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Report No: PAD774

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US\$150 MILLION

TO THE

REPUBLIC OF UZBEKISTAN

FOR A

HORTICULTURE DEVELOPMENT PROJECT

May 15, 2014

*Sustainable Development Department  
Central Asia Country Unit  
Europe and Central Asia Region*

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2014)

Currency Unit = Uzbekistan Soum (UZS)  
UZS 2,200.00 = US\$1

## GOVERNMENT FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AF	Additional Financing
AIS	Administration of Irrigation Systems
ARD	Agriculture and Rural Development
BAIS	Basin Administration of Irrigation Systems
BAU	Business as Usual
BER	Bid Evaluation Report
CA	Chief Accountant
CAEWDP	Central Asia Energy and Water Development Program
CIFA	Country Integrated Fiduciary Assessment
CIS	Commonwealth of Independent States
CPS	Country Partnership Strategy
CQS	Selection Based on Consultants' Qualifications
DA	Designated Account
DC	Direct Contracting
ECA	Europe and Central Asia
EMF	Environmental Management Framework
FU	Farmers Union
FAO	Food and Agriculture Organization
FBM	Feedback Mechanism
FFS	Farmer Field School
FM	Financial Management
FMS	Financial Management Specialist
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	German International Cooperation Agency (formerly GTZ)
GoU	Government of Uzbekistan
HACCP	Hazard Analysis and Critical Control Points
HDP	Horticulture Development Project
HPAI	Highly Pathogenic Avian Influenza
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
IFAC	International Federation of Accountants

IFC	International Finance Corporation
IFR	Interim Financial Report
IFRS	International Financing Reporting Standard
ILL	Investment Lending and Leasing
IPM	Integrated Pest Management
IPSAS	International Public Sector Accounting Standards
IQF	Individually Quick Frozen
ISA	International Standards on Auditing
IVNCP	Institute of Vegetables, Melon Crops and Potato
KMMIS	Knowledge Management and Market Information System
LU	Livestock Unit
MAWR	Ministry of Agriculture and Water Resources
M&E	Monitoring and Evaluation
MFI	Micro-Finance Institution
MIS	Management Information System
MoE	Ministry of Economy
MoF	Ministry of Finance
NCB	National Competitive Bidding
NGO	Non-Governmental Organization
PAD	Project Appraisal Document
PDO	Project Development Objective
PFI	Participating Financial Institution
PHH	Post-Harvest Handling
PIF	Project Identification Form
PIP	Project Implementation Plan
PIU	Project Implementation Unit
PMR	Project Management Reports
PP	Procurement Plan
PPF	Project Preparation Facility
PRAMS	Procurement Risk Assessment Management System
RESP II	Second Rural Enterprise Support Project
REIG	Rural Enterprise Investment Guidelines
RFC	Rural Finance Component
RRA	Rural Restructuring Agency
RIVMP	Research Institute for Vegetables Melons and Potato
SKWRMIP	South Karakalpakstan Water Resources Management Improvement Project
SOE	Statements of Expenditure
SSS	Single-Source Selection
TA	Technical Assistance
TOR	Terms of Reference
ToT	Trainers of Trainers
TPM	Third Party Monitoring
UNDP	UN Development Program
UNCCD	United Nations Convention to Combat Desertification
USAID	United States Agency for International Development
Uzglavgoskarantin	Laboratory Research Center for Plant Quarantine

UZS  
Uzstandart

Uzbekistan Soum  
Uzbekistan State Centre for Standardization, Metrology and Certification

Regional Vice President:	Laura Tuck
Country Director:	Saroj Kumar Jha
Country Manager:	Takuya Kamata
Sector Director:	Laszlo Lovei
Sector Manager:	Dina Umali-Deininger
Task Team Leader:	Dilshod Khidirov

**UZBEKISTAN  
HORTICULTURE DEVELOPMENT PROJECT**

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**PAD DATA SHEET***Uzbekistan**Horticulture Development Project (P133703)***PROJECT APPRAISAL DOCUMENT***EUROPE AND CENTRAL ASIA**ECSAR*

Report No.: PAD774

Basic Information			
Project ID P133703	EA Category B - Partial Assessment	Team Leader Dilshod Khidirov	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]		
	Financial Intermediaries [ X ]		
	Series of Projects [ ]		
Project Implementation Start Date 11-Jun-2014	Project Implementation End Date 30-Dec-2020		
Expected Effectiveness Date 15-Jan-2015	Expected Closing Date 30-Jun-2021		
Joint IFC No			
Sector Manager Dina Umali-Deininger	Sector Director Laszlo Lovei	Country Director Saroj Kumar Jha	Regional Vice President Laura Tuck
Borrower: Ministry of Finance			
Responsible Agency: Rural Restructuring Agency			
Contact: Telephone No.: /Fax: (998-712) 371-657		Title: Email: resp_sks_uz@slider.sks.uz	
Project Financing Data(in USD Million)			
[ X ] Loan	[ ] Grant	[ ] Guarantee	
[ ] Credit	[ ] IDA Grant	[ ] Other	
Total Project Cost:	183.13	Total Bank Financing:	150.00
Financing Gap:	0.00		
Financing Source		Amount	
Borrower		5.27	

International Bank for Reconstruction and Development	150.00
LOCAL BENEFICIARIES	27.86
Total	183.13

#### Expected Disbursements (in USD Million)

Fiscal Year	2015	2016	2017	2018	2019	2020	2021
Annual	33.17	24.57	23.44	23.40	22.74	22.68	
Cumulative	33.17	57.75	81.18	104.59	127.32	150.00	

#### Proposed Development Objective(s)

The project development objective is to enhance the productivity and profitability of horticulture sector in the project area.

#### Components

Component Name	Cost (USD Millions)
Agricultural Support Services	35.21
Access to Credit	139.81
Project Management	8.11

#### Institutional Data

##### Sector Board

Agriculture and Rural Development

#### Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Agriculture, fishing, and forestry	Agricultural extension and research	23	55	55
Industry and trade	Agro-industry, marketing, and trade	77		
Total		100		

☐ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

#### Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Rural development	Rural markets	100



Total		100	
<b>Compliance</b>			
<b>Policy</b>			
Does the project depart from the CAS in content or in other significant respects?		Yes [ ]	No [ X ]
Does the project require any waivers of Bank policies?		Yes [ ]	No [ X ]
Have these been approved by Bank management?		Yes [ ]	No [ X ]
Is approval for any policy waiver sought from the Board?		Yes [ ]	No [ X ]
Does the project meet the Regional criteria for readiness for implementation?		Yes [ X ]	No [ ]
<b>Safeguard Policies Triggered by the Project</b>		<b>Yes</b>	<b>No</b>
Environmental Assessment OP/BP 4.01		X	
Natural Habitats OP/BP 4.04			X
Forests OP/BP 4.36			X
Pest Management OP 4.09		X	
Physical Cultural Resources OP/BP 4.11			X
Indigenous Peoples OP/BP 4.10			X
Involuntary Resettlement OP/BP 4.12			X
Safety of Dams OP/BP 4.37			X
Projects on International Waterways OP/BP 7.50			X
Projects in Disputed Areas OP/BP 7.60			X
<b>Legal Covenants</b>			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Articles 4.01 and 4.02: Additional Event of Suspension and of Acceleration	X		Yearly
<b>Description of Covenant</b>			
Article 4.01: The Additional Event of Suspension consists of the following, namely that the Project Implementation Plan and the Credit Line Investment Guidelines have been amended, suspended, repealed or waived without the Bank's prior approval. Article 4.02: The Additional Event of Acceleration consists of the following, namely, that the event specified in Section 4.01 of this Agreement occurs.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Section I.A.1, Schedule 2 Institutional Arrangements	X		Yearly
<b>Description of Covenant</b>			
The Borrower shall maintain the RRA until completion of the Project, with staff, resources and terms of reference satisfactory to the Bank and assign to it responsibility for overall Project management and			

coordination.			
Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.A.2(a) and (b) Part 2 of the Project	X		Yearly
<b>Description of Covenant</b>			
For the purposes of carrying out Part 2 of the Project, the Borrower, through RRA, shall: (a) implement Part 2 of the Project in accordance with the provisions in the Credit Line Investment Guidelines; and (b) not assign, amend, abrogate or waive the Credit Line Investment Guidelines without obtaining the prior approval of the Bank.			
Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.A.3 Project Implementation Plan	X		Yearly
<b>Description of Covenant</b>			
The Borrower, through RRA, shall carry out the Project in accordance with the requirements and procedures set forth or referred to in the Project Implementation Plan and shall not amend, suspend, repeal or waive their provisions without the Bank's prior approval.			
Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.C.1 Subsidiary Loan Agreements	X		Yearly
<b>Description of Covenant</b>			
To facilitate the carrying out of the Part 2 of the Project, the Borrower shall make a part of the proceeds of the Loan available under subsidiary agreements between the Borrower, RRA and each PFI under terms and conditions approved by the Bank, including those set forth in Section C.4 of the loan agreement ("Subsidiary Loan Agreements").			
Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.C.2 Subsidiary Loan Agreements	X		Yearly
<b>Description of Covenant</b>			
The Borrower shall exercise its rights under the Subsidiary Loan Agreements in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan. Except as the Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate or waive the Subsidiary Loan Agreements or any of its provisions.			
Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.C.3 Subsidiary Loan Agreements	X		Yearly
<b>Description of Covenant</b>			
The Borrower shall, in close cooperation with the Bank, select PFIs for Part 2 of the Project in accordance with the eligibility criteria set forth in the Credit Line Investment Guidelines.			
Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.C.4 (i) Subsidiary Loan Agreements	X		Yearly

<b>Description of Covenant</b>			
The PFIs shall carry out appraisal of Sub-projects and Beneficiaries based on criteria set forth in the Credit Line Investment Guidelines. Appraisal of Sub-projects shall include, inter alia: (i) environmental screening of the proposed activities and determining what type of environmental impact assessment has to be carried out by the Beneficiary;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.C.4 (ii) Subsidiary Loan Agreements	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(ii) screening of Sub-projects proposals and Beneficiaries to ensure compliance with applicable laws and regulations on child and forced labor.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.C.5 (a) Subsidiary Loan Agreements	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower shall ensure that each Subsidiary Loan Agreement with PFIs for Sub-financings shall comply with, but not be limited to, the following terms and conditions: (a) the amount of Subsidiary Loan to each PFI shall be made available in Dollars or Soum;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.C.5 (b)(c) Subsidiary Loan Agreements	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(b) the principal amount of the Subsidiary Loan shall be repaid by the respective PFI in Dollars or in Soum to the Borrower in semi-annual installments over twenty (20) years, including a grace period of five (5) years; (c) interest shall be charged on the outstanding balances of the Subsidiary Loans at a rate acceptable to the Bank; and			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.C.5 (d) Subsidiary Loan Agreements	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(d) each PFI shall carry out activities under Part 2 of the Project in accordance with the Anti-corruption Guidelines;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.C.5 (e) Subsidiary Loan Agreements (1/2)	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(e) each PFI shall be responsible for monitoring implementation of Sub-projects and ensuring compliance of Beneficiaries with any applicable laws and regulations on child and forced labor.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.C.5 (e) Subsidiary Loan Agreements (2/2)	<b>X</b>		Yearly

<b>Description of Covenant</b>			
In case of established non-compliance with laws and regulations on child and forced labor by a Beneficiary utilizing Sub-financing from a respective PFI, said such Sub-financing shall be refunded to the RRA and such PFI shall be disqualified from providing Sub-financings under Part 2, all in accordance with the relevant criteria/provisions established in the Credit Line Investment Guidelines.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.1 Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower shall ensure that PFIs make Sub-financing to Beneficiaries in accordance with terms and conditions, eligibility criteria and procedures set forth in the Credit Line Investment Guidelines.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.2 Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
Sub-financings shall not finance: (i) any non-eligible activities or expenditures listed in the Credit Line Investment Guidelines; (ii) any Sub-projects requiring land acquisition or resettlement or loss of assets or income; and (iii) any Sub-project relating to cotton production.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(a) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower shall ensure that PFIs make each Sub-financing under a Sub-financing Agreement with each Beneficiary on terms and conditions set forth in the Credit Line Investment Guidelines, which shall, inter alia, include the following: (a) the Investment and Working Capital Sub-loan and Lease Financing shall be made to each Beneficiary in Dollars or Soum;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(b) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(b) interest shall be charged by a PFI on the principal amount of each Sub-financing withdrawn and outstanding from time to time, at the prevailing interest rate under the concerned Subsidiary Loan Agreement of said PFI as determined in accordance with Section C.4 (c) above plus a market-based spread determined by the PFI making such Sub-financing;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(c) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(c) each Sub-financing shall be made by the PFI to the Beneficiary on terms and conditions, including those relating to the maturity, currency denomination, and other charges determined in accordance with the PFI's investment and lending policies and practices, and the provisions of the Credit Line Investment Guidelines;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>

Schedule 2, Section I.D.3(d) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(d) the first three (3) Sub-project proposals for Investment and Working Capital Sub-loan or Lease Financings irrespective of the amount and any other Investment and Working Capital Sub-loan or a Lease Financing proposal based on the relevant selection criteria set forth in the Credit Line Investment Guidelines shall be submitted by the PFI to the Bank for its prior review and approval;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(e) each Sub-financing shall be made by the PFI to the Beneficiary on terms and conditions, including rights adequate to protect the interests of the Borrower and the Bank, namely, the right to:			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(i) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(i) suspend or terminate the right of the Beneficiary to use the proceeds of the Sub-financing, or declare to be immediately due and payable all or any part of the amount of the Sub-financing then withdrawn, upon the Beneficiary's failure to perform any of its obligations under the Sub-financing Agreement;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(ii) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(ii) in case of established non-compliance by a Beneficiary with any applicable laws and regulations on child and forced labor, suspend or terminate the right of the Beneficiary to use the proceeds of the Sub-financing and request a refund of disbursed amounts under the Sub-financing Agreement; and			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(iii)(A)(1)(2) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(iii) require each Beneficiary to: (A) carry out its Sub-project: (1) with due diligence and efficiency and in accordance with sound technical, economic, financial, managerial, environmental, health and social standards and practices, satisfactory to the Bank; (2) comply with the requirements of applicable laws and regulations on child and forced labor;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(iii)(A)(3)(4)(B) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(3) in accordance with the provisions of the Anti-Corruption Guidelines applicable to recipients of loan proceeds other than the Borrower; and (4) in accordance with the Environmental Management			

Framework; (B) provide, promptly as needed, the resources required for the purpose;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(iii)(C)(D) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(C) procure the goods, works and services to be financed out of the Sub-financing in accordance with the provisions of this Agreement; (D) maintain policies and procedures adequate to enable it to monitor and evaluate in accordance with indicators acceptable to the Bank, the progress of the Sub-project and the achievement of its objectives;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(iii)(E)(1) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(E)(1) maintain a financial management system and prepare financial statements in accordance with consistently applied accounting standards acceptable to the Bank, both in a manner adequate to reflect the operations, resources and expenditures related to the Sub-project; and			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(iii)(E)(2) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(2) at the Bank's request, have such financial statements audited by independent auditors acceptable to the Bank, in accordance with consistently applied auditing standards acceptable to the Bank, and promptly furnish the statements as so audited to the Borrower and the Bank;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.D.3(e)(iii)(F)(G) Sub-financing	<b>X</b>		Yearly
<b>Description of Covenant</b>			
(F) enable the Borrower and the Bank to inspect the Sub-project, its operation and any relevant records and documents; and (G) prepare and furnish to the Borrower and the Bank all such information as the Bank shall reasonably request relating to the foregoing.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.1.Environmental Management Framework	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower, through RRA, shall implement the Project pursuant to the Environmental Management Framework in a manner satisfactory to the Bank and shall provide the Bank with a summary status of the implementation, including results from environmental monitoring, as part of Project Reports or when specifically requested by the Bank.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.2.Environmental Management Framework	<b>X</b>		Yearly

<b>Description of Covenant</b>			
The Borrower shall ensure that the Project is implemented in compliance with any applicable laws and regulations on child and forced labor, including ensuring such compliance by the PFIs and Beneficiaries.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.3.Environmental Management Framework	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower, through RRA, shall ensure that the Project activities under the Project will not include any land acquisition, displacement of people, and construction of new or rehabilitation of existing dams.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.4. TPM and Feedback Mechanism (1/2)	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower, through RRA, shall take all necessary actions, and ensure that necessary actions are taken, to enable the TPM Consultant to perform monitoring activities in accordance with the applicable terms of reference,			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.4. TPM and Feedback Mechanism (2/2)	<b>X</b>		Yearly
<b>Description of Covenant</b>			
including but not limited to allowing and facilitating for the TPM Consultant to visit sites where the Project is being carried out, collect relevant data and communicate with Project stakeholders and participants.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.5. TPM and Feedback Mechanism	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower shall: (a) review and discuss with the Bank monitoring reports prepared by the TPM Consultant; and (b) promptly take any actions, as may be requested by the Bank upon its review of said reports, with respect to compliance with the undertakings relating to child and/or forced labor as set forth in this Agreement and the Project Implementation Plan.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.6.(a) TPM and Feedback Mechanism	<b>X</b>		Yearly
<b>Description of Covenant</b>			
The Borrower: (a) shall and shall cause respective local authorities to fully collaborate with the TPM Consultant in developing an effective grievance redress mechanism in connection with the Project activities or within the Project Area, as set forth in the TPM Consultant's terms of reference;			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section I.E.6.(b)(c) TPM and Feedback Mechanism	<b>X</b>		Yearly

<b>Description of Covenant</b>			
(b) shall review biannual reports of the TPM Consultant on grievances received, redress mechanism and any feedback provided; and (c) shall promptly implement or cause relevant local authorities to implement the recommendations provided in said reports.			
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>	<b>Frequency</b>
Schedule 2, Section II.B. 3. Audit of Financial Statement	X		Yearly
<b>Description of Covenant</b>			
The Borrower shall have its Financial Statements audited in accordance with the provisions of Section 5.09 (b) of the General Conditions. Each audit of the Financial Statements shall cover the period of one fiscal year of the Borrower. The audited Financial Statements for each such period shall be furnished to the Bank not later than six (6) months after the end of such period.			
<b>Conditions</b>			
<b>Source Of Fund</b>	<b>Name</b>	<b>Type</b>	
IBRD	Article V 5.01 Project Implementation Plan	Effectiveness	
<b>Description of Condition</b>			
The Project Implementation Plan has been adopted by the Borrower in form and substance satisfactory to the Bank.			
<b>Source Of Fund</b>	<b>Name</b>	<b>Type</b>	
IBRD	Article V 5.01 (b) RRA staffed and updated its accounting software	Effectiveness	
<b>Description of Condition</b>			
The RRA: (i) has been staffed with the professionals indicated in the Project Implementation Plan (all in numbers and with experience and terms of reference satisfactory to the Bank); and (ii) has updated its accounting software in accordance with the technical requirements and specifications set forth in the Project Implementation Plan.			
<b>Source Of Fund</b>	<b>Name</b>	<b>Type</b>	
IBRD	Schedule 2, Section IV.B.1. (a) Withdrawal Condition	Disbursement	
<b>Description of Condition</b>			
No withdrawal shall be made: (a) for payments made prior to the date of this Agreement;			
<b>Source Of Fund</b>	<b>Name</b>	<b>Type</b>	
IBRD	Schedule 2, Section IV.B.1. (b) Withdrawal Condition	Disbursement	
<b>Description of Condition</b>			
and (b) under Category (3) unless the Borrower has: (i) prepared and approved the Credit Line Investment Guidelines in a manner satisfactory to the Bank; and (ii) entered into the respective Subsidiary Loan Agreements with RRA and each PFI under terms and conditions approved by the Bank pursuant to Section I.C of this Schedule.			
<b>Team Composition</b>			



Bank Staff					
Name		Title	Specialization		Unit
Donald F. Larson		Senior Economist	Senior Economist		DECAR
Joseph Paul Formoso		Senior Finance Officer	Senior Finance Officer		CTRLA
Malcolm A. B. Jansen		Consultant	Consultant		SASDT
Valencia M. Copeland		Program Assistant	Program Assistant		ECSSD
Fasliddin Rakhimov		Procurement Specialist	Procurement Specialist		ECSO2
Sandra Broka		Senior Rural Finance Specialis	Senior Rural Finance Specialist		ECSAR
Dilshod Khidirov		Senior Rural Development Speci	Team Lead		ECSAR
Cristian D’Amelj		Counsel	Counsel		LEGLE
Bekzod Shamsiev		Senior Agriculture Economist	Senior Agriculture Economist		ECSAR
Arcadii Capcelea		Senior Environmental Specialis	Senior Environmental Specialist		ECSAR
Jeren Kabayeva		Rural Development Specialist	Rural Development Specialist		ECSAR
Galina Alagardova		Financial Management Specialis	Financial Management Specialist		ECSO3
Manivannan Pathy		Sr Agricultural Spec.	Sr Agricultural Spec.		SASDA
Asror Nazirov		Consultant	Horticulture Specialist		ECSAR
Shakhnoza Aslanova		Team Assistant	Team Assistant		ECCUZ
Oydin Dyusebaeva		Executive Assistant	Executive Assistant		ECCUZ
Jennifer Shkabatur		E T Consultant	Social Development Specialist		ECSSO
Hiromi Yamaguchi		Consultant	Consultant		ECSAR
Ekaterina Romanova		E T Consultant	Social Development Specialist		ECSSO
Non Bank Staff					
Name		Title	Office Phone		City
Andriy Yarmak		Senior Economist, FAO			
Kairat Nazhmidenov		Economist			Rome, Italy
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Uzbekistan	Karakalpakstan	Karakalpakstan	X		

Uzbekistan	Samarqand	Samarqand Viloyati	<b>X</b>		
Uzbekistan	Kashkadarya Province	Qashqadaryo Province	<b>X</b>		
Uzbekistan	Toshkent	Toshkent Viloyati	<b>X</b>		
Uzbekistan	Namangan Province	Namangan Province	<b>X</b>		
Uzbekistan	Jizzax	Jizzakh Province	<b>X</b>		
Uzbekistan	Fergana	Fergana	<b>X</b>		
Uzbekistan	Andijon	Andijan	<b>X</b>		

## I. STRATEGIC CONTEXT

### A. Country Context

1. Uzbekistan, a low middle-income, resource rich, landlocked country, is the third largest country in Central Asia by land mass, and the largest in terms of population (30.5 million as of January 1, 2014). The Uzbek economy grew strongly over the past decade and showed resiliency during the global financial crisis. GDP growth averaged 8.2% per year over the period 2004–12, and reached US\$56.8 billion (in 2013, current US\$, World Bank), while GDP per capita grew on average 6.4% per year over the same period. Poverty declined from 27.5% of the population in 2001 to 15% in 2013 due to rapid economic growth, creation of new small businesses and jobs, large government investments in education, health and infrastructure, increases in public sector salaries, and increased remittances. However, the elasticity of poverty reduction to GDP growth remains low, including due to low productivity of the agricultural sector and regional divergences in growth. Going forward, Uzbekistan's development strategy aims to transform the country into an industrialized upper middle-income country by the middle of the century. The World Bank twin goals of poverty reduction and shared growth are central to the authorities' development agenda. One of the cross-cutting development policy goals and priorities include that the benefits of overall growth are to be shared equitably by the entire population. It is pertinent to the shared prosperity agenda, as well as the poverty agenda, of the World Bank Group. Along the line of these directions, the authorities' development programs are focused on disadvantaged regions, which include Karakalpakstan and the Fergana Valley areas.

### B. Sectoral and Institutional Context

2. **Agriculture plays an important role in Uzbekistan's economy.** In 2012, 49 percent of the population - more than 14.5 million people - lived in rural areas. As in many parts of the world, the majority of poor people live in rural areas, and the sector has a significant impact on rural livelihoods, jobs, and food security. In 2010, agriculture provided 25 percent of total employment. Although agriculture's contribution to GDP declined from 30 percent in 2000 to 16.8 percent in 2013, farm output has doubled in real terms and continues to grow steadily, at a rate of 7.1 percent per year.

3. **Uzbekistan has become a major producer of horticultural products, with a global potential.** Uzbekistan is among the top five producers of apricots in the world, the sixth largest producer of cherries, and seventeenth in apple production.<sup>1</sup> It has a comparative advantage in horticulture based on its natural endowments. Its agro-climatic conditions, which are similar to Chile, Turkey, and California in the United States, support many of the same crops grown in in these countries. It produces a large variety of fruits and vegetables, including some sub-tropical fruits, such as persimmons and pomegranates. Its climate supports two vegetable crop harvests in most places, and three harvests in some regions. The climate also allows farmers to grow crops with different ripening periods (early, medium, and late) throughout the year. Favorable conditions also reduce problems related to pests and diseases. Farmers often use organic fertilizers and the weather also allows high productivity without the heavy use of pesticides. These special features give farmers a unique opportunity to deliver high-quality fruit, nuts and vegetables to domestic and high-end export markets.

4. **The agricultural sector has been going through continued farm restructuring.** Since 1998, the former state and collective farms were converted into cooperative farms (*shirkats*), where production assets were managed by families, who held ownership shares. Between 2002 and 2007, the government undertook a massive conversion of shirkats into *private leasehold farms*, with land allocations under long-term leases for 30-50 years. These farms (set at 30 ha) are generally subject to cotton and/or wheat

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<sup>1</sup> "Uzbekistan Fresh Deciduous and Stone Fruits," USDA, February 2014.

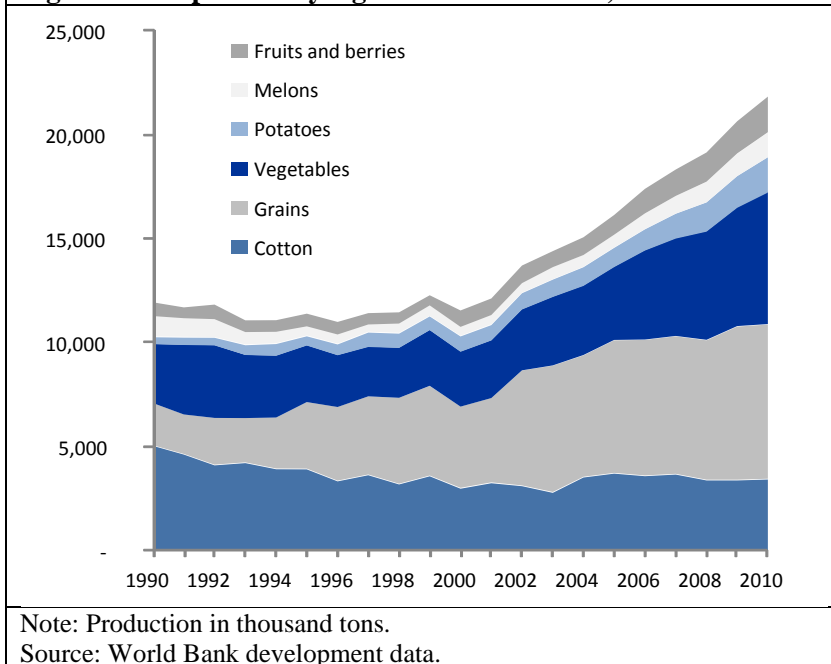
production quotas, for which they receive support from the government, unless they are designated for growing other crops (e.g. 5 ha per horticultural private farm). Private leasehold farms specializing in horticulture are given some latitude to decide what they produce. There were about 66,000 private leasehold farms in Uzbekistan in 2010. Starting in 2006, “agri-firms” - non-government associations and private firms that participate in the distribution and processing of fruits and vegetables - were established within the horticulture sector. There are currently around 270 agri-firms in the country. At the same time, there are about 4.7 million *dehkan/household farms* with small-scale agricultural land plots (0.35-0.5 ha), largely based on household labor. Dehkan farms operate independently, without government intervention or material support.

**5. Horticulture is an important component of the agricultural sector in Uzbekistan, although its significance is easy to miss.**

Compared to traditional crops such as wheat and cotton, the footprint of horticulture is small. Horticulture accounts for about 16 percent of the aggregate arable lands in contrast to grains (47 percent) and cotton (37 percent). However, with a growing domestic and export market, the area devoted to horticulture has increased steadily, primarily by displacing land used to grow cotton.

Consequently, horticultural production has been increasing faster than traditional crops in recent years (Figure 1). The economic impact of the fruit and vegetables subsector is large, accounting for 50 percent of the value of crop output and over 35 percent of agriculture export value.

**Figure 1: Output of Key Agricultural Products, 1990-2010**



**6. Growing domestic and external demand generates new opportunities for the Uzbek horticulture.** Steady economic growth over the last 10 years, resulting in rising household incomes, a growing population and increased urbanization contribute to the increased domestic demand for horticultural products. Indeed, today, most fruits and vegetables are consumed domestically. Fruits are mostly consumed fresh (about 69 percent), while about 11 percent is exported and 20 percent is processed (e.g. jams, juices, dried fruits). Similarly most vegetables are also consumed fresh (81 percent), 11.3 percent is processed by the domestic food industry, 4.3 percent is utilized for seeds, and the remaining 3.4 percent is exported. Most fresh vegetables are grown by private farmers and small household farms and supplied to local markets. But there are also some large Agro-firms which grow and supply vegetables under contract to fruit/vegetable processing companies.

**7. Uzbekistan’s horticultural products are fast becoming the second largest agricultural export commodity group, after cotton (i.e. cotton lint, linter and oil).<sup>2</sup>** Horticultural export revenues have more than tripled, from about US\$373 million in 2006 to US\$1.2 billion in 2010. Uzbekistan is

<sup>2</sup> Export value data for 2011, FAOSTAT

geographically well positioned to take advantage of the large and growing markets for horticultural products domestically and abroad. Uzbekistan's main export markets are its neighboring Commonwealth of Independent States (CIS) republics (in particular Russia and Kazakhstan), and some European and Asian countries. Russia and Kazakhstan accounted for about 93 percent of Uzbek fruit and vegetable exports (around US\$700 million) in 2011. However, Uzbekistan is far from fully realizing its potential in international markets. Meeting quality and food safety requirements of the more stringent export markets remain a challenge.

8. **Horticulture sector development has received increased government's priority in recent years.** Food security concerns, increasing water scarcity – projected to be exacerbated by climate change, and the environmental and social problems associated with cotton production have spurred the shift in the cropping structure in the country - first to wheat to achieve food security, and now to horticulture crops, to capture the benefits of the growing domestic and lucrative export markets. The environmental and social benefits are also notable, as horticulture crops are less water intensive<sup>3</sup>, they offer the highest potential for increasing incomes (their gross margins per ha are up to five times higher compared to cotton and wheat), and they generate more all season employment. Horticulture is an important source of livelihoods for the 4.7 million dehkan farmers who comprise the poorest households.<sup>4</sup> The government is supporting the increased expansion of the horticulture area through greater direct technical and financial support to the sector, e.g. through various trade and export promotion activities<sup>5</sup> and in partnership with the World Bank, including through the Second Rural Enterprise Support Project, RESP II (\$67.96 million), its additional financing (\$40 million) and this proposed project.

9. **More rapid growth of the horticulture sector, however, is hampered by several constraints.** There is limited knowledge by farmers and entrepreneurs on modern and improved horticulture-related technologies and farm practices to increase productivity and reduce post-harvest losses and on mechanisms to more effectively link farmers to markets. Uzbekistan yields of major horticultural crops remain below those of other leading producing countries (see Table 4, Annex 6). The horticulture value chain is developing, but many market bottlenecks remain, including inadequate infrastructure (e.g. cool-chains, grading and packing facilities), a weak market information system, and limited private sector capacity to meet quality and food safety standards in different markets. In addition some government policies constrain private activities. For example, the Government sets minimum export prices and sometimes intervenes to restrict exports. Organizations engaged in export of horticultural products are included in the list of exporters approved by the Government. To assure that domestic markets are well supplied, the Government may sometimes deny export requests. As a result, the system encourages the use of informal and illegal marketing channels, and this stands in the way of building up the type of formal markets needed to access premium markets, domestically and abroad. Farmer and private enterprise capacity to address these constraints are further impeded by limited access to finance for working capital and/or long term capital to undertake needed investments. Although lending for agriculture has increased (including through RESP II and its AF), the demand is considerably greater. It is estimated that the investment needs in the horticulture sector is more than US\$1 billion. The financing needs for planting of new orchards and vineyards and replacement of some old ones<sup>6</sup> alone is estimated to be in the order of about US\$600 million.

10. **The project will contribute to addressing these constraints at several levels.** It will support the strengthening of key research institutes and extension services, and in collaboration with private input providers, implement various training and demonstration activities to promote the adoption by farmers of

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<sup>3</sup> "Republic of Uzbekistan Strengthening the Horticulture Value Chain", World Bank, 2013.

<sup>4</sup> Ibid.

<sup>5</sup> Once example is the International Conference "Vegetable Growing, Horticulture and Viticulture - the Source of Increasing the Efficiency of a Food Program" to be held on the week of June 2, 2014 in Tashkent city.

<sup>6</sup> A total of about 120,000 Ha; please see Annex 8 for more information.

improved technologies and practices. It will support value chain development through measures to strengthen market information and quality and food safety systems in the country, technical assistance to the government on improving the policy environment for the horticulture sector, and by providing a line of credit to increase access to finance by farmers and private sector entrepreneurs to undertake the needed investments to improve their competitiveness.

