



# Report and Recommendation of the President to the Board of Directors

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Project Number: 51041-002  
October 2018

## Proposed Loan Republic of Uzbekistan: Horticulture Value Chain Infrastructure Project

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Asian Development Bank



## CURRENCY EQUIVALENTS

(as of 12 October 2018)

Currency unit	–	sum (SUM)
SUM1.00	=	\$0.00012
\$1.00	=	SUM8,181.08

## ABBREVIATIONS

ADB	–	Asian Development Bank
ALC	–	agro-logistic center
EMP	–	environmental management plan
GDP	–	gross domestic product
ha	–	hectare
IEE	–	initial environmental examination
LARP	–	land acquisition and resettlement plan
MFT	–	Ministry of Foreign Trade
PAM	–	project administration manual
PMO	–	project management office
PMSC	–	project management and supervision consultant
RRA	–	Rural Restructuring Agency

## NOTE

In this report, "\$" refers to United States dollars.

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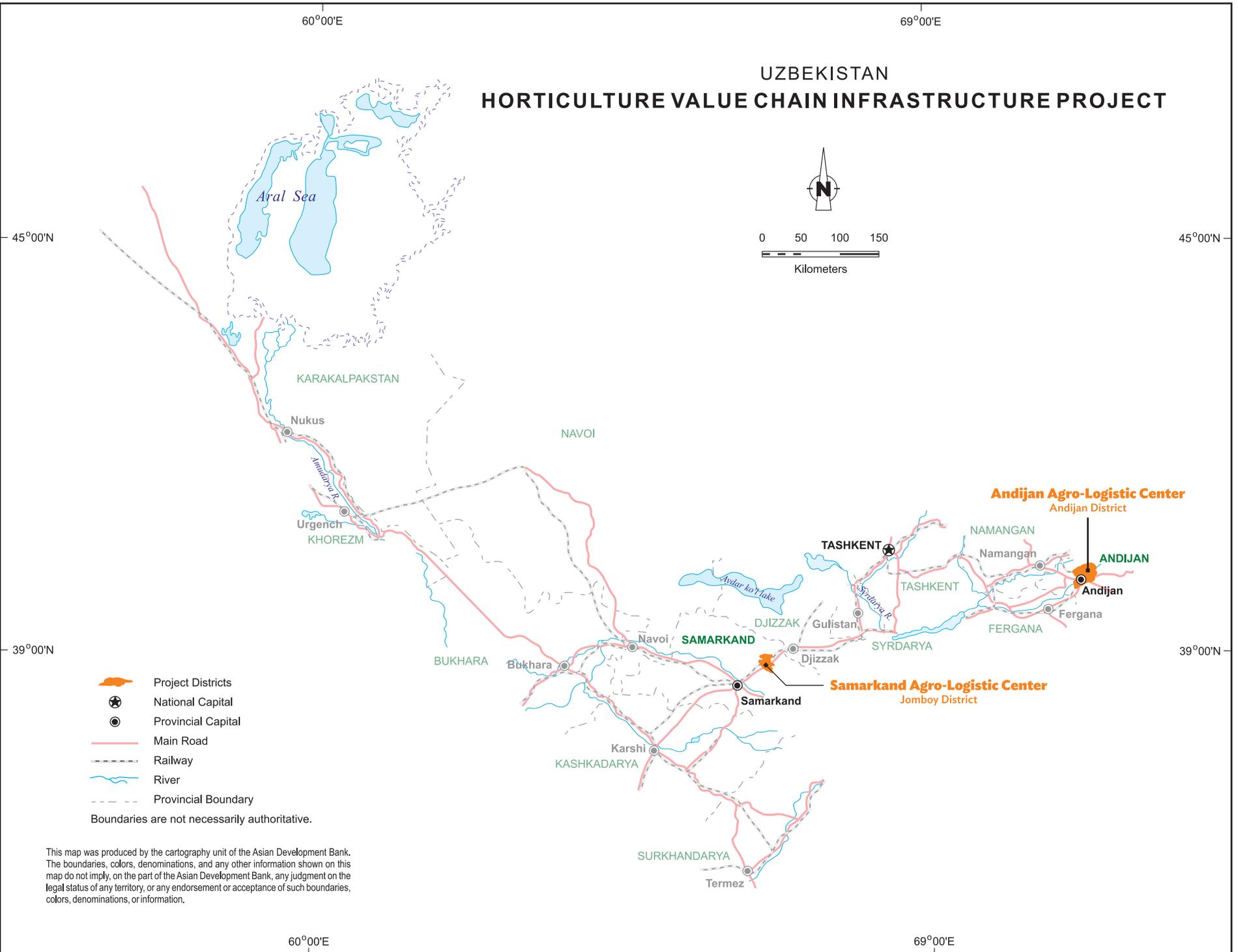
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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number:</b> 51041-002	
<b>Project Name</b>	Horticulture Value Chain Infrastructure Project	<b>Department /Division</b>	CWRD/CWER
<b>Country</b>	Uzbekistan	<b>Executing Agency</b>	Rural Restructuring Agency
<b>Borrower</b>	Ministry of Finance		
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Agriculture, natural resources and rural development</b>	Agro-industry, marketing, and trade		87.00
	Rural market infrastructure		110.00
	<b>Total</b>		<b>197.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Low
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	<b>ADB Financing</b>	
	Natural resources conservation	Adaptation (\$ million)	20.00
	Urban environmental improvement	Mitigation (\$ million)	30.00
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Institutional development	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Organizational development		
Partnerships (PAR)	Application and use of new knowledge solutions in key operational areas		
Private sector development (PSD)	Implementation		
	Private Sector		
	Promotion of private sector investment		
	Public sector goods and services essential for private sector development		
<b>5. Poverty and SDG Targeting</b>		<b>Location Impact</b>	
Geographic Targeting	No	Rural	Medium
Household Targeting	No	Urban	Medium
SDG Targeting	Yes		
SDG Goals	SDG2, SDG9		
<b>6. Risk Categorization:</b>	Low		
<b>7. Safeguard Categorization</b>	<b>Environment: B Involuntary Resettlement: B Indigenous Peoples: C</b>		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>197.00</b>	
Sovereign Project (Concessional Loan): Ordinary capital resources		197.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>47.75</b>	
Government		47.75	
<b>Total</b>		<b>244.75</b>	
<b>Currency of ADB Financing:</b> USD			

