I. Introduction and Context

Country Context

1. Uzbekistan is a resource rich, low middle income country. The country is the third largest in Central Asia with a land area similar to that of Spain or California. The country is landlocked, bordered by its four Central Asian neighbors. Major trade routes run along the Silk Road to China, the Middle East and Europe and to Russia in the north. Economic growth has been robust, averaging about 8 percent annually since 2000, as a result of: (i) high world market prices for copper, gold and natural gas, which account for 50 percent of exports; (ii) macroeconomic management including a 2008 stimulus package; and (iii) limited exposure to international financial markets, which shielded the country from contagion effects. Rapid growth along with creation of small businesses and jobs, public investments in social services, increased public sector salaries and remittances contributed to a decline in poverty from 27.5 percent of the population in 2001 to 15 percent in 2013. The regional economic slowdown as a result of the collapse of oil prices means that creation of jobs for returning migrants and about half a million youth joining the job market annually is an important priority for government. The government's long-term vision is to transform Uzbekistan into an industrialized middle income country by 2030. This is to be achieved through a dual approach involving gradual
transition to a more market-oriented economy through investment in infrastructure, skills and institution building alongside continued state regulation in strategic sectors. Two important principles of the government's vision are: (i) economic diversification out of commodity exports; and (ii) ensuring a more equitable distribution of the benefits of growth across regions and income groups. Development of agriculture, including the development of labor intensive horticulture and livestock sectors and creation of jobs in associated upstream and downstream agribusinesses, is seen as contributing to both.

**Sectoral and Institutional Context**

2. Agriculture in the Economy. Although the share of agriculture in output and total employment is declining, agriculture will continue to be a critical source of rural employment and an important driver of poverty reduction. The share of agricultural GDP in total GDP declined, from 30 percent in 2000 to 15.8 percent in 2014 as the country transitioned from agriculture to industry (e.g. hydrocarbons, metals, more manufacturing), and services. The share of agricultural employment in total employment is 27 percent. Nevertheless, in 2012, 49 percent of the population or 14.5 million people live in rural areas. FAO projects that while the proportion of people living in rural areas will decline, the number of people living in rural areas will remain largely unchanged, as the population grows. Furthermore, poverty is concentrated in rural areas where 75 percent of the low-income population reside. The Government's Agricultural Modernization Strategy recognizes the need for diversification out of cotton and into high value labor intensive production and processing including horticulture (supported by the ongoing Horticulture Development Project) and livestock both of which are expected to contribute to significant rural job creation.

3. Agricultural Growth and Performance of the Livestock Sector. Agricultural GDP grew by 6.6 percent on average in the period of 2003 to 2013. Robust growth was also reflected in an increase in agricultural labor productivity, which grew by 5.6 percent during the period 2005-2011, faster than labor in other sectors of the economy, putting it on a par with Columbia and lower than Brazil. About 60 percent of output is generated from crops and 40 percent from livestock. Increased output was driven by rising real prices for crop and livestock commodities and rising crop yields. Crop yield grew by between 12-30 percent during this period.

4. The increase in livestock sector output from 2003-2013 (Note: Average of 2003-2005 versus 2011-2012) (71 percent for milk, 54 percent for beef, 101 percent for lamb and goat meat) appears to be largely due to the steady rise in the number of cattle and sheep/goats (Note: Average of 2003-2005 versus 2011-2013) which increased by 63 percent and 60 percent respectively during this period. While data is lacking, milk and meat yields are reported to have increased only slightly during this period. The strongest growth came from non-regulated sectors, notably horticulture, while cotton production, which is highly regulated, has been stagnant since 2008. Given that the livestock sector benefited from rises in real prices for livestock products from 2003-2013 and is not heavily regulated, higher output growth might have been expected, suggesting that fundamental constraints to improved livestock productivity remain (see para. 9).

5. The country is a net importer of meat and milk. The government is keen to improve standards of human nutrition. Uzbekistan increased its average daily dietary supply (percentage of requirements) from 101 percent (compared to the world average of 116 percent) in 2003 to 122 percent (compared to the world average of 122 percent and Kazakhstan 138 percent) in 2014. The Government sees national self-sufficiency as a means of improving the population's access to livestock products and uses export restrictions to achieve this. While the immediate market opportunities are for import
substitution rather than export, such policies are counter-productive as they create uncertainty and discourage long-term investment in processing.

6. Farm Restructuring. Starting in 1998, former state farms and collectives were converted into new cooperative farms (shirkats), in which assets were managed by families that held shares in the shirkat under the leadership of the head of the shirkat. Between 2002 and 2007, the government converted shirkats into private farms which were created through a bidding process held by a special commission of the Hokimiyats (district government). Beginning in 2004, a lease-based system of land use was introduced for all farms, except dehkan farms. Land plots are allocated to farmers on long-term leases from 30-50 years, with the minimum area for wheat and cotton farms set at 30 hectares and the minimum area for vegeculture and horticulture farms set at 5 hectares. The conversion of shirkats on arable land was comprehensive but about 103 livestock remain and have 30-50 year lease rights to a large proportion of pasture land.