11. **Child and Forced Labor in the Cotton Sector.** Although the use of child and forced labor tends to be limited to the cotton sector, the project recognizes the concern over the use of child and forced labor in the agricultural sector. Such practice is ostensibly driven by a combination of socio-economic factors and the peculiarities of agricultural production arrangements in the cotton sector. Other crops, particularly horticulture (which this project supports), are not subject to state procurement quotas and operate under a more liberalized market environment. Driven by market conditions, horticulture is more profitable, and consequently may offer more competitive wages to attract wage labor. In this respect, the project will require all participating financial institutions, agri-firms and farmers benefiting from the project to sign legally binding agreements prohibiting any form of child and forced labor in project activities or in the project area (see para 68 for details).

12. The World Bank, in consultation with the government and development partners, has adopted a multi-pronged approach to address child and forced labor issues in Uzbekistan. These include (i) pursuing continuous country dialogue and collaboration with international/multilateral agencies and donors to address these issues; (ii) performing sector analytic work and policy dialogue to promote diversification away from cotton and mechanization of cotton harvesting; (iii) strengthening project-level mitigation measures and binding provisions, including implementing a Third Party Monitoring (TPM) and Feedback Mechanism (FBM) to help address child and forced labor issues in connection with the project activities or within the project area; and (iv) promoting crop diversification and intensification, and supporting agricultural mechanization through a number of investment operations, including the RESP-I, RESP-II, AF-RESP-II, the proposed SKWRMIP and this project. This comprehensive effort to address the issue of child and forced labor in cotton harvesting has received wide support and endorsement from development partners and community based organizations. This project will be subject to World Bank-managed TPM and FBM, financed through a separate Trust Fund that focus on child and forced labor issues.<sup>7</sup> In this regard, the World Bank and Government of Uzbekistan have agreed on an initial list of projects which would be subject to TPM and FBM and this project is one of them.

13. Although this project will exclusively support horticulture related activities, it adopts other provisions to address child and forced labor issues, including: (i) awareness raising and training of beneficiaries on the applicable legislation regarding child and forced labor, (ii) all credit line beneficiaries are required to comply with applicable laws and regulations on forced labor and child labor; (iii) credit line beneficiary selection criteria that exclude beneficiaries engaged in cotton production; and (iv) should a beneficiary be found to have engaged in child and forced labor, the beneficiary loan will be suspended and terminated, and declared to be immediately payable to the PFI. The PFI will return the funds to the RRA and this amount will be cancelled from the IBRD loan. The PFI will be disqualified from providing sub-financings in the Project, in accordance with the relevant criteria and provisions established in the Project Implementation Plan. These measures are further elaborated in section E and in Annex 7.

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<sup>7</sup> While the trust fund is yet to be established, the World Bank has an ongoing dialogue with bilateral donors on this agenda and there is wide support for the approach that the Bank has adopted for addressing the issue of child and forced labor in connection with relevant Bank-financed operations. It is therefore expected that several bilateral donors will make financial contributions for the TPM/FBM. In the event that no funding is secured before project effectiveness, the World Bank's own administrative budget will initially be used to start the program.

### C. Higher Level Objectives to which the Project Contributes.

14. The government's five-year Industrial Modernization and Infrastructure Development Program (2011-15) embodies four cross-cutting development priorities: (i) to increase efficiency of infrastructure, including irrigation, energy and transport; (ii) to enhance the competitiveness of industries, such as agro-processing; (iii) to diversify the economy and thereby reduce its reliance on a few commodity exports, such as cotton; and (iv) to improve access to and the quality and outcomes of education, health and other social services. The project has been designed in support of this program, in particular points (ii) and (iii), focusing on the competitiveness of agro-processing and diversification of the economy, thereby reducing its reliance on a few commodity exports. In the agricultural sector, this program has brought an increased emphasis on agricultural diversification, especially away from cotton into horticulture which the project will be supporting. The project is included in the Uzbekistan Country Partnership Strategy 2012-2015 and is aligned with its objectives of assisting the country to: (i) increase the efficiency of infrastructure, (ii) enhance the economy's competitiveness; and (iii) diversify the economy.

15. The project will contribute to the World Bank twin goals to end extreme poverty and boost shared prosperity. The project will contribute to poverty reduction in the country by assisting horticulture farmers, many of whom are small and comprise the poorest, to increase their farm productivity and incomes, and fostering greater and better rural jobs through: (i) improving access to technologies, knowledge and markets; (ii) strengthening technical and managerial capacity in the farming and agribusiness sectors; and (iii) introducing new financial products in the financial sector. These will bring sustained benefits to the project beneficiaries over the long-term. At the same time, the project will promote shared prosperity by supporting the growth and development of small-medium enterprises in the rural areas, creating more and better paying jobs in the agro-processing, trading and export sectors, and increasing the value added of the agricultural sector.

16. **Collaboration with IFC** (detailed description on collaboration with IFC is provided in Annex 9):

<b>Joint IFC-Bank Work in Achieving the Twin Goals</b>	
Project design and implementation involves active collaboration with the International Finance Corporation (IFC), which also views agribusiness sector and inclusive value chain development as a priority. The collaboration will be based on the comparative advantages of the Bank and IFC.	
<b>IBRD</b>	<b>IFC</b>
<b>Component 1: Agricultural Support Services:</b> This Component will assist producers in developing good production and handling practices according to Global-GAP, HACCP and other internationally recognized food safety systems. The project will jointly with the IFC Agribusiness Standards Advisory Program (i) develop a study focused on gaps between current domestic rules/regulations and required international standards; and (ii) develop manuals on quality management and packaging requirements for various products in various countries where products from Uzbekistan are or could be sold.	
Knowledge Management and Market Information System. This sub-component will focus on providing demand driven, farmer-led integrated extension services for horticulture crops through a variety of approaches, including participative bottom up planning, exposure visits, trainings, demonstrations, field days, and use of media and information technology.	Food Value Chain Competitiveness & Sustainability. The IFC's Food Value Chains Development Program, on a full cost recovery basis, will help companies along the agribusiness value chain to improve their competitiveness and long-term value chain sustainability.
<b>Component 2: Access to Credit.</b> The project	Subject to standard IFC's financing requirements

aims to enhance access to financial services for farmers and agribusinesses <sup>8</sup> operating in horticulture sector. It will support activities including the purchase of new cultivars, seeds/seedlings, water-saving irrigation facilities (replace traditional flood irrigation with drip irrigation), cold storage and other cold chain facilities, and value added handling/processing equipment and facilities. The maximum loan/lease size will be up to US\$ 2 million.	and due-diligence procedures, IFC will consider investments above US\$2 million per beneficiary to finance cold chain, value added handling/processing facilities including fleets of specialized transportation vehicles.
The project will implement a capacity building program for the financial institutions involved in the project. The training program will build on the Investment Lending and Leasing in Agriculture training carried out under the RESP II. The training program will cover: (i) value chain financing products; and (ii) tree-crop financing methodologies.	The project's training program will be designed in close collaboration with the IFC Access to Finance and Supply Chain Project. For the PFIs trying to test value chain financing products, the project will provide, on a full cost recovery basis, in-depth advisory programs on creating specialized agrifinance department and equip with financial tools based on international experience and local practice.

## II. PROJECT DEVELOPMENT OBJECTIVES

### A. PDO

17. **Project Development Objective:** The project development objective is to enhance the productivity and profitability of the horticulture sector in the project area.

#### Project Beneficiaries

18. **Primary project beneficiaries** comprise of farmers, farmer groups, private enterprises, agro-firms, and agro-processing enterprises, involved in the country's horticultural sub-sector. The project will focus on small dehkan farms with up to 5 ha of household plots per farm, and private farms with land size not less than 5 ha per horticultural farm. **Secondary beneficiaries** anticipated to benefit include: PFIs through improved skills and acquisition of a more diverse menu of suitably adapted financial products; and the national network of private growers through training and technical assistance. In the public sector, the project will support institutional strengthening of the State Research Institutes and the plant protection services.

19. There are approximately 16,000 farmers, including (i) household/dehkan farmers and private horticulture farmers, in the project area that specialize exclusively on growing fruits, grapes, vegetables and melons. They do not engage in cotton production. Building on the experience gained from the implementation of the Rural Enterprise Support Project Phase II (RESP II), it is envisaged that about 50% or approximately 8,000 farmers in the project area will directly benefit from the project in terms of technical support, improved planting materials, disease and pest control and modern horticultural practices. Around 600 agribusiness enterprises are expected to benefit from trainings, technical assistance and access to financial support. Capacity building provided to the State Research Institutes and plant protection services will benefit horticulture farmers nationwide.

<sup>8</sup> Agribusinesses under this component cover agro-processing companies, owners and operators of storages, traders and other companies involved in the horticulture sector.



20. The project will be implemented in eight regions of Uzbekistan, namely *Andijon, Jizzak, Ferghana, Kashkadarya, Karakalpakstan, Namangan, Samarkand, and Tashkent*. All these regions, with an exception of Karakalpakstan, are the country's top fruits and vegetables producing regions, with the largest total area planted to horticultural crops. These regions are also known for their favorable climate conditions for growing horticultural products. The Karakalpakstan region is included as it is one of the poorest regions in the country, where agriculture diversification offers opportunities for improving rural livelihoods. The HDP activities will complement the proposed South Karakalpakstan Water Resources Management Improvement Project, which will contribute to improving agricultural productivity and promoting agricultural diversification in the Beruni, Ellikala and Turtkul districts, by enhancing the performance of irrigation and drainage systems in these areas.

### **PDO Level Results Indicators**

21. Success of the project will be monitored against the following key results indicators:

- I. Increase in farmer productivity resulting from the adoption of modern horticulture practices supported by the project;
- II. Increase in gross sales of farmers and agribusinesses due to horticulture improvements supported through the project; and
- III. Aggregate portfolio lending in horticulture sector by participating financial institutions increased.

## **III. PROJECT DESCRIPTION**

### **A. Project Components**

22. The project has three components: (i) Agricultural Support Services, (ii) Access to Credit, and (iii) Project Management.

23. **Component 1: Agricultural Support Services (US\$35.21 mln).** This component will (i) strengthen the capacity of participating research institutes and plant protection services<sup>9</sup> to provide demand driven, participative technology transfer that will help the farmers to respond to the emerging market opportunities; (ii) enhance the capacity of farmers to improve quality and productivity of their product, as well as to identify and respond to market opportunities both domestically and in export markets; (iii) improve the country's food safety management system, as well as ensure their regulatory harmonization with international food safety requirements.

24. **Sub Component 1.1 Institutional Support Services.** (a) strengthening the capacity of participating research institutes to conduct research and genetic material multiplication activities through, *inter alia*: (i) the improvement of their laboratory facilities; (ii) the provision of training to their staff on the horticultural sector value chain development; (iii) the development of pest surveillance maps of horticulture crops; and (iv) the creation of a seed storage facility for the Research Institute for Vegetables, Melons and Potatoes; (b) improving food production and handling practices through, *inter alia*: (i) the carrying out of comparative studies between existing domestic regulations and international standards on food safety; (ii) the development of manuals for quality management and packaging requirements; and

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<sup>9</sup> The Shredder Institute for Fruit Growing, Viticulture and Winemaking (Mirzayev Institute); Uzbek Research Institute for Vegetables Melons and Potato (RIVMP); Uzbek Scientific Plant Protection Institute and "Uzglavgoskarantin" Laboratory Research Center for Plant Quarantine under the Ministry of Agriculture and Water Resources

(iii) the provision of support for gathering and dissemination of information about private-sector standards for food safety and quality in destination markets.

a) *Strengthening the participating research institutes.* The project will: (i) strengthen the human, institutional and technical capacity of the research institutes to improve the safety and quality of fruits and vegetables to local consumers and export markets including the development of pest surveillance maps focusing on horticulture crops, to forecast pest outbreaks and disseminate the same to the farmers; (ii) strengthen the laboratories by supplying equipment, renovate the laboratories, and train the laboratory staff to improve the quality of soil testing and pest and disease identification and prevention; and (iii) establish modern storage facilities for elite potato seeds in the Research Institute for Vegetables Melons and Potato (RIVMP) to decrease dependency on imports.

b) *Industry Standards.* The project will also assist producers in adopting good production and handling practices according to various internationally recognized food safety systems. Drawing on international experience, the project would support the development a modern food safety system tailored to country's horticulture sector, including improving the regulatory framework, control policy, sampling and inspection procedures, accreditation and management rules, tools and training of relevant stakeholders. The project will support: (i) preparation of a study to assess the gaps between existing domestic rules/regulations and food safety practices in the field, gaps between current food safety practices in Uzbekistan and the required international standards, and identify options to bridge these gaps; (ii) the development of manuals for horticulture product quality management and packaging requirements, for various products in various countries where products from Uzbekistan are or could be exported; and (iii) technical assistance to private-public voluntary associations for the collection and dissemination of information about private-sector standards in domestic and destination markets. IFC will participate in these activities through the Agribusiness Standards Advisory Program, focusing on bridging the gap between sector/industry needs and policy requirements. The project will also organize study visits to the selected countries to familiarize the Uzbek officials and technical specialists with regulatory frameworks and the ways/methods food safety risks are evaluated, managed and communicated.

25. ***Sub Component 1.2 Market-led agricultural technology transfer.*** Bridging the knowledge and experience gap in the horticulture sector related to new production techniques, storage methods, post-harvest handling, marketing and business management knowledge by:

- (a) Establishing a knowledge management and market information system aimed to collect, organize, analyze and disseminate data on the horticulture value chain development; and (ii) carrying out of market studies.
- (b) Carrying out of open-field demonstration activities and training for project beneficiaries on, *inter alia*, greenhouse vegetables and potatoes, fruits and berries production techniques, post-harvesting handling and storage methods.
- (c) Developing the value chain through, *inter alia*: (i) the creation of partnerships between producers, processors and traders; (ii) the establishment of a promotional association for fruits and vegetables; (iii) the provision of support to producer participation in national and international trade events; and (iv) the assessment of the country's export and domestic marketing policies and the subsequent development of recommendations to improve said policies.

26. The knowledge management and market information system to be developed under the project will create greater transparency and understanding of the market and help attract additional investments. The project will support the value chain development through building productive value chains/productive partnerships; establishing an Association of Fruits and Vegetable Industry; conducting an evaluative study on the country's export and domestic marketing policies; and arranging visits to

various trade events. These activities would help farmers and policy makers increase competitiveness of the sector, as well as develop understanding about the strategic direction for horticultural sector development in Uzbekistan and provide information about new markets opportunities and possibilities that exist.

a) *Knowledge Management and Market Information System (KMMIS)*. This sub-component aims to increase horticulture productivity by strengthening farmer access to and awareness about improved production technologies and practices. It will support provision of demand driven extension services for horticulture crops through a variety of approaches, including participative bottom up planning, exposure visits, trainings, demonstrations, field days, and use of media and information technology. Special attention will be given to the inclusion of vulnerable groups (such as women, elderly, youth, unemployed) in such activities. This subcomponent will finance the establishment of a web-based KMMIS, where all technological and market information will be collected, processed, analyzed and disseminated via various channels (electronic, publications, mass-media, training, etc). Topics to be covered include the efficient and sustainable production and post-harvest practices for meeting volume, timing, quality requirements of different markets (both domestic and export markets – current and potential) and business management knowledge. This sub-component will support the preparation of four types of studies: (i) existing markets for existing products, (ii) new potential markets for existing products, (iii) market situation and outlook for products, which are produced in Uzbekistan, (iv) market situation and outlook for new products.

b) *Demonstrations of Improved Technologies and Practices*. The sub-component will support the establishment of demonstration plots (e.g. open field and greenhouse vegetables and potatoes, fruits & berries, post-harvest handling and storage). These demonstration plots will be conducted in volunteer farmer's fields where new technologies can be demonstrated by the participating research institutes, input and equipment suppliers and implementing agency's team of international advisors to farmers. Modular training programs for all issues related to record keeping and marketing will also be developed jointly with participating research institutes to help farmers improve efficiency of their businesses and quality of their produce. The component will also support a limited number of study tours.

c) *Value Chain Development*: The project will support the value chain development through (i) building of value chains/productive partnerships; (ii) establishing the Fruits and Vegetable Association; (iii) promoting trade through involvement of horticultural producers in various national and international trade events; and (iv) assessing export and domestic marketing policies of Uzbekistan, and developing a set of policy recommendations to address existing challenges.

(i) *Value Chain/Productive Partnership Development*. The project will promote building of value chains and productive partnerships between producers and processors, producers and traders, etc. This activity will include market/demand research for the specific type of product to be sold, training of the chain participants, technical advice on inputs and technologies, sales and marketing advice, etc.

(ii) *Fruits and Vegetable Industry Association of Uzbekistan*. The sub-component will support the establishment of the Fruits and Vegetable Industry Association of Uzbekistan. The Association will represent interests of the horticulture industry in Uzbekistan; play an active role in encouraging technological innovation for production, packing, handling, storing and processing of produce; and support the development and extension of applied research that benefits the horticultural sector. The Association will assist targeted farmers to come together to assemble quantities and varieties of produce in sufficient quantity to supply buyers and build farmer market power. The Association will closely work with the research institutes as well as farmers, traders and processors, and will eventually become the voice of the industry and serve as a communication vehicle between private and public sectors. International and local consultants will develop a strategy, action plan and manual on operationalization of the Association.

(iii) *Trade Promotion.* The project will support producer participation in national and international trade shows to promote investments and exports, and to improve quality of production, marketing and investment decisions. The project will also organize visits of large buyers from key countries to Uzbekistan (e.g. a group of supermarket procurement managers and buyers from leading import companies, such as from Russia could be invited). This set of activities will also include support for studies to learn from countries with advanced horticultural subsectors about successful policies (Chile, Holland, South Africa, Turkey and USA). These studies will be complemented by study tours for the policy makers.

(iv) *Assessment of export and domestic marketing policies in Uzbekistan:* This subcomponent will support studies and workshops to review the current export and domestic horticulture policy and regulatory framework in Uzbekistan, assess its impact and examine options for improving it to promote more rapid growth of the horticultural sector, drawing international best practice experience.

27. **Component 2: Access to Credit (US\$139.81 mln).** This component includes the following activities: (a) Provision through selected PFIs of Investment and Working Capital Sub-Loans and Lease Financings to Beneficiaries; and (b) Provision of technical assistance and Training to PFIs to increase their capacity in managing a range of innovatively structured finance products that support, *inter alia*, the development of value chains.

28. In particular, this subcomponent aims to enhance access to financial services for farmers and agribusinesses<sup>10</sup> operating in Uzbekistan's horticulture sector, to enable them to undertake the investments to strengthen their productivity and competitiveness. It will support activities including the purchase of new cultivars, seeds/seedlings, water-saving irrigation facilities (such as drip irrigation), cold storage and other cold chain facilities, and value added handling/processing equipment and facilities. The component will build on the experience gained during Second Rural Enterprise Support Project (RESP II) which has achieved sizeable results with the provision of financial services to Uzbekistan's agricultural enterprises. The component will further expand access to investment financing through additional lending resources for use by banks and leasing companies for on-lending to farmers and agribusiness. The project will also support introduction of new financial products to support development of value chains in the sector.

29. **Potential PFIs:** The potential PFIs under the project include Hamkor Bank, Mikrokreditbank, Qishloq Qurilish Bank, Turon Bank (all PFIs under the on-going Second Rural Enterprise Support Project), as well as new potential PFIs: InfinBank, Ipak Yoli Bank, Ipoteka Bank, Xalq Bank, and Uzbekleasing. They have all been pre-qualified for undergoing due diligence. The nine potential PFIs are interested to support the development of the horticulture sector and working with such borrowers, as well as their interest to participate in the training offered by the project. There is scarcity of long-term resources in the banking sector, which is one of the main issues hindering investment lending to agriculture. This derives from the situation that outside of donor projects, the overwhelming majority of deposits in the banking sector are demand deposits and thus they are not suitable for long-term lending. The project will attempt to alleviate the lack of long-term financing for the horticulture sub-sector by providing funding with a 20-year maturity to the banking sector to be revolved in the PFIs.

30. *Sub-component 2.1: Credit Line for Banks and Leasing Companies.* This sub-component will finance investment and working capital loans, principally for agribusinesses operating in the horticultural sector. The current needs of agribusinesses for financing far exceed the long-term funds available to commercial banks, as shown by the high demand for investment funds under RESP II. Particularly,

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<sup>10</sup> Agribusinesses under this component cover agro-processing companies, owners and operators of storages, traders and other companies involved in the horticulture sector.

attention will be focused on investments supporting the enhanced competitiveness of the sector, access to new technologies, value addition in the sector, and improved market access through encouraging establishment of linkages between farmers, processors and traders. In addition, the project would introduce a range of innovative structured finance products, to support development of market linkages and value chains, encouraging collaboration among the various participants of the value chains.

31. Similarly to RESP II, the funds will be on-lent by the Ministry of Finance to qualified PFIs, i.e., commercial banks and leasing companies. The implementation of this component will be carried out by the Rural Restructuring Agency (RRA), which has prior extensive experience in implementing World Bank projects, including with credit lines (Rural Enterprise Support Projects I and II, as well as the Additional Financing to the RESP II – a credit line of US\$40 million). The Ministry of Finance, representing the Republic of Uzbekistan, the RRA and each qualified PFI will sign a Subsidiary Loan Agreement for the purposes of implementing the project's credit line. A separate Credit Line Investment Guidelines will determine the criteria, eligible activities, detailed withdrawal procedures, and responsibilities of all parties implementing the Credit Line.

32. *Key terms and conditions of the credit line:*

- (a) Sub-financings will not be used to finance activities that involve child or forced labor in any form. The activities of all potential Project beneficiaries will be pre-screened and regularly monitored to ensure that they are not related in any form to child or forced labor. Should child or forced labor cases be found, the right of the Beneficiary to use the proceeds of the sub-financings will be suspended and terminated, and declared to be immediately due and payable to the PFI. The PFI will return the funds to the RRA, and this amount will be cancelled from the IBRD loan. The PFI will be disqualified from providing sub-financings in the Project, in accordance with the relevant criteria and provisions established in the Project Implementation Plan. The PFI will be disqualified from further participation in the project's Credit Line and the PFI's entire outstanding sub-financing portfolio financed by the project will be transferred to another PFI for servicing.
- (b) Sub-financings will not be used to finance activities that involve land acquisition or resettlement of people or loss of assets or income.
- (c) The PFIs will receive the credit line proceeds under the framework of the Subsidiary Loan Agreement and on-lend to eligible beneficiaries for implementation of eligible sub-projects in accordance with the Credit Line Investment Guidelines, and their banking considerations.
- (d) The PFIs will receive credit line proceeds for up to 20 years, inclusive of a grace period of 5 years, and repay the principal amount to the MOF over the period of 13 years in equal semi-annual payments, upon expiration of the grace period. Any amounts, received as repayment from the sub-borrowers and not needed for repayment to the MOF, the PFIs will revolve internally, providing new sub-financings/leases in compliance with the PDO and the operational guidelines for the credit line.
- (e) The funds will be available both in Uzbek Sums (UZS) and US Dollars, based on the demand of the sub-borrowers. The MOF will assume the foreign exchange risk on the portion of the credit line funds channeled through the PFIs for on-lending to the ultimate beneficiaries.
- (f) The proposed *interest rates* to the PFIs will be stipulated in the Credit Line Investment Guidelines.
- (g) The *maximum loan/lease size* will be up to US\$2 million, to ensure financing for larger loans to invest in cold storages and agro-processing equipment, as well as to support entire value chain development. Working capital loans will be up to US\$200,000 for up to 18 months, and the value

chain financing products will have the maximum loan size of up to US\$2 million and maturity will depend on the nature of the transaction this loan will finance.

- (h) The maximum maturity of the sub- financings/leases will not exceed 10 years or the amortization period of the asset, whichever is shorter. The actual size and maturity of the loans/leases will depend on the type of investment financed, profitability of the activity, cash-flows generated, collateral, and other baking considerations.
- (i) Maximum financing share: The project will finance up to 100% of the sub- financings /leases in US Dollars, while requiring 20% co-financing from the PFIs for UZ Sum sub- financings/leases. The sub-borrowers will be required to contribute 20% of the sub-project financing for both USD and UZ Soums.

33. *Sub-component 2.2: Technical Assistance to PFIs.* Given the novelty of the non-traditional financial products to support value chain development, the project will implement a capacity building program for the financial institutions involved in the project. The training program will build on the Investment Lending and Leasing in Agriculture training carried out under the RESP II. The training program will cover: (i) value chain financing products; and (ii) tree-crop financing methodologies. The PFIs will receive training on the applicability of the new financial products in lending to horticulture-related activities, assessing the suitability and effectiveness of these new financial products, and on the mitigation of the related risks. The training will be about 5 days long, and will be targeting loan officers and branch managers of PFIs. An international bank training company will be hired under the project, to do the initial training, as well as to transfer this specific knowledge to a local bank training company, which will take over the training activities at the later stages of the project. For the PFIs trying to test value chain financing products, a longer-term (resident) Technical Assistant (TA) will be provided, to ensure that PFIs can appropriately structure the deal and manage the risks. In addition, all PFIs will have to undergo Environmental Training.

34. The project will collaborate with IFC on PFI training in the following manner: (i) IFC will provide comments on the terms of reference and training manuals for the PFI training under HDP; (ii) the bank training program under the project will incorporate information on the work done by IFC at Hamkorbank, including, the experiences of setting up an agricultural lending unit, and a credit scoring product that IFC has developed (along with other similar products, to allow for choice); and (iii) regular reviews of the joint activities under the Access to Finance component will take place to ensure coordination and complementarity.

35. **Component 3: Project Management (US\$8.11 mln).** This component includes the provision of goods, technical assistance and training to RRA for the implementation of the Project (including the areas of financial management, procurement, disbursement, monitoring and evaluation) and financing of Incremental Operating Costs.

36. The component will be focused on strengthening the Rural Restructuring Agency (RRA's) capacity for project management, monitoring and evaluation through the provision of goods, consultant services, training and financing of incremental operating costs. This component will: (i) support operation of RRA, and finance overall project management, as well as contract administration, procurement, and financial management; and (ii) establish a robust performance based Management Information System (MIS) and beneficiary satisfaction survey, and arrange for data collection and reporting on key performance output and impact indicators, through baseline surveys, participatory assessments, mid-term review and final evaluation. In addition, the RRA will arrange awareness raising activities, as well as training of beneficiaries on national legislation against child and forced labor.

## B. Project Financing

The total project cost would be US\$183.13 million including taxes, with IBRD loan financing of US\$150 million, Government's contribution of US\$5.27 million and beneficiary contribution of US\$27.86 million.

	WB Loan		Beneficiaries		GoU (VAT exemption)		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
Component 1. Agricultural Support Services	30,093.8	85.5	-	-	5,120.0	14.5	35,213.8	19.2
Component 2. Access to Credit	111,862.0	80.0	27,861.3	20.0	83.4	0.1	139,806.7	76.3
Component 3. Project Management	8,044.2	99.2	-	-	61.6	0.8	8,105.8	4.4
<b>Total PROJECT COSTS</b>	<b>150,000.0</b>	<b>81.9</b>	<b>27,861.3</b>	<b>15.2</b>	<b>5,264.9</b>	<b>2.9</b>	<b>183,126.2</b>	<b>100.0</b>

## C. Lessons Learned and Reflected in the Project Design

37. The project is built on a number of lessons from the implementation of Bank-and Donor-supported operations in the rural sector in Uzbekistan, as well as regional and global experience. It also builds on the many lessons compiled in the Bank's Horticulture Policy Note for Uzbekistan.

38. One of the findings of the Horticulture Policy Note was that the agro-climatic conditions that support horticulture in Uzbekistan are found in a very few places. Agro-climatic conditions in Chile, Turkey, and California in the United States support many of the same crops grown in Uzbekistan. These countries have been able to leverage their agro-climatic advantages to become important players in global horticulture markets, and they are relevant peers when looking for policy lessons. Viewed broadly, it is the cumulative effect of a range of policies along the value chain that sets the stage for a prosperous horticultural subsector. The institutional framework requires the active participation of the public and private sectors, often in partnership. This Project will, through studies, capacity building, workshops and study tours, also help policy makers and industry stakeholders learn about approaches in peer countries with the goal of helping to forge Uzbekistan's own unique set of policies.

39. The Bank has recognized that addressing complex socio-economic issues, such as modernization of the agricultural sector, including the elimination of child and forced labor, requires a multi-pronged approach that includes: policy dialogue, working together with national and international partners; sector level support, such as technical advice on improving agricultural productivity and crop diversification, adoption of new technologies, as well as mitigation measures and binding provisions at project level. The Horticulture Project, by promoting diversification is very much part of this approach. During project preparation, Senior Bank Management has discussed agricultural modernization, including child and forced labor issues, with the Government, and the project will take advantage of a number of measures that were agreed during these discussions, including third party monitoring (TPM) and feedback mechanisms (FBM).

40. Market-oriented, private sector-led interventions: Interventions to support the private sector and the development of commercial agriculture are likely to be successful if they are based on the identification and assessment of market opportunities and comparative advantage and worked backwards to the production level. Supply chain development must be private sector led, with public interventions aimed at helping the private sector overcome critical constraints and market failures. The approach needs to be bottom-up and interventions must be driven by economically viable sub-projects promoted by private sector and professional organizations for the given supply chain.

41. The combination of capacity building (training and advisory services), improved access to finance and support for public institutional development provides an effective base for the promotion of agriculture commercialization. Relevant projects in the Kyrgyz Republic (Agribusiness and Marketing Project), Kazakhstan (Agricultural Competitiveness Project), Azerbaijan (Second Agricultural

Development and Credit Project), Moldova (Agriculture Competitiveness Project) and the RESP I and RESP II afford a rich source of information for project design. It is also apparent that these measures are most effective when they complement each other. As noted in Moldova, “financial support to farmers is optimized when used in conjunction with advisory and business development services.”

42. The demand-driven nature of the credit lines, coupled with the freedom of the PFIs to select and appraise borrowers ensured the high quality sub- financing portfolio and successful implementation of the investment proposals in similar projects in Uzbekistan, the Kyrgyz Republic and Azerbaijan. The participating financial institutions made independent lending decisions, within the agreed eligibility frameworks and guidelines. In addition, the PFIs received training on how to do a proper appraisal of various types of sub-financings.

43. Monitoring and Evaluation (M&E): Establishing a sound M&E is critical to ensure a close and proactive monitoring of supply-chain performances and project’s impacts. The design of the M&E system will be closely supervised in terms of staffing, design and data analysis and dissemination. The project will also include surveys to measure beneficiary satisfaction and achieved results under the Agricultural Support Services and Access to the Credit components.

#### **IV. IMPLEMENTATION**

##### **A. Institutional and Implementation Arrangements**

44. Overall responsibility for implementation of the project will rest with the RRA. The RRA is a specialized organization that was created for implementing investment projects in the agriculture and rural sector. It implements a number of donor-funded projects, including the RESP II and Global Environment Facility (GEF) Sustainable Agriculture and Climate Change Mitigation project. RRA is staffed by a number of teams with responsibility for implementing specific projects. Financial management of the HDP will be undertaken by a dedicated Chief Accountant who will be based at the Central RRA office in Tashkent. The Chief Accountant will liaise with financial specialists in the eight regional offices in disbursement, accounting and reporting. All of the financial management specialists will be trained and have experience in the World Bank financial management guidelines and requirements. Specialized institutes such as the Mirzayev Institute, Uzbek Scientific Research Institute for Plant Protection (UzNIIZR) and Institute of Vegetables, Melon Crop and Potato (IVNCP), the Uzbekistan State Center for Standardization, Metrology and Certification (Uzstandart), “Uzglavgoskarantin” Laboratory Research Center for Plant Quarantine and Uzbekistan Chamber of Commerce will have responsibilities for implementing specific sub-components of the project. A marketing and trade consulting company with international experience in development of value chains and productive linkages and identification of market opportunities will be assisting the RRA in the implementation of these activities.

45. In terms of the Credit Line, the RRA will be responsible for overall implementation and monitoring. The PFIs will be responsible for the implementation of the Credit Line, but due diligence will be carried out by international consultants in collaboration with the RRA. Selection of recipients for the Credit line, appraisal of sub-projects loans and execution of disbursement and loans will be the responsibility of the PFIs. Training of the PFIs will be carried out by international consultants together with local trainers to ensure transfer of knowledge from RESP II experiences and continuing of training.

##### **B. Results Monitoring and Evaluation**

46. Monitoring and evaluation activities will be managed by the Central RRA Office, including aggregation of information from the field, reporting on findings and ensuring that these results are



reflected in quarterly and annual progress reports. A dedicated Monitoring and Evaluation (M&E) Officer in the Central RRA will be responsible for this task. The M&E Reports will also propose actions to resolve any issues affecting implementation. In addition, a dedicated Environment Officer in the Central RRA Office will monitor and evaluate the implementation of environmental, pest management and social safeguard activities of the project.