# UZBEKISTAN HORTICULTURE VALUE CHAIN INFRASTRUCTURE PROJECT



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## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Republic of Uzbekistan for the Horticulture Value Chain Infrastructure Project.

2. The proposed project supports the Government of Uzbekistan's plan to establish horticulture clusters where production and post-harvest services can be consolidated to improve efficiency and economies of scale. It will finance the establishment of agro-logistic centers (ALCs) in two locations—Andijan and Samarkand regions—considering international best practices. The ALCs will provide all necessary facilities and services in one place: trading, storage, processing, food safety certification, customs clearance, transport, shipping, marketing advisory services, trade finance, and commercial banking. Significantly larger volumes of product with improved quality will be marketed as a result of better post-harvest logistics that will facilitate reduced post-harvest losses and increased domestic sales and exports. The ALCs will enhance value chain linkages with production, post-harvest processing, and handling following international quality and safety standards. Increased export and domestic marketing of horticultural products will increase price transmission to small-scale producers and small and medium-sized agribusinesses. It will also diversify the country's agriculture from cotton to horticulture, which generates higher financial and economic returns and involves fewer social and environmental concerns.<sup>1</sup>

## II. THE PROJECT

### A. Rationale

3. **Sector performance.** Uzbekistan's gross domestic product (GDP) grew at an average annual rate of 8% between 2010 and 2016, reaching \$63.4 billion. Agricultural GDP grew at a slightly lower rate of 7.3% over the same period. This, and higher growth in other sectors, meant that the contribution of agriculture to GDP continued its long-term decline from 34.4% in 2000 to 17.6% in 2016. Within agriculture, the significance of horticulture has grown as a result of diversification from cotton and grain crops. The combined share of cotton and grain in agricultural GDP fell from 7.0% in 2000 to 4.7% in 2016, while the share of fruit and vegetables grew from 5.2% to 10.6% over the same period. Significant increases in cropping area between 2000 and 2016 have been recorded in vegetables (by 59%) and fruit and berries (by 37%). Over the same period, the area under grains increased by 5% and the area under industrial crops, predominantly cotton, fell by 12%. Increases in fruit and vegetable production were relatively higher than increases in area because significant improvements were recorded in crop yields. The structure of agricultural exports is also shifting. Between 2010 and 2017, cotton exports fell from \$1.58 billion to \$0.48 billion. Fruit and vegetable exports grew from \$0.07 billion in 2000 to about \$1.00 billion in 2017. As of 2017, the share of fruit and vegetables in exports was double that of cotton.

4. **Constraints and opportunities.** Horticulture production has traditionally been constrained by limited access to good quality land, specialized horticulture machinery, appropriate inputs, and finance. The horticulture value chain is characterized by rudimentary marketing and transportation infrastructure, weak linkages between value chain actors, and limited and technologically poor storage and processing capacity. There is no strategic coordination of wholesale market activity at the national level. All fruit and vegetable markets are managed at the local level, which has given rise to a range of wholesale and retail market outlets of varying capacities and levels of professionalism. These weaknesses are reflected in high levels of post-

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<sup>1</sup> The Asian Development Bank (ADB) provided transaction technical assistance for Preparing the Horticulture Value Chain Infrastructure Project. ADB. 2017. [Technical Assistance for Preparing the Horticulture Value Chain Infrastructure Project](#). Manila.

harvest losses. At the national level, losses are estimated to be up to 30%, while in the two project regions losses are estimated at 21% in Andijan and 29% in Samarkand. Together, these constraints limit value addition in fruit and vegetable products and export potential.

5. Significantly larger volumes of produce of improved quality could be marketed with better post-harvest logistics, notably product consolidation, cold storage, and transport. Out of 21 million tons of total horticulture output, only 15% is processed. About 69.0% of fruit is consumed fresh, 20.0% is processed, and 11.0% is exported, while 81.0% of vegetables are consumed fresh, 11.3% are processed, 4.3% are used for seeds, and 3.4% are exported. This indicates a significant opportunity for improved value addition from increased processing and exports of both fresh and processed products. An analysis of Uzbekistan's revealed comparative advantage suggests that the country is more specialized in producing horticultural products than many of the world's producers, indicating the country's potential to expand its exports both in traditional markets of the Russian Federation and Central Asia and in newer European markets.<sup>2</sup> However, accessing the European markets, especially the European Union, will require improvement in horticulture quality and safety standards and certification systems. In this context, there is considerable scope to improve storage, processing, marketing and technologies.