7. Agriculture and Livestock Production Systems. The country is most densely populated in the eastern and central regions, including the densely populated Ferghana Valley, the remainder living in the more sparsely populated arid regions of the west, including the semi-autonomous region of Karakalpakstan. The eastern and central regions, are characterized by intensive irrigated agriculture (Piedmont Zone 400-1000 metres altitude) and by smaller rainfed mountainous and hilly areas (Highland Zone over 1000 metres altitude). The westerly regions, including the semi-autonomous region of Karakalpakstan, are dominated by arid desert and steppe, interspersed with small irrigated areas. The national herd comprises of 10 million heads of cattle and 17 million sheep. While dairy, beef and sheep production can be seen to some extent in most locations, dairy cattle breeding is most concentrated in irrigated crop areas closest to urban centers, whereas beef production is most concentrated in mountain pastures. Karakul sheep which produce high-value skins as well as meat and milk are raised in semi-arid and desert locations in the west, where camel production is also significant.

8. Livestock in the Economy and Rural Households: The share of livestock production in total agricultural output was 41 percent in 2015. The share of livestock production from dehkan farms has gradually increased to more than 90 percent of output (96 percent of milk, 95 percent of meat and 55 percent of eggs). On average, dehkan farms have about 3 cattle and 8 sheep or goats while private farms hold an average of 55 cattle and 15 sheep and goats. However, in 2015, the share of cattle in dehkan farms was 94.1 percent and only 4.9 percent in large farms, of which cows represent 94.6 percent and 4.8 percent; sheep and goats 83.8 percent and 7.4 percent, and poultry 64.4 percent and 11.8 percent, respectively. Productivity is low, milk yields in dehkan farms averaging 1,300 liters per lactation (Note: Mature milking cows might weight in the region of 300-400 Kg liveweight so caution should be exercised in comparing them to European herds where cows may weight 500-700 Kg. Even so productivity is low.) from dairy cows weighing about 300-450 Kg liveweight. Low yields mean that households only generate marketable surpluses beyond household needs in the summer. This along with weak cooling and distribution infrastructure mean that dehkan farms are not well integrated into supply chains. About two thirds of milk and dairy products are consumed at home, the rest being sold to the market or processors through traders.

9. Constraints to Livestock Supply Chain Development. Insufficient fodder is recognized as being a major constraint in Uzbekistan. This is a result of restrictions on land use which require private farms to allocate a fixed amount of land to wheat and cotton production, leaving insufficient land
for fodder crop production, for zero grazing (Note: Cut and fed fresh in stalls) hay or silage production. Over 80 percent of irrigated land is dedicated to either wheat or cotton. Efforts to expand irrigated forage production must incorporate efforts to improve water use efficiency. Over 80 percent of the country's water originates from neighboring countries. If current trends in water usage were to continue, the country could reach water scarcity levels by 2030. The government has made some small but significant efforts to diversify agriculture. About forty raions have been allowed to reallocate land from cotton and wheat to other production including forage crops and here lies an opportunity to improve land use planning for crop diversification and to demonstrate its benefits such as improved soil fertility.

10. There is potential to increase the productivity of pastures in arid areas but there are inter-related environmental and social constraints to doing so. Current stocking intensity on arid pastures is reported to be two-three times sustainable levels. arresting pasture degradation will require (i) moving towards more sustainable grazing plans involving better planned seasonal movement of livestock; (ii) resting severely degraded pastures to allow species recovery; (iii) planting of improved drought resistant species; and (iv) investment in water boreholes and tracks to improve access to under-utilized areas. In such an environmentally fragile area, investment in infrastructure without plans to prevent over-grazing around new boreholes could be counter-productive. All of these measures will require a collaborative planning effort involving all types of pasture users. However, this is unlikely to be achievable without addressing the inequitable allocation of pasture rights between dehkan farms and karakul sheep shirkats which have long-term leases rights to a disproportionately large area of pasture compared to dehkan farms.

11. A range of other factors which require further analysis are likely to constrain production including: (i) availability of quality forage crop seeds due to insufficiently resourced and equipped government agencies responsible for seed breeding and selection, variety testing and listing, variety maintenance, testing and inspection and seeds farms responsible for multiplication, marketing and distribution; (ii) insufficient access to irrigation for irrigated forage production as a result of degraded irrigation infrastructure and institutions for local-level management; (iii) the absence of funding and institutional arrangements for the advisory services on forage production and animal husbandry. Inadequate veterinary services affect not only animal productivity but also trade and human health. While information on disease prevalence is limited, the veterinary service recognizes the importance of improving disease prevention and control and has prioritized the control of several zoonotic and trans-boundary diseases including brucellosis, echinococcosis, foot and mouth disease, tuberculosis, petites pestes des ruminant, rabies and anthrax.