### C. Sustainability

47. The development of a sustainable horticulture sector requires building the capacity of farmers, farmers group, entrepreneurs and research institutes in Uzbekistan to meet emerging market opportunities and challenges. The previous strong role of government in managing resource allocation, farming operations and maintenance in infrastructure has now been transferred to the farmers. The project will support capacity building of horticulture farmers and entrepreneurs, foster market linkage development, and facilitate their finance to enable them to undertake the needed investments to meet the new market opportunities. It would also support the establishment and development of a Fruit and Vegetable Industry Association of Uzbekistan (comprising horticulture farmers and traders) to look after the interests of the horticulture producers in the longer-term. The project would commission a study to determine the most appropriate form and structure of this association.

48. Investments under Components 1 and 2 will result in: (i) improved agricultural productivity and production intensification and diversification; (ii) decreased production losses due to improved storing, cooling and packing facilities; and (iii) improved water management by introducing water saving technologies.

49. The sustainability of the results achieved under the project will be multiplied as the credit line funds will continue revolving in the PFIs for a period of 20 years, with a gradual repayment of the funds to the MOF according to the agreed schedule. The new sub- financings extended will have to be in accordance with the operational guidelines of the credit line and aimed towards continuing achievement of the project PDO. The technical sustainability of the credit line will be ensured through provision of relevant training and hands-on technical assistance to the PFIs. The PFIs will be trained in applicability of the new financial products, assessing the suitability and effectiveness of these new products, and on mitigation of the related risks. The sustainability of the funding that the PFIs will be receiving will be ensured by using the RRA that has accumulated extensive experience and continues to monitor the implementation of the previous World Bank-financed credit lines.

50. Further, under the established Credit Line, the PFIs will continue to relend back to back to new/additional sub-borrowers beyond the life of the project until these funds have to be repaid to the Ministry of Finance after a period of twenty years. This will ensure that the benefits of the project will continue to be extended well beyond the project period.

## V. KEY RISKS AND MITIGATION MEASURES

### A. Risk Ratings Summary Table

Stakeholder Risk	Rating
<b>Implementing Agency Risk</b>	
- Capacity	<b>Moderate</b>
- Governance	<b>Substantial</b>
<b>Project Risk</b>	

- Design	<b>Moderate</b>
- Social and Environmental	<b>Substantial</b>
- Program and Donor	<b>Low</b>
- Delivery Monitoring and Sustainability	<b>Moderate</b>
<b>Overall Implementation Risk</b>	<b>Substantial</b>

## B. Overall Risk Rating Explanation

51. The overall risk rating of the project is substantial. The detailed description of risks and mitigation measures is provided in Annex 4, Operational Risk Assessment Framework.

## VI. APPRAISAL SUMMARY

### A. Economic and Financial Analysis

52. The Project is expected to increase productivity and profitability of horticulture producers through enhanced agricultural support services and improved access to credit and markets (including export markets). The project benefits would derive from: (i) increased productivity and production of pomaceous and stone fruits due to the introduction of intensive technologies and improved access to markets and (ii) increased productivity and production of grapes and vegetables due to the introduction of improved seeds and varieties, modern technologies and improved access to markets.

53. Several indicative business activities which may be supported by the HDP were identified during the project design process. The five illustrative models were prepared to demonstrate the likely activities (loan sub-projects) to be financed with support of the Project: two models for intensive production of pomaceous and stone fruits and three models for production of improved table grapes, tomato and melons. It is expected that about 80-85% of credit recourses will be allocated for fruits and grapes, while the remaining 15-20% - for vegetables.

54. All models show the prospective benefits and good rates of financial return derived from the access to required financing (through loan contracts):

Production Models	Estimated Costs (USD)			Annual Net Benefits (USD)-after financing			Incremental annual net benefits per USD1 of investment (USD)	IRR- before financing (%)	NPV-before financing (USD)
	Loan Contract	Beneficiary Contribution	Total	Without Project	With Sub-Project -Full Development	Incremental			
Pome fruits Intensive	1,064,526	266,131	1,330,657	232,643	808,927	576,284	0.43	21.7%	1,355,126
Stone fruits Intensive	789,688	197,422	987,110	293,283	1,063,030	769,747	0.78	25.0%	1,842,784
Table grapes	237,994	237,994	475,987	-	84,973	84,973	0.18	36.9%	2,939,188
Tomato	50,614	50,614	101,228	-	7,092	7,092	0.07	152.7%	128,920
Melon	55,289	55,289	110,578	-	9,422	9,422	0.09	68.6%	112,764
<b>Average</b>	<b>439,622</b>	<b>161,490</b>	<b>601,112</b>	<b>105,185</b>	<b>394,689</b>	<b>289,504</b>	<b>0.31</b>		
	<b>73%</b>	<b>27%</b>	<b>100%</b>						

55. The period of analysis is 20 years to account for the phasing and gestation period of the proposed interventions. The scenario presented in the economic analysis is conservative; the analysis is indicative and demonstrates the scope of profitability originated from the conditions prevailing at the time of the

preparation. Given the above benefit and cost streams, the base case Economic Rate of Return (ERR) is estimated at 27.8%. The base case net present value of the project's net benefit stream, discounted at 10%, is USD 47.5 million.

56. *Sensitivity Analysis.* Economic returns were tested against changes in benefits and costs and for various lags in the realization of benefits. In relative terms, the ERR is equally sensitive to changes in costs and in benefits. In absolute terms, these changes do not have a significant impact on the ERR, and the economic viability is not threatened by either a 20% decline in benefits or by a 20% increase in costs. A fall in total project benefits by 20% would reduce the base ERR to about 24.4%. A one-year delay in project benefits reduces the ERR to 23.6%. The results are presented in the following table:

Sensitivity Analysis (20-year period)	Base case	Costs Increase			Increase of Benefits		Decrease of Benefits			Delay of Benefits	
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 year	2 years
<b>ERR</b>	<b>27.8%</b>	26.0%	24.4%	20.5%	29.7%	31.6%	25.8%	23.6%	21.3%	23.6%	20.5%
<b>ENPV (USD mln)</b>	<b>47.5</b>	44.7	41.9	33.5	55.1	62.6	40.0	32.4	24.8	37.4	28.4

## B. Technical

57. The design of productivity enhancing activities is based on well-established and tested agronomic practices. The design of the credit line is supported by successful experience of the recent past and extensive consultations with private sector parties and interested commercial banks. The performance risk under the credit line for horticulture is more manageable than the risks associated with providing seasonal finance to cotton producers for example, as the horticulture products can be easily sold on the domestic market. By improving producer awareness of market requirements, the project is going to improve the market position of the horticulture producers even further. The readiness of the borrower to implement the project is buttressed by the absorption and acceptance of several comprehensive analyses that have been undertaken on the causes of and solutions to Uzbekistan's horticulture sector challenges. Relevant examples include (i) Strengthening the Horticulture Value Chain, February 2013, World Bank policy note, (ii) Performance Evaluation of the USAID's Agricultural Linkages Project, September 2013; (iii) IFAD's Final Design Report of the Horticulture Support Project, November 2013; and (v) GIZ Impact Assessment Report.

## C. Financial Management

58. The RRA would have overall responsibility for the financial management (FM) function of the project, including managing the flow of funds, budgeting, accounting, reporting, and auditing. An FM assessment was carried out to determine the FM implementation risk and the FM arrangements at RRA, including accounting, reporting, planning, and budgeting, and staffing, which were generally considered satisfactory to the Bank. Overall, Residual FM risk is considered to be Substantial, given the weak fiduciary financial management environment of the country, according to the findings of the Country Integrated Fiduciary Assessment (CIFA).

## D. Procurement

59. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 (Procurement Guidelines); and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 (Consultant Guidelines) and the provisions stipulated in the

Loan Agreement. If there is conflict between government decrees, rules and regulations and the Bank Procurement and Consultant Guidelines, then Bank Procurement and Consultant Guidelines shall prevail. In addition the project will also follow the Guidelines: On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants Dated October 15, 2006 and Revised in January, 2011.

60. The RRA will have overall responsibility for procurement under the project. As part of project preparation, the procurement capacity assessment and Procurement Risk Assessment Management System (PRAMS) have been completed. The draft procurement plan for the project has been developed and will be agreed by negotiations. The procurement risks identified and risk mitigation plan is detailed in Annex 3.

61. The project would be mainly implemented through Lines of Credit and the RRA would implement the TA part. The RRA would prepare the bidding documents and RFPs for all packages. The project team would support the borrower to launch the advanced procurement activities under the project.

62. Procurement capacity and arrangements at the Project level are considered acceptable. The RRA based in Tashkent has got experience of implementation from a number of the World Bank, Asian Development Bank, and other donor projects. It has got one procurement specialist working for the RESP II project and it could be considered that another experienced procurement specialist would be hired soon in view of the increased procurement workload. Procurement training will be provided during implementation.

63. More detailed information concerning the procurement under the project is described in Annex 3, Implementation Arrangements.

#### **E. Social (including Safeguards)**

64. Based on findings of the Social Assessment, the project is expected to generate both direct and indirect positive social impacts. Direct positive impacts relate to the anticipated increased yields and production of goods which could result in creation of new jobs and, respectively, more employment opportunities in rural areas, especially for vulnerable groups, and increased income to farmers involved in the horticulture sector. Agriculture remains an important sector for the country's economy and has increasingly moved towards crop diversification away from cotton and wheat production. Unlike cotton and wheat, horticulture crops do not fall under state procurement quotas and enjoy lower taxes. As a result, horticultural activities are especially profitable for farms, particularly smaller family-operated dehkan farms that tend to be poorer. The returns to establishing orchards are also high even though the revenues are delayed. Horticultural field crops also require more labor and, consequently, may offer additional employment opportunities for the rural population that is still predominant in Uzbekistan<sup>11</sup>. Although the labor generated will still be seasonal due to the intrinsic nature of agriculture, it is dispersed across various crops and the agricultural season offering opportunities for longer employment. Considering the more distributed time demand and absence of state procurement quotas or any other limitations in the horticulture cultivation cycle, these new employment options may appeal to the unemployed and underemployed population in the project areas.

65. Indirect positive impacts are expected to range from the overall improvement of business environment in the agriculture sector, introduction of advanced agricultural technologies, increased knowledge and skills among farmers on innovative agricultural practices, to contribution to poverty reduction and food safety. The project is also cognizant of gender issues and strives to engage women in

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<sup>11</sup> World Bank, 2013 (February), Republic of Uzbekistan. Strengthening the Horticulture Value Chain, Policy Note.

its components through the training sessions and seasonal workshops. Measuring female farmer beneficiaries is one of the core indicators.

66. The project may potentially contribute to an increase in land competition and conflicts among farmers as horticultural farming grows and proves increasingly profitable. A perception of insecurity among farmers, as well as lack of opportunities of information sharing about innovation and market options in the horticulture sector may contribute to grievances. The project will address these potential negative effects and other concerns through collaboration with research institutions in the country to improve research-extension services and provide information about agricultural innovations, industry standards, market opportunities, and land rights. The project will establish demonstration plots (open field and greenhouse vegetables and potatoes, fruits & berries, post-harvest handling and storage) to transfer information about new technologies and production methods and improve farmers' access to knowledge, as well as cooperation. The project will also offer opportunities to farmers to access long-term credit lines to invest in their farm production. These credit lines may be particularly attractive for smaller horticulture farmers and agribusinesses that may not have means to secure necessary finances otherwise. The project will encourage the creation of a Fruit and Vegetable Industry Association of Uzbekistan (comprising horticulture farmers and traders) tasked to represent the interests of the horticulture producers in the country on the longer-term. The project will also continue the policy dialogue with the Government to support development of the horticulture sector throughout all the stages of the value chain.

67. Beneficiaries' feedback will be collected on extension service and credit line opportunities offered to farmers to assess 1) the quality of the training and 2) ease and quality of access to credit. Poor demand could signal a poor quality of training and banking services, which would require further investigation and adjustments.

68. Additionally, child and forced labor remains a concern in the agriculture sector in Uzbekistan, particularly in cotton harvesting. The project will explicitly engage only in horticulture where child and forced labor issues are uncommon. To mitigate any residual risk and avoid any potential cross-fertilization with cotton production, the project includes awareness raising and training of beneficiaries on the applicable legislation and regulation on child and forced labor. In addition, the project will adopt the following measures:

- (i) Any Sub-financing (as defined in the Loan Agreement) will include provisions that require the relevant beneficiary to comply with any applicable law and regulation on forced and child labor. The activities of all potential Project beneficiaries will be pre-screened and regularly monitored to ensure that they are not related in any form to child or forced labor. Should child or forced labor cases be found, the right of the Beneficiary to use the proceeds of the sub- financings will be suspended and terminated, and declared to be immediately due and payable to the PFI. The PFI will return the funds to the RRA, and this amount will be cancelled from the IBRD loan. The PFI will be disqualified from providing sub-financings in the Project, in accordance with the relevant criteria and provisions established in the Project Implementation Plan;
- (ii) PFIs and the RRA will monitor and allow monitoring, as applicable, in connection with child and/or forced labor in accordance with the relevant terms established in the Loan Agreement. Any use of child and/or forced labor will result in remedies as prescribed in the Loan Agreement.
- (iii) Sub-financing will not be provided for investments in cotton production.

69. The project is subject to World Bank-managed Third Party Monitoring (TPM) and Feedback Mechanism (FBM), financed through a separate Trust Fund that focus on child and forced labor issues<sup>12</sup>.

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<sup>12</sup> While the trust fund is yet to be established, the World Bank has an ongoing dialogue with bilateral donors on this agenda and there is wide support for the approach that the Bank has adopted for addressing the issue of child and forced labor in connection with relevant Bank's operations. It is therefore expected that several bilateral donors will

With an aim to address the issue of child and forced labor, the World Bank and Government of Uzbekistan have agreed on an initial list of projects which would be subject to TPM and FBM and this project is one of them. The TPM will focus on child and forced labor issues in connection with the project activities or within the project area. Feedback will be collected from both project beneficiaries and other credible stakeholders in connection with the project activities or within the project area. An independent FBM will be established, that is dedicated to collecting reports on potential evidence on matters of alleged occurrences or evidences of child and/or forced labor that might be related to the proposed Project. The TPM will be implemented by an international consulting firm with experience in social auditing. Activities under the TPM and FBM include, inter alia: (i) capacity building and learning; (ii) periodic unannounced site visits; and (iii) periodic assessment of local context and conditions.

## **F. Environment (including Safeguards)**

70. While generally the project will provide many environmental and social benefits (such as increased food security and farmer income due to higher agricultural productivity, enhanced agricultural competitiveness, improved farmer skills in land conservation and IPM practices or increased opportunity for engagement in small scale agri-businesses by farmers), it may also cause some negative environmental impacts. Expansion of areas under horticulture and intensified horticulture practices could result in increased water use and use of inputs, including pesticides and chemical fertilizers. Sub-projects anticipated for financing under the credit line if not adequately implemented, may cause some environmental impacts related to: (a) increased pollution of ground and surface waters due to soil erosion, use of fertilizers and pesticide, as well as the processing of agricultural products; (b) threats to human health and wildlife due to poor handling of fertilizers and pesticides; (c) increased siltation of water bodies due to soil erosion; and (d) solid wastes during processing of agricultural products; etc.

71. The project's environmental category is B - Partial Assessment. As at the appraisal the subprojects that will be financed are not known, the Borrower prepared an Environmental Management Framework which specifies the rules and procedures for their environmental screening, appraisal, implementing and monitoring. The document also includes Environmental Guidelines for different types of proposed subprojects providing analysis of potential impacts and generic mitigation measures to be undertaken for subprojects in agricultural production and agro-processing sectors at all stages - from identification and selection, through the design and implementation phase, to the monitoring and evaluation of results. Lastly, the EMF includes a Pest Management Plan that outlines the procedures for ensuring the safe handling, storage and use of pesticides and promotion of integrated pest management as an alternative option for the use of pesticides. The EMF was disclosed and consulted in the country on January 17, 2014 and disclosed through the Bank's InfoShop on March 10, 2014.

72. The project triggers two WB OPs and specifically OP 4.01 on Environmental Assessment and OP 4.09 on Pest Management. The OP 4.01 is triggered as the project aims to support a series of activities which will generate some environmental and social impacts (see above). These impacts are addressed in the EMF which includes also a pest management plan that addresses the potential purchase of pesticides under the Credit Line and includes a screening checklist, mitigating measures and a program that supports the implementation of an integrated pest management (IPM) program as potential alternative to the use of pesticides. Furthermore, the project will support training, technical assistance and demonstration in support of the IPM program.

73. Private businesses will be eligible to become project beneficiaries under the condition that they have not acquired and/or would not acquire land for the needs of activities to be supported with the project proceeds, through a process which involved and/or would involve officially supported

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make financial contributions for the TPM/FBM. In the event that no funding is secured before project effectiveness, the World Bank's own administrative budget will initially be used to start the program.

expropriation. Additionally, project funds will not support any sub- financings used to invest in a business which would require the involuntary displacement of existing occupants or economic users of any plot of land, regardless of its current ownership, or loss of, or damage to, assets including standing crops, kiosks, fences and other. The Project Implementation Plan will define a screening procedure to be filled by PFIs, and the implementing agency will closely monitor the screening procedure, with the support of the Bank task team. With these restrictions in place, the project does not trigger OP/BP 4.12 "Involuntary Resettlement".

#### **G. Other Safeguards Policies Triggered**

74. OP 10.00/Financial Intermediary Financing Compliance (see Annex 9)

75. The safeguard policies triggered by the project are listed below:

<b>Safeguard Policies Triggered by the Project</b>	<b>Yes</b>	<b>No</b>
Environmental Assessment (OP/BP/GP 4.01)	<b>X</b>	
Natural Habitats (OP/BP 4.04)		<b>X</b>
Pest Management (OP 4.09)	<b>X</b>	
Cultural Property (OP 4.11)		<b>X</b>
<b>Involuntary Resettlement (OP/BP 4.12)</b>		<b>X</b>
Indigenous Peoples (OP 4.10)		<b>X</b>
Forests (OP/BP 4.36)		<b>X</b>
Safety of Dams (OP/BP 4.37)		<b>X</b>
Projects in Disputed Areas (OP/BP/GP 7.60)		<b>X</b>
Projects in International Waterways (OP/BP/GP 7.50)		<b>X</b>

## Annex 1: Results Framework and Monitoring

**Country: Uzbekistan**

**Project Name: Horticulture Development Project (P133703)**

### Results Framework

#### Project Development Objectives

##### PDO Statement

The project development objective is to enhance the productivity and profitability of horticulture sector in the project area.

**These results are at** Project Level

#### Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values						Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	YR5	End Target			
Increase in overall farmer productivity	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	6.00	10.00	15.00	20.00	annual	Annual survey reports	RRA, PFIs
Increase in overall gross sales of farmers	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	5.00	10.00	15.00	20.00	annual	Annual survey reports	RRA, PFIs
Increase in overall gross sales of agribusinesses	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	10.00	15.00	20.00	20.00	annual	Annual survey reports	RRA, PFIs
Change in aggregate portfolio lending	<input type="checkbox"/>	Percentage	0.00	4.00	8.00	12.00	15.00	18.00	20.00	Bi-annual	Progress reports of PFIs	PFIs and RRA



by participating financial institutions to horticulture sector												
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### Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values						Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	YR5	End Target			
Client days of training provided (number)	<input checked="" type="checkbox"/>	Number	0.00	960.00	2880.00	4800.00	6720.00	8640.00	9600.00	annual	Progress reports of RRA	RAA
Client days of training provided - Female (number)	<input checked="" type="checkbox"/>	Number Sub-Type Breakdown	0.00	192.00	576.00	960.00	1344.00	1728.00	1920.00	annual	Progress reports of RRA	RAA
Farmers and traders trained in real-time information on markets and pricing on horticulture products	<input type="checkbox"/>	Number	0.00	200.00	800.00	1600.00	2400.00	3200.00	4000.00	annual	Progress reports of RRA	RAA
of which women	<input type="checkbox"/>	Number Sub-Type Breakdown	0.00	20.00	80.00	160.00	240.00	320.00	400.00	annual	Progress reports of RRA	RAA
Introduction of new horticulture	<input type="checkbox"/>	Number	0.00	0.00	0.00	2.00	6.00	10.00	12.00	annual	Progress reports of	RAA and Research

crop/crop varieties											RRA and Research Institution progress reports	Institution
Horticulture crops for which pest and diseases mapping completed at the regional level	<input type="checkbox"/>	Number	0.00	0.00	3.00	8.00	12.00	15.00	20.00	annual	Progress reports of RRA and Research Institution progress reports	RAA and Research Institution
Technologies demonstrated in the project areas (number)	<input checked="" type="checkbox"/>	Number	0.00	0.00	2.00	4.00	6.00	8.00	20.00	annual	Progress reports of RRA	RAA
Targeted clients satisfied with agricultural services (percentage)	<input checked="" type="checkbox"/>	Percentage	0.00	0.00	30.00	40.00	50.00	60.00	70.00	annual	Progress reports of RRA and Research Institution progress reports	RAA and Research Institution
Number of studies of new markets for horticulture crops undertaken	<input type="checkbox"/>	Number	0.00	0.00	2.00	5.00	5.00	5.00	5.00	annual	Progress reports of RRA and Research Institution progress reports	RAA
PFI staff trained and supporting investments in	<input type="checkbox"/>	Number	0.00	0.00	150.00	250.00	250.00	250.00	250.00	Bi-annual	Progress reports of PFIs and RRA	PFIs and RRA

horticulture sector (cumulative values)												
Sub- financings appraised and approved under credit line	<input type="checkbox"/>	Number	0.00	50.00	200.00	300.00	400.00	500.00	600.00	quarterly	Progress reports of PFIs and RRA	PFIs and RRA
of which women	<input type="checkbox"/>	Number Sub-Type Breakdown	0.00	5.00	20.00	30.00	40.00	50.00	60.00	quarterly	Progress reports of PFIs and RRA	PFIs and RRA
Volume of Bank Support: Lines of Credit - SME	<input checked="" type="checkbox"/>	Amount(US D)	0.00	17.2	34.5	51.7	69.0	86.2	103.5	annual	Progress reports of RAA	RAA and PFIs
Portfolio at Risk - SME	<input checked="" type="checkbox"/>	Percentage	TBC at the project launch	5.0	5.0	5.0	5.0	5.0	5.0	quarterly	Progress reports of PFIs	PFIs and RRA
Percentage of project-supported institutions that are reporting on this indicator	<input checked="" type="checkbox"/>	Percentage Sub-Type Supplemental	0.00	100	100	100	100	100	100	annual	Progress reports of RAA	RAA and PFIs
Farmers and traders accessing project supported cold-storage, packaging and marketing, production and	<input type="checkbox"/>	Number	0.00	0.00	500.00	1600.00	2400.00	3200.00	4000.00	annual	Progress reports of RAA	RAA and PFIs

value addition facilities												
Well-staffed national project coordination/management team in place	<input type="checkbox"/>	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	quarterly	Progress reports of RAA	RAA and PFIs
Monitoring and evaluation system used by MAWR and RRA for assessing project performance and guiding project adjustment	<input type="checkbox"/>	Yes/No	No	Yes	Yes	Yes	Yes	Yes	Yes	quarterly	Progress reports and WB supervision missions	RRA and WB

## Annex 1: Results Framework and Monitoring

Country: Uzbekistan

Project Name: Horticulture Development Project (P133703)

### Results Framework

Project Development Objective Indicators	
Indicator Name	Description (indicator definition etc.)
Increase in overall farmer productivity	This indicator measures an increase in farmer productivity (by an average) resulting from the adoption of modern horticulture practices supported by the project.
Increase in overall gross sales of farmers	This indicator measures an increase in gross sales of farmers (by an average) due to horticulture improvements supported through the project.
Increase in overall gross sales of agribusinesses	This indicator measures an increase in gross sales of agribusinesses (by an average) due to horticulture improvements supported through the project.
Change in aggregate portfolio lending by participating financial institutions to horticulture sector	This indicator measures the change in overall agricultural portfolio of the commercial banks during the project period.
Intermediate Results Indicators	
Indicator Name	Description (indicator definition etc.)
Client days of training provided (number)	This is a Core Sector Indicator. It measures the number of client days of training provided i.e. the number of clients who completed training multiplied by the duration of training expressed in days. It is expected that the project will provide about 80 seminars, 4 days each, and about 30 farmers (in average) will attend each seminar. Thus, project is expected to deliver 9,600 client days of training by the end of the project.
Client days of training provided - Female (number)	This indicator measures the number of client days of training provided to women, i.e. the number of women who completed training multiplied by the duration of training expressed in days.
Farmers and traders trained in real-time information on markets and pricing on horticulture products	The project will aim at improving market information, including price information, market reports, market news, company catalogues, bids & offers and market studies.

	This indicator will measure the total number of farmers and traders that will receive training on markets and pricing on horticulture products.
of which women	This indicator will measure the total number of female farmers and traders that will receive training on markets and pricing on horticulture products.
Introduction of new horticulture crop/crop varieties	This indicator will report on the total number of new horticulture crops/crop varieties introduced by the project.
Horticulture crops for which pest and diseases mapping completed at the regional level	This indicator will measure the total number of horticulture crops, for which pest and diseases mapping will be completed.
Technologies demonstrated in the project areas (number)	This is a Core Sector Indicator. It measures the number of unique technologies demonstrated by the project including new horticulture crops/crop varieties, planting techniques, disease and pest management, water management, etc.
Targeted clients satisfied with agricultural services (percentage)	This is a Core Sector Indicator. It measures the percentage of clients who expressed satisfaction with the agricultural and rural advisory services (including agribusiness services) provided in the project areas based on formal and informal surveys.
Number of studies of new markets for horticulture crops undertaken	The indicator reports on the total number of studies of new markets for horticulture crops conducted by the project.
PFI staff trained and supporting investments in horticulture sector (cumulative values)	The indicator reports on the total number of studies of new markets for horticulture crops conducted by the project.
Sub- financings appraised and approved under credit line	This is a Core Sector Indicator. It reports on the total number of active SME loan accounts for all institutions supported by the project.
of which women	This indicator reports on the total number of investments that will be led by women.
Volume of Bank Support: Lines of Credit - SME	This is a Core Sector Indicator. It reports on the cumulative amounts disbursed as of most recent data available.
Portfolio at Risk - SME	This is a Core Sector Indicator. Portfolio at Risk (PAR) = Outstanding (or not yet repaid) balance of all loans where payment is late by > 30 days/Gross outstanding loan portfolio. This indicator will report the PAR for the institutions' entire SME portfolio. Loans that have been rescheduled or renegotiated will be also included in the numerator of the PAR. The project will weight each institution's PAR by its outstanding SME portfolio to calculate the average PAR for the project.
Percentage of project-supported institutions that are reporting on this indicator	Percentage of project-supported institutions that are reporting on the PAR indicator.

Farmers and traders accessing project supported cold-storage, packaging and marketing, production and value addition facilities	The indicator measures the total number of farmers and traders that will benefit from accessing project supported cold-storage, packaging and marketing, production and value addition facilities.
Well-staffed national project coordination/management team in place	The indicator reports on adequate staff maintained by the RRA and proper coordination/management by the RRA during the project period.
Monitoring and evaluation system used by MAWR and RRA for assessing project performance and guiding project adjustment	The indicator will report on the adequate monitoring and evaluation system established and maintained by the RRA during the project period.

## **Annex 2: Detailed Project Description**

### **UZBEKISTAN: Horticulture Development Project**

1. **Project Development Objective:** The project development objective is to enhance the productivity and profitability of horticulture in the project area.
2. The project has three components: (i) Agricultural Support Services, (ii) Access to Credit, and (iii) Project Management.

#### **Project Beneficiaries**

3. **Primary project beneficiaries** comprise of farmers, farmer groups, private enterprises, agro-firms, and agro-processing enterprises, involved in the country's horticultural sub-sector. The project will focus on small dehkan farms with up to 0.5 ha of household plots per farm, and private farms with land size of up to 5 ha per horticultural farm. **Secondary beneficiaries** anticipated to benefit include: participating financial institutions (PFIs) through improved skills and acquisition of a more diverse menu of suitably adapted financial products; and the national network of private growers through training and technical assistance. In the public sector, the project will support institutional strengthening of the State Research Institutes and the plant protection services.
4. There are approximately 16,000 farmers, including: (i) household/dehkan farmers and private horticulture farmers, in the project area that specialize exclusively on growing fruits, grapes, vegetables and melons. They do not engage in cotton production. Building on the experience gained from the implementation of the Rural Enterprise Support Project Phase II (RESP II), it is envisaged that about 50% or approximately 8,000 farmers in the project area will directly benefit from the project in terms of technical support, improved planting materials, disease and pest control and modern horticultural practices. Around 600 agribusiness enterprises are expected to benefit from trainings, technical assistance and access to financial support. Capacity building provided to the State Research Institutes and plant protection services will benefit horticulture farmers nationwide.
5. The project will be implemented in eight regions of Uzbekistan, namely *Andijon, Jizzak, Ferghana, Kashkadarya, Karakalpakstan, Namangan, Samarkand, and Tashkent*. All these regions, with the exception of Karakalpakstan, are the country's top fruits and vegetables producing regions, with the largest total area planted to horticultural crops. These regions are also known for their favorable climatic conditions for growing horticultural products. The Karakalpakstan region is included as it is one of the poorest regions in the country, where agriculture diversification offers opportunities for improving rural livelihoods. The HDP activities will complement the proposed South Karakalpakstan Water Resources Management Improvement Project, which will contribute to improving agricultural productivity and promoting agricultural diversification in the Beruni, Ellikala and Turtkul districts, by enhancing the performance of irrigation and drainage systems in these areas.
6. **Component 1: Component 1: Agricultural Support Services (total cost US\$35.21 including IBRD Loan of US\$30.09 mln, and Government's contribution of US\$5.12 mln).** This component will (i) strengthen the capacity of participating research institutes and plant protection services<sup>13</sup> to provide demand driven, participative technology transfer that will help the farmers to respond to the emerging market opportunities; (ii) enhance the capacity of farmers to improve quality and productivity of their

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<sup>13</sup> The Shredder Institute for Fruit Growing, Viticulture and Winemaking (Mirzayev Institute); Uzbek Research Institute for Vegetables Melons and Potato (RIVMP); Uzbek Scientific Plant Protection Institute and "Uzglavgoskarantin" Laboratory Research Center for Plant Quarantine under the Ministry of Agriculture and Water Resources



product, as well as to identify and respond to market opportunities both domestically and in export markets; (iii) improve the country's food safety management system, as well as ensure their regulatory harmonization with international food safety requirements; and (iv) support the value chain development. Special attention will be given to the inclusion of vulnerable groups (such as women, elderly, youth, unemployed) in such activities.

7. ***Sub Component 1.1 Institutional Support Services.*** (a) strengthening the capacity of participating research institutes to conduct research and genetic material multiplication activities through, *inter alia*: (i) the improvement of their laboratory facilities; (ii) the provision of training to their staff on the horticultural sector value chain development; (iii) the development of pest surveillance maps of horticulture crops; and (iv) the creation of a seed storage facility for the Research Institute for Vegetables, Melons and Potatoes; (b) improving food production and handling practices through, *inter alia*: (i) the carrying out of comparative studies between existing domestic regulations and international standards on food safety; (ii) the development of manuals for quality management and packaging requirements; and (iii) the provision of support for gathering and dissemination of information about private-sector standards for food safety and quality in destination markets.

a) ***Strengthening the participating research institutes.*** The project will: (i) strengthen the human, institutional and technical capacity of the research institutes to improve the safety and quality of fruits and vegetables to local consumers and export markets including the development of pest surveillance maps focusing on horticulture crops, to forecast pest outbreaks and disseminate the same to the farmers; (ii) strengthen the laboratories by supplying equipment, renovate the laboratories, and train the laboratory staff to improve the quality of soil testing and pest and disease identification and prevention; and (iii) establish modern storage facilities for elite potato seeds in the Research Institute for Vegetables Melons and Potato (RIVMP) to decrease dependency on imports. Specific tasks, among others, will include:

8. ***Development of pest and disease surveillance maps focusing on horticulture crops, forecasting outbreaks and disseminating this information to farmers combined with prevention and protection methods:*** This activity will be carried out by the national research institutes under supervision of an international expert and will be managed by agronomists of the implementing agency under supervision of the RRA. The activity will be delivered in several phases, i.e. (i) monitoring and identification of all major weeds, pests and diseases, which affect key horticulture crops in Uzbekistan; (ii) processing and analyzing of results with subsequent development of methods to either prevent or treat such problems when they occur; and (iii) the preparation of national and regional maps of pests and diseases for key horticulture crops and the timeline of their occurrence. Based on the findings of this work, a number of one-page laminated leaflets for each project region will be developed containing information on weed, pests or diseases with detailed instructions on how to deal with these problems. In addition, a detailed manual and video manuals will be developed for each key horticulture crop covering all aspects of weed, pest and disease control. This information will be posted on the web-portal (see detailed description below), distributed via regional offices electronically and as hard copy manuals, at the field days, trainings and other events.

9. ***Strengthening laboratories and training of laboratories' staff to improve quality of soil testing, as well as pest and disease identification and prevention:*** The project will upgrade laboratories for soil and disease testing in every project region. The project will procure new equipment and will provide capital renovation of laboratory buildings. While the cost of personnel training to operate this equipment will be borne by the supplier of the equipment, the project will recruit experienced international consultants to provide additional training to the personnel of the laboratories.