6. **Government's strategies.** The current government policy in agriculture centers upon further diversification and modernization. In 2017, the government issued the Strategy of Actions on Further Development of Uzbekistan, which includes a reduction of land for cotton and wheat production to expand horticulture production.<sup>3</sup> The government policy in respect of horticulture is to facilitate development that is market driven by the private sector, and is supported by improved access to finance and improved technologies, especially to facilitate greater value addition and realization of export potential. The Strategy of Actions targeted the implementation of investment projects for the construction of new processing plants and modernization of existing plants, with such plants to be equipped with modern high-technology equipment for deeper processing of agricultural products. In 2018, the government adopted additional measures to further support for the horticulture sector and identifies a number of constraints that need to be addressed to enable horticulture producers, processors, and traders to improve product quality and access to domestic and international markets.<sup>4</sup> In this regard, the government gives specific focus to the reorganization of marketing and introduction of logistic centers.

7. The Asian Development Bank (ADB) and other development partners have supported agriculture and horticulture through a variety of projects and technical assistance. The World Bank is implementing a horticulture development project with total financing of \$650 million (including \$500 million additional financing approved in January 2018). The International Fund for Agricultural Development is implementing a \$30 million horticulture development project. Other development partners have also provided broad support to enhance the business environment and capacity building for financial institutions and small businesses.<sup>5</sup> ADB has been implementing the Horticulture Value Chain Development Project and its associated additional financing project.<sup>6</sup>

<sup>2</sup> ADB staff analysis based on the FAOSTAT data (<http://www.fao.org/faostat/en/#home>). The analysis is in the Detailed Financial and Economic Analysis, accessible from the list of linked documents in Appendix 2.

<sup>3</sup> Government of Uzbekistan. 2017. *Presidential Decree No. UP-4947*. Tashkent. Under this decree, the government adopted a program of actions for the development of Uzbekistan.

<sup>4</sup> Government of Uzbekistan. 2018. *Presidential Resolution No. UP-5388*. Tashkent. Under this resolution, the government adopted additional measures to expedite the development of horticulture in Uzbekistan.

<sup>5</sup> Development Coordination (accessible from the list of linked documents in Appendix 2).

<sup>6</sup> ADB. 2016. [Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Uzbekistan for the Horticulture Value Chain Development Project](#). Manila; and ADB. 2018. [Report and Recommendation of the President to the Board of Directors: Proposed Loan for Additional Financing to the Republic of Uzbekistan for Horticulture Value Chain Development Project](#). Manila.

These projects have helped establish small- and medium-sized cold storage and processing facilities, expand production areas, and adopt modern production technologies in intensive orchards and greenhouses. These facilities will ensure stable and high-quality supply to the ALCs to be established in the proposed project.

8. The proposed project will complement and enhance the impact of projects financed by ADB and other development partners. It will finance the establishment of two ALCs—in Andijan and Samarkand regions—that will strengthen upstream and downstream value chain linkages and provide modern post-harvest infrastructure. The ALCs will provide all necessary facilities and services in one place: trading, storage, processing, food safety certification, customs clearance, transport, shipping, marketing advisory services, trade finance, and commercial banking. The ALCs will help address the current high levels of post-harvest losses and expand horticulture produce sales in domestic and export markets. In particular, it will introduce post-harvest processing, storage, and handling following international quality and safety standards. The ALCs will be the focal points of horticulture clusters to be established in Andijan and Samarkand and the neighboring regions in accordance with Resolution UP-5388 (footnote 4). In addition to increased sales volumes, the ALCs will smooth crop seasonality and enhance price transmission to and price stability for small-scale producers, and small and medium-sized agribusinesses. ALC locations will be Andijan and Samarkand, where agro-climatic conditions are favorable to multiple fruit and vegetable crops per year. Together, Andijan and Samarkand account for 25% of the total area in Uzbekistan under horticulture crops and for 30% of the total national production. They have large *dehkan* (small-scale farms) farmer populations, accounting for 22% of all *dehkan* farmers in Uzbekistan, who will benefit from increased market opportunities. Andijan and Samarkand have significant urban populations, are well-connected to other urban centers in Uzbekistan, and are strategically located for access to export markets through highway, railway, and airport connections.

9. **Lessons and value added by ADB assistance.** Lessons call for (i) investing in modern production and post-harvest systems; (ii) establishing integrated infrastructure including post-harvest handling, storage, processing, certification, market information, and logistics capacity to promote sustainable exports; (iii) engaging all key horticulture value chain actors in clusters to promote horizontal and vertical integration; and (iv) operating infrastructure according to the user-pays principle to generate revenue.<sup>7</sup> Together with ADB assistance under the Horticulture Value Chain Development Project and its additional financing, the project will add significant value by promoting the development of holistic horticulture value chain clusters (footnote 6). The ALCs are designed to be financially sustainable with all facilities being leased out to private sector users and operators under the overall professional management of the ALC management company. As such, overall economic efficiency gains will be increased, price transmission to producers improved, and the state fiscal burden reduced. Moreover, the project will be a significant initiative to enhance entrepreneurship in horticulture and job creation. In this regard, the project business model has high potential for replication in all major horticulture production regions of Uzbekistan and other subsectors such as meat and dairy.