12. Access to finance for both production, processing and other livestock related agribusinesses is constrained by inadequate commercial bank access to finance. The overwhelming majority of deposits in the banking sector are demand deposits and thus they are not suitable for long-term lending. Although lending for agriculture has increased (including through Rural Enterprises Support Project, Phase II (RESP II) and its Additional Financing), the demand is considerably greater. Commercial banks perceive livestock sector loans to be lower risk than other agricultural production loans because breeding stock provides a form of security.

**Relationship to CAS**

13. The project contributes to the World Bank Group's twin goals by: (i) improving incomes and food security of low income rural households from livestock production; (ii) improving incomes and creating employment opportunities for other bottom 40 percent households by generating post-farm
14. The Livestock Sector Development Project supports the Government’s goal of creating up to 500,000 new, productive, and sustainable jobs annually and has been confirmed as one of the priority investment operations in the Country Partnership Framework (CPF) for 2016-2020, approved by the World Bank Board in June 2016. The proposed project is strongly aligned with two focus areas of the CPF - private sector growth and agricultural competitiveness and cotton sector modernization. The project helps to meet CPF’s objectives (i) to sustain agricultural growth by supporting diversification through expansion of fodder crop production and addressing productivity constraints in livestock production and processing as well as animal health and food safety related constraints to trade; and (ii) to stimulate private investments and job creation in agribusiness through growth of the meat and dairy processing sector and other livestock related agribusinesses. The project, along with other Bank investments in agriculture diversification and improving irrigation performance, contributes to agricultural transformation and modernization by financing technological improvements in both livestock production and processing and by encouraging a shift to more sustainable farming systems and market-led and private sector-driven value chains.

15. The project also contributes to other high level objectives including: (i) improved household nutrition given that a large proportion of meat and milk consumed in poor rural households is from home production and given that average household meat and milk consumption are low; (ii) reduced land degradation given that over-grazing is probably one of the main causes of soil erosion, particularly in arid areas regions of Uzbekistan; and (iii) climate change mitigation given that improved pasture and forage crop production could contribute to carbon sequestration and given that improved management of manure and feeding could reduce CO2 emissions from livestock. In combination these factors can all contribute to greater food security in Uzbekistan.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)
The Project Development Objective (PDO) would be to improve livestock production and supply chain management in target oblasts by improving access to finance, nutrition and support services.

Key Results (From PCN)
16. The PDO-level results indicators will be:
- Performance of Veterinary Services (PVS) evaluation score (Note: Based on International Animal Health Organisation (OIE). Score of 1 (lowest) to 5 (highest) based on the established OIE PVS tool.)
- Production of fodder crops in target locations
- Area of utilizable pasture in target locations
- Value of marketed livestock output from target beneficiaries
- Additional private investment leveraged through the project credit line

III. Preliminary Description

Concept Description
17. The project will have three components: (i) Component 1 Livestock Services and Supply Chain Development; (ii) Component 2 Access to Finance; and (iii) Component 3 Project Management. The Project IDA/IBRD funding for the Project will be US$150 million.
18. Component 1 Livestock Services and Supply Chain Development will finance:

- Sub-Component 1.1. Livestock Supply Chain Development (Target Raions) would help to improve the competitiveness of dairy and beef supply chains by building productive partnerships between small farmers, processors, feed suppliers, and other actors in the supply chains;
- Sub-Component 1.2 Livestock Nutrition, Husbandry and Breeding (National/Target Oblasts) would support: (i) Fodder Crop Seed Improvement; (ii) Pasture Improvement; (iii) Breed Improvement; and (iv) a Livestock Production Farm Support Program;
- Sub-Component 1.3 Animal Health and Food Safety (National/Target Oblasts) would strengthen the capacity of the public veterinary services to prevent and control zoonotic, trans-boundary and production diseases, which variously constrain productivity and cross-border trade and are a risk to human health. It would also strengthen compliance of agribusinesses along beef and dairy supply chains with existing food safety legislation.

19. Component 2 Access to Finance would finance: (i) a credit line to commercial banks for provision of working capital and investment finance to the livestock and poultry sector nationwide; (ii) training and advice for commercial banks on loan product development, loan appraisal and monitoring in the livestock sector; and (iii) conducting environmental assessment of sub-projects.

25. Component 3 Project Management would finance project management, including coordination and supervision of the implementation, financial management, procurement, monitoring and evaluation (including gender disaggregation of results) and progress reporting.

26. Special Issues: (i) Child and Forced Labor. The project design will adopt the same approach as that adopted for the Horticulture Development Project which includes third party monitoring and feedback by the International Labor Organization; (ii) Citizen Engagement will involve a consultation process through focus group discussions and public consultation with beneficiaries during preparation and establishment of a grievance redress mechanism during implementation.

IV. Safeguard Policies that might apply

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V. Financing (in USD Million)
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**Financing Source**

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