10. *Establishing modern storage facilities for the elite potato seeds to decrease dependency on imports:* Due to hot weather in the country, it is a challenge to store potatoes until the next crop. Therefore, the project will provide the RIVMP with potato storage facility for seeds that can be consequently used as demonstration for other potato seed producers. This would allow Uzbekistan to decrease the dependence on imported potato seeds.

b) ***Industry Standards.*** Under this group of activities the project will assist producers in adopting good production and handling practices according to various internationally recognized food safety systems. Drawing on international best practice experience, the project would support the development and adaptation of a modern food safety system for the country's horticulture sector, including the regulatory framework, control policy, sampling and inspection procedures, accreditation and management rules, tools and training of relevant stakeholders. Specific tasks to be supported include:

11. A study/research will be carried out to determine the: (i) gaps between current domestic food safety rules/regulations and practices in the field; (ii) gaps between current food safety practices in Uzbekistan and required international standards, and (iii) impact of these gaps on the country's economy and society as a whole, as well as proposed actions and activities to bridge these gaps. The results of this study will be used for the development of policy recommendations which will be submitted to the Government and relevant stakeholders. Particularly, with respect to food safety, the project would support an assessment of the food safety requirements in both domestic and international value chains to determine where Uzbek food safety standards are lacking, and facilitate the development of appropriate standards and procedures that need to be applied at all stages of the value chain.

12. The project also envisages development of manuals on quality management and packaging requirements for various products in various countries where products from Uzbekistan are or could be potentially sold. These Industry Standard activities, as described above, will be carried out in close collaboration with IFC Agribusiness Standards Advisory Program to assure bridging the gap between sector/industry needs and policy requirements.

13. The project will organize study visits to the selected countries to familiarize the Uzbek officials and technical specialists with regulatory frameworks and the ways/methods food safety risks are evaluated, managed and communicated. At the same time, on the firm level, the IFC Agribusiness Standards Advisory Program will continue, on a full cost recovery basis, (i) to provide assistance to the food processing companies in Uzbekistan to implement environmental, social, and food safety practices; (ii) to support capacity building of local consultants by stimulating development of local capacity for promotion and implementation of the environmental, social, and food safety practices in line with international best practices; and (iii) to promote a sector-wide demand by raising awareness about various agribusiness standards through public outreach training and seminars, extensive media campaign, and publications.

14. ***Sub Component 1.2 Market-led agricultural technology transfer.*** Bridging the knowledge and experience gap in the horticulture sector related to new production techniques, storage methods, post-harvest handling, marketing and business management knowledge by:

- (a) (i) Establishing a knowledge management and market information system aimed to collect, organize, analyze and disseminate data on the horticulture value chain development; and (ii) carrying out of market studies.
- (b) Carrying out of open-field demonstration activities and training for project beneficiaries on, *inter alia*, greenhouse vegetables and potatoes, fruits and berries production techniques, post-harvesting handling and storage methods.

- (c) Developing the value chain through, *inter alia*: (i) the creation of partnerships between producers, processors and traders; (ii) the establishment of a promotional association for fruits and vegetables; (iii) the provision of support to producer participation in national and international trade events; and (iv) the assessment of the country's export and domestic marketing policies and the subsequent development of recommendations to improve said policies.

15. The knowledge management and market information system to be developed under the project will create greater transparency and understanding of the market and attract additional investments. It will support provision of demand driven extension services for horticulture crops through a variety of approaches, including participative bottom up planning, exposure visits, trainings, demonstrations, field days, and use of media and information technology. The project will support the value chain development through building productive value chains/productive partnerships; establishing an Association of Fruits and Vegetable Industry; conducting an evaluative study on the country's export and domestic marketing policies; and arranging visits to various trade events. These activities would help farmers and policy makers increase competitiveness of the sector, as well as develop an understanding about the strategic direction for horticultural sector development in Uzbekistan and provide information about new markets opportunities and possibilities that exist.

a) ***Knowledge Management and Market Information System (KMMIS)***. This subcomponent will finance the establishment of a web-based KMMIS, where all technological and market information will be collected, processed, analyzed and disseminated via various channels (electronic, publications, mass-media, training, etc). Topics to be covered include the efficient and sustainable production and post-harvest practices for meeting volume, timing, quality requirements of different markets (both domestic and export markets – current and potential) and business management knowledge. This subcomponent will support the preparation of four types of studies: (i) existing markets for existing products, (ii) new potential markets for existing products, (iii) market situation and outlook for products, which are produced in Uzbekistan, (iv) market situation and outlook for new products.

16. To make sure project's beneficiaries focus their efforts only on crops and products, which have good marketing potential locally and internationally, the component will start its activities from a number of fundamental market studies, which could be broken down into four key types:

(i) Existing markets for existing products (Russia, Kazakhstan, and others) – These value chain studies will focus on the products already supplied from Uzbekistan to these markets. They will evaluate current state and reputation of Uzbekistan's products at these markets, and would also estimate market size and market share of Uzbek produce and provide detailed information about consumers' preferences for varieties, tastes, packaging, seasons, etc.

(ii) New potential markets for existing products – These studies will evaluate potential for diversification of exports of existing products from Uzbekistan. One of the examples is sweet cherries, which could potentially be exported to the EU and Japan by air.

(iii) Market situation and outlook for products, which are produced in Uzbekistan – These would be a set of detailed value chain studies, which include: market size, prices, marketing channels and their value, existing storage capacity by region and type, existing production by type of grower, share of key varieties grown, area by region, yields by region, planting trends, description of production technologies used, share of processed products versus fresh market, share of exports in total production and countries of destination (the same of imports), etc. These studies will also include crop budgets for key technologies used and estimates of investments required to establish new production business with existing estimated payback periods. They could initially be carried out for the following products: potatoes, fresh market open field tomatoes, fresh market tunnel (greenhouse)

tomatoes, cucumbers, onions, cabbage, melons, apples, sweet cherries, table grapes, apricots, peaches, pomegranate, and persimmons.

(iv) Market situation and outlook for new potential products – These studies will focus on sectors and products, which could be produced in Uzbekistan and successfully sold locally and help diversify exports. These may include but should not be limited to walnuts, pistachios, almonds, hazelnuts, raspberries and strawberries in combination with IQF (individually quick frozen) freezing, IQF freezing sector in general with specification of what it could produce for exports and for early and greenhouse produce. Each study should provide detailed justification why these products could have potential in Uzbekistan, detailed crop budgets, estimates of investments required and calculations of returns on these investments, list of technologies needed as well as detailed information about potential market size locally and internationally with specific counties where products could be sold.

17. Studies carried out at the early stages of the project would have to be updated 3-4 years later to include new market realities.

b) **Demonstrations on Improved Technologies and Practices.** This activity aims to improve technology transfer, and provide feedback on farmers' needs and conditions to the research system. The project will support a variety of demonstration activities including:

- Vegetables open field (fresh market vegetables, vegetables for processing, production and storage of potato seeds);
- Vegetables greenhouse (tunnel);
- Early vegetables under various kind of cover (agri-fiber);
- Fruits (existing orchards);
- Fruits new crops (nuts of various types; berries including raspberries);
- Nursery management demonstrations;
- Farm machinery and equipment demonstration;

18. The project will carry out the demonstration activities in every project region, and they will be managed by the research institutes, project agronomists, and international consultants. Demonstrations will be held in fields of leading farmers, growing horticultural crops who are interested to innovate. Preference will also be given to those farmers who possess cold storage or cooling facilities as it would allow demonstrating the whole process from production to storage and PHH. It is also expected that some farmers would be able to purchase cold storages and cooling facilities through the project's Credit Line. Farmers, whose fields are selected for the demonstration activities, will receive seeds and other elements of technologies (free of charge) and detailed technological guidance on how to apply new technologies. For demonstration purposes, the project will aim to attract input suppliers who would provide necessary inputs, machinery and equipment, as well as new varieties of orchard trees, grapes and new orchard crops. The project will provide equipment and inputs, which are not available in the country at the moment but which is needed to meet the local and/or foreign market demand. With respect to nursery demonstrations, the project will work with existing nurseries and will provide them with planting material of high quality.

19. *Post-Harvest Handling for farmers* will be demonstrated in conjunction with PHH demonstration days. The project will develop contacts and good business relationships with the companies supplying equipment needed for advanced produce marketing and PHH practices (washing, sorting, grading, packing, cooling and storage). These companies, jointly with the implementing agency, will introduce pilot initiatives on the premises of selected client growers as described in detail in sub-component 1, sub-activity (b). Farmers attending the field days will be shown how to harvest, select, and pack product for distribution to wholesalers, processors, and retailers in the most appropriate ways. Regular field days will

be held at each demonstration plot with participation of farmers, processors, input and equipment suppliers and traders. The traders and processors will speak about which varieties and why they would prefer and demonstrate how they should be packed, graded, sorted, etc. Some field days would be organized in cooperation with key processors who help farmers understand specifics of growing crops for processing versus growing it for fresh market. The project will ensure good media coverage of field days by inviting regional press to each event and issuing regular press-releases. Video and informational manuals will be developed and distributed to the farmers and other concerned parties.

20. *Modular training programs* will be developed jointly with participating research institutes for all issues related to growing, post-harvest handling, storage, packaging, record keeping and marketing. It is envisaged that training materials will be based on practical information collected from the demonstration fields and research carried out by the project team. Modules will also cover all elements of the value chain, and modular training programs will be crop-specific in their technical parts, and for groups of crops where possible. All training materials will be available via the web-portal and will be provided to farmers in electronic format and as hard copy manuals during trainings.

21. Training programs will be also organized to help farmers manage the business-side of farming, including basic information on record keeping, marketing, and business plans. International and national consultants, as well as project marketing specialist will be recruited to develop manuals on record keeping. Specifically, the farmers will be provided with (i) record keeping books (hard copies); and (ii) record-keeping spreadsheets in Excel and/or Open Office Format. Farmers in Uzbekistan do not have a practice of record keeping, but these critical business skills will greatly help farmers when applying for loans under the project's Credit Line. In addition, it is a global trend to move towards internationally recognized food safety standards where traceability is one of the key issues. GlobalGAP or similar standards are required by most importers in developed countries, and may possibly be required by buyers in Russia; hence farmers in Uzbekistan need to be prepared to meet this requirement. At the same time, on-farm record keeping would allow farmers to manage more effectively their costs and revenues; provide sufficient information for better quality strategic decision making; reduce risks of producing unsafe and poor quality products, etc.

22. The project will aim at improving market information, including price information, market reports, market news, company catalogues, bids & offers and market studies. Specifically, the project will support value chain participants in marketing via its web-portal where offers from farmers will be placed, as well as via coordinated events at demo fields with information about packing, volume quality and food safety requirements along various marketing channels, trade shows and trade missions.

c) **Value Chain Development:** The project will support the value chain development through (i) building of value chains/productive partnership; (ii) establishing the Fruits and Vegetable Association; (iii) promoting trade through involvement of horticultural producers in various national and international trade events; and (iv) assessing export and domestic marketing policies of Uzbekistan, and developing a set of policy recommendations to address existing challenges.

23. (i) **Value Chain/Productive Partnership Development:** The various components of this activity will include raising awareness of the benefits of participation in value chains and productive linkages, training of the linkage participants, technical advice on inputs and technologies, sales and marketing advice, etc. The project will train value chain participants and help them respond to specific identified market opportunities. The potential beneficiaries of this activity will be those participating in other activities of the project, and interested in finding new markets and building new productive relationships. It is expected that the starting point for this work will be the identified market opportunities under activity a) above, gradually expanding the scope of work as new market and product opportunities arise.

24. To bring the new market-driven approach to the horticulture sector, an international consulting consortium hired under the project will assist with the value chain and productive partnership development activities, in close cooperation with national consulting companies to ensure knowledge transfer to and capacity building of the national specialists. An international expert will be attached to each of the market opportunities and products (such as, melons in Russia), and will provide assistance in building of the chain/linkages and identifying and responding to commercialization opportunities, in collaboration with sales and marketing specialists, agronomists, financial managers, cooperation specialists, food safety and quality specialists and other relevant experts, based on the specific needs of the market opportunity.

25. **(ii) Fruits and Vegetable Industry Association of Uzbekistan:** The sub-component will support the establishment of the Fruits and Vegetable Industry Association of Uzbekistan. The Association will represent interests of the horticulture industry in Uzbekistan; play an active role in encouraging technological innovation for production, packing, handling, storing and processing of produce; and support the development and extension of applied research that benefits the horticultural sector. The Association will assist targeted farmers to come together to assemble quantities and varieties of produce in sufficient quantity to supply buyers and build farmer market power. The Association will closely work with the research institutes as well as farmers, traders and processors, and will eventually become the voice of the industry and serve as a communication vehicle between private and public sectors. The Association is expected to continue maintaining the Knowledge Management and Market Information System to be set by the project, where all accumulated information and knowledge will be collected, classified, stored and made available to farmers and other market participants at any point of time. The project will recruit international and local consultants to develop a strategy, action plan and operational manual.

26. **(iii) Trade Promotion:** The project will support producer participation in national and international trade shows to promote investments and exports, and to improve quality of production, marketing and investment decisions. The project will also organize visits of large buyers from key countries to Uzbekistan, e.g. a group of supermarket procurement managers and buyers from leading import companies, such as from Russia, could be invited. This set of activities will also include support for studies to learn from countries with advanced horticultural subsectors about successful policies (Chile, Holland, South Africa, Turkey and USA). These studies will be complemented by study tours for the policy makers.

27. **(iv) Assessment of export and domestic marketing policies in Uzbekistan:** This subcomponent will support studies and workshops to review the current export and domestic horticulture policy and regulatory framework in Uzbekistan, assess its impact and examine options for improving it to promote more rapid growth of the horticultural sector, drawing international best practice experience.

**Component 2: Access to Credit (total cost US\$139.81 mln including IBRD Loan of US\$111.86 mln, Government's contribution of US\$0.08 and Beneficiary contribution of US\$27.86 mln)** This component includes the following activities: (a) Provision through selected PFIs of Investment and Working Capital Sub-Loans and Lease Financings to Beneficiaries; and (b) Provision of technical assistance and Training to PFIs to increase their capacity in managing a range of innovatively structured finance products that support, *inter alia*, the development of value chains.

28. **Potential PFIs:** The potential PFIs under the project include Hamkor Bank, Mikrokreditbank, Qishloq Qurilish Bank, Turon Bank (all PFIs under the on-going Second Rural Enterprise Support Project (RESP II), as well as new potential PFIs: InfinBank, Ipak Yoli Bank, Ipoteka Bank, Xalq Bank. Uzbekleasing. They have all been pre-qualified for undergoing due diligence. The nine potential PFIs are interested to support development of the horticulture sector and working with such borrowers, as well as

their interest to participate in the training offered by the project. The scarcity of long-term resources in the banking sector (in general, outside donor projects) is one of the main issues hindering investment lending to agriculture.

29. **Potential Demand for Funding for under the HDP:** The tentative demand for funds as indicated by the potential PFIs:

Financial Institution	Tentative Demand, US\$ million equivalent
Hamkorbank*	20.0+
Infinbank	10.0
Ipak Yoli Bank	10.0
Mikrokreditbank*	30.0
Qishloq Qurilish Bank*	5.0
Turonbank*	25.0+
Uzbekleasing	4.0+
Xalq Bank	20.0
<b>Total</b>	<b>124.0+</b>
Ipoteka Bank	Will inform later

Note: Those marked with an asterisk “\*” are RESP II PFIs.

30. **PFI Due Diligence:** The due diligence of the potential PFIs for HDP will be carried in the first half of 2014, together with the due diligence for the Additional Financing to the on-going RESP II Project. The nine financial institutions are interested to participate in the implementation of the project, and undergo the due diligence: Hamkor Bank, InfinBank, Ipak Yoli Bank, Ipoteka Bank, Mikrokreditbank, Qishloq Qurilish Bank, Turon Bank, Xalq Bank, and Uzbekleasing. A repeated due diligence, closer to the start date of the project (expected in early 2015), will only be carried out should such circumstances arise which will require repetition of the due diligence before the Horticulture Development Project can start. The consultant to carry out the due diligence has already been identified by the RRA, and the contract is expected to be signed as soon as the Government approves the RESP II Additional Financing.

31. **Component design:** This component aims to enhance access to financial services by farmers and agribusinesses operating in Uzbekistan’s horticulture sector, in particular towards enhanced competitiveness, improved quality and food safety standards, and improving market access by facilitating establishment of linkages between producers, processors and traders.

32. The project will build on the experience gained during RESP II which has achieved sizeable results with provision of financial services to Uzbekistan’s agricultural enterprises. Under RESP II, 415 sub- financings in the total amount of almost US\$36.0 million were extended by 6 PFIs, financing a broad range of investments in agricultural sector, including, as of the end of the credit line implementation, the types of investments financed under the project include: agricultural machinery (tractors and harvesters) – 60.5% of the portfolio, livestock – 12.9%, poultry business – 11.6%, agro-processing – 11.9%, orchards and vineyards – 1.6%, fish farming – 0.8%, and greenhouses and vegetable farming – 0.6%, and other – 0.1% of the total portfolio.

33. The component will further expand access to long-term investment financing through additional lending resources for use by qualified banks and leasing companies for on-lending to farmers and agribusinesses. The project will also support introduction of new financial products to support development of value chains and productive linkages in the sector (examples of such new financial instruments include contract farming, contract financing, and other suitable instruments).

34. ***Sub-component 2.1: Credit Line for Banks and Leasing Companies (total cost US\$139.31 mln including IBRD Loan of US\$111.36 mln, Government's contribution of US\$0.08 million and Beneficiary contribution of US\$27.86 mln):*** This sub-component will finance investment and working capital loans for farmers and agribusinesses operating in the horticultural sector. The current needs of farmers and agribusinesses for financing far exceed the long-term funds available to commercial banks, as shown by the high demand for investment funds under RESP II. Particularly, attention will be focused on investments supporting the enhanced competitiveness of the horticulture sub-sector producers, processors and traders, access to new technologies, value addition in the sector, and improved market access through establishment of value chains and market linkages. In addition, the project will introduce a range of innovative structured finance products, to support development of market linkages and value chains. These products, such as financing of specific contracts where such contract serves as collateral, are expected to take the focus of the financial sector off the traditional forms of collateral, help agribusinesses borrow to deliver under signed contracts, and develop relationships between farmers, agro-processors, wholesalers, retailers, etc.

35. ***Implementation Mechanism:*** Similar to RESP II, the Credit Line will be extended through qualified commercial banks and leasing companies, the Participating Financial Institutions (PFIs). A PFI will be a commercial bank or a leasing company selected on the basis of a set of PFI Eligibility Criteria, which include compliance with banking laws and prudential norms and regulations, maintenance of a healthy financial status and sound lending policies and procedures. The credit line will be open to all interested commercial banks and leasing companies, which qualify through the due diligence process. Leasing arrangements may be more attractive than loans in some cases due to lesser collateral requirements. The Credit Line Investment Guidelines (similar to the Rural Enterprise Investment Regulations under the RESP II) will set forth the eligibility criteria for PFIs, sub-borrowers and sub-projects to be financed and the procedures for all parties involved in the implementation of the credit line. The Rural Restructuring Agency (RRA), which has good prior track record implementing the RESP II credit line, will administer the implementation of the credit line on behalf of the Republic of Uzbekistan, and ensure that the provisions of the Credit Line Investment Guidelines and the subsidiary loan agreements are enforced. Their detailed responsibilities under the credit line will be set forth in these project documents.

36. ***Types of investments financed:*** A wide range of investments in horticulture-related activities will be eligible for financing from the credit line, aiming towards enhanced competitiveness of agribusinesses, access to new technologies, equipment and process upgrades for food safety compliance, and improved market access through establishment of market linkages. The project will finance *inter alia* investments in tree-crops, agricultural machinery and food processing equipment, storages and cold storages, value-adding handling/processing equipment, water-saving irrigation facilities (such as drip irrigation), packaging, equipment, horticulture-related advisory services, and other long-term investments. Agricultural inputs, such as vegetable seed, fertilizer, as well as processing raw materials, consumables, and other items will also be eligible for working capital financing.

***Types of Financial Products:*** The project's credit line will have the following lending products:

- a) Investment loans and leases to finance investments in the horticulture sector, as described above. Leasing is expected to improve access to long-term finance for potential borrowers, especially small farmers, who do not have sufficient collateral and thus are excluded from borrowing from the financial sector;
- b) Traditional working capital loans up to 18 months, to finance agricultural inputs, as described above; and



- c) The project will introduce financial instruments for financing of productive linkages and value chains, such as seasonal loans to allow pre-financing of agricultural production in contractual farming schemes, financing of marketing contracts, and other similar types of contractual arrangements with agro-producers. These products can be structured in a variety of ways and are expected to take the focus of the financial sector off the traditional forms of collateral, help agribusinesses borrow to deliver under signed contracts, and develop relationships between farmers, agro-processors, wholesalers, retailers, etc. Thus, some of the benefits for agro-processors include helping agro-processors to access finance, expand production, timely deliver on contracts, increase cash-flows, and ensure reliable supply of raw materials. To farmers, these products can ensure more reliable incomes, markets for their products, and access to knowledge.

**Box 1. Examples of simple structured finance loans that could be supported under the Credit Line.**

(1) Transaction finance: An agro-processing Company signs a contract on delivery of apricot jam, but they do not have sufficient working capital to purchase the raw material (apricots), and also they have limited available assets to use as collateral. To receive a working capital loan from a commercial Bank, the Company can use available unencumbered assets, plus use the signed contract as collateral. The Company will be required to open a current account with the bank, where the income from the sale of the apricot jam will be transferred by the Buyer. The Bank will issue a working capital loan, with a repayment schedule that matches the inflows of funds from the fulfillment of the contract. The Company will buy apricots, process them, and deliver to the Buyer in accordance with the delivery schedule in the sales contract. This will require a closer involvement of the Bank, as it will require that the Bank closely monitors that the sales take place in accordance with the schedule. Any deviations from the schedule will provide the Bank with an early warning that there could be problems with the repayment of this loan.

(2) Contract farming (which can also be part of a value chain). In spring, an agro-processing Company borrows from a commercial Bank a working capital loan, purchases inputs for the farmers with whom it has previously signed contracts for delivery of certain agricultural produce in the fall, which the Company then plans to process. The Company distributes the inputs to the farmers, if needed they may also mobilize an extension specialist. The delivery price is pre-agreed in the contract, but usually there is room to renegotiate the price, if it is very different in the fall from what it was expected to be in the spring. In the fall, the farmers deliver the produce (the Company may need to borrow additionally to pay the farmers); the Company processes it, sells, and repays the loan.

*Main Terms and Conditions of the Credit Line:*

37. Sub- financings will not be used to for any activity involving child and forced labor in any form or land acquisition or resettlement of people or loss of assets or income.
38. The funds will be available both in Uzbekistan Soums (UZS) and US Dollars, based on the demand of the sub-borrowers.
39. The PFIs will receive credit line proceeds for up to 20 years, inclusive of a grace period of 5 years, and repay the principal amount to the MOF over the period of 13 years in equal semi-annual payments, upon expiration of the grace period. Any amounts, received as repayment from the sub-borrowers and not needed for repayment to the MOF, the PFIs will revolve internally, providing new sub-financings/leases in compliance with the PDO and the operational guidelines for the credit line. The interest rate to the PFIs will be discussed and finalized during the preparation of the Credit Line Investment Guidelines.
40. The PFIs will set their own interest rates and repayment terms to final sub- financings/lease beneficiaries based on their banking considerations. The PFIs will carry out appraisal of sub-financings/leases and sub-borrowers based on the agreed criteria, and will bear the full risk of subsidiary loan repayment.

41. The maximum loan/lease size will be up to US\$2 million, to ensure financing for larger loans to invest in cold storages and agro-processing equipment, as well as to support entire value chain development. Working capital loans will be up to US\$200,000 for up to 18 months, and the value chain financing products will have the maximum loan size of up to US\$2 million and maturity will depend on the nature of the transaction this loan will finance.

42. The maximum maturity of the sub- financings will not exceed 10 years or the amortization period of the asset, whichever is shorter. The actual size and maturity of the loans/leases will depend on the type of investment financed, profitability of the activity, cash-flows generated, collateral, and other banking considerations.

43. Maximum financing share: The project will finance up to 100% of the sub- financings/leases in US Dollars, while requiring 20% co-financing from the PFIs for Uzbek Sum (UZS) sub-financings/leases. The sub-borrowers will be required to contribute 20% of the sub-project financing.

44. Additional requirements:

- a) The PFIs and the RRA shall monitor use of child and/or forced labor during the monitoring visits to the sub-borrowers.
- b) Sub- financings will not be used to finance activities that involve child or forced labor in any form. The activities of all potential Project beneficiaries will be pre-screened and regularly monitored to ensure that they are not related in any form to child or forced labor. Should child or forced labor cases be found, the right of the Beneficiary to use the proceeds of the sub- financings will be suspended and terminated, and declared to be immediately due and payable to the PFI. The PFI will return the funds to the RRA, and this amount will be cancelled from the IBRD loan. The PFI will be disqualified from providing sub-financings in the Project, in accordance with the relevant criteria and provisions established in the Project Implementation Plan. The PFI will be disqualified from further participation in the project's Credit Line and the PFI's entire outstanding sub-financing portfolio financed by the project will be transferred to another PFI for servicing.
- c) The Credit Line beneficiaries will have to comply with any applicable legislation and regulations on child and forced labor, in accordance with the relevant provisions of the Loan Agreement, Subsidiary Loan Agreement, Project Implementation Plan and the Credit Line Investment Guidelines.
- d) A requirement for accessing value chain product financing by a sub-borrower under this credit line will be an upstream (processing, trade, etc.) or down-stream (production) contractual relationship within the value-chain, to ensure the viability of the productive linkages financed under the credit line.
- e) The PFIs will have to hire a horticultural agronomist, or set up arrangements with suitable consulting companies, to ensure the technical feasibility of the investments financed.

45. ***Sub-component 2.2: Technical Assistance to PFIs (total cost US\$0.5 million, all IBRD):*** Given the novelty of the non-traditional financial products to support value chain development, the project will implement a capacity building program for the financial institutions involved in the project. The training program will build on the Investment Lending and Leasing in Agriculture training carried out under the RESP II. The training program will cover: (i) value chain financing products; and (ii) tree-crop financing methodologies. The PFIs will receive training on applicability of the new financial products in lending to horticulture-related activities, assessing the suitability and effectiveness of these new financial products, and on mitigation of the related risks. The training will be about 5 days long, and will be targeting loan officers and branch managers of PFIs. An international bank training company will be hired under the

project, to do the initial training, as well as transfer this specific knowledge to a local bank training company, which will take over the training activities at the later stages of the project. The training program will be designed in close collaboration with the IFC Access to Finance – Supply Chain Project.

46. For the PFIs trying to test value chain financing products, a longer-term (resident) TA will be provided, to ensure the PFIs can appropriately structure the deal and manage the risks. In addition, all PFIs will have to undergo Environmental and Social Training. The IFC Access to Finance – Supply Chain Project will provide, on a full cost recovery basis, in-depth advisory programs which include the following components: (i) basic agrifinance and supply chain finance training, including classroom and on-the-job training; (ii) implementation (including manuals, methodology and usage training) and access to a web-based agricultural risks management/cashflow-based lending tool; (iii) advanced agri supply chain training including leasing and other asset based lending methodologies.

47. The project will collaborate with IFC on PFI training in the following manner: (i) IFC will provide comments on the terms of reference and training manuals for the PFI training under HDP; (ii) the bank training program under the project will incorporate information on the work done by IFC at Hamkorbank, including, the experiences of setting up an agricultural lending unit, and a credit scoring product that IFC has developed (along with other similar products, to allow for choice); and (iii) regular reviews of the joint activities under the Access to Finance component will take place to ensure coordination and complementarity.

48. **Component 3 – Project Management (total cost US\$8.11 mln, including IBRD Loan of US\$8.05 and Government's contribution of US\$0.06).** This component includes the Provision of goods, technical assistance and Training to RRA for the implementation of the Project (including the areas of financial management, procurement, disbursement, monitoring and evaluation) and financing of Incremental Operating Costs. The component will be focused on strengthening the Ministry of Agriculture and Water Resources (MAWR's) and Rural Restructuring Agency (RRA's) capacity for project management, monitoring and evaluation through the provision of goods, consultant services, training and financing of incremental operating costs. This component will: (i) support operation of RRA, and finance overall project management, as well as contract administration, procurement, and financial management; and (ii) establish a robust performance based Management Information System (MIS) and arrange for data collection and reporting on key performance output and impact indicators, through baseline surveys, participatory assessments, mid-term review and final evaluation. In addition, the RRA will arrange awareness raising activities, as well as training of beneficiaries on national legislation against child and forced labor.

## Characteristics of Project Areas

The main characteristics of the seven project regions are set out in the table below. All regions are dominated by rural populations and heavily concentrated on agriculture. While, the production of the regions follows a similar pattern with other regions of the country, with a strong emphasis on the main crops of cotton and wheat, there is an increasing emphasis on vegetables, potato and other horticultural crops.

Data	Andijan	Namangan	Kashkadarya	Samarkand	Jizzak	Tashkent	Fergana	Karakalpakstan	Total
<b>Number of districts</b>	14	11	13	14	12	14	15	15	108
<b>Total population ('000s)</b>	2,761.44	2,455.83	2,829.27	3,383.18	1,203.68	2,694.04	3,330.16	1,740.4	20,397.99
<b>Urban %</b>	52.91	63.95	43.22	36.33	47.73	49.49	57.09	49.7	
<b>Rural %</b>	47.09	36.05	56.78	63.67	52.27	50.51	42.91	50.3	
<b>Agricultural land ('000s ha)</b>	254.90	286.90	2,012.90	1,221.10	1,171.80	574.70	312.60	541.56	6,376.46
<b>of which irrigated area</b>	233.60	234.80	458.60	308.30	276.70	336.20	297.10	299.86	2,445.16
<b>Cropped area ('000s ha)</b>	203.40	196.60	676.90	434.60	483.10	335.70	248.60	299.86	2,878.76
<b>Gardens (fruits) ('000s ha)</b>	29.50	26.70	15.60	30.10	12.80	33.60	46.80	1.71	196.81
<b>Vineyards ('000s ha)</b>	4.00	11.10	10.80	38.30	4.00	18.00	5.40	0.05	91.65
<b>Pastures ('000s ha)</b>	20.10	52.10	1,277.90	725.30	667.60	199.20	19.40	103.27	3,064.87
<b>Wheat ('000s ha)</b>	80.20	79.00	208.00	159.10	180.00	136.10	111.70	53.00	1,007.10
<b>Cotton ('000s ha)</b>	93.40	82.60	160.40	91.50	101.80	91.50	100.10	94.7	816
<b>Potato ('000s ha)</b>	6.10	6.70	7.00	11.60	1.60	8.40	8.30	0.005	49.71
<b>Vegetables ('000s ha)</b>	17.30	13.90	15.60	24.90	8.90	33.70	17.80	0.007	132.11
<b>Melons ('000s ha)</b>	2.10	1.90	6.50	2.40	8.50	4.50	2.70	0.004	28.60
<b>Fodder total ('000s ha)</b>	13.70	19.59	42.82	22.87	42.39	43.27	29.50	0.82	214.96
<b>Cattle ('000s head)</b>	863.40	556.90	1,199.10	1,284.90	700.40	699.60	819.60	59.71	6,183.61
<b>Number of farmers</b>	6,175	4,515	7,139	7,723	4,735	6,051	7,737	3403	47,478
<b>Average per farm (ha)</b>	36.30	50.90	101.70	64.40	102.80	69.80	37.00	159.1	
<b>Number of employed in the agricultural sector ('000s)</b>	198.32	176.37	175.38	209.84	86.44	133.22	197.90	65.03	1,242.49

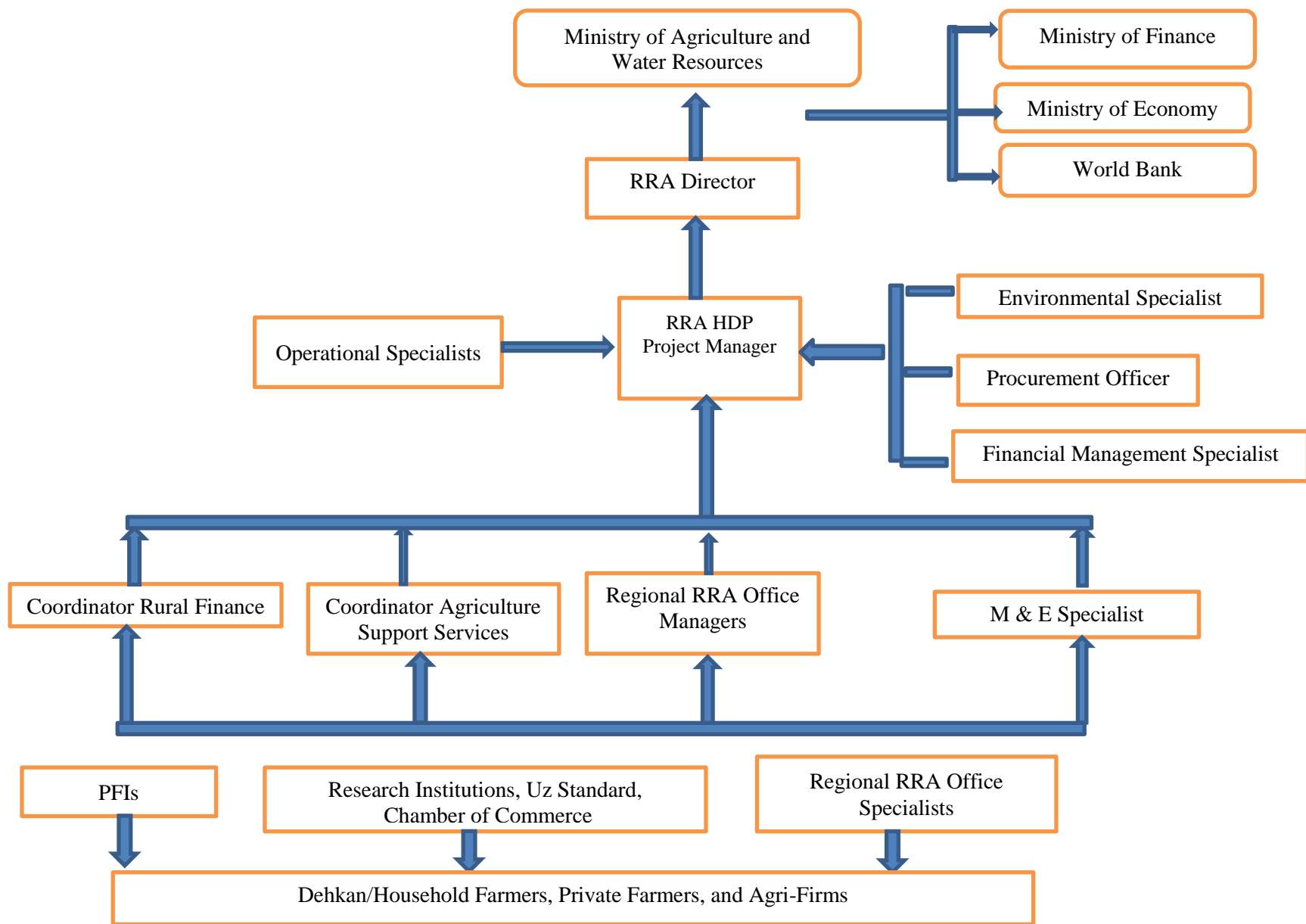
## **Annex 3: Implementation Arrangements**

### **UZBEKISTAN: Horticulture Development Project**

#### **Project Institutional and Implementation Arrangements**

##### *Project administration mechanisms*

1. Implementation of the project would be the overall responsibility of the Rural Restructuring Agency (RRA), an organization created specifically by the Government of Uzbekistan for the purpose of implementing donor-funded projects in the country that deal with rural and agricultural development. The World Bank has a long and successful experience of working with RRA, including more recently with the Rural Enterprise Support Projects (RESP I and RESP II).
2. The overall management structure for the project is set below:
3. *RRA Director:* The RRA Director will be responsible for overseeing the implementation of the Horticulture Development Project (HDP) as part of his overall responsibility for managing multiple donor projects. The Director, will be ultimately responsible for performance of the project and reporting to the World Bank and the Government of Uzbekistan, including the line ministries of Agriculture and Water Resources, Economy and Finance.
4. *RRA Project Manager for HDP:* A dedicated full-time manager would be assigned within RRA and be responsible for day-to-day management of the project. The project manager would report to the Director, RRA. A number of specialists with specific technical skills responsible for individual components of the project would assist the project manager. They would be coordinators within RRA for each of the project components and also for monitoring and evaluation and environmental safeguard oversight. The M&E specialist would assist the project manager in monitoring project performance and informing of specific performance constraints and issues in order to enable timely and appropriate corrective actions. The project manager would be supported by a dedicated chief accountant, procurement specialist and operational/administrative staff. RRA regional officers where they already exists in the project provinces or new regional officers that would be established in other provinces, will be responsible for implementing the project activities in their respective provinces in accordance with guidance provided by the project manager and component coordinators. Each regional office will have a regional project manager, an accountant and specialists for each of the project components.



### *Component 1: Agriculture Support Services*

5. The coordinator at RRA for this component will be responsible for providing oversight and coordination of the Agriculture Support Services Component. This component is aimed at providing: (i) institutional support for strengthening capacity of participating institutions in research and genetic material improvements and farmer extension; (ii) market-led agricultural technology transfer for bridging the knowledge and experience gap related to new production, storage, post-harvest handling (PHH) and marketing knowledge and experience; and (iii) improved standardization and certification of horticulture products to meet new market needs and standards. The implementation of activities under this component would be undertaken by research institutions, Uzstandart, RRA and the Chamber of Commerce, as is discussed below.

6. Participating Research Institutes: Implementation of the Sub-Component on Institutional Support Services will be implemented through close coordination with participating research institutes for: (i) improving planting materials, disease and pest identification and soil testing and training; (ii) improving capacity for mapping pest and disease outbreaks; and (iii) developing training modules for farmers and traders for storage, post-harvest handling, packing and marketing and food hazard controls. The four participating research institutes would be the Schroeder Institute (Mirzayev Institute) which has a strong research capability on vineyards, apples, pears and other perennials; the Uzbek Scientific Research Institute for Plant Protection (UzNIIZR) that has strong capability in cotton, but needs to build improved capacity for providing support in the horticulture sector; and the “Uzglavgoskarantin” Laboratory Research Center for Plant Quarantine and the Institute of Vegetables, Melon Crops and Potato (IVNCP) that are weak and need to be strengthened to be able to support the horticulture sector.

7. Uzbekistan State Centre for Standardization, Metrology and Certification (Uzstandart). The Uzbekistan State Centre for Standardization, Metrology and Certification has the responsibility for implementation of unified policy on standardization and certification and raising competitive capacity of products on the basis of application of international standards, improving consumer rights protection, observance of food safety and quality standards of products and management of training on standardization, metrology and certification. In keeping with the above-mentioned mandate, the UzStandart would support: (i) capacity building of voluntary associations along the value chain with the aim of defining quality standards, food safety, codes of conduct, and organizing marketing campaigns; (ii) promoting good international production and handling practice; (iii) translating good international quality requirements into Uzbek; and (iv) developing manuals of quality and packaging requirements for various products and to disseminate information about requisite standards in domestic and other destination markets.

8. Rural Restructuring Agency (RRA). The sub-component on promoting market-led agricultural technology transfer for bridging the knowledge and experience gap related to new production, storage, post-harvest handling (PHH) and marketing knowledge and experience would be implemented by RRA. The RRA Coordinator for Agriculture Support Services would be located in the RRA Central Office in Tashkent and one specialist would be employed at each RRA’s eight regional/provincial offices constituting a team of nine persons. The team would collectively be responsible for implementation of the following activities: (i) supporting demonstration farms and media based dissemination of information on mechanical and biological on-farm technologies, including information about varieties, irrigation, greenhouses and post-harvest techniques and equipment; (ii) developing and disseminating information to farmers on management of business side of farming, record keeping, marketing and business plan development; (iii) improving and disseminating market information on domestic, regional and destination markets such as in Russia and Ukraine and providing technical support in marketing, packaging, quality and food safety through multi-media; and (iv) undertaking market studies of potentially interesting fruit and vegetable markets for Uzbek producers to help farmers improve productivity and undertaking market

channel studies to identify bottlenecks and opportunities for new private sector investments. A marketing and trade consulting company with international experience in development of value chains and productive linkages and identification of market opportunities will be assisting the RRA in the implementation of these activities.

9. The RRA Coordinator for Agriculture Support Services would be responsible for overall implementation of this sub-component including: (i) coordinating and supporting the regional specialists; (ii) developing training modules and packages; (iii) working with regional specialists and local training providers in implementation of the training; (iv) implementation of the media programs; (v) monitoring overall component implementation; and (vi) providing feedback and advising on steps to improve training packages and their delivery. The regional specialists would be responsible for: (i) identifying local training needs and potential regional training providers; (ii) mobilizing farmers for training; (iii) supervising day-to-day implementation of training workshops and monitoring usefulness of these workshops; and (iv) obtaining farmer feedback on training workshops and its quality, advising on changes on training content and delivery mechanisms.

10. Uzbekistan Chamber of Commerce: The Chamber of Commerce would be responsible for facilitating the organization of national and international trade fairs for fruit and vegetable farmers to promote investment and exports and establish opportunities for Uzbek farmers and stakeholders to participate and learn from other countries about advanced and successful horticulture practices and policies.

#### *Component 2 – Access to Credit*

11. The RRA Coordinator for Rural Finance would be responsible for overseeing the implementation of this component of the project, including the credit line and the associated technical assistance activities. The Coordinator (RF) will liaise with the Participating Finance Institutions (PFI), and be responsible for the technical appraisal of Sub-Financings, monitoring Beneficiaries, managing the PFI training activities and preparing reports for the Government of Uzbekistan and the World Bank. A network of rural staff located in the RRA regional centers and will help to ensure that potential recipients, representatives of bank branches and other stakeholders can receive advice and support from the project management unit close to where they are located.

12. *Implementation of the Sub-financing:* The Sub-Financing would be implemented by the selected PFIs. Selected PFIs (identified on the basis of eligibility criteria established in the Credit Line Investment Guidelines) will sign a subsidiary agreement with the Ministry of Finance and RRA. The Credit Line Investment Guidelines will be developed (based on experience of RESP II) and will be an integral part of the subsidiary agreement and would set forth, *inter alia*, the criteria for the selection of Beneficiaries (as defined in the Loan Agreement), criteria for the eligible investments, and terms and conditions of the Sub-financings. The Credit Line Investment Guidelines set forth all aspects related to the implementation of the Sub-financings satisfactory to IBRD.

13. Each PFI would be required to submit to IBRD, the first three sub-project proposals irrespective of the amount of the proposed sub-financing. This will allow for assessment of PFI staff lending skills. In exceptional cases (based on the relevant selection criteria set forth in the Credit Line Investment Guidelines), and in particular if the quality of the sub-financings is very poor, the PFI may be asked to continue provision of sub-financings for prior review by the World Bank.

14. All potential PFIs, including those already supporting existing World Bank RESP II credit lines, and new ones, will be required to undergo due diligence before signing the subsidiary agreements



mentioned above. The qualifications of the PFIs will be done by RRA, who will carry out the monitoring and the operational and financial status of the PFIs throughout the project period. The final determination of the PFI's participation will be based on the positive outcome of the due diligence process. The RRA Coordinator for the Rural Finance will assist in planning the technical activities, monitoring of the quality of the technical assistance provided and ensuring that feedback is delivered to the provider.

15. The Loan Officers of the PFIs would be trained under the project, including on environmental awareness, environmental impact assessment and pest management in order to ensure that activities financed under the Credit Line are sustainable from the environmental point of view. Consultants (national and international) would be hired to deliver training in investment lending in agriculture. In parallel a local training provider will be hired to provide candidate trainers to be trained to deliver the training on a long term basis. The environment and pest management training will be provided by national consultants with experience.

16. The project would recruit consultancy company(ies) through a qualification process to provide business planning training and advise to farmers and rural entrepreneurs. As part of the review process, the business plans prepared at the initial stages with support of the consultancy companies will be reviewed by the RRA regional staff for quality and relevance. Different business plan formats would be introduced, tailored to the size of the sub-financing, enabling faster and more efficient preparation and review. Consultancy fees for preparation of business plans would be eligible expenditures to be financed from the Credit Line.

## **Financial Management, Disbursements and Procurement**

### *Financial Management*

17. According to the findings of the Country Integrated Fiduciary Assessment (CIFA) report for Uzbekistan and the Uzbekistan Accounting & Auditing report, the Public Financial Management in the country is weak. There is no critical mass of professionally qualified accountants, there is limited knowledge of internationally recognized accounting and auditing standards, such as International Financing Reporting Standard (IFRS), International Public Sector Accounting Standards (IPSAS), International Standards on Auditing (ISA), in both the public and private sectors, and public sector auditing is not of acceptable standards.

18. Consequently, most Bank-financed projects in the country are implemented through stand-alone project implementing agencies that install parallel financial management systems to those used in the respective line ministries. Audits of Bank-financed projects in Uzbekistan are performed by private sector firms that meet the Bank's eligibility criteria.

### *Implementing agency*

19. The RRA would have overall responsibility for the financial management (FM) function of the project, including managing the flow of funds, budgeting, accounting, reporting, and auditing. An FM assessment was carried out to determine the FM implementation risk and the FM arrangements at RRA, including accounting, reporting, planning, and budgeting, and staffing, which were generally considered satisfactory to the Bank. Overall, Residual FM risk is considered to be Substantial.

### *Strengths and weaknesses*

20. The main weakness is the high turnover of the FM staff, which might result in ineffective maintenance of the FM system due to a lack of experience in WB policies and procedures by new hires.

The strengths include: (i) similar FM arrangements under existing projects implemented by the RRA are generally found to be satisfactory; (ii) there are no significant issues in audits of active projects implemented by the RRA. The following capacity building actions have been agreed to be implemented:

<b>Actions for capacity building</b>	<b>Responsible</b>	<b>Completion date</b>
Update the Financial Management Chapter of the Project Implementation Plan to reflect the project related internal control, budgeting, external auditing, financial reporting and accounting policies and procedures	RRA	Prior to effectiveness
Modify the existing accounting software for accounting and financial reporting purposes of the proposed project. The accounting software will be specially designed to meet World-Bank-financed projects requirements including ability to generate Interim Financial Reports, withdrawal applications, statements of expenditure, and annual financial statements.	RRA	Prior to effectiveness
3. Recruit the Disbursement Specialist for the Project.	RRA	By effectiveness

21. *Budgeting and Planning.* The RRA has, in general, acceptable budgeting and planning capacity under RESP II. The same budgeting approach would be used for the purpose of this project. The annual budget of the Project would be based on the final procurement plan that is to be discussed and agreed with the RRA Director, and approved by the World Bank. All changes to the procurement plan would be reviewed by the RRA Director and approved by the World Bank. The Director, the Chief Accountant and the Procurement Specialists would be involved in the preparation of the annual budget. These budgets would form the basis for allocating funds to project activities and requesting counterpart funds from the Government where appropriate. Budgets would be prepared according to the Interim Financial Report (IFR) format (disbursement categories, components and activities, account codes, and broken down by quarter).

22. *Accounting and Maintaining of Accounting Records.* The RRA has prior experience with maintaining an independent accounting system under the existing RESP II and the closed RESP I and Highly Pathogenic Avian Influenza (HPAI) projects. The RRA uses the Cash basis IPSAS<sup>14</sup> for reporting purposes. The National Accounting Standards of Uzbekistan are utilized for maintaining project records. The Government agreed to adopt the same accounting method for the proposed project as well. The current chart of accounts would be adapted to the proposed project's requirements, and would be accordingly reflected (as an Annex) in the Financial Management section of the PIP. All supporting documents would be maintained in files for ready access by auditors and Bank staff. The Project's chart of accounts would track all transactions and report them according to the source of financing of the project components, and type and category of expenditures. The RRA under the existing project uses the 1-C accounting system specially designed to meet the World Bank-financed project requirements, including the ability to generate IFRs, withdrawal applications, statements of expenditures, and annual financial statements. In addition, regular backups of the accounting data are done by the accounting staff. The system has safeguards against the input of inaccurate data or unauthorized access to the system. It was agreed to have the same accounting software modified and used for accounting and financial reporting purposes of this project. Regular backup of the accounting data would be made by the accounting staff.

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<sup>14</sup> International Public Sector Accounting Standards

23. *Internal Controls:* The RRA's internal controls system was assessed in general to be capable of providing timely information and reporting under the existing Project. The FM Manual documents accounting and financial reporting policies and procedures and, in particular, incorporates proper internal control procedures over cash transactions, including maximum allowed daily cash operations, formally describes expenditure authorization, invoice approval, and payment processing procedures; sets up clear back-up arrangements; formalizes reconciliation procedures of project records with Client Connection, and safeguards for assets. Under the existing project, the RRA conducts monthly formal reconciliation of the World Bank disbursement data with the project's accounting records via Client Connection. Formal reconciliation of the special and local accounts with the project records is done on a monthly basis, but informal reconciliation is done more frequently, usually upon receipt of bank statements from the commercial bank. The Financial Manager of the RRA would be responsible for the overall financial arrangements of the project with the assistance of the Disbursement Specialist.

24. *Financial Reporting.* The RRA prepares quarterly IFRs for the ongoing project. IFRs are due within 45 days of the end of the quarter, which are usually received on time and generally found to be acceptable. RRA would produce quarterly IFRs for this project throughout the life of the project. The format of IFRs was agreed during the assessment and includes: (i) Project Sources and Uses of Funds, (ii) Uses of Funds by Project Components, (iii) Designated Account Statements, (iv) Disbursement Summary, and (v) a Statement of Expenditure Withdrawal Schedule. IFRs would be produced by the accounting software. These financial reports would be submitted to the Bank within 45 days at the end of each calendar quarter. The project's annual audited financial statements and audit report, together with the management letter, would be provided to the Bank within six months of the end of each fiscal year and at the closing of the project.

25. *External Audit.* The auditor's reports on the financial statements of RESP II implemented by the RRA have been received on time and have usually carried an unqualified (clean) opinion. The auditor also issued a Management Letter that raised several issues highlighting a number of internal controls/accounting issues that have been mostly resolved.

26. *The project audit* would be conducted (i) by independent private audit firms on terms of reference acceptable to the Bank, and selected by the RRA; and (ii) according to the International Standards on Auditing (ISA) issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants (IFAC). The terms of reference would include activities involving: (i) audits of financial statements, (ii) assessments of the accounting system, and (iii) a review of the internal control mechanisms. The cost of the audit would be paid from the Loan's proceeds. The following table identifies the required audit reports that would be submitted by the RRA, together with the due date for submission.

Audit Report	Due date
Project Financial Statements The Project Financial Statements include Project Balance Sheet, Sources and Uses of Funds, Uses of Funds by project activities, Statement of Expenditures Withdrawal Schedule, Designated Account Statement, Notes to the financial statements, and Reconciliation Statement	Within 6 months of the end of each fiscal year and also at the closing of the project

27. The audited financial statements would be disclosed to the public in a manner acceptable to the Bank. Following the Bank's formal receipt of these statements from the borrower, the Bank makes them available to the public in accordance with the World Bank Policy on Access to Information.

28. *Flow of Funds and Disbursement Arrangements.* Loan funds would flow to the project via disbursements to one designated account (DA) maintained by the RRA. The project would follow

transaction-based disbursement procedures (advances to the DA, documentation of the advances based on statements of expenditures and supporting documents, direct payments, special commitments. Withdrawals from the Loan Account would be requested according to requirements in the Disbursement Letter. The Ceiling of the Designated Accounts would be US\$5,000,000. Withdrawal applications would be signed by two persons: (i) an authorized representative of the Borrower (Ministry of Finance); and (ii) another designated official, such as the RRA Director, or other persons delegated in writing by the Ministry of Finance.

29. Line of credits for PFIs will be disbursed in tranches. Detailed guidelines for the Access to Credit component has been developed and approved for the RESP II project will be followed for this project as well. On a schedule to be pre-agreed between HDP and the Beneficiary (which will be on the basis of an assessment of the Participating Financial Institution (PFIs), milestones for tranches will be determined and funds released on the basis of milestone targets being achieved. The PFI shall also provide HDP with any documents that they may require ascertaining whether the expenditure incurred under the previous tranche is reasonable. The HDP may withhold scheduled payments in the event that the PFI's account statement shows a large cash balance in the account, or may delay the next scheduled payment(s). Expenditure of funds must adhere to the specific line items in the approved budget, and any changes required prior approval of the HDP. The PFI will submit all documents reasonably required by the HDP for reporting purposes. Detailed procedures for administration and disbursement of the funds under the Access to Credit component will be described in the guidelines for the program.

30. **Disbursements:** The Loan will disburse through transaction-based disbursement methods that include: (i) reimbursements with full documentation, (ii) reimbursements on the basis of Statements of Expenditures (SOEs) for small expenditures with defined thresholds, (iii) payments against Special Commitments, (iv) direct payments to third parties, and (v) payments through the Designated Account.

31. To facilitate project implementation, a separate Designated Account will be opened. The Designated Account, which will be managed by the RRA, will be replenished on a quarterly basis, as needed. The total ceiling will be limited to US\$ 5 million. The Designated Account will be audited annually in conjunction with the audit of the project financial statements.

32. Disbursements will be made on the basis of full documentation for: (i) contracts for goods costing more than the equivalent of US\$100,000 each; (ii) contracts for works costing more than the equivalent of US\$100,000 each; and (iii) services under contracts of more than the equivalent of US\$100,000 for each consulting firms and more than the equivalent of US\$50,000 each for individual consultants. Disbursements below these thresholds and for expenditures against incremental operating costs and training would be made according to certified SOEs.

33. For all expenditures financed under SOEs full documentation in support of the SOEs will be retained in the RRA for at least two years after the project closing date. This information will be available for review by Bank missions during project supervision and by the projects auditors. SOEs will be audited in conjunction with the annual audit of the project. Further instructions on the size of the minimum application and on how funds will be withdrawn from this Loan will be provided in the Disbursement Letter. The Rural Financing Guidelines should be revised before disbursement.

34. Financing Parameters. Table 3 specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Financing Category, allocations of the Loan to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category.

Expenditure Category	Amount in US\$ million	Financing Percentage
1. Equipment and Goods	12,076	100%

2.Consultants, works and services, including auditing services and training	14,762	100%
3. Access to credit line	111,445	100%
4. Incremental Operating Costs	7,216	100%
Unallocated	4,500	
Total Funds	150,000	

### *Procurement*

#### **Procurement Implementation Arrangements**

35. **General:** Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines : Procurement of Goods, Works and non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 (Procurement Guidelines); and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 (Consultant Guidelines) and provisions stipulated in the Loan / Financing Agreement. If there is conflict between the Government decrees, rules and regulations and the Bank Procurement and Consultant Guidelines, then Bank Guidelines shall prevail. In addition, the project will also follow "Guidelines On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and revised in January 2011". For each contract to be financed by the Bank, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank project team in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

36. The items to be procured would include the following:

- (a) Works to be procured under this project include the following: (i) office renovation; (ii) land leveling in the demonstration plots, etc. These are mainly subject to the NCB procedure.
- (b) Goods to be procured under this project include: (i) procurement of office furniture and vehicles; (ii) equipment for demonstration plots, (iii) Goods for Strengthening Research Institutes, etc. These goods shall be procured through ICB.
- (c) Incremental Operating Costs to be procured include the incremental expenses incurred by the RRA on account of Project implementation, management, monitoring and supervision, including office supplies, office equipment maintenance, communication, local travel, vehicles operation and maintenance, commercial bank charges, salaries of the support staff of RRA, but excluding salaries of civil servants of the Borrower, as such expenditures are set forth in the RRA annual budget, satisfactory to the Bank and such other expenditures as may be agreed upon by the Bank.

37. Consulting services & training: Consulting services required under the project would include the following: (i) technical assistance in such areas as capacity strengthening and agricultural development; (ii) Horticultural Technologies Consultancy Services; (iii) Horticulture Marketing Consulting Services, etc.

38. The project disbursement through the Credit Lines will follow the Procurement Guidelines Para 3.13 following commercial practices. The sub-borrowers may use commercial practices detailed in the Project Implementation Plan (PIP) that is acceptable to the Bank. The Rural Enterprise Investment

Guidelines used under the RESP-2 project shall be used here. Taking into account the earlier experience, it could be examined whether the Bank's review thresholds could be established higher than it was established earlier. These thresholds will be indicated in the Procurement Plan, the PIP and the above Guidelines.

39. Procurement will be carried out by the Rural Restructuring Agency under the MAWR of Uzbekistan. The Bank's ICB SBD, SRFP, sample NCB or shopping documents will be used. Domestic preference according to clause 2.55 and Appendix 2 of the Procurement Guidelines will apply to works/goods contracts.

## **Record Keeping**

40. The procurement specialist of the RRA is responsible for maintaining procurement records. Separate files should be maintained for each contract (including both hard copy and electronic copy). All the procurement documents (including bids, technical and financial proposals of consulting services) should be kept till the end of the project and then transferred to the Government Archives. The originals of various valuable documents (such as bid security, performance guarantee, advance guarantee) should be kept in the safe by the RRA's accountant.

## **Risk Analysis and Mitigation Measures**

41. Procurement Risk Assessment and Mitigation: As part of project preparation, an *Assessment of the Procurement Capacity of RRA* was carried out during July 2013 and PRAMS was completed. The country procurement assessment report (Report # 25653 UZ) conducted in 2003 (by the Bank and ADB) identified the following weaknesses in the public procurement system in Uzbekistan: (a) absence of a unified legislative framework; (b) inefficient and non-transparent procurement practices; (c) absence of a single institution with oversight or regulatory authority on public procurement practices; (d) weak capacity to deal with bidders' complaints; (e) lack of independent scrutiny of contracts; (f) lack of comprehensive anti-corruption measures; and (g) low skills/capacity of the staff handling public procurement at every administrative level. Further, the Bank noted recently the difficulty in obtaining a bank guarantee for bid security and performance security by the bidders and non-availability of alternative instruments for such purpose in the country's banking system in particular Joint Ventures. Private sector suppliers and contractors remain unsatisfied with the rules governing public procurement and have little confidence in the system's fairness. Transparency International ranks Uzbekistan at 170 out of 178 countries. The recent Country Integrated Fiduciary Assessment (CIFA) revised the procurement environment to be considered a high risk and no major change in public procurement environment was noticed during recent PEFA review. The risks identified and mitigation measures are summarized in the table below:

Description of Risk	Risk Rating	Mitigation Measures	Residual Risk Rating
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Contract registration requirements are arduous and take a long time which may seriously impact timeliness of procurement and contract implementation	S	The Bank team will monitor contract award notification and publication of contract award details as per Bank Procurement and Consultant Guidelines. The team will monitor receipt of signed prior review contracts and take timely action to ensure provisions of Bank Guidelines are followed, and Bank will take remedial action such as misprocurement declaration if the delay is more than 42 days following the Bank's NOL to the BER or to negotiated contract.	S
Government officials may intervene in the procurement decisions under the Project	H	The PIP shall clearly decide the responsibilities of the project stakeholders in the procurement process. The Bank's procurement procedures shall be followed strictly. Complaint handling system shall be defined in PIP and will be in place.	M
Low level of competition due to high cost of doing business in the country and the less development of local manufacturing and contracting industry.	S	All major packages will be subject to ICB to aim at wider competition among qualified international contractors. Slice and packages would be followed and local contractors will be able to bid for lots or join international contractors as subcontractors	M
Perceived level of corruption in the country is high	H	<p>The Bank's Anti-Corruption Guidelines, Procurement Guidelines and Consultant Guidelines will be followed by the Borrower for the implementation of the project.</p> <p>Among other actions, the following specific actions would be included in the PIP:</p> <p>a. Require each staff involved in procurement, including each member of a tender or evaluation committee, to certify in writing that his or her involvement does not create any conflict of interest, i.e., relationship with a supplier or consultant, etc.</p> <p>b. Put in place the necessary</p>	S

		<p>mechanisms to ensure that suppliers and contractors are paid according to their contract terms without any delays.</p> <p>c. To bring to the Bank notice each and every complaint received from any supplier or consultant relating to the procurement process, and to record and dispose of these complaints promptly and diligently.</p> <p>d. To maintain up-to-date procurement records and to make these available to the Bank staff, auditors.</p>	
<b>Overall</b>	<b>H</b>		<b>S</b>

H: High; S: Substantial; M: Moderate; L: Low.

42. The PIP will reflect that any price verification and reasonableness of recommended contract value will be carried out as part of bid evaluation and the contracts will be awarded and signed as soon as Bank's no-objection is issued and signed contract and Performance Security (whenever required) is submitted to the Bank within 6 weeks of Bank's no-objection to the Bid Evaluation Report (BER). The PIP will include the complaint registration and handling mechanism to ensure complaints are treated fairly and openly. Any complaints concerning the procurement or other aspects of the Project implementation have to be registered and dealt within a time frame agreed in the PIP.

43. Procurement Plan: RRA has developed the Procurement Plan covering procurement activities for the entire period of Project implementation. This Procurement Plan will be continuously updated as the Project progresses and will be reviewed and approved by the Bank accordingly. The Procurement Plan will be published on the Bank's external website and RRA website by the time of Project negotiations. The PIP will elaborate on the appropriate mechanisms for procurement according Bank Guidelines. The General Procurement Notice (GPN) and advertisement of procurement opportunities will be published on the RRA's website and Uzbek media. The ICBs and major consultancy services will also be published on the Bank's external website and UN development business.

44. Procurement Supervision and Procurement Post Review: Routine procurement reviews and supervision support will be provided by the procurement specialist based in the region/country office. In addition, two supervision missions are expected to take place per year during which ex-post reviews will be conducted for the contracts that are not subject to Bank prior review on a sample basis (e.g., 20% in terms of number of contracts). One ex-post review report will be prepared per fiscal year, including findings of physical inspections for not less than 10% of the contracts awarded during the review period.

45. **Disclosure**: The following documents shall be disclosed in the RRA website: (i) procurement plan and updates, (ii) invitation for bids for goods and works for all international competitive bidding (ICB) and national competitive bidding (NCB) contracts, (iii) request for expression of interest for selection/hiring of consulting services, (iv) contract awards of goods and works procured following ICB/NCB procedures, (v) list of contracts/purchase orders placed following shopping procedure on quarterly basis, (vi) short list of consultants, (vii) contract award of all consultancy services, (viii) list of contracts following direct contracting (DC) or selection based on consultant's qualification (CQS) or



single-source selection (SSS) on a quarterly basis, (ix) Monthly physical and financial progress of all contracts and (x) action taken report on the complaints received on a quarterly basis. The works bidding documents shall include a clause to put up a notice board in the construction site disclosing the contract details (description, contractor name and contract amount, starting date, completion date, physical progress and financial progress).

46. The following details shall be sent to the Bank for publishing in the Bank's external website and UNDB: (i) invitation for bids for procurement of goods and works using ICB procedures, (ii) request for expression of interest for consulting services with estimated cost more than \$300,000, (iii) contract award details of all procurement of goods and works using ICB procedure, (iv) contract award details of all consultancy services with estimated cost more than \$300,000, and (v) list of contracts/purchase orders placed following SSS or CQS or DC procedures on a quarterly basis.

### **Procurement Plan**

47. The RRA developed a Procurement Plan for the Project that is consistent with the implementation plan, which provides information on procurement packages, methods and Bank review requirements. It will be available in the RRA's project database; and will be updated in a manner agreed upon with the Bank project team, annually or as required, to reflect the needs and improvements in the implementing agencies' institutional capacity. The Borrower has agreed to disclose the cost estimates while disclosing the procurement plan.

48. No procurement Plan would be required for the Credit line Component where such planning is not relevant.

**UZBEKISTAN**  
**Horticulture Development Project**

**PROCUREMENT PLAN - GOODS AND WORKS**

Date of PP: (April 29, 2014); Update No. \_\_\_\_\_; Date of WB NOL: (     )

Description	Plan vs. Actual	Estimated Cost (US\$ equivalent)	Procurement Method	WB Review (Prior/ Post)	Date of Draft BD to WB	Date of Contract Completion
Office furniture and equipment for RRA and regional PIUs	Plan	148,700	ICB	Prior	8/01/2014	4/10/2015
	Actual					
Vehicles for RRA (sedan-1 and 4WD-1) and regional PIUs (4WD)	Plan	437,000	ICB	Prior	8/01/2014	4/21/2015
	Actual					
Accounting Software	Plan	10,500	Shopping	Post	8/20/2014	10/20/2014
	Actual					
Goods for Strengthening Research Institutes *	Plan	4,950,000	ICB	Prior	8/20/2014	7/15/2015
	Actual					
Laboratory Equipment for Plant Quarantine Center*	Plan	300,000	Shopping	Prior**	8/04/2015	10/05/2015
	Actual					
Works contracts*	Plan	2,620,000	NCB	Post**	10/10/2014	15/31/2016
	Actual					

\* - Packages which are marked with a single asterisk could be divided into two ICB, Shopping or NCB packages as indicated in the appropriate "Procurement Method".

\*\* - Only first two contracts under the project are subject to prior review.

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**PROCUREMENT PLAN - CONSULTANTS**

Date of PP: (April 29, 2014); Update No. \_\_\_\_\_; Date of WB NOL: (MM.DD.YEAR)

Description	Plan vs. Actual	Estimated Cost (US\$ equivalent)	Firm or Ind.	Select. Method	WB Review (Prior/ Post)	Request for Exp. Of Interest	Draft RFP (incl. TOR, Short List)	WB No-objection to RFP (full package)	Date of Contract Completion
Horticultural Technologies Consultancy Services	Plan	2,761,000	Firm	QCBS	Prior	9/01/2014	10/11/2014	10/15/2014	12/31/2020
	Actual								
Horticulture Marketing Consulting Services	Plan	1,729,000	Firm	QCBS	Prior	9/01/2014	10/11/2014	10/15/2014	12/31/2020
	Actual								
Consultants for Trade Shows*	Plan	1,175,000*	Ind.	Ind.	Post**	1/02/2015	1/03/2015	01/04/2015	12/31/2020
	Actual								
Organization of Study tours*	Plan	567,000*	Ind.	Ind.	Post**	5/01/2015	6/01/2015	06/15/2015	12/31/2020
	Actual								

The Borrower has the option of not disclosing the cost figures in the procurement plan.

\*- The package consists of numerous contracts.

\*\* - Numerous contracts are envisaged. The Individual consultancy estimated  $\geq 100,000$  is subject to prior review, otherwise post review, as indicated in the Plan.

## THRESHOLDS FOR PROCUREMENT METHODS AND BANK PRIOR REVIEW

Expenditure Category	Contract Value Threshold (US\$)	Procurement Method	Contracts Subjects to Prior Review (US\$)
<b>Goods (including technical services)</b>	>=500,000	ICB	All ICB contracts
	<500,000	NCB	First 2 contracts
	<=100,000	Shopping	First 2 contracts
	N/A	DC*	All DC contracts
<b>Works</b>	>=1,000,000	ICB	All ICB contracts
	<1,000,000	NCB	First 2 contracts
	<200,000	Shopping	First 2 contracts
	N/A	DC*	>=20,000
<b>Consultant Services (including training)</b>	<=200,000	QCBS/QBS/LCS/FBS a/b/	>=50,000** for firms;
	>200,000	CQS	
	N/A	SSS*	
	N/A	IC	>=50,000 for individuals & all SSS contracts

Notes: a/Shortlist may compose entirely of national consultants for assignments of less than US\$100,000 equivalent per contract.

b/ As appropriate, these methods may be adopted for assignments costing less than \$200,000.

ICB - International Competitive Bidding

NCB - National Competitive Bidding

DC - Direct Contracting

QCBS - Quality and Cost Based Selection

QBS - Quality Based Selection

LCS - Least Cost Selection

FBS - Fixed Budget Selection

CQS - Selection Based on Consultants' Qualification

SSS - Single Source Selection

IC - Individual Consultants

\* - To be reflected and agreed in the PP in advance.

\*\* -The Borrower would need to secure the requirements for DC as outlined in Procurement Guidelines(Par. 3.7).

### Anti-Corruption Measures

49. The Bank's On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" dated October 15, 2006 and revised in January, 2011 and the transparency and disclosure provisions of the Bank's Procurement and Consultants Guidelines (published in May 2004 and revised in October 2006) will apply.

*Environmental and Social (including safeguards)*

50. The HDP will be managed and implemented by the Rural Restructuring Agency (RRA) which has already established office premises in the country's capital, with trained and professional staff that have experience implementing agriculture and rural development projects, including implementing environmental safeguards. The RRA has adequate capacity and sound track record under the previously implemented and on-going WB projects that ensures sufficient experience and capacity to effectively implement the HDP. It will recruit additional specialists and they will be trained in Bank's procedures. As of today, compliance with the Environmental Management Framework under the WB RESP II & GEF project has been generally satisfactory. As the RRA will be responsible for implementation of HDP in compliance with the Environmental Management Framework, it will hire an Environmental Specialist with the main goal of ensuring adequate implementation of its requirements.

51. The RRA Environmental Specialist (ES) will be responsible for environmental monitoring of the Project interventions and its impacts. He/she will be in charge of overall coordination and reporting on the EMF, inspection of environmental compliance at worksites, advising project participants on environmental questions, coordination of the overall environmental monitoring at project level, and coordination of the agricultural extension program. The ES will be also responsible for assisting the PFIs in implementation of the Credit component of the project, including reviewing environmental management plans, monitoring their implementation, advising and guiding PFIs on specific environmental issues and management options and ensuring that cumulative impacts are addressed. Furthermore, the ES will also be responsible in identifying training needs of the PFIs, ensure that environmental requirements are integrated into bidding documents for physical investments, and analyzing contracts and applications in terms of environmental management and mitigation issues. The ES will periodically collect information on changes and impact of the project activities and will study the environmental condition of the project area and identify main environmental parameters. Lastly, the ES will be in charge of overall coordination and reporting on the EMF, inspection of environmental compliance at worksites, advising project participants on environmental questions, coordination of the overall environmental monitoring at project level, and coordination of the agricultural extension program.

52. The EMF and subprojects EMP's implementation will remain under the direct responsibility of the PFIs and of sub borrowers, including responsibilities for supervision and monitoring of proposed activities and selected subprojects. Compliance with the EMF and EMPs and monitoring of the impact during the construction phase will be undertaken by the PFIs and periodically by RRA Environmental Specialist as part of his contract supervisory duties.

53. The PFIs will play the major role in implementing EMF provisions and will be required to ensure that borrowers conduct an appropriate EIA and where necessary prepare an EMP, for each sub-project. The PFIs will be involved in the process of project implementation from the very beginning, at the project's appraisal stage. They will evaluate project proposals to attribute them to the WB Category and determines type of Environmental Assessment to be conducted for project, reviews the set of documents prepared by sub-borrowers (sub-projects' Information Sheet or Project Summary Sheet as well as all necessary permits and clearances needed for project implementation) completes Environmental Screening Checklist and makes a final decision on project's financing. In case of non-compliance with presumed mitigation measures during project implementation, the PFIs can make a decision on suspending of funding.

54. The Credit Line Investment Guidelines that will be developed (based on experience of RESP II) would set forth not only the criteria for the selection of Recipients of sub-financings, criteria for the eligible investments, terms and conditions of the sub-financing and other modalities and agreements of

the Credit Line, but also the rules and procedures for subprojects EA for which the details are provided in the EMF. This document should be satisfactory to IBRD and will be an Effectiveness condition. The subproject EMPs will be also integrated into the contracts for approved activities, both into specifications and bills of quantities and the Contractors will be required to include the cost in their financial bids and technical proposals.

55. The environmental assessment documentation for the first three Category B subprojects from each PFI will be subject to prior review and approval by the RRA and World Bank. The project also will provide PFI capacity building activities prior to the PFI approving any subprojects and would be completed before prior review by the World Bank. During sub-project appraisal, the PFIs will have to ensure that proposed sub-projects are in compliance with all national environmental laws and standards, as certified by the relevant local or national authorities of the country, and the Environmental Guidelines. All relevant documents and permits should be kept in each sub-borrower document file maintained by the PFI, and be made available for review by RRA and IBRD representatives.

56. A training program targeting the RRA/PFIs, farmers and other stakeholders will be implemented in the framework of the Project's institutional component. In particular, it is proposed the PIU environmental specialist should attend a training course on EA techniques and procedures. For that purpose he/she might visit a similar WB project in other countries in the region and/or to hire a consultant who might provide on the job training. In terms of the PFIs, who will be responsible for assisting the sub-borrowers in preparing environmental screening form and identifying potential sub-projects environmental issues, and in approving EA reports and ensuring their implementation, each participating PFI will designate an officer responsible for environmental aspects, review and approvals, who will be trained on environmental issues and be designated further environmental assessment responsibilities.

57. A special training program would be designed involving representatives from the PFIs. The program should be practical and include work with realistic case studies, based on actual loan proposals and types of business activities supported by the Project. It should also cover an explanation and practical application of the environmental standards and forms designed for use by the participating financial institutions. The training will cover the following issues: (a) national and World Bank requirements for environmental assessment; (b) screening and scoping procedures including checklists of potential environmental impacts of the agricultural production and agro-processing activities; (c) main provisions of environmental management plans for proposed sub projects, including mitigation and monitoring requirements. Field studies also may be included. Such training will enable these target groups to recognize and assess potential negative environmental impacts and set of measures to mitigate them.

58. To raise awareness on environmental requirements for agriculture and rural development activities, the project will support Sustainable Agricultural Extension activities. This will enable farmers to gain the full benefit from the Project, i.e. dissemination of improved technologies, effective participation of local stakeholders during the design and construction works, improved skills and empowerment for decision making in integrated water management and environmental protection and enhancement.

59. For the Credit component preparation stage, the funds to be spent for preparing sub projects Environmental Impact Assessments, obtaining of necessary permits and other relevant activities are the responsibilities of sub-borrowers. They will depend on the nature of project proposal, its complexity, scale, etc. At the construction and operation stages, the funds to be spent for installations and other activities to ensure mitigation measures against the environmental impacts from proposed activities is also the responsibility of sub-borrowers. These funds will depend on particular techniques and technologies used for implementing mitigation measures as well as on their scale, number, variety and other factors. At the same time, in order to ensure successful EMF implementation, as mentioned above, a series of

capacity building activities are necessary for which the project has to provide adequate funding. The estimated budget for the proposed capacity building activities and trainings is about \$ 0.5 million and was included in the project cost.

60. Before appraisal the EMF was disclosed and consulted in the country. On January 14, 2014, RRA has disseminated the draft summary EMF to key project stakeholders for review and comments for public access on RRA's web site [www.rra.uz](http://www.rra.uz) and [www.agro.uz](http://www.agro.uz). On February 14, 2014, the RRA conducted a public briefing and consultation meeting on the EMF document. The meeting concluded that the draft EMF document covers practically all potential impacts and possible mitigation measures. The draft document was revised after the meeting, taking into account outputs from the consultation. The final version of the EMF (Russian/Uzbek) and its English version were posted on RRA's website and submitted to the World Bank for its disclosure in the Infoshop. EMF will be used by the client during the project implementation.

61. Child and forced labor remains a concern in the agriculture sector in Uzbekistan, particularly in cotton harvesting. The project will explicitly engage only in horticulture where child and forced labor issues are uncommon. To mitigate any potential concerns and avoid any potential cross-fertilization with cotton production, the project includes awareness raising and training of beneficiaries on applicable legislation and regulation regarding child and forced labor. Additionally, the project documents require that all beneficiaries (as defined in the Loan Agreement) must comply with any applicable laws and regulations on child and forced labor. The project will also have the following provisions:

- (i) All Sub-financings/Lease agreements signed between PFI and Sub-borrowers will include provisions that require the beneficiary to comply with any applicable law and regulation on forced and child labor. The activities of all potential Project beneficiaries will be pre-screened and regularly monitored to ensure that they are not related in any form to child or forced labor. Should child or forced labor cases be found, the right of the Beneficiary to use the proceeds of the sub-financings will be suspended and terminated, and declared to be immediately due and payable to the PFI. The PFI will return the funds to the RRA, and this amount will be cancelled from the IBRD loan. The PFI will be disqualified from providing sub-financings in the Project, in accordance with the relevant criteria and provisions established in the Project Implementation Plan;
- (ii) PFIs/Lease Companies and the RRA will monitor use of child and/or forced labor during the monitoring visits to the sub-borrowers. Any use of child and/or forced labor will result in remedies as prescribed in the Financing Agreement.
- (iii) Sub- financing borrowers will not engage in any cotton production under state quota systems.

62. The project will also participate in the Third Party Monitoring (TPM) and Feedback Mechanism (FBM) set up by the World Bank to focus on issues of child and forced labor. The TPM/FBM will be funded by a separate Trust Fund<sup>15</sup>.

## **Monitoring & Evaluation**

63. Monitoring and evaluation activities would be the overall responsibility of the RRA and will be facilitated by the RRA coordinators of each component in the Central RRA office. In addition,

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<sup>15</sup> While the trust fund is yet to be established, the World Bank has an ongoing dialogue with bilateral donors on this agenda and there is wide support for the approach that the Bank has adopted for addressing the issue of child and forced labor in connection with relevant Bank's operations. It is therefore expected that several bilateral donors will make financial contributions for the TPM/FBM. In the event that no funding is secured before project effectiveness, the World Bank's own administrative budget will initially be used to start the program.

environment and pest management issues related to the project would be monitored and evaluated by a full-time environmental specialist located in the central RRA office. The findings and results collated by the relevant coordinators would be submitted to a dedicated monitoring and evaluation specialist located in the central RRA office. The Monitoring and Evaluation Specialist would be responsible for reporting the findings of all of the project activities. These findings would be described in quarterly and annual progress reports that would be made available to the Government of Uzbekistan (including its Ministries of Economy and Finance) and the World Bank. The fourth quarter report for each year would constitute the annual report.

64. The quarterly reports would cover the progress and implementation status of all project components progress on capacity building and training, activities of the project consultants, progress and results of special studies, other technical, environmental and social, procurement and financial management issues. The annual reports will cover: (a) the progress of each component, implementation of key features of the environmental and social management framework, key performance indicators, results framework, operation of project facilities, and financial statements; and (b) the annual Project Implementation Plan (PIP) for the following Fiscal Year required for implementation with breakdown by components/activities, an updated disbursement profile, planned actions for mitigating environmental and social negative effects during implementation, and target indicators for the coming year. As part of the monitoring effort, the RRA central unit will monitor the performance of the PFIs, visit all sub- financing sites to ensure that the money has been used for its intended purpose.

#### Role of Partners (if applicable)

65. The US Agency for International Development (USAID) sponsored AgLink program is implementing a horticulture demonstration project in four regions of Tashkent, Ferghana, Namangan and Samarkand, which started 3 years ago and will likely be extended for another 3-4 years. The project goal is to increase agricultural productivity in Uzbekistan. AgLinks uses a “value-chain approach” to improve the agricultural process, from examining the seeds through growing and harvesting the product, to sending it to market and on to a consumer’s kitchen. The program looks for bottlenecks in the process and tries to find low-cost ways of dealing with those problems. The investment of project is about US\$1.2 million per year. The project only works with large orchard as it is difficult and expensive to work with the small household. Major project activities are located on the farm by teaching farmers how to improve yield through simple but effective techniques or tools, such as pruning and disease control. A number of technical publications have been produced and disseminated to horticulture sector. The project also intends to introduce practical cold chain facilities to reduce the post-harvest loss, such as the use of cooling box after harvest.

66. The German International Cooperation Agency (GIZ) has a small on-going horticulture pilot project under the Economic Development Project in Selected Regions of Uzbekistan. One of the pilot sites is located in Fergana. The project emphasizes on farm level activities by training farmers how to improve the productivity and quality of farm produce. Value chain approach is used by the project to link the farmers to the markets. GIZ has also developed a value chain manual available at the website of [http://www.value-links.de/manual/pdf/valuelinks\\_complete.pdf](http://www.value-links.de/manual/pdf/valuelinks_complete.pdf).

67. The HDP will coordinate its activities with these other donor funded projects.



## Annex 4: Operational Risk Assessment Framework (ORAF)

### Uzbekistan: Horticulture Development Project (P133703)

Project Stakeholder Risks						
Stakeholder Risk	Rating	Moderate				
Risk Description:  1. Bank’s relation with Borrower is positive, and proposed project’s PDOs are aligned with Bank’s sector priorities.  2. The knowledge and skills of existing horticulture farmers are not updated.  3. There is limited market information for the producers.	<b>Risk Management:</b>  Bank will continue advocacy for the reform agenda with intensive consultations with Government and donor community.					
	<b>Resp:</b> Bank	<b>Status:</b> In Progress	<b>Stage:</b> Both	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Monthly
	<b>Risk Management:</b>  Project will support demonstration farms and media-based mechanisms for disseminating information about mechanical and biological on-farm technologies, including information about varieties, irrigation, greenhouses and post-harvest equipment.					
	<b>Resp:</b> Client	<b>Status:</b> In Progress	<b>Stage:</b> Both	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Yearly
	<b>Risk Management:</b>  Project will undertake market studies of potentially interesting fruit and vegetable markets for Uzbek producers to help farmers improve profitability and provide market information.					
	<b>Resp:</b> Client	<b>Status:</b> In Progress	<b>Stage:</b> Both	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Yearly
Implementing Agency (IA) Risks (including Fiduciary Risks)						
Capacity	Rating	Moderate				
Risk Description:  The Rural Restructuring Agency (RRA) has adequate capacity and sound track record under the RESP II that ensures sufficient experience and capacity to effectively	<b>Risk Management:</b>  The RRA will recruit additional specialists (Procurement, Financial Management, Environment, M&E, etc.) and they will be trained in Bank’s procedures. The Bank will continue to provide regular implementation support.					

implement the HDP. However, there is a risk that the RRA current staff may not be able to cope with both RESP II and HDP at the same time	<b>Resp:</b> Client	<b>Status:</b> Not Yet Due	<b>Stage:</b> Implementation	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Monthly
<b>Governance</b>	<b>Rating</b>	<b>Substantial</b>				
<b>Risk Description:</b>  Smooth coordination between the central government, the Ministry of Agriculture, PMU, regional and district governments and authorities, participating financial institutions, and research institutions is a key factor for the success of the project. Institutional capacity of these project stakeholders to implement the proposed project at the central level is adequate but could be an issue at the regional level.	<b>Risk Management:</b>  The PMU will establish its branches in every project region. In addition, international and local assistance will be recruited to assist with the project implementation at the regional level.					
	<b>Resp:</b> Client	<b>Status:</b> Not Yet Due	<b>Stage:</b> Implementation	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Monthly
	<b>Risk Management:</b>  While there is no evidence of fraud and corruption under RESPII (in fact, all audit reports were unqualified), there is a general recognition that fraud and corruption are endemic in Uzbekistan, and adequate measures therefore need to be taken to address this. Procurement packages will be designed in such a way so as to attract the largest number of bidders as possible to reduce the chance of corruption. Low response will be reason for added scrutiny and may be reason for re-bidding. Bid evaluation reports will be scrutinized and reasons for rejection or disqualification will be carefully reviewed. Quality and quantity of deliverables produced by consultants and contractors will be supervised by the team. Technically competent staff to evaluate quality and quantity will be included in the team, and the team will respond expeditiously to rumors and (anonymous) claims. Variation orders, modifications of TOR and contract extensions will be closely monitored. Cautious thresholds for NCB will be adopted. The RRA and MAWR will be informed that the Bank has a zero tolerance policy for fraud and corruption, and that misprocurement will be declared in case of irregularities					
	<b>Resp:</b> Bank	<b>Status:</b> Not Yet Due	<b>Stage:</b> Implementation	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Quarterly
Project Risks						
<b>Design</b>	<b>Rating</b>	<b>Moderate</b>				
<b>Risk Description:</b>  Financial institutions consider agricultural sector risky	<b>Risk Management:</b>  The project will strengthen the investment appraisal skills of PFIs through training					

	programs. The Credit Line will be channeled through PFIs experienced in agricultural lending.					
	<b>Resp:</b> Client	<b>Status:</b> Not Yet Due	<b>Stage:</b> Implementation	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Monthly
<b>Social and Environmental</b>	<b>Rating</b>	<b>Substantial</b>				
<b>Risk Description:</b>  1. There is a risk that PFI lending officers might not be up to date with the project Environmental Management Framework.  2. There is risk that the child and forced labor could be deployed in the area covered by the project.  3. There is a risk that the proposed TPM and GRM will not attract separate donor funding.	<b>Risk Management:</b>  Project will train PFIs lending Officers on the Safeguards requirements and Environmental Management Framework action plan.					
	<b>Resp:</b> Client	<b>Status:</b> Not Yet Due	<b>Stage:</b> Implementation	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Quarterly
	<b>Risk Management:</b>  The team recognizes the relevance and complexity of the child and forced labor issue, particularly in the agricultural sector, which requires a continued policy dialogue on agricultural policy, collaboration with other international organizations and practical enforcement of the child and forced labor conventions and laws. The Bank continues dialogue with the government and collaboration with international agencies to address this risk. At the project level, the project design and scope will aim to address the child and forced labor risk by, inter alia: (i) prohibiting cotton production by project beneficiaries and focusing exclusively on the horticultural farming, where the use of child and forced labor is uncommon; (ii) requiring beneficiaries to comply with applicable laws and regulations on child and forced labor; (iii) including trainings and awareness raising of beneficiaries on any applicable legislation and regulations regarding child and forced labor, and (iv) project Sub-financing will not be used to finance activities used for child and forced labor or land acquisition or resettlement of people. The project will also participate in the TPM/FBM set up by the World Bank.					
	<b>Resp:</b> Bank	<b>Status:</b> Not Yet Due	<b>Stage:</b> Both	<b>Recurrent:</b> <input type="checkbox"/>	<b>Due Date:</b> 30-Jun-2015	<b>Frequency:</b>
	<b>Risk Management:</b>  The Bank has an ongoing dialogue with bilateral donors on this agenda and there is wide support for the approach that Bank has adopted for addressing child and forced labor in Bank-financed project areas. It is therefore expected that financial contributions from several bilateral donors for TPM/GRM will be provided.					

	<b>Resp:</b> Bank	<b>Status:</b> Not Yet Due	<b>Stage:</b> Both	<b>Recurrent:</b> <input type="checkbox"/>	<b>Due Date:</b> 30-Sep-2014	<b>Frequency:</b>
<b>Program and Donor</b>	<b>Rating</b>	<b>Low</b>				
<b>Risk Description:</b>  1. Currently there is limited donor support (the Bank and ADB) to support credit line activities in the country’s agricultural sector.  2. Despite significant support for horticulture development from the donor community in Uzbekistan, donor support for Uzbekistan and for horticulture development may be declining in view of a number of persistent issues that some of the donors have raised, including child and forced labor.	<b>Risk Management:</b>  Currently there is limited donor support (the Bank and ADB) to support credit line activities in the country’s agricultural sector. In the current operating environment, the only other major donor active in the agricultural sector is the Asian Development Bank (ADB). Several discussions were held with ADB and Government of Uzbekistan to ascertain the main areas of their current and intended operations to ensure that the proposed project did not duplicate other efforts in the sector. An international partner roundtable (including IFC, USAID, KfW, and JICA) was convened during the project identification mission and will continue to function during implementation to coordinate horticultural activities.					
	<b>Resp:</b> Bank	<b>Status:</b> In Progress	<b>Stage:</b> Preparation	<b>Recurrent:</b> <input type="checkbox"/>	<b>Due Date:</b> 01-Sep-2014	<b>Frequency:</b>
	<b>Risk Management:</b>  The team will reach out to the donor community through its communication strategy that will among others report on child and forced labor issues in connection with the project activities or within the project area.					
	<b>Resp:</b> Bank	<b>Status:</b> Not Yet Due	<b>Stage:</b> Implementation	<b>Recurrent:</b> <input type="checkbox"/>	<b>Due Date:</b> 30-Jun-2021	<b>Frequency:</b>
<b>Delivery Monitoring and Sustainability</b>	<b>Rating</b>	<b>Moderate</b>				
<b>Risk Description:</b>  Low capacity of newly created farmers negatively affects their ability to access credit. Increased cost of credit funds might reduce farmer willingness to access credit	<b>Risk Management:</b>  Farmers and service providers will receive direct assistance in business planning and loan application submission, which will compliment broader training and advisory services. The training is envisaged to increase the efficiency of PFI’s and allow them to reduce the on-lending margins to final recipients. The above mentioned training programs are being already provided to farmers under the RESP II.					
	<b>Resp:</b> Client	<b>Status:</b> Not Yet Due	<b>Stage:</b> Implementation	<b>Recurrent:</b> <input checked="" type="checkbox"/>	<b>Due Date:</b>	<b>Frequency:</b> Monthly
<b>Overall Risk</b>						

<b>Overall Implementation Risk:</b>	<b>Rating</b>	<b>Substantial</b>
<p>Risk Description:</p> <p>The overall implementation risk is substantial because of (i) the fraud and corruption possibilities in the implementing agencies, and (ii) the fact that price verification by MFERIT is inconsistent with the Bank's procurement rules and may significantly slow down implementation, and (iii) the issue of child and forced labor in particular for cotton production.</p>		

## **Annex 5: Implementation Support Plan**

### **UZBEKISTAN: Horticulture Development Project**

#### **Strategy and Approach for Implementation Support**

1. Implementation support for the Horticulture Development Project would build on the successful relationships and practices currently in place for the RESP II project, complemented by additional support to enhance the productivity, profitability and competitiveness of the horticulture sector in Uzbekistan. Semi-annual implementation support missions are planned, with ongoing support available from the Tashkent-based TTL and procurement staff, and the regionally-based FM specialist. During the first and second years of implementation, it is anticipated that specific targeted advice would be needed from the Bank team to assist the RRA and PFIs as they develop the Credit administration system and gain experience from the RESP II credit line and GEF project. Also during the first year, the Bank team would need to provide close attention and support to the information dissemination and capacity building activities (under Component 1), to ensure that the technology demonstrations are organized to maximize information sharing, explain how the horticulture productivity, profitability and competitiveness could be promoted and investments financed under the credit line component .

2. Implementation support would benefit from coordination among project teams, including key operational staff. Ongoing coordination would also be maintained with other major international partners active in the agricultural and horticulture sectors, including the ADB, UNDP, USAID and GTZ. An international partner roundtable was convened prior to preparation and is expected to continue to function during implementation to coordinate horticulture and agriculture development activities.

#### **Implementation Support Plan**

3. The Bank team will hold a project-launch workshop shortly after project effectiveness. Afterwards, the Bank will field semi-annual project implementation progress review missions. A Mid-term Review (MTR) mission will be fielded in 2017.

4. The project procurement, FM and safeguards missions will be undertaken as part of the regular project implementation progress review missions. Procurement prior reviews will be ongoing whereas post reviews will be annual.

5. *Financial Management Support.* As part of its project implementation support mission, the World Bank's Financial Management Specialist (FMS) would conduct risk-based financial management supervision within six months of project effectiveness, and then at appropriate intervals. During project implementation, the Bank would supervise the project's financial management arrangements in the following ways: (a) review the project's semiannual Interim Financial Report and annual audited financial statements and auditor's management letter and remedial actions recommended in the auditor's Management Letters; and (b) during the Bank's on-site supervision missions, review the following key areas: (i) project accounting and internal control systems; (ii) budgeting and financial planning arrangements; (iii) disbursement management and financial flows, including counterpart funds, as applicable; and (iv) any incidences of corrupt practices involving project resources. As required, a Bank-accredited Financial Management Specialist would assist in the implementation support process. During the implementation support missions, in order to mitigate risks, the FMS would compare the contracts unit costs to similar costs using the Internet and local market. More frequent implementation support missions may take place during the first part of the Project. The FMS would consider joint fiduciary missions with procurement colleagues.

<b>Time</b>	<b>Focus</b>	<b>Skills Needed</b>	<b>Resource Estimate</b>	<b>Partner Role</b>
Six months	Project launch, identification of demonstrations, advise on credit administration	Capacity building, credit line implementation , procurement, FM, safeguards	26 s/w plus travel	Provide updated baseline data, coordinate implementing partners participation
12-60 months	Ongoing implementation support; mid-term review around month 30	Capacity building, credit line implementation , procurement, FM, safeguards	20 s/w plus travel per year	Provide progress and financial reporting, identify bottlenecks and implementation problems, coordinate implementing partners participation
Other				

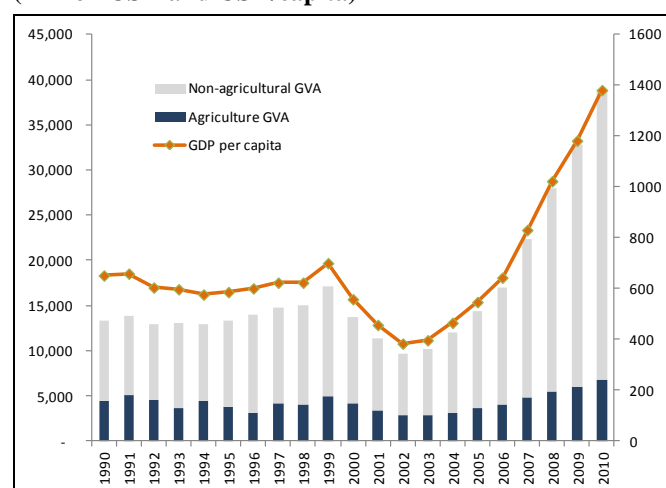
<b>Skills Needed</b>	<b>Number of Staff Weeks (p.a.)</b>	<b>Number of Trips (p.a.)</b>	<b>Comments</b>
TTL	8	Within country only	
Rural Development Specialist	4	1-2	
Rural Finance Specialist	4	1	Jointly with RESP II
Value Chain Specialist	4	1	Jointly with RESP II
Capacity Building Specialist	4	1-2	Jointly with RESP II
Environmental Safeguards	2	1	
Social Safeguards	4	2-3	
Procurement	2	Within country only	
FM	2	1	From Almaty

## Annex 6: Overview of the Horticulture Sector in Uzbekistan<sup>16</sup>

1. **Overview of Agricultural Sector in Uzbekistan:** Uzbekistan is a major agricultural producer, regionally and globally. The country is one of the world leaders in cotton production, ranking 6th in the world output in 2012, and 5th in the global exports. Annual revenues from cotton exports amount to over USD 1.6 billion. Uzbekistan is also among top producers of wheat, barley and corn in the Community of Independent States (CIS), ranking 4th after Russia, Kazakhstan and the Ukraine, and is among the top 20 wheat producers in the world. Uzbekistan is also a major regional producer of fruits and vegetables. According to official estimates, the country will produce over 7.8 million tons of vegetables, 1.4 million tons of melons, 2 million tons of potatoes, 2.25 million tons of fruits and 1.2 million tons of table grapes in 2012.<sup>17</sup>

2. Agriculture represents an important component of the Uzbek economy. Although the share of agriculture has declined in recent years compared to the other sectors of the economy, the sector continues to hold a significant share of nation's gross domestic product (GDP) at 15.8%, which amounts to UZS 14,168 billion in 2010 (Figure 1).<sup>18</sup> In 2012, more than 14.5 million people live in the rural areas, which accounts for about 49% of the total population.<sup>19</sup> Agriculture has a large impact on rural livelihoods, providing about 32% of employment.<sup>20</sup>

**Figure 1: The agricultural sector in the Uzbek economy (million USD and USD/capita)**



Source: World Bank Development Data

3. **Most people live in rural areas and this is expected to remain true over several decades.** According to FAO, the urban share of the population currently stood at about 36% in 2010 and is expected to remain below 43% through 2030 (Figure 2). Comparable contemporary data is lacking,

<sup>16</sup> This Annex is drawn from World Bank, 2013, “Horticulture Policy Note for Uzbekistan, Strengthening the Value Chain”,

<sup>17</sup> Report on the Results of the First quarter of 2012 for production of vegetables, melons, potatoes and grapes, April 25, 2012, Ministry of Agriculture

<sup>18</sup> Report of the Minister of Agriculture on the State of Agriculture on July 15, 2011, Ministry of Agriculture

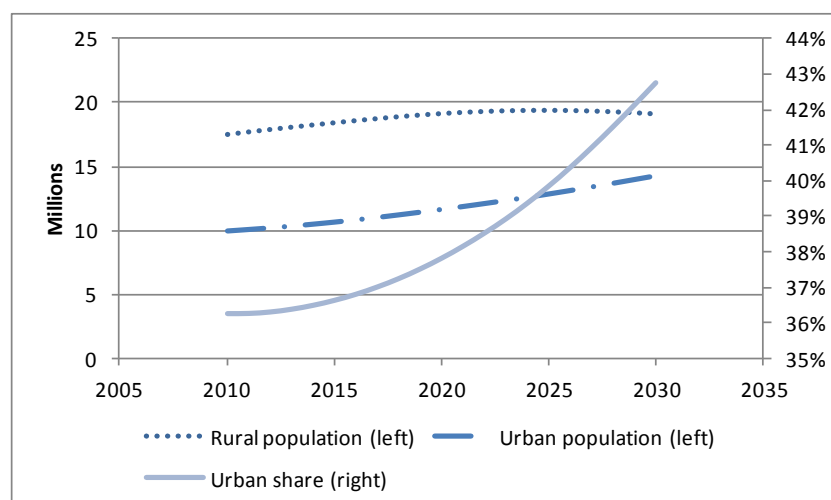
<sup>19</sup> Statistic Overview of Uzbekistan, Third quarter of 2012 (figures released on July 1, 2012), Central Statistic Agency

<sup>20</sup> Uzbekistan Welfare Strategy



but in 1999 agriculture accounted for about 38.5% of overall employment, while, by way of comparison, agriculture accounted for roughly 23% of employment in Brazil.<sup>21</sup>

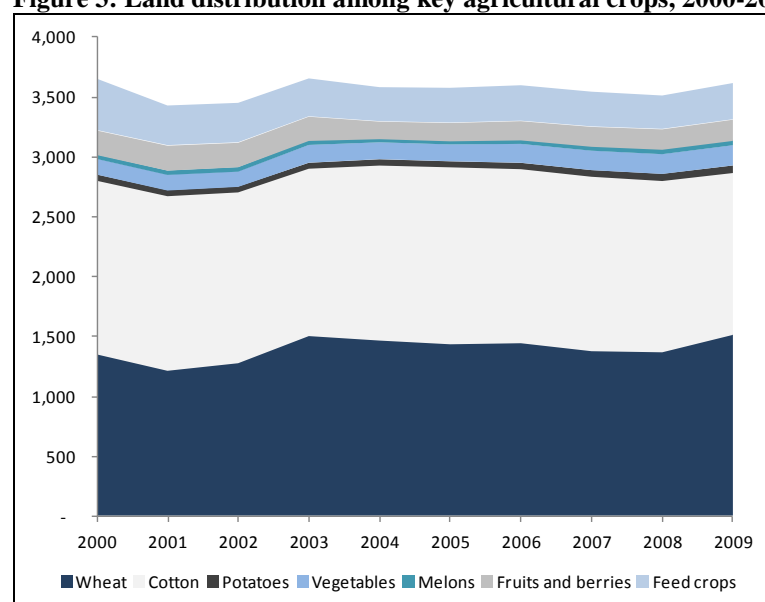
**Figure 2: Projected rural and urban populations in Uzbekistan**



Source: FAO (2012)

4. **Cotton and wheat are the dominant crops in Uzbekistan and they occupy the highest share of land resources.** Uzbekistan produces about 3.5 million tons of cotton crops and 1.2 million tons of cotton lint annually. Grains, especially wheat, are also significant in country's agricultural production. In face of unfolding climate change and high volatility of the global commodity markets, the Government of Uzbekistan took steps to increase the domestic production of key grain crops during the past few years in an attempt to more consistently meet domestic and foreign consumption needs. To date, Uzbekistan produces over 6.7 million tons of wheat, which allows the country to fully satisfy its internal demand for this commodity. The country also produces 240 000 MT of barley and 120 000 MT of corn which are mostly used for domestic consumption. Jointly, wheat and cotton occupy about 80% of the cultivated agricultural area (Figure 3).

**Figure 3: Land distribution among key agricultural crops, 2000-2009**

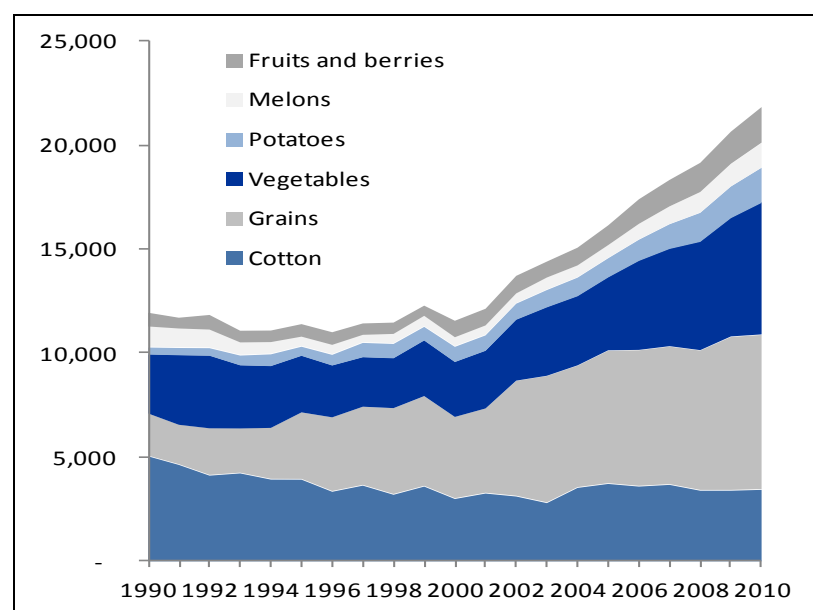


Note: Land in thousand hectares. Source: The State Committee on Statistics, Republic of Uzbekistan

<sup>21</sup> World Bank development data (2012)

5. **Still, horticulture is an important component of the agricultural sector in Uzbekistan, although its significance is easy to miss.** Compared to traditional crops such as wheat and cotton, the footprint of horticulture is small. As shown in Figure 4, horticulture accounts for about 16% of the aggregate arable lands in contrast to grain fields (47%) and cotton (37%) in 2009. However, a changing market and policy environment has led to more than 241.1 thousand hectares of land being assigned for horticulture use in 2012 alone, including 84.1 thousand hectares for potatoes and 57.8 thousand hectares for melons. The area devoted to horticulture has been increasing steadily, primarily by displacing land used once used cotton production. Consequently, horticultural production has been increasing faster than traditional crops in recent years (Figure 4). The economic impact of the fruit and vegetables subsector is large, accounting for 50% of the value of crop output and over 35% of export value.

**Figure 4: Output of key agricultural products, 1990-2010.**

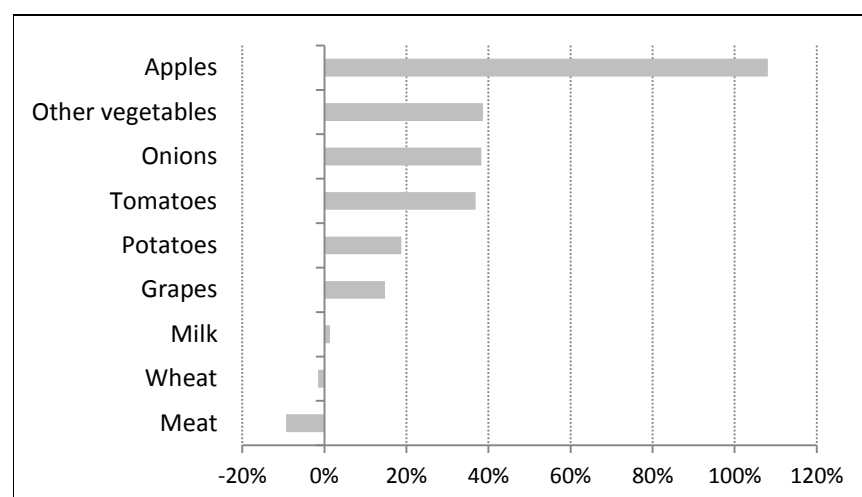


Note: Production in thousand tons. Source: The State Committee on Statistics, Republic of Uzbekistan

### **Domestic and Export Prospects for Horticulture**

6. **Growing domestic incomes and external demand generate new opportunities for the horticulture sector.** Steady economic growth over the last 10 years (including an 8.1% GDP growth rate reported in the third quarter of 2012), supplemented by strong population increase (at an annual rate of 2.7%) has resulted in an expanding domestic market. Moreover, during the next decades, continued growth in income, population and urbanization are expected to continue, feeding an increased domestic demand for horticultural goods. As in other countries, an increase in domestic incomes in Uzbekistan has been accompanied by a shift in the Uzbek dietary preferences. While, traditionally, fresh fruit and vegetables have not comprised a large share in the average diet in Uzbekistan in caloric terms, this is now changing. Figure 5 reports on the change in per capital calories by source between 1996 and 2006, for a selected group of commodities. Taken together, wheat and meat still account for about 60% of calories in a typical Uzbek diets; however their share has declined in recent years. In contrast, spurred by income growth, the consumption of horticultural products is rapidly growing.

**Figure 5: Percentage age changes in per capita consumption, 1996 and 2006**



Note: Source: FAO (2012)

7. **While the prospects are good for continued growth in domestic demand for horticultural products, Uzbekistan is also well positioned to take advantage of the large and growing market for horticultural products in Russia and Kazakhstan.** Russia's population is more than five times larger than that of Uzbekistan, and incomes there are rising fast: Russia's GDP per capita has quadrupled since 1999, to reach USD 17,000 in 2011. Kazakhstan has witnessed a similarly fast economic growth, with incomes reaching more than USD 13,000 per capita in 2011. These two countries are the main destinations for the Uzbek fruits and vegetables and, in 2011, accounted for 93% of the subsector's export revenue, totaling USD 0.7 billion.

### **Production Environment for Horticulture**

8. **Natural endowments, notably excellent climatic conditions, are the foundation of the country's vibrant horticulture subsector.** Warm days and cool nights create an ideal environment for horticulture. The country produces a large variety of fruits and vegetables year-round, including the some tropical cultures, such as persimmons, pomegranates and others. Favorable conditions also reduce problems related to pests and disease. Uzbekistan's climate supports two vegetable crop harvests in most places, and three harvests in some provinces, for instance, Surkhandarya and Kashkadarya. The climate also allows farmers to grow crops with different ripening periods (early, medium, and late) throughout the year. Many farmers use organic fertilizers and the weather also allows high productivity without the heavy use of pesticides. This gives Uzbekistan farmers a comparative advantage to deliver organic high-quality fruit, nuts and vegetables to domestic and high-end export markets.

9. **The agro-climatic conditions that support horticulture in Uzbekistan are found in very few places.** Agro-climatic conditions in Chile, Turkey, and California in the United States support many of the same crops grown in Uzbekistan and these countries are relevant peers when looking at the potential for Uzbek horticulture. For example, the United States, Chile and Turkey and the world's leading exporters of cherries; and Chile and the United States are also the top exporters of fresh grapes. As described later, Uzbekistan has been exporting growing volumes of both crops, and there are good prospects for production to expand. Lessons drawn from how value-chains operate in these countries are therefore useful as the Government of Uzbekistan considers future policies.

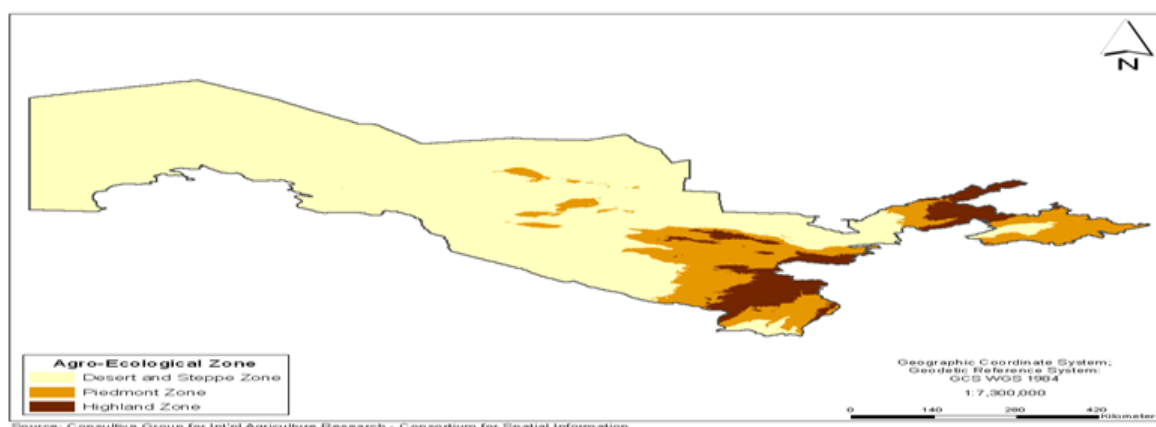
10. **Uzbekistan is rich in genetic resources.** Uzbekistan is home to many food plants (350 species); forage plants (1,700 species); herbal plants (600 species); essential oil plants (650 species); dye plants (150 species); oriental plants (270 species); spice plants (200 species); saponin plants (100

species).<sup>22</sup> What's more many vegetables, fruit trees and nut trees are thought to have originated in Uzbekistan including onions (*allium cepat*), carrots (*Daucus carota*), radishes (*Raphanus sativus*), spinach (*Shpinacia oleraceae*), garden cress (*Lepidium sativum*), coriander (*Coreandrum sativum*), basil (*Ocimum basilicum*), turnips (*Brassica campestris*), apple (*malus sp.*), pear (*pyrus sp.*), apricot (*Armeniaca vulgaris*), almond - *Amigdalus sp.*), walnut (*juglans regia L.*), grapes (*vitus sp.*), pomegranate (*punica granatum L.*) and pistachio (*Pistacia vera L.*). Wild versions of many domestic plants still grow in Uzbekistan's forests and meadows. As is discussed later, this genetic base is not fully documented and it is not fully protected; however, it presents an important potential basis for research-based biological productivity gains.

11. **National and global asset.** There are potentially significant benefits to preserving and fully documenting this rich natural resource. Doing so will likely benefit applied agricultural research in Uzbekistan in the near term, and entering into collaborative arrangements with scientists from other countries can complement and help sustain Uzbekistan's excellent agricultural research centers. Importantly, the likely need for global agriculture to adapt to uncertain changes in the climate also points to the importance of fully protecting and utilizing Uzbek wild flora, as well as the heritage varieties of fruit and vegetables now grown in small gardens that are not common on commercial farms.

12. **Still, the total area best suited for agriculture is limited.** Uzbekistan is divided into three agro-ecological zones (AEZs), as shown in Figure 6. A large part of the country's terrain is primarily desert plains, with about 20% of the territory comprised of mountains and foothills (Centre of Hydro-Meteorological Services, 2008). In the figure, these primary desert plains are lightly shaded and comprise the Desert and Steppe AEZ at 60 to 150 meters above sea level. The country's most fertile areas are shown in a medium shade and make up the Piedmont AEZ at 400 to 1,000 meters above sea level. The remaining areas, shaded in dark brown comprise the Highland AEZ, hilly-to-mountainous areas with interspersed high plains at over 1,000 meters above sea level. The desert and steppe zones are hostile areas for most agriculture. The Highlands receive the most rain (over 1000 millimeters annually), but the area better suited for livestock grazing than for crops. Consequently, most of Uzbekistan annual and permanent crop production resides in the limited areas of the Piedmont AEZ.

**Figure 6: Agro-ecological zones of Uzbekistan.**<sup>23</sup>



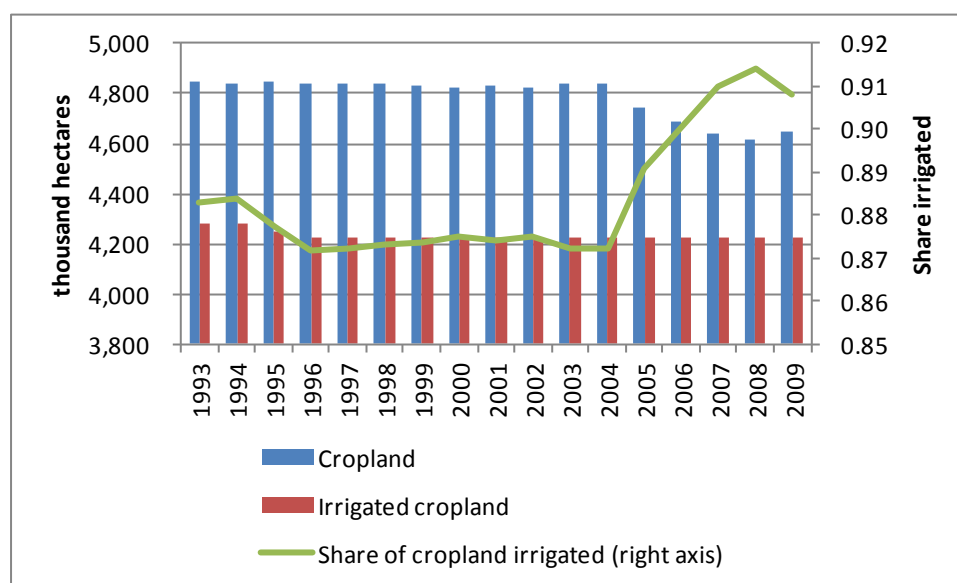
Source: Consultative Group for International Agricultural Research, Consortium for Spatial Information.

<sup>22</sup> Horticultural Crops and Wild Fruit Species (UNEP 2012)

<sup>23</sup> Adapted from: <http://www.fao.org/ag/AGP/AGPC/doc/counprof/Uzbekistan/uzbekistan.htm>; Centre of Hydrometeorological Service, Cabinet of Ministers, 2007. Climate Change and its Impact on Hydrometeorological Processes, Agro-Climatic and Water Resources of the Republic of Uzbekistan, Tashkent; Iglesias, A. et al., 2007. Adaptation to Climate Change in the Agricultural Sector, AEA Energy & Environment, Didcot; & World Bank team analysis of climate change implications.

13. **Most land used for annual and permanent crops is irrigated.** Moreover, the total area under irrigation has remained constant in recent years at the same time that planted rain-fed area has declined (Figure 7). The irrigation network in Uzbekistan is extensive, but in recent years investments in maintaining this infrastructure appear to have decreased. Overall system-wide and on-farm water use efficiency is difficult to estimate, but by most accounts it is much lower than optimal; for instance, it is estimated that only one-quarter of the distribution channels are equipped with anti-seepage lining. Pumping infrastructure is relatively old and, as a result, less energy efficient than newer systems. There are few incentives for application of water saving-technologies because farmers do not see direct costs of water provision; rather, water costs are covered by an overall land tax and are not tied to use of inputs; moreover, water user associations are not well-established.<sup>24</sup> Because of all of these factors, and because of the agro-ecological constraints discussed earlier, it will be difficult to expand the area under horticultural crops without switching land out of other crops.

**Figure 7: Total area and share of irrigated lands**



Source: FAO (2012)

14. **Moreover, Uzbekistan's rich natural environment is constrained by increasing salinity in soils and growing water scarcity.** Keeping in mind that more than 90% of cropland in Uzbekistan is irrigated, Table 1 shows that a significant share of the country's cropland is affected by salinity, although the extent of the problem varies significantly by region. For example, salinity is less of a problem in Samarkand and around Tashkent, areas where horticulture has prospered in recent years, than it is on average. In contrast, about 46% of the irrigated land in the important region of Fergana suffers from salinity.

<sup>24</sup> Reducing the Vulnerability of Uzbekistan's Agricultural Systems to Climate Change: Analysis of Adaptation Options. World Bank Report, May 2011.

**Table 1: Irrigated area with saline soils by region, 2010.**

Location	Total area	Saline area	Share (%)	Low salinity	Share (%)	Medium salinity	Share (%)	High salinity	Share (%)
The Republic of Karakalpakstan	515.0	401.6	78.0	164.2	31.9	185.0	35.9	52.4	10.2
Andijan	265.9	11.1	4.2	6.3	2.4	4.8	1.8		
Bukhara	274.9	239.0	86.9	159.6	58.1	69.2	25.2	10.2	3.7
Jizzakh	300.0	247.1	82.4	161.3	53.8	79.6	26.5	6.2	2.1
Kashkadarya	514.9	242.8	47.2	182.7	35.5	47.3	9.2	12.8	2.5
Navoiy	131.8	115.0	87.3	89.5	67.9	19.8	15.0	5.7	4.3
Namangan	282.5	26.0	9.2	17.8	6.3	7.2	2.5	1.0	0.3
Samarkand	379.2	6.4	1.7	6.0	1.6	0.4	0.1		
Surkhandarya	321.2	103.4	32.2	70.8	22.0	31.7	9.9	0.9	0.3
Syrdarya	292.8	290.1	99.1	225.2	76.9	60.8	20.8	4.1	1.4
Tashkent	393.3	10.1	2.6	7.8	2.0	2.3	0.6	0.03	0.01
Fergana	365.9	168.4	46.0	124.0	33.9	39.7	10.8	4.7	1.3
Khorezm	265.2	265.2	100.0	141.7	53.4	88	33.2	35.5	13.4
<b>Total</b>	<b>4,302.6</b>	<b>2,126.2</b>	<b>49.4</b>	<b>1,356.9</b>	<b>31.5</b>	<b>635.8</b>	<b>14.8</b>	<b>133.5</b>	<b>3.1</b>

Source: State Committee for Land Resources, Geodesy, Cartography and State Cadastre, Republic of Uzbekistan

15. **The shift to horticultural crops has helped since they use less water than cotton.** A recent study by Aldaya, Munoz and Hoekstra (2010) estimate that about 4,426 m<sup>3</sup> of water is required to grow a ton of cotton in Uzbekistan; about 2,068 m<sup>3</sup> of water is required for wheat.<sup>25</sup> Although comparable numbers are not available for Uzbekistan, a study of global water footprints using similar methodology (Mekonnen and Hoekstra, 2010) suggests horticultural products require substantially less than cotton and in some cases less than wheat.<sup>26</sup> For example, grapes require, on average, 2,400 cubic meters of water per ton, while apples require about 820 cubic meters. As discussed later, new orchards in Uzbekistan generally employ new and efficient drip irrigation technologies and therefore most likely less water than international average values would suggest. In economic terms, based on these conservative estimates, a cubic meter of water used to irrigate grapes in Fergana generates 625 UZS, compared to 169 UZS for cotton. A cubic meter of water in Samarkand used to grow apples generates UZS 1,829, compared to UZS 169 for wheat.

16. **The farm structure in Uzbekistan has gone through a series of changes following independence.** The reforms began with the restructuring of state and collective farms established during the Soviet era. Between 1990 and 1998, the state farms were converted into various economic entities, mainly lease-based collective farms. Starting in 1998, the former state and collective farms were converted into cooperative farms (*shirkats*), where the production assets were managed by families, who held ownership shares, under overall leadership of the head of the shirkat. Some shirkats operated successfully, but often shirkats were managed as they were when they operated as collective farms. Many suffered significant financial losses, which were periodically written off. Between 2002 and 2007, the Government undertook a massive conversion of shirkats into private farms under a series of related resolutions.<sup>27</sup> New farms were created through a bidding process held by a special commission established within District *Hokimiyats* [Governor's Offices].

<sup>25</sup> Aldaya, M.M, G Munoz, and A.Y. Hoekstra. 2010. Water footprint of cotton, wheat and rice production in Central Asia. Value of Water Research Report Series Number 41. Delft, Netherlands: UNESCO-IHE

<sup>26</sup> Mekonnen, M.M., and A.Y. Hoekstra. 2010. The green, blue and grey water footprint of crops and derived crop products. volume 1: main report. Value of Water Research Report Series Number 47. Delft, Netherlands: UNESCO-IHE

<sup>27</sup> Resolution of the Cabinet of Ministers of the Republic of Uzbekistan Number 8 "On Measures to Reorganize Agricultural Enterprises into Farms," January 5, 2002. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan Number 476 "On Measures to Implement the Development Concept for Farms for 2004—2006," October 30, 2003. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan Number 607 "On

17. **Agricultural land is also held in the form of dehkan farms.** Carved out from lands previously operated as state and collective farms, dehkan farms are small-scale operations largely based on household labor. Citizens living in rural areas for at least three years are entitled to inheritable household plots, areas not larger than 0.35 hectares on irrigated lands, and not larger than 0.5 hectares on rain-fed lands, and not larger than 1 hectare on steppe and desert zones with rain-fed pastures.<sup>28</sup> In addition, some households in urban or peri-urban settings cultivate backyard plots. Dehkan farmers are free to produce what they choose; they do not receive inputs for financial assistance from the state. In contrast to private farms and shirkats, where modern varieties are used, many of the varieties of fruits and vegetables grown on dehkan farms are heritage varieties that appeal to local preferences. In 2010, there were more than 4.7 million dehkan farms. They occupied about 13% of irrigated arable land and produced 63% of gross agricultural output (State Statistics Committee of the Republic of Uzbekistan, 2010).

18. **Beginning from 2004, a lease-based land use system was introduced for all forms of farming entities, except for dehkan farms.**<sup>29</sup> Land plots are allocated to farmers on long-term lease from 30 to 50 years, with the minimum area for cotton and grain farms set at 30 hectares, and vegetable and horticulture farms set at 5 hectares.<sup>30</sup> Although farmers lease land for 50 years, their land use rights are not guaranteed. The right to lease is associated with the fulfillment of a state procurement order on cotton and wheat, which gives local authorities a strong lever to regulate the terms of lease if a farm does not fulfill the state procurement order.

19. **Starting in 2006, 'agri-firms' were established within the horticultural subsector.**<sup>31</sup> Agri-firms are non-government associations and private firms that participate in the distribution and processing of fruit and vegetables. They are designed to be non-producing firms, but have also on occasions vertically integrated trading or processing with primary production; for example, some tomato processors grow a portion of their own raw material supply, while also purchasing a share from neighbouring farms.<sup>32</sup> As of 2012, there are 267 agri-firms in Uzbekistan.

20. **In recent years, the Government has converted cotton and wheat farms into horticultural farms.** In particular, in late 2011 (November-December), 112 cotton-and-wheat farms operating on 9.6 hectares of land in Asaka District of Andijan Province, 288 farms operating on 27.5 hectares of land in Jambay District of Samarkand Province, 113 farms operating on 14.7 hectares of land in Yangiyul District of Tashkent Province were converted into farms specializing in the production of vegetables, melons, horticultural products, grapes and other crops. The net effect of the restructuring of farm size and the reallocation of farms among crops has resulted in the following farm structure in Uzbekistan (Table 2).

21. **Policy interactions.** It is worth pointing out that the parallel policy regimes that treat horticultural products differently than wheat or cotton have spillover effects. An important channel for this has to do with differences in growing season. In general, wheat in Uzbekistan is harvested in June, leaving land (and water) available from July to November, during which time farmers frequently grow other crops, mostly vegetables. In contrast, cotton occupies the land for the entire year. Consequently, wheat farmers benefit partially from the currently favorable environment for

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Measures for Accelerated Development of Farms in 2005 — 2007," December 24, 2004. Presidential Resolution "On Organizational Measures to Reform Horticulture and Viticulture," January 11, 2006, Number PP-255.

<sup>28</sup> Law of the Republic of Uzbekistan "On Dehkan Farms," April 1998.

<sup>29</sup> Resolution of the Cabinet of Ministers of the Republic of Uzbekistan Number 486 "On Measures to Further Develop Lease Relations in Agriculture" dd. November 3, 2003.

<sup>30</sup> Law of the Republic of Uzbekistan "On Farms" (as amended), 2004.

<sup>31</sup> Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On Approving the Provisions for the Establishment and Operation of Agro-Industrial Firms on Horticulture and Viticulture," March 10, 2006, Number 42.

<sup>32</sup> UNDP (2009). Investment guide to the food processing sector in Uzbekistan. Tashkent.

horticulture discussed in this report while cotton farmers do not. Another important connection comes through the input subsidies received for wheat and cotton production. Anecdotal evidence suggests that financing and input supplies intended for wheat and cotton are sometimes used for other crops, including horticultural crops.



**Table 2: Private farm structure, 2010.**

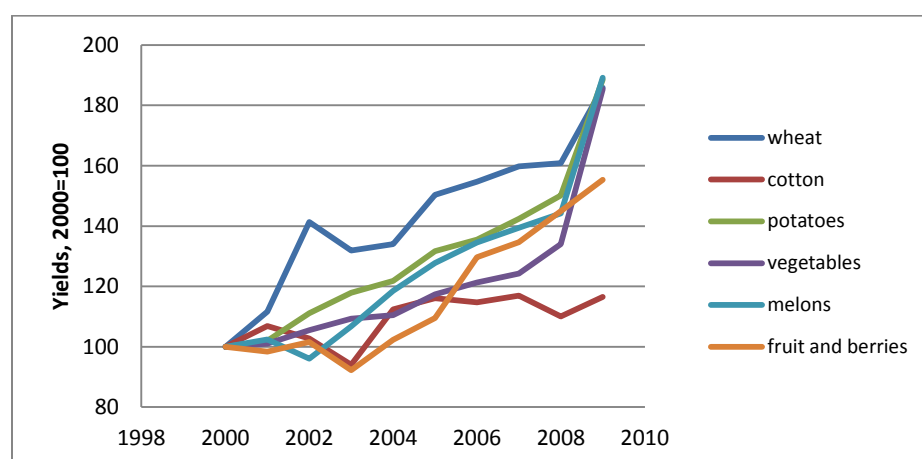
Regions	All private farms		Cotton and wheat		Vegetables and melons		Fruit, incl. grapes		Livestock		Other	
	Number	Avg. size	Number	Avg. size	Number	Avg. size	Number	Avg. size	Number	Avg. size	Number	Avg. size
Rep. of Karakalpakstan	3,354	126.9	2,653	142.9	168	29	141	8.8	316	120.6	76	28.8
Andijan	6,175	36.3	2,551	75	364	8.6	1,554	10.1	436	20.7	1,270	4
Bukhara	3,953	184.6	2,679	122.5	67	10.3	642	8.2	508	778.4	57	2.8
Jizzakh	4,735	102.8	3,716	118.1	147	17.9	492	20	332	101.9	48	31.2
Kashkadarya	7,139	101.7	5,266	112.8	307	29.5	1,079	18.8	429	237.8	58	6.7
Navoiy	1,801	119.8	1,158	104.8	17	8.7	264	27.7	324	261.9	38	53
Namangan	4,515	50.9	2,377	83.3	119	12.3	1445	12.2	240	41.6	334	9.1
Samarkand	7,723	64.4	3,013	122.3	1,519	29.5	1,968	15.9	425	58.2	798	35
Surkhandarya	4,951	122.4	2,490	110.4	0	0	1,576	17.5	701	422.3	184	41.7
Syrdarya	3,319	71.8	2,459	88	15	12	377	9.2	232	38.7	236	39.6
Tashkent	6,051	69.8	2,833	103.6	650	25.4	1,809	19	539	118.7	220	63.2
Fergana	7,737	37	2,709	85.6	259	7.7	4,280	9.1	318	37.1	171	8.2
Khorezm	4,681	44.1	1,992	90.4	15	6.1	1,337	6.3	529	25.5	808	5
Uzbekistan	66,134	80.1	35,896	106.3	3,647	23.5	16,964	13.1	5,329	205	4,298	18.3

Note: Average farm size given in hectares. Source: Ministry of Agriculture and Water Resources, Republic of Uzbekistan

22. The governance structures of dehkan farms and private horticultural farms are different from those under which private wheat and cotton farms operate. As discussed, dehkan farms operate on lands for which they hold inheritable use rights, while other farms operate under long-term leases from the government. Dehkan farmers make independent decisions about what they produce and sell and receive no direct material support from the government. Larger private farms growing cotton and wheat are obliged to meet production quotas with the real potential that their leases will be canceled or modified if they under-perform. In contrast, private farms specializing in horticulture are not subject to production quotas and they are given wider latitude to decide what they produce.

23. **Productivity growth has also influenced the structure of agriculture in Uzbekistan.** Constrained by water and land resources, the growth in agriculture was driven in large part by yield gains. In fact, the capacity to sustain growth via productivity gains has been a strength for Uzbek agriculture on the whole and reflects well on the country's strong commitment to basic and applied agricultural science. As shown in Figure 8, land productivity gains were widespread and, with the exception of cotton, yields are up by more than 50% for all of the major crops since 2000.

**Figure 8: Yield gains for major crops in Uzbekistan, 2000-2010.**



Source: State Statistics Committee, Republic of Uzbekistan

24. **Strong research institutions have helped sustain productivity growth.** Research related to fruit trees, grapes and wine making is managed by the Schroeder Institute, formally titled “The Uzbek Research Institute of Horticulture, Viticulture and Wine-Making Named after R.R. Schroeder”.<sup>33</sup> The Institute has operated for 70 years, has branches in each region of the country, and has a well-established production and research capacity. The main tasks of the Science and Production Corporation section of the Institute include: i) increasing the level of research leading to new highly productive varieties of fruits and grapes, and to the development and implementation effective technologies in horticulture, viticulture and wine-making; ii) providing incentives for research fellows, specialists and other employees depending on their concrete contribution to science and practice; iv) cooperating with foreign countries in the area of research and implementing their developments. Since Uzbekistan's independence, the Institute created 28 new varieties of fruits and grapes.

<sup>33</sup> The duties of the Schroeder Institute are laid out in a Resolution of the Cabinet of Ministers dated August 14, 1995, Number 315, "On Deeper Integration of Science and Production in Horticulture and Viticulture of Uzbekistan."

25. Research on horticultural field crops, including melons and potatoes is managed by the Uzbek Research Institute for Vegetables, Melons and Potatoes (RIVMP). The RIVMP is also a long-standing research center, having been established in 1933. RIVMP's main activities include: helping Uzbekistan's farmers and dehkan operators produce high quality profitable crops of vegetables, melons and potatoes through systematic evidence-based improvements of crop cultivation and storage processes; creating of new varieties and hybrids of vegetables, melons and potatoes, organizing their primary seed production, creating local varieties gene pool, developing high yielding cultivation technologies, designing activities on pests, diseases and weeds control, designing activities to achieve sustainable crops and developing technologies to obtain environmentally friendly products; designing agricultural activities in the context of Uzbekistan's climatic conditions; promoting the wide application of scientific achievements and best practices; testing new machine complexes to be introduced in vegetable production; supplying specialized vegetable seed farms with high-quality seeds; provide for the professional development for specialists and members of specialized vegetable seed farms of the country; training highly qualified research personnel (doctors and candidates of sciences); organizing important workshops, conferences, meetings and symposia on vegeculture, melon and potato production; introducing new scientific developments to large farms and dehkan households producing vegetables, melons and potatoes; providing guidance and systematic consultation services to these farms; establishment and expansion of foreign economic, scientific and technological relationships and joint ventures; and improving vegetable production using all kinds of mediation. In the last 15 years, the institute created 44 new varieties, including 11 varieties of tomatoes, 3 varieties of cabbage, 3 varieties of onions, 2 varieties of carrots, 2 varieties of cucumbers, 7 varieties of green vegetables, 8 varieties of melons, and 3 varieties of watermelons.

26. **Taken together, changes in land policy, productivity and incentives have led to a greater role for horticulture.** Broadly, the composition of agricultural output in national income mirrors productivity gains and land reallocation outcomes, with only cotton declining in output since 1990 (Table 3). That having been said, it is worth noting that a policy environment supporting a reallocation of land and water resources out of grains and cotton is relatively new and to date has been limited to targeted districts. At the margin, results from the farm model exercise suggest that there is further opportunity for productive reallocation of resources. As a consequence, it may be that the observed changes in the commodity-composition of production do not capture what would occur, were the policy granting farmers greater autonomy expanded.

**Table 3: The shifting composition of agricultural production in Uzbekistan, 1990 to 2010.**

	1990		2000		2010	
	Volume	Share GDP	Volume	Share GDP	Volume	Share GDP
Agriculture		33.4		30.1		17.5
Selected crops						
Raw cotton	5,057.70	0.03	3,002.40	3.60	3,442.80	1.90
Grains	2,038.20	1.40	4,101.40	3.40	7,504.30	2.00
Potatoes	336.40	0.30	731.10	0.80	1,694.80	1.40
Vegetables	2,842.50	1.30	2,644.70	2.40	6,346.50	2.30
Melons	1,000.00	0.50	451.40	0.30	1,182.40	0.30
Fruit	660.40	0.70	790.90	0.90	1,710.30	1.10
Grapes	744.70	0.80	624.20	0.80	987.30	0.90

Note: Output is given in thousand tons; shares are measured in% ages. Source: State Statistics Committee, Republic of Uzbekistan.

27. Uzbekistan yields of major horticultural crops remain below those of other leading producing countries. For example, with respect to major fruit crops, Uzbek grape yields (in average over 2010-2012) were 37% lower than in Chile, 44% lower than in USA, and 46% lower than in Brazil (Table 4). At the same time, Uzbek apple yields were 38% lower than in Turkey, 72% lower than in France, and 75% lower than in Chile. As for major vegetable crops, Uzbek potato yields were lower 20% than Turkey, 43%

lower than in France, and 63% lower than in Chile. Lastly, tomato yields in Uzbekistan were 36% lower than in Brazil, 48% lower than in USA, and 55% lower than in France.

**Table 4: Yields average, 2010-2012 (tons/ha)**

Crop	Brazil	Chile	France	Turkey	USA	Uzbekistan
<b>Almonds</b>		2.8	0.6	3.2	3.2	3.0
<b>Apples</b>	34.3	45.1	40.3	17.9	31.1	11.0
<b>Apricots</b>		10.5	11.8	10.8	11.9	9.6
<b>Cherries</b>		5.4	4.3	9.9	9.3	9.4
<b>Cucumbers</b>		24.0	76.2	28.3	16.3	38.6
<b>Grapes</b>	17.8	15.3	7.7	9.1	17.4	9.6
<b>Peaches</b>	11.4	17.1	23.3	19.7	20.2	10.2
<b>Pears</b>	11.9	29.0	24.6	12.0	35.9	7.7
<b>Potatoes</b>	26.5	67.5	43.4	30.8	43.9	24.6
<b>Tomatoes</b>	61.0	67.5	97.1	34.8	84.8	43.3

*Source:* Author's calculations based on FAOSTAT data

## Horticulture is Highly Profitable

28. **A summary evaluation of on-farm incentives for annual crops is given in Table 5.** The table summarizes the findings for selected field crops from the study areas, for private farms (PF) and dehkan farms (DF). In comparison to wheat and cotton, horticultural crops generate higher revenue, higher costs and higher profits. Horticultural activities are especially profitable on dehkan farms, which rely on family labor. This is significant, since dehkan farm families tend to have lower levels of income and tend to use income from their plot to supplement income from wages and other sources of income.<sup>34</sup>

**Table 5: Estimated revenue, operational costs and profit margins for selected field crops.**

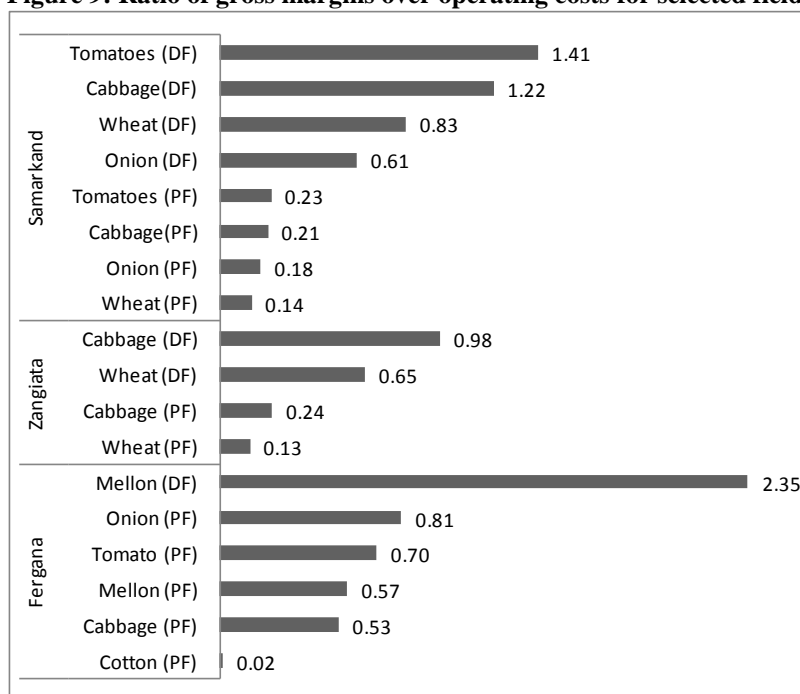
Region and crop	Revenue	Operational costs	Gross margins
<b>Fergana</b>			
Cabbage (PF)	6,750	4,411	2,339
Tomato (PF)	7,700	4,529	3,171
Onion (PF)	8,800	4,864	3,936
Cotton (PF)	2,625	2,582	43
Mellon (PF)	7,200	4,590	2,610
Mellon (DF)	8,000	2,389	5,611
<b>Zangiata</b>			
Cabbage (PF)	6,300	5,098	1,202
Cabbage (DF)	6,300	3,185	3,115
Wheat (PF)	1,680	1,480	200
Wheat (DF)	1,800	1,093	707
<b>Samarkand</b>			
Onion (PF)	7,400	6,249	1,151
Onion (DF)	8,140	5,052	3,088
Tomatoes (PF)	6,771	5,510	1,261
Tomatoes (DF)	8,000	3,314	4,686
Cabbage(PF)	6,820	5,617	1,203
Cabbage(DF)	6,820	3,077	3,743
Wheat (PF)	1,690	1,479	211
Wheat (DF)	1,925	1,053	872

Note: Values are in thousand UZS per hectare.

<sup>34</sup> Lerman, Zvi. 2008. Agricultural development in Central Asia: A survey of Uzbekistan, 2007–2008. Eurasian Geography and Economics 48(4), 481-505.

29. **For horticultural crops, profits relative to input costs are high compared to wheat and cotton.** Figure 9 illustrates the incentives private and dehkan farmers have for moving out of wheat and cotton and into horticulture when it is feasible to do so. The ratio of gross margins to operational costs for wheat is 0.14 in Samarkand and 0.13 in the Zangiata district of Tashkent; the ratio for cotton in Fergana is 0.02. In contrast, the ratio for alternative horticultural crops is consistently higher, with gross margins exceeding operating costs by more than 100% for crops like tomatoes and melons on dehkan farms. Private farmers growing horticultural goods also did better than their counterparts who grew wheat or cotton. In Fergana, revenues exceeded costs by more than 50% for onions, tomatoes, melons and cabbage.

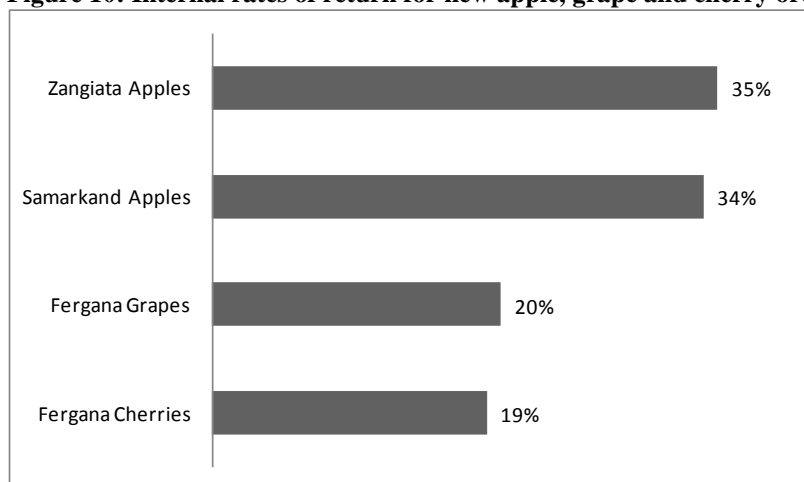
**Figure 9: Ratio of gross margins over operating costs for selected field crops.**



Source: field surveys

30. **Rates of return are high for new orchards.** The returns to establishing new orchards are high, although revenues are delayed. For new breeds of apples, trees begin bearing fruit after two year; however, in the case of cherries, farmers must be able to carry the orchard costs for up to eight years Even so, calculated internal rates of return for apples, cherries and grapes are uniformly high in the study regions, at 19 to 20% for cherries and grapes in Fergana, and 34 to 35% for apples in Samarkand and Zangiata (Figure 10). In the analysis, borrowing rates are set at 12%, so another way of looking at profitability is to calculate the ratio of the discounted value of net benefits to the discounted value of discounted costs. The cost-benefit ratios are as follows: Zangiata apples: 2.17; Samarkand apples: 2.14; Fergana cherries: 1.51; and Fergana grapes: 1.43.

**Figure 10: Internal rates of return for new apple, grape and cherry orchards.**



Source: field surveys. Note: returns are based on costs and revenues over a 15-year period. Cost of borrowing set at 12%.

31. **New orchards include significant investments in capital intensive technologies.** The implemented technologies behind the high rates of return are modern and capital intensive. For example, the investment costs of establishing a cherry orchard in Fergana were estimated at nearly 10 million UZS (\$US 5,300) per hectare. This included purchasing and planting saplings, preparing the land, purchasing and installing drip irrigation networks. (See the annex tables for details on this and other orchard crops.)

## **Horticulture Marketing**

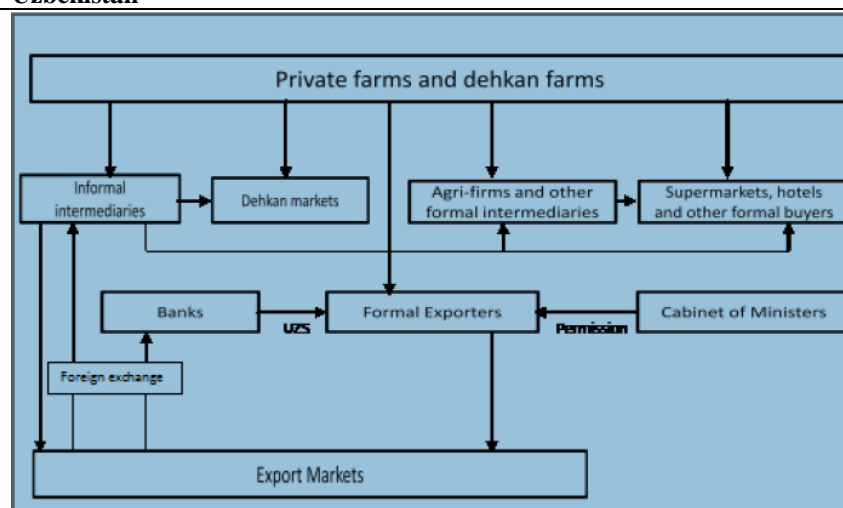
32. **Value chains from farmgate to destination markets.** Currently, a number of market channels for horticultural products coexist. Most horticultural goods are destined for domestic markets. It is only recently that private farms have become significant players in the subsector and a large share of horticultural production still moves along informal market channels, based on cash transactions and personal relationships, which serve small and dispersed dehkan farms well. Still, export and processing markets are growing rapidly and these markets generally do best when marketing channels are more formal contractual arrangements among buyers and sellers. The Government of Uzbekistan has taken positive steps to put in place the types institutions needed to safeguard and certify the quality and safety of products for the subsector, and to improve the speed of the provision of those services, although work still remains. Analysis of the value chain suggests that there is scope for reducing costs related to transportation and product loss, but the analysis also indicates there are plenty of opportunities to expand exports. Uzbekistan's favorable agro-climatic conditions set the stage for the country's entry into high-end markets, including organic markets. Investments are needed, starting with farm-level investments to modernize post-harvest losses. While policies overall favor the subsector, some policies undercut efforts to build export markets based on a reputation for quality and reliability. Chief among is the need to seek export permission; the infrequent but harmful practice of blocking exports and currency regulations undermine positive economic incentives and encourage the prevailing use of informal market channels.

33. **Formal and informal markets operate side by side.** Historically, a large portion of horticulture production originated on dehkan farms and this gave rise to an extensive and informal marketing chain, well suited to serving local markets from dispersed sources. Now, an increased portion of the production occurs on larger private farms that focus exclusively on commercial markets. As a consequence, new marketing channels are emerging that coexist with traditional markets, which together serve dehkan and private farms, local markets, processors, and export markets (Figure 11).

34. In general, horticultural goods originating on dehkan farms are more likely to be consumed at home or sent to local markets, either directly or through local intermediaries. Private farms are more likely to sell to processors and higher-end destinations, including firms that produce juice, pasta sauce or the dried vegetables that are used for soup. There is also a nascent market formal market for supermarkets, hotels and restaurants that receive goods from private farms or intermediaries. However,

these are generalizations, and goods originating on either type of farm can flow through either channel. Moreover, intermediaries, formal and informal, are present who direct goods to whichever market offers better terms.

**Figure 11: Formal and informal marketing channels for horticulture in Uzbekistan**



Source: World Bank

35. **Market incentives, the performance of institutions and policies all influence whether formal or informal markets are used.** Formal markets rely more on contracts and quality standards; this reduces the reliance on personal relationships and spot markets, and permits the coordination of future sales and deliveries. This capacity is especially important for fresh products destined for export, since efficient logistical chains are needed to deliver high quality produce quickly. Moreover, well defined food safety standards, embodied in contracts and certified through private and public institutions, address risks to public health and the reputations of growers, exporters, groceries and restaurants. Branding, also contract-based and backed by public and private institutions, allows markets to expand by building on performance and quality. Said differently, the characteristics of formal markets become essential for horticultural goods to enter high-value and distant markets. In turn, the ability of government institutions in support of private agents is crucial as well. Even so, there are some advantages to using traditional and informal market channels. Some are intrinsic; for example, informal markets are well matched with the informal dispersed production from dehkan farms where household sales are often reactive and opportunistic, made in response to household needs or to short-term changes in market conditions. But sometimes advantages stem from the unintended consequences of government policy, since informal agents are willing and able to skirt tax payments, export and import controls, quality and safety standards, and currency regulations.

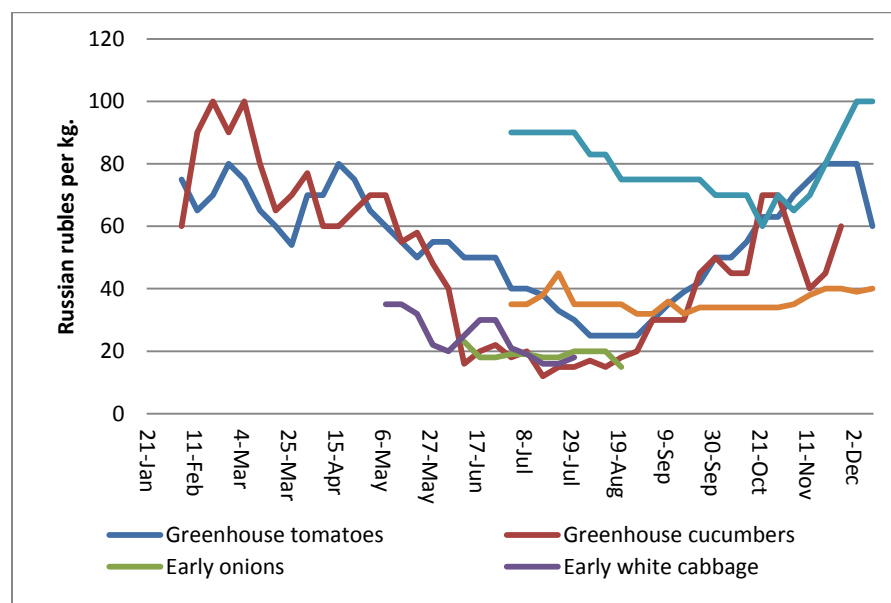
36. **Boosted by higher prices and growing volumes, export revenue from horticulture is growing.** Although the share of horticultural goods destined for export markets is changing slowly, increases in volumes and prices have meant that export earnings are growing rapidly. Table 6 shows that the value of horticultural exports tripled between 2006 and 2010. In 2010. In addition, the trends show that been especially concentrated in places like Tashkent and Samarkand with good access to large domestic markets and a growing agricultural processing industry.

**Table 6: Value of horticultural exports, by region (thousand \$US), 2006-2010**

	2006	2008	2010
The Republic of Karakalpakstan	2,919.7	165.0	1,901.1
Andijan	36,259.2	2,131.2	134.9
Bukhara	2,420.5	307.1	5,460.5
Jizzax	3,728.3	1,398.3	8,916.6
Kashkadarya	4,156.6	2,609.0	3,983.0
Navoiy	141.5	0.3	676.9
Namandgan	11,821.8	4,071.0	147.4
Samarkand	61,721.3	106,604.1	200,857.3
Surkhandarya	23,451.9	20,015.5	19,238.2
Syrdarya	10,360.5	22,722.8	12,888.0
Tashkent	93,897.2	105,566.0	541,419.3
Ferghana	61,025.3	29,050.2	18,102.2
Khorezm	1,427.2	4,565.6	8,084.2
Tashkent City	62,871.3	94,068.4	331,288.4
Total for the country	373,282.6	393,109.5	1,155,247.5

Source: Ministry of Agriculture and Water Resources and the State Customs Committee, Republic of Uzbekistan

37. **Opportunities in export markets are seasonal.** There are also seasonal variations in the prices in destination markets. As mentioned, this often creates an opportunity for Uzbek horticultural products, especially in Russia, since Uzbek products can reach markets there ahead of domestic crops and supplies from competitors. For example, Moscow grape and cucumber prices, show in Figure 12, remain high during winter months and early Spring, but fall by half during the summer months. Still, current rules governing horticultural exports sometimes make it difficult for farmers to benefit from seasonal high prices abroad.

**Figure 12: Seasonal price variation in Moscow prices for selected horticultural items, 2010.**

Source: Fruit-Inform

38. Sometimes, the actions of institutions meant to protect consumers and producers can have unintentional consequences that slow the development of high-value market chains in horticulture. In Uzbekistan, exports of horticultural products are carried out with the permission of the Cabinet of Ministers Working Group, established by the Resolution of the Cabinet of Ministers, Number 238, dated

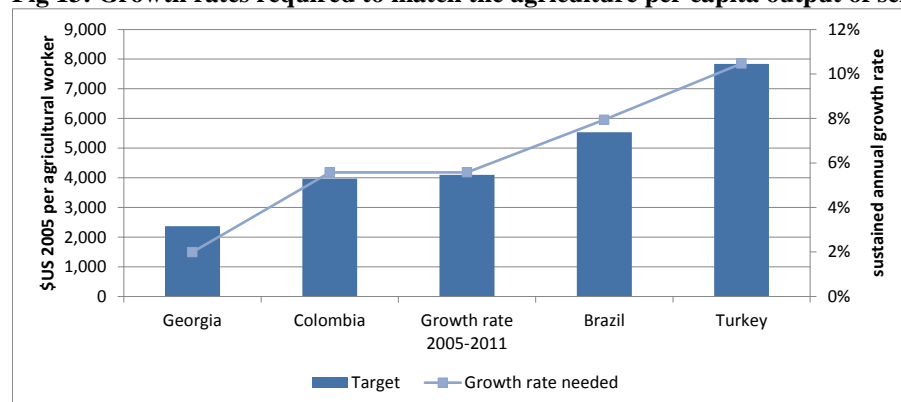


August 20, 2009, and is charged with the following tasks: i) to address the issues of stable and continuous supply of the domestic consumer market with fruits, vegetables, melons, potatoes, grapes and beans in required quantities and assortments, as well as monitor the prices of these products; ii) to improve and implement basic forecast tools for fruit, vegetables, melons, potatoes and grapes demand and supply; iii) to determine the volumes and assortment of fruits, vegetables, melons and grapes offered for exports under the approved forecast parameters, as well as to consider proposals from Uzulgurjisavdoinvest Association and the territorial joint-stock companies of Matlubotsavdo on the exports of products in justified volumes, varieties and with a reasonable price factor; and iv) to promptly resolve any issues related to the organization of transport, timely arrangements for cars and refrigerators, customs clearance and reporting on the shipment of fruits, vegetables, melons and grapes for exports. In the case of horticultural products the Cabinet carry out its mandate, formal export channels are restricted to approved companies, which can impede competition.

39. **The consequences of export restrictions.** While the Government tries to avoid disruptions of existing contracts, the system works to discourage the development of marketing channels that reach premium markets. The rules provide a mandate for the Working Group to consider local markets and this means that foreign buyers may be unable to obtain their product should domestic prices in Uzbekistan rise. For cash wholesale markets, this creates a loss of business and income, but does not do lasting damage, since the purpose of wholesale markets is to clear spot demand and supply. But for grocery chains or other high-end buyers are interested in consistent quality and the smooth delivery of product, this makes an unreliable source, and undermines efforts to invest in quality and safety procedures that are primarily relevant for export destinations. Export restrictions also work to discourage new investments on the farm. Peak seasonal prices in Uzbekistan correspond to peak prices in export destination markets as well. In the longer term, private and dehkan farmers might be willing to expand production in order to take advantage of both sources of peak revenue, but limiting exports to favor domestic markets blunts incentives to invest in new orchards or more productive technologies.

40. In Vision 2030, the Government of Uzbekistan announced an aggressive development strategy with the objective of becoming a middle-income country by 2030, which implies a ten-fold increase in per capita income. As discussed, growth in agriculture has contributed significantly to the Uzbek economy and the well-being of its rural communities. Between 2005 and 2011 value added per agricultural worker grew at an annual exponential growth rate of nearly 5.6% (Figure 13). Sustaining these rates for 15 years will bring per capita value added to current levels in Colombia. Accelerating growth slightly, will put labor productivity levels in Uzbekistan on par with Brazil. Rapid growth will put labor productivity on par with Turkey.

**Fig 13: Growth rates required to match the agriculture per capita output of selected middle income countries.**



41. A recent Horticulture Policy Note (Report No. ACS4703) offered a several recommendations to help the Government achieve leverage the horticulture sub-sector in pursuit of its 2030 Vision.

### **Recommendations to improve productivity**

42. **Protecting genetic resources and conducting related research.** Broadly, there are three groups of important horticultural genetic resources in Uzbekistan. Studied varieties cataloged at Uzbekistan's two long-standing research centers, the Schroeder Institute and RIVMP comprise the first. Another important source is contained in the heritage varieties of fruits and vegetables grown on the small dehkan farms throughout Uzbekistan. Wild varieties of plants in Uzbekistan's forests and meadows, some of which are the progenitors of modern domesticated fruits, nuts, and vegetables, make up the final group. The three groups differ in the extent to which they are documented, studied, preserved and protected. Both research institutes and donor sponsored programs are engaged in identifying and protecting these resources, but there does not appear to be a coordinated program to do so. Schroeder and RIVMP are well positioned to expand basic scientific programs related to these sources and attract international researchers through partnership with other academic institutions.

43. **Restoring land and improving water resource management.** As discussed, land and water resources are limited in Uzbekistan and some of the land resources are denigrated. The shift of land into horticulture has also been associated with the adoption of improved irrigation techniques. On-going projects aimed at land restoration and improved water management are underway and it will be important to use lessons learned in future projects and the use the knowledge gained to adopt standards that prevent salinity problems in places like Tashkent and Samarkand, where new irrigation systems are going in to support an expanding horticultural subsector.

44. **Sustaining domestic improvements in production technologies, and finding innovative ways to deliver extension services.** The agriculture sector has benefited greatly from past investments in basic and applied agricultural research. It will be important to sustain and fully equip the Schroeder Institute and RIVMP. Horticultural products are grown on 4.7 million dehkan farms and 66,000 private farms. As discussed, the horticultural sector is expanding and much of the new area being brought under production relies on new varieties and modern techniques. Moreover, improvements in post-harvest and quality management, which begin at the farm, are needed to take advantage of growing and profitable export markets. There is no traditional extension service in Uzbekistan, although regional offices of RIVMP and the Schroeder Institute engage in training and showcase farming practices, and donors such as USAID have programs aimed at providing basic training on good crop husbandry. Numerous equipment fairs are held as well. It will be important to draw on lessons stemming from these various practices to find effective ways to deliver production and marketing information to Uzbekistan's many farmers.

45. **Sustaining support for new investments.** The Government of Uzbekistan has successfully promoted the expansion of private input markets and helped remove unnecessary obstacles to the importation of equipment and planting materials. Private investment in storage and processing is on the rise as well. Still, the increased importance of private investment in agriculture is relatively new and it will be important to continue to support private investment and competition and make continued improvements to the supportive programs.

46. **Expanding the successful program of granting farmers greater autonomy.** As a consequence of Government policy, horticultural producers have greater latitude in deciding what they produce and how they produce it. The policy has proven very successful and this note documents how farm revenue and export revenue have grown as a result. It is strongly recommended that the Government find ways to expand the policy of granting farmers greater autonomy concerning production choices. In particular,

changes that permit private farmers to shift from cotton to other crops can improve farmer incomes, reduce the demand for limited water resources, and mitigate contentious labor practices. Putting in place baseline measures by surveying farms and rural households to document the effects of the program's expansion on incomes and resource use can facilitate ex post evaluations and help guide Government on the appropriate pace of reform.

47. **Facilitating land markets.** The farm budget models developed in this note suggest that both dehkan farms and private farms can be highly productive and that productivity can differ for farms of the same size in different regions. Trying to find the “right” farm size through top-down land optimization reforms has been partly successful; however it is likely that further adjustment could improve outcomes, especially if successful dehkan and private farmers are allowed to expand. To that end, the Government may want to seek out ways of supporting more flexible land markets.

48. **Provide the kinds of support and services that allow people moving from rural areas to be productive in urban settings and protect the disadvantaged.** Over the next decades, a greater share of the population will move from rural to urban centers. Putting in place health and education programs that prepare young people for productive employment and linking rural communities through infrastructure investments in transport and communications will help spur productivity growth both in agriculture and other sectors.

49. **Better measurements.** Better surveys and evaluations can help policy makers access the impact of programs and identify disadvantaged households. In turn, this information can be used to see if the economy is on track to meet its Vision 2030 goals and to make adjustments as needed.

### **Recommendations to support high-value export markets**

50. **Strengthening support for quality and food safety standards.** Horticultural products that merit quality and food safety certification can earn price premiums and gain access to markets that would otherwise be closed. The Government of Uzbekistan has made good progress in promoting standards and reducing certification barriers, but more can be done to implement the type of standards needed to enter the EU and other high-end markets. Russia's ascension to WTO member status is likely to add urgency since Uzbek products will need to compete on quality grounds, once the currently preferential tariff treatment for Uzbek horticultural goods is negated. Moreover, Russia's membership will likely accelerate the growth of supermarkets that value quality and safety certifications. In particular, the Government of Uzbekistan may want to work with donors on enhancing food safety standards consistent with WTO standards, and creating a framework that supports private sector voluntary HACCP systems. Priority should be given to high potential crops, such as cherries, grapes, melons and organics. The World Bank is in a position to help since it has assisted other countries implement improved food safety frameworks.

51. **Building a brand for Uzbek horticulture.** Creating an Uzbek brand can help take advantage of efforts that improve the quality and safety of the country's horticultural products by opening up new markets. Industry-led, government facilitated lessons from Chile are especially relevant.

52. **Continuing to improve private market access productivity enhancing equipment and foreign capital.** The Government of Uzbekistan has moved to ease hurdles related to the importation of the equipment needed to improve the quality and safety of horticultural products. The Government may want to review current practices and seek input from exporters and processors about improving them. Joint partnerships often help horticultural processors and other firms enter new markets. This is because partners often bring with them know-how related to destination standards, preferences and distribution channels. Foreign firms also often provide capital and access to credit lines. The Government may want to

review current rules and practices regarding foreign direct investment in the horticultural subsector in order to further facilitate foreign participation.

**Recommendations aimed at eliminating unintended incentives that discourage high-value marketing chains**

53. **Eliminating export restrictions.** Export bans and restrictions brought about by minimum pricing rules hurt Uzbekistan's reputation as a reliable supplier of quality horticultural goods. They also encourage the use of informal and illegal marketing channels, and this stands in the way of building up the type of formal markets needed to access premium markets, domestically and abroad. The policies create disincentives for producers to expand and they likely channel fresh produce to lower-valued uses. Low level export taxes could provide some protection to local consumers as a second-best option, although this, to a lesser extent, discourages production and the use of formal markets as well.

54. **Promoting competition by bring more firms into the formal export chain.** Uzbek farmers and processing firms would be better served allowing qualified firms to freely engage in the exporting business, thereby creating a competitive environment for their products. The government may want to consider a plan for allowing firm entry in concert with a reduction in export restrictions.

## **Annex 7: Social Analysis**

### **Horticulture Development Project**

1. This social analysis (SA) draws on the results of the Social Assessment prepared for the Horticulture Development Project (HDP) and of the research done in the context of the South Karakalpakstan Water Resources Management Improvement Project (SKWRMIP), the Second Rural Enterprise Support Project (RESP-II) and the Horticulture Policy Note.<sup>35</sup>
2. The Social Assessment for the HDP is based on the secondary and primary data analysis. Secondary data analysis has included literature and relevant document reviews. Primary data has been collected through (i) 12 focus group discussions with commercial and dehkan farmers, and various stakeholders; (ii) 50 in-depth interviews with commercial and dehkan farmers; and (iii) 20 interviews with key stakeholders. The SA aims to identify (i) social issues related to the project; (ii) stakeholders and their possible impact on the project implementation; (iii) risks and (iv) both positive and adverse social impacts on different groups of stakeholders, and particularly on the poor or vulnerable groups in order to design appropriate mitigation measures to be incorporated in the project. The fieldwork was carried out between January and March 2014 in three out of 8 project areas – Andijon, Samarkand and Tashkent regions.
3. The project is expected to generate both direct and indirect positive social impacts. Direct positive impacts relate to the anticipated increased yields and production of goods which could result in creation of new jobs and, respectively, more employment opportunities in rural areas, especially for vulnerable groups; and increased income for farmers involved in the horticulture sector. Indirect positive social impacts include, but are not limited to: improvement of the business environment in the agricultural sector, introduction of advanced agricultural and water management technologies, increased knowledge and skills among farmers on innovative agricultural practices, and contributions to poverty reduction and food safety. Additionally, the project activities comprise trainings and awareness raising concerning child and forced labor. The project design is cognizant of gender issues and strives to reach out to women engaged in the agricultural sector. Measuring female farmer beneficiaries is one of the core project indicators.
4. Agriculture remains an important sector for this country's economy, transitioning increasingly towards crop diversification away from primarily cotton and wheat production. The horticulture sector has grown substantially in the last ten years. It is a source of income for 4.7 million households. These are predominantly dehkan - smaller family operated farms - and increasingly also larger commercial farms. In 2010, an additional 240 thousand hectares of land were reallocated by the government to horticultural production. The horticulture sector has also respectively expanded its share in the national GDP and its export earnings have increased from 373 million USD in 2006 to 1.16 billion USD in 2010.<sup>36</sup> While allocation of land for different categories of crop is regulated by the government, horticultural crops do not fall under state procurement quotas, unlike cotton and wheat. They also enjoy lower taxes. As a result, horticultural activities are especially profitable for farms, particularly for the smaller household-operated dehkan farms that tend to be poorer. There has been a major reduction of poverty in the country in recent years as a result of economic growth including that of the agricultural sector. Rural poverty, however, remains higher than in urban areas. Expanding the horticultural practices and offering more credit line opportunities (along with necessary trainings on innovative agricultural measures and efficient/effective water management) may prove beneficial for a larger, more vulnerable group of farmers and disproportionately poor rural communities.

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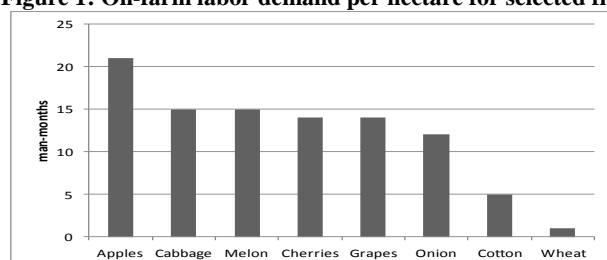
<sup>35</sup> WB. 2013 (February). Republic of Uzbekistan. Strengthening the Horticulture Value Chain. Policy Note.

<sup>36</sup> Ibid.

5. The horticultural activities prove to be economically beneficial even though the initial investment of purchasing new nursery plants and seeds may be high. The returns of establishing orchards are also high even though the revenues are delayed.<sup>37</sup> The project provides access to credit lines, which may assist beneficiaries with the initial investments.

6. Horticultural field crops also require more labor (Figure 1) and, consequently, may offer additional employment opportunities for a rural population. Although the labor generated will remain seasonal due to the intrinsic nature of agriculture, it is dispersed across various crops and the agricultural season, offering opportunities for longer employment. There has been a significant feminization of the agricultural sector due to labor migration of men to urban areas and abroad. The SA notes that despite the fact that 90 percent of all the farms in the country are registered to men, predominantly women work in the fields, and in some cases, even make managerial decisions in the absence of men in the household. Moreover, women tend to work in the informal labor sector, either part-time and/or without any formal labor contract. Consequently, women may receive greater benefit from the additionally created jobs. Variations in the type of employment opportunities