10. The project supports the government’s development strategy for 2017–2021 which aims to accelerate economic growth, promote private sector development, diversify and commercialize agriculture, and address regional disparity (footnote 3). The project is consistent with ADB’s

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<sup>7</sup> These are the key success factors based on lessons learnt from the two most successful agro-logistic models in the world, namely the wholesale market and logistic network managed by Mercasa of Spain, and the Rungis wholesale market managed by Semmaris of France.

country partnership strategy, 2012–2016 for Uzbekistan which supports the government's economic diversification strategy and is included in ADB's country operations business plan, 2017–2020.<sup>8</sup>

## B. Impact and Outcome

11. The project is aligned with the following impact: contribution of the horticulture sector to inclusive economic growth and rural employment improved.<sup>9</sup> The project will have the following outcome: production and value addition of horticulture products increased.<sup>10</sup>

## C. Outputs

12. **Output 1: Agro-logistic centers established.** Output 1 comprises the establishment of an ALC at Andijan with (i) about 25,000 square meters of trading area split evenly between wholesale and small farmer sales areas with an annual throughput of about 425,000 tons; (ii) about 60,000 cubic meters of cold storage with an annual capacity of up to 1.5 million tons; (iii) 12 processing lines with an approximate annual throughput of 600,000 tons for export and 80,000 tons for the domestic market; and (iv) provision of groundworks for future expansion of the ALC for an increased volume of horticulture produce and/or trading, storage, and processing of alternative food products. The ALC at Andijan will be located in Andijan district away from but well connected to Andijan city. The site is located on National Highway 4P112 and A373 (Tashkent–Fergana Valley road) and opposite the airport. It is in the center of the major production areas of Andijan region of Andijan, Asaka, Jalalkuduk, Pakhtaabad, and Shakhrihon districts. It is also well-located for access to and from neighboring regions of Fergana and Namangan, and to export destinations. The identified site covers a gross area of 51.43 ha, of which 40.90 ha will be developed under the proposed project and the remaining area is reserved for future expansion.

13. Output 1 also includes the establishment of an ALC at Samarkand with (i) about 35,600 square meters of trading area split evenly between wholesale and small farmer sales areas with an annual throughput of about 550,000 tons; (ii) about 60,000 cubic meters of cold storage with an annual capacity of up to 1.5 million tons; (iii) 17 processing lines with an approximate annual throughput of 850,000 tons for export and 150,000 tons for the domestic market; and (iv) provision of groundworks for future expansion of the ALC for an increased volume of horticulture produce and/or trading, storage, and processing of alternative food products. The ALC at Samarkand will be located in Jomboy district with good connection to Samarkand city. It is on National Highway M39 connecting Samarkand with Tashkent and is close to Samarkand airport. The location in Jomboy will enable traders from southern regions of Surkandarya and Kashkadarya to avoid passing through Samarkand city, thereby avoiding traffic congestion in the city. It is in the center of the major production areas of Samarkand region of Bulungur, Jomboy, Samarkand, Toyloq, and Urgut districts. The identified site covers a gross area of 78.00 ha, of which 54.83 ha will be developed under the proposed project and the remaining area is reserved for future expansion.<sup>11</sup> Both ALCs will include, among others, on-site trade support facilities such as quality and safety certification, an online market information system, banking, and customs services.

<sup>8</sup> ADB. 2012. [Country Partnership Strategy: Uzbekistan, 2012–2016](#). Manila; and ADB. 2016. [Country Operations Business Plan: Uzbekistan, 2017–2019](#). Manila.

<sup>9</sup> Government of Uzbekistan. 2015. *Presidential Decree No. UP-4707*. Tashkent. Under this decree, the government set out a program of measures for structural reforms, modernization, and diversification of production for 2015–2019.

<sup>10</sup> The design and monitoring framework is in Appendix 1.

<sup>11</sup> ALCs in Tashkent region and/or other regions may be considered in another project or in additional financing to the proposed, subject to the government's request and further due diligence by ADB.

14. **Output 2: Agro-logistic center management capacity improved.** The project will develop institutional and operational capacity of various stakeholders in the horticulture value chain. In particular, it will assist the Ministry for Foreign Trade (MFT) with (i) setting up the ALC management company in accordance with best international practices; (ii) preparing operation and management guidelines for the ALCs; (iii) conducting training in management, operation, and maintenance of the ALCs; (iv) conducting training in horticulture business development and management; and (v) learning from successful international agro-logistic models. Once in full operation, the ALCs' institutional and operational models can be replicated in other horticultural areas in Uzbekistan.

#### D. Summary Cost Estimates and Financing Plan

15. The project is estimated to cost \$244.75 million (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).<sup>12</sup>

**Table 1: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Agro-logistic centers established	
1.1 Andijan agro-logistic center	90.92
1.2 Samarkand agro-logistic center	120.01
2. Agro-logistic centers' management capacity improved	2.50
3. Project management	6.73
<b>Subtotal (A)</b>	<b>220.16</b>
<b>B. Contingencies<sup>c</sup></b>	<b>15.99</b>
<b>C. Financial Charges During Implementation<sup>d</sup></b>	<b>8.60</b>
<b>Total (A+B+C)</b>	<b>244.75</b>

<sup>a</sup> Includes taxes and duties of \$39.30 million. ADB will finance \$154,700 of taxes and duties related to project management and financial audits. Such amount does not represent an excessive share of the project cost and is within applicable country partnership strategy parameters. The government will finance taxes and duties of \$39.15 million through exemptions.

<sup>b</sup> In 2018 prices as of September 2018.

<sup>c</sup> Physical contingencies computed at 5% for civil works, plant, equipment, vehicles, project management, and consulting services; and 15% for environmental management and resettlement. Price contingencies computed at the average of 1.5% on foreign exchange costs and 9.2% on local currency costs.

<sup>d</sup> Includes interest during construction for the ordinary capital resources (concessional loan), computed at the rate of 2% per annum.

Source: Asian Development Bank estimates.

16. The government has requested a concessional loan of \$197,000,000 from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years; an interest rate of 2.0% per year during the grace period and thereafter; and such other terms and conditions set forth in the draft loan and project agreements.

17. The summary financing plan is in Table 2. ADB will finance all expenditures, including \$154,700 for taxes and duties related to project management and financial audit.<sup>13</sup> The government will contribute \$47.75 million, including \$39.15 million through exemptions of taxes and duties for the ALC civil works, plant, equipment, and vehicles and \$8.60 million for interest

<sup>12</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

<sup>13</sup> In accordance with ADB. 2005. [Innovation and Efficiency Initiative—Cost Sharing and Eligibility of Expenditures for Asian Development Bank Financing: A New Approach](#). Manila.

charges during implementation. Climate mitigation is estimated at \$30 million and climate adaptation is estimated at \$20 million. ADB will finance 100% of mitigation and adaptation costs.<sup>14</sup>

**Table 2: Summary Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
Asian Development Bank		
Ordinary capital resources (concessional loan)	197.00	80.49
Government	47.75	19.51
<b>Total</b>	<b>244.75</b>	<b>100.00</b>

Source: Asian Development Bank estimates.

## **E. Implementation Arrangements**

18. **Project implementation and management structure.** The Rural Restructuring Agency (RRA) will be the executing agency and will be responsible for the overall implementation of the project. The MFT and the ALC management company (once established) will be the implementing agencies for the project. The MFT will be responsible for the establishment of the ALC management company as a limited liability company which will be fully owned by the government. The ALC management company will own, operate, and manage the ALCs. The management board of the ALC management company, comprising one managing director and two deputy managing directors, will be responsible for the day-to-day operations of the ALC management company.

19. The ALC management company will have a supervisory board, which will be chaired by the MFT's deputy minister with senior representatives from the Ministry of Agriculture, the Chamber of Commerce, customs authority, regional governments of Andijan and Samarkand, and/or other relevant sector agencies. The supervisory board will hold quarterly meetings and will be responsible for ensuring that (i) the ALC management company operates with good governance and in accordance with applicable national laws and regulations; (ii) the products traded in each ALC comply with quality and safety standards; and (iii) the ALCs provide regular and solution-oriented feedback to help the government formulate policies, strategies, and regulations related to (a) organizing and modernizing the horticulture value chain; (b) improving linkages between value chain actors; and (c) ensuring agro-product safety, traceability, and certifications.

20. The project management office (PMO) established under the RRA, and the project management and supervision consultant (PSC) engaged under the project, will assist the ALC management company in setting up ALCs, including the preparation of ALCs' detailed designs, land acquisition, compliance with social and environmental safeguards, construction of civil works, and purchase and installation of equipment. The RRA, through the PMO, will recruit the PSC as an international firm using the quality- and cost-based selection (90:10) method in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). The PMO and the PSC will assist the ALC management company in recruiting a turnkey contractor to design and construct the ALCs. The ALC management company will supervise the detailed design and construction with assistance of the PMO and the PSC.

<sup>14</sup> The climate finance was estimated on the basis of the project conceptual design. The adaptation cost of \$20 million was based on the investment cost of processing lines while the mitigation cost of \$30 million was based on the investment cost of cold storage facilities. A detailed assessment of climate risks, mitigation and adaptation measures will be undertaken once ALCs detailed designs are finalized to provide a firm basis for reporting climate finance during project implementation.

21. **Operation of the agro-logistic centers and private sector participation.** The ALC management company will operate and manage the ALCs on commercial and cost-recovery principles. The ALC management company will lease out the ALC facilities to private sector users and/or operators under the user-pays principle. Prospective private sector clients will include producers (farmers), processors, traders, exporters, and other support service providers such as transport companies, banks, insurance companies, and brokerage houses. With all post-harvest activities taking place within the premises, the ALCs will help strengthen linkages among value chain actors (both upstream and downstream) and increase efficiency gains and value addition along the horticulture value chain.

22. The implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 12).

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	1 January 2019–31 December 2023		
Estimated completion date	31 December 2023		
Estimated loan closing date	30 June 2024		
Management			
(i) Executing agency	Rural Restructuring Agency		
(ii) Key implementing agencies	Ministry for Foreign Trade and ALC management company		
(iii) Implementation unit	PMO under Rural Restructuring Agency, about 30 staff		
Procurement <sup>a</sup>	International competitive bidding for ALCs establishment	1 contract (turnkey contract, with 2 lots)	\$213.570 million
	Shopping for PMO equipment, vehicles, and furniture	4 contracts	\$0.121 million
Consulting services <sup>a</sup>	QCBS for PSC	314 person-months	\$4.480 million
	LCS for financial auditing	50 person-months	\$0.280 million
Retroactive financing and/or advance contracting	Advance recruitment actions for PSC will be required to expedite implementation startup.		
Disbursement	The loan proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, ALC = agro-logistic center, LCS = least cost selection, PMO = project management office, PSC = project supervision consultant, QCBS = quality- and cost-based selection.

<sup>a</sup> All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

Source: Asian Development Bank.

### III. DUE DILIGENCE

#### A. Technical

23. The ALCs are an innovative concept in promoting Uzbek horticulture, in which several value chain functions (sales, storage, processing, certification, customs clearance, and support services) are housed in a single location. This will facilitate the smooth flow of produce from producer to consumer through investment in modern product handling technologies and professional ALC management. This will address current issues relating to post-harvest losses and environmental concerns surrounding existing horticulture marketing systems. Each ALC will be the focal point of horticulture clusters in Andijan, Samarkand, and their neighboring regions, in

accordance with the government policy for the sector. Given the ALCs' roles as mega-clusters for horticulture while promoting quality and safety of horticultural produce and enhancing branding and marketing for Uzbek exports, project financing from the public finance window is fully justified.

## **B. Economic and Financial**

24. The proposed project will help improve horticultural productivity and value addition in line with the government strategy. By addressing the constraint on post-harvest handling and processing in horticulture, it will facilitate and spur investment in intensive energy- and water-efficient technologies for fruit and vegetable production, storage, processing, and marketing facilities. This will increase the volume and enhance the quality of Uzbek horticultural produce for both domestic and export markets.

25. The Andijan and Samarkand ALCs will contribute significantly to the national economy through both direct and indirect benefits. Direct benefits include (i) revenue from the rental of market trading areas to wholesalers and small farmers, (ii) post-harvest processing facilities for a range of fruit and vegetable products, (iii) cold storage and frozen storage rented on a daily and monthly basis, and (iv) floor space in the ALCs' administration building. These direct benefits are quantified and included in the financial and economic benefit–cost estimations. The project will have both short- and long-term indirect benefits though not readily quantifiable. Short-term indirect benefits include the increase in economic activity that will be generated during the construction of the ALCs. Long-term indirect benefits include (i) the reduction in post-harvest losses; (ii) the increase in exports of fruit and vegetable products; (iii) efficiencies gained in the fruit and vegetable value chain; and (iv) more transparent price discovery and formation and stabilization of fruit and vegetable prices throughout the year. The financial and economic analysis of the two project sites indicates that such investments are both financially and economically viable. Financial internal rates of return are 18.4% for the Andijan ALC and 18.5% for the Samarkand ALC, both well above the assumed discount rate of 5.5%.<sup>15</sup> Economic rates of return are 16.6% for the Andijan ALC and 16.8% for the Samarkand ALC, both well above the economic viability cut-off rate of 9.0%. The sensitivity analysis indicates that both ALC cash flows are robust with respect to potentially adverse movements in revenue and cost streams.<sup>16</sup>

## **C. Governance**

26. The overall pre-mitigation financial management and procurement risks are classified *moderate*. A financial management assessment of the RRA did not identify any issues that would adversely affect its project management role. The financial management assessment of MFT indicated that the overall pre-mitigation financial management risk is *moderate*. Key risks requiring actions by the MFT includes: (i) MFT staff are not experienced in managing ADB projects and in ADB procedures, (ii) there is a lack of accounting staff trained and certified in international public sector accounting standards, (iii) fixed assets are not properly registered and labeled with inventory numbers, (iv) there is no internal audit function in place, and (v) there is no risk management function in place. Corresponding financial management actions to address the stated risks are outlined in the PAM. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government, the RRA, and the MFT. The specific policy requirements and supplementary measures are described in the PAM.

<sup>15</sup> The project weighted average cost of capital was estimated at 3.7%. However, the average lending interest rate for the United States dollar at the financial institutions participating in the Horticulture Value Chain Development Project (Loan 3471-UZB) is 5.5%. Therefore, the rate of 5.5% was used as the financial discount rate in lieu of 3.7% to provide conservative estimates of financial net present values and ensure the robustness of the financial cashflows.

<sup>16</sup> Financial and Economic Analysis (accessible from the list of linked documents in Appendix 2).

## D. Poverty, Social, and Gender

27. The project supports poverty reduction indirectly through horticulture value chain development. With 32% of the total workforce in agriculture, the proposed project will help many horticulture farmers and entrepreneurs boost their investments, maintain and expand employment, and provide stable incomes for themselves and their employees and suppliers. The proposed project is classified *effective gender mainstreaming*. The expected key outcomes of the project gender action plan are (i) enhanced female entrepreneurship in horticulture businesses, and (ii) increased participation of female workers in the horticulture sector.<sup>17</sup> ADB conducted due diligence and confirmed that core labor standards were complied with in the horticulture sector.<sup>18</sup> The loan and project agreements include covenants on labor standards and safety.

## E. Safeguards

28. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are as follows.<sup>19</sup>

29. **Environment (category B).** Environmental impacts from the project are expected to be minimal in magnitude and site specific and include dust and waste generation, noise and vibration, and transportation of construction materials. Environmental impacts during the operational phase include solid waste and impacts on surface and ground water sources and impacts arising from the increased goods transport traffic. The RRA prepared two initial environmental examinations (IEEs) for the two sites (Andijan and Samarkand) and conducted public consultation meetings. The IEEs included mitigation measures for construction and operational impacts in the environmental management plans (EMPs). ADB disclosed the IEEs were disclosed on its website in September 2018. These impacts could be mitigated by proper implementation of mitigation measures developed in the EMPs. The RRA's PMO will be responsible for implementation of the EMPs to comply with ADB's safeguards requirements and national regulations.<sup>20</sup>

30. **Involuntary resettlement (category B).** The project will require permanent acquisition of about 130 ha of land (51.43 ha in Andijan and 78.00 ha in Samarkand). A total of 63 households will be affected, of which eight households will experience severe impact on their livelihood, and none of the households were found to belong to any vulnerable groups. The RRA prepared land acquisition and resettlement plans (LARPs) for both project sites to mitigate and address all the associated losses in accordance with the Safeguard Policy Statement and national legislation. ADB disclosed the LARPs on its website in September 2018. When the project design is finalized, or additional land requirements or involuntary resettlement impacts are identified, the RRA will update the LARPs in accordance with applicable laws and obtain approval from ADB prior to any further implementation. All displaced people will receive compensation in accordance with the LARP provisions. The land required for the project will be made free of encumbrances prior to commencement of construction.<sup>21</sup>

31. **Indigenous peoples (category C).** Uzbekistan is inhabited by ethnic groups across all its 12 regions and the Republic of Karakalpakstan. None of these groups are considered indigenous peoples as defined in the Safeguard Policy Statement for operational purposes.

<sup>17</sup> Gender Action Plan (accessible from the list of linked documents in Appendix 2).

<sup>18</sup> Detailed Social and Gender Assessment (accessible from the list of linked documents in Appendix 2).

<sup>19</sup> ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>.

<sup>20</sup> Initial Environmental Examinations (accessible from the list of linked documents in Appendix 2).

<sup>21</sup> Resettlement Plans (accessible from the list of linked documents in Appendix 2).

## F. Summary of Risk Assessment and Risk Management Plan

32. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.<sup>22</sup> The overall project risk is *moderate*.

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigating Measures</b>
Reintroduction of foreign exchange controls may adversely affect servicing the ADB foreign currency debt from ALCs' earnings in local currency.	The ALC management company will recruit risk management staff as part of its financial management action plan.
Horticulture exports may be constrained by competition from neighboring countries and failure to improve product quality. This may reduce demand for the services of the ALCs.	Government policies for promotion of the horticulture sector and the increased volume and improved quality of products generated by the ALCs will help maintain and increase Uzbek products' market share.
Farmers, traders, and agro-enterprises may be unwilling to abandon existing low-cost marketing channels in favor of improved but more expensive facilities offered by ALCs.	Project management staff will undertake intensive promotion of the ALC concept and the advantages of access to multiple services in a single location.

ADB = Asian Development Bank, ALC = agro-logistic center.

Source: Asian Development Bank.

## IV. ASSURANCES AND CONDITIONS

33. The government and the RRA have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan agreement.

34. The government has agreed with ADB on certain covenants for the project, which are set forth in the draft loan agreement.

35. **Conditions of disbursement.** No withdrawal will be made from the loan account relating to the turnkey contract until (i) the ALC management company has been duly established and is adequately staffed and fully functional; and (ii) the project agreement, in form and substance satisfactory to ADB, has been entered into between ADB and the ALC management company.

## V. RECOMMENDATION

36. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$197,000,000 to the Republic of Uzbekistan for the Horticulture Value Chain Infrastructure Project, from ADB's ordinary capital resources, in concessional terms, with an interest charge at the rate of 2% per year during the grace period and thereafter; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board.

Takehiko Nakao  
President

23 October 2018

<sup>22</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

## DESIGN AND MONITORING FRAMEWORK

<b>Impact the Project is Aligned with:</b>			
Contribution of horticulture sector to inclusive economic growth improved (Presidential Decree No. UP-4707) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b> Production and value addition of horticulture products increased	By 2024: a. Horticulture production increased to 25 million tons (2017 baseline: 21 million tons) b. Volume of processed and certified horticulture products for export increased to 1.8 million tons (2017 baseline: 0.6 million tons) c. Post-harvest losses reduced to 3.2 million tons (2017 baseline: 6.5 million tons) d. At least 75,000 full-time jobs (equivalent) added for on-farm, transportation, sorting, packaging, and certification, including 15,000 jobs for female workers (2017 baseline: 0.9 million) <sup>b</sup>	a–d. National Statistics Committee, Ministry of Economy, PMO monitoring reports, and customs data	Horticulture exports may be constrained by competition from neighboring countries and failure to improve product quality. This may reduce demand for the services of the ALCs.  Reintroduction of foreign exchange controls may adversely affect the servicing of the ADB foreign currency debt from ALCs' earnings in local currency.
<b>Outputs</b> 1. ALCs established	By 2023: 1a. Two ALCs—in Andijan and Samarkand—constructed (2017 baseline: 0) 1b. Cold storage capacity increased to at least 3 million tons (2017 baseline: 0) 1c. Trading area increased by 60,500 m <sup>2</sup> (2017 baseline: 0) 1d. 29 food product processing lines added for export and domestic market throughputs (2017 baseline: 0) 1e. 320 employees work in ALC facilities and at least 80 are female	1a–1e. ALC management company's log books and PMO's monitoring reports	Farmers, traders, and agro-enterprises may be unwilling to abandon existing low-cost marketing channels in favor of improved but more expensive facilities offered by ALCs.
2. ALCs' management capacity improved	By 2022: 2a. ALCs' operation and management guidelines finalized (2018 baseline: not applicable) 2b. ALC management company established (2018 baseline: not set up) 2c. ALC management company has at least 20% female members in its management	2a–2e. ALC management company's log books and PMO's monitoring reports	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	<p>and operation team (2018 baseline: 0)</p> <p>By 2023:</p> <p>2d. At least 120 trained staff and workers of the ALC management company, including at least 30 women, enhanced their capacity to manage, operate, and maintain the ALCs and increased their awareness on gender sensitivity (2018 baseline: 0).</p> <p>2e. At least 50 trained potential start-up entrepreneurs, including 10 potential women entrepreneurs, increased their knowledge on horticulture business development and management (2018 baseline: 0).</p>		
<b>Key Activities with Milestones</b>			
<p><b>1. ALCs established</b></p> <p>1.1 Mobilize project management and supervision consultant by Q2 2019</p> <p>1.2 Sign turnkey contract to construct two ALCs by Q4 2019</p> <p>1.3 Secure approval for the detailed designs from the government and ADB by Q2 2020</p> <p>1.4 Undertake construction and installation of fixtures (Q2 2020–Q3 2022)</p> <p>1.5 Commission and hand over ALCs from turnkey contractor to the ALC management company by Q4 2022</p> <p>1.6 Conduct test operations of all facilities in ALCs (Q3–Q4 2022)</p> <p><b>2. ALCs management capacity improved</b></p> <p>2.1 Conduct overseas study visits by Q3 2019</p> <p>2.2 Mobilize ALC operation and management consultant by Q1 2020</p> <p>2.3 Set up the ALC management company under the Ministry for Foreign Trade by Q4 2019</p> <p>2.4 Prepare operation and management guidelines for ALCs by Q1 2020</p> <p>2.5 Conduct training in management, operation, and maintenance of ALCs (Q1 2021–Q2 2023)</p> <p>2.6 Conduct training in horticulture business development and management (Q1 2021–Q2 2023)</p>			
<p><b>Project Management Activities</b></p> <p>Replenish project management office with required staff by Q1 2019</p> <p>Set up project performance management system by Q3 2019</p> <p>Prepare annual progress reports</p> <p>Prepare project completion report by Q4 2023</p>			
<p><b>Inputs</b></p> <p>ADB: \$197.00 million (concessional OCR loan)</p> <p>Government of Uzbekistan: \$47.75 million</p>			
<p><b>Assumptions for Partner Financing</b></p> <p>Not applicable.</p>			

ADB = Asian Development Bank, ALC = agro-logistic center, m<sup>2</sup> = square meter, OCR = ordinary capital resources, PMO = project management office, Q = quarter.

<sup>a</sup> Government of Uzbekistan. 2015. *Presidential Decree No. UP-4707*. Tashkent. Under this decree, the government set out a program of measures for structural reforms, modernization, and diversification of production for 2015–2019.

<sup>b</sup> Estimates were based on proxies validated by sample surveys conducted during project preparation.

Source: Asian Development Bank.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=51041-002-3>

1. Loan Agreement: Special Operations
2. Sector Assessment (Summary): Agriculture, Natural Resources, and Rural Development
3. Project Administration Manual
4. Contribution to the ADB Results Framework
5. Development Coordination
6. Financial and Economic Analysis
7. Country Economic Indicators
8. Summary Poverty Reduction and Social Strategy
9. Risk Assessment and Risk Management Plan
10. Gender Action Plan
11. Initial Environmental Examination: Andijan Agro-Logistic Center
12. Initial Environmental Examination: Samarkand Agro-Logistic Center
13. Resettlement Plan: Andijan Agro-Logistic Center
14. Resettlement Plan: Samarkand Agro-Logistic Center

**Supplementary Documents**

15. Detailed Sector Assessment: Agriculture, Natural Resources, and Rural Development
16. Detailed Financial and Economic Analysis
17. Detailed Social and Gender Assessment
18. Financial Management Assessment: Rural Restructuring Agency
19. Financial Management Assessment: Ministry for Foreign Trade