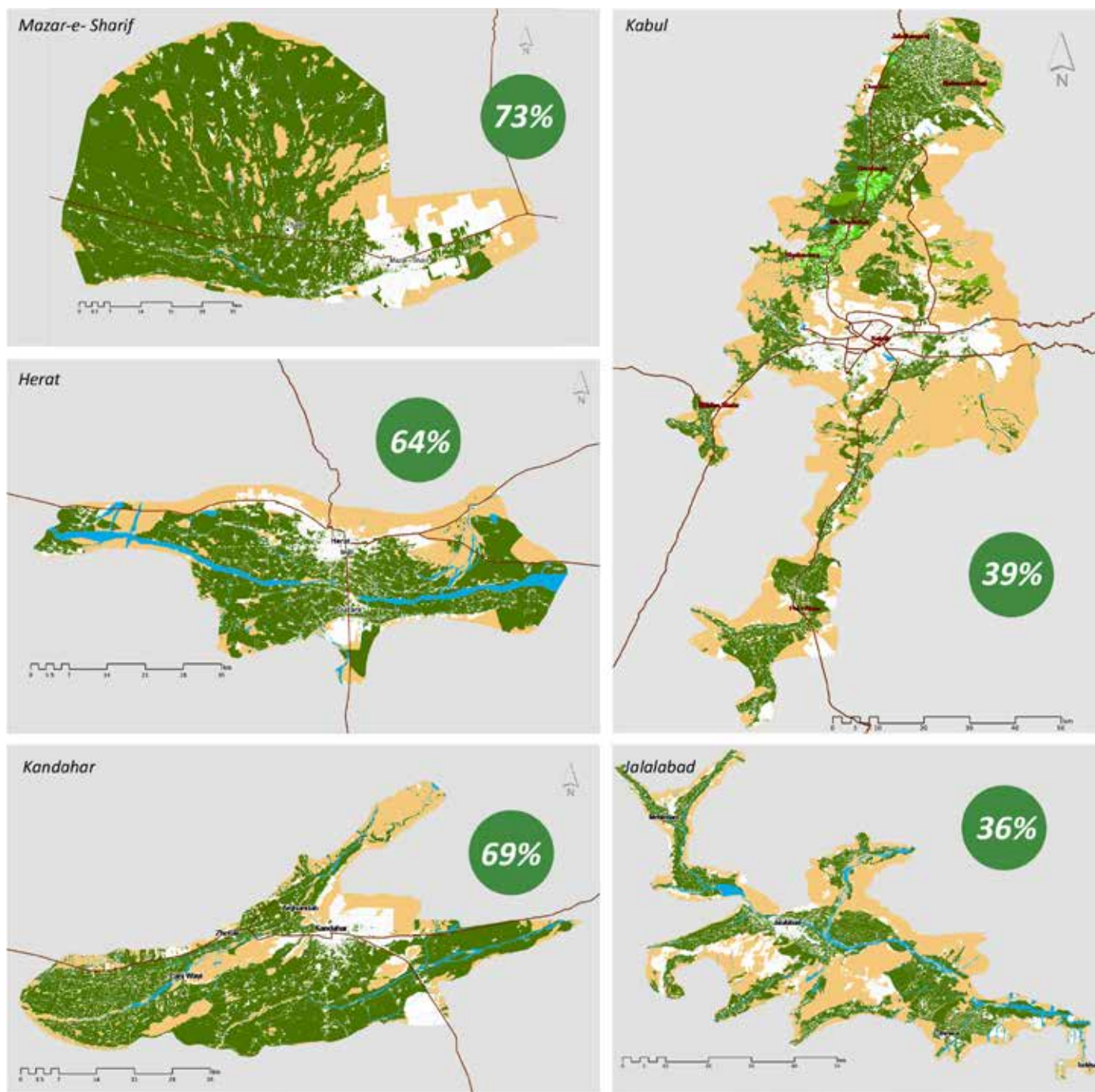
⁵Qualitative analysis may entail listing activities and linkages among industry

actors while quantitative mapping may entail productivity, cost, and added value at each segment of the chain.

⁶UN-Habitat (2016). On the Move in Kabul city Region. Discussion Paper #6, UN-Habitat: Kabul

Box 2: Agricultural potential of the five city regions

Afghanistan's five city regions serve a dual role as centers of urbanization occurring alongside holding high value and fertile agricultural lands. Kabul city region encompasses Qarabagh, Mir Bachakot and Shakardar which are some of the country's prime vineyards for grape and raisin production. Mazar-e-Sharif, Herat and Kandahar city regions have between 64 and 73 percent of their total area under agricultural lands, signifying high agricultural potential in close proximity of urban centers. However, availability of regular water supply, connectivity and density of road network remains a common issue which undermines the overall agricultural output and linkages to domestic and international markets. Policies which strengthen economic infrastructure such as connectivity, reliable irrigation and power supply must be pursued. Furthermore, strategic municipalities in proximity of city regions such as Balkh in Mazar-e-Sharif, Argandab in Kandahar, and Mehterlam in Jalalabad can be planned and developed as specialised areas for agro-processing facilities, warehousing and logistics hubs, where economies of scale and lower cost of production relative to larger cities can be effectively utilized.



* Disaggregated classification of agricultural lands into – 'irrigated,' 'rain-fed,' and 'fruit trees' for each of the five city regions will be available by May 2016.

Rural Urban Continuum for Productive Cities

cities of the U.S at 3 percent⁷, which implies lack of adequate commercial areas in cities. Integrated urban and spatial plans at the city region level must be drafted to control conversion of fertile agricultural lands, identify infrastructure needs, connectivity and market access. Secondary towns and strategic municipalities, such as Balkh near Mazar-e-Sharif can also be developed as specialised agro-processing hubs to benefit from lower production costs. This is difficult in large cities, due to factors such as high rents. In addition, strategic plan for economic development based on the study of Value Chain Analysis of specific clusters must be developed. Cities can absorb expanding boundary and population in a more integrated manner by aligning urban spatial planning with economic development plan. In the long run, integrated city-region will help lower poverty by increasing income of farmers and mitigate food insecurity.

Infrastructure Improvement

Having sound economic infrastructure in place is critical in creating an enabling business climate. The following points highlight several key reform agenda for Afghanistan to improve its economic infrastructure.

Soft Infrastructure

- Human resource: knowledge of farming technique and productivity can be improved by supporting training centers and strengthening horizontal integration (i.e. organizing associations and cooperatives)
- Business Climate: business climate conducive to growth requires support for individuals and enterprises to take risks (i.e. better access to capital).
- Legal and Regulatory: land registration and rights which provides stability is critical for farmers as well as for governments in revenue enhancement
- Research and Development: invest in R&D institutions in collaboration with existing universities to foster innovation

Hard Infrastructure

- Water and irrigation: many regions suffer from erratic supply of water and initiatives for improvement are needed
- Road-to-market: better urban planning addressing regional connectivity and mobility for greater urban-rural integration
- Logistics: construct warehouses, refrigeration and distribution facilities to minimize food waste in the supply chains.
- Telecommunications: enhance and leverage growing number of mobile subscription to disseminate market information⁸

Business Networks

- Create collaborative clusters: mobilize local private and public leaders to engage in strengthening the eco-system for improving farmer-to-market linkages. This strategy shifts away from resource-intensive approach and focuses more on immediate actions with only a modicum of resources.
- Form an action-oriented leadership group: Engage wide spectrum of stakeholders ranging from suppliers, service providers, government officials, industry players, and academia to build common vision and action strategy. The process of clustering in of itself will strengthen the linkage among players and plug identified gaps within industry value chains.⁹

Viewing agriculture through the lens of value chain analysis will help Afghanistan develop more integrated and strengthened sectors. Empowering inclusive value chains using methods such as impact pathways as a key bridge between rural and urban areas, is critical for creating improved urban rural synergies. Functional agricultural supply chains can boost rural-urban connectivity and offer opportunities for small scale producers, while protecting high value ecosystems.¹⁰

Ways forward

- Undertake value chain analysis for specific clusters which exhibit growth potential based on qualitative and quantitative data and research.
- Facilitate acquisition of skills and new technologies through farmer and trader associations.
- Prepare strategic economic development plan encompassing city regions integrated with spatial plans.
- Increase investments in economic infrastructure such as regional transportation networks for freight, logistics hubs, warehousing and distribution facilities, among others.
- Strengthen business registration and tax collection in all government levels to enhance revenue for infrastructure and service improvement



The Future of Afghan Cities (FoAC), is a government-led programme of MUDA, IDLG/GDMA, Kabul Municipality and ARAZI that focuses on the development of a Urban National Priority Programme (U-NPP) that will set Afghanistan's urban priorities for the coming decade. To support this, FoAC will also undertake a detailed analysis of five city regions and at least 20 strategic district municipalities to provide key data and recommendations for policy and programme design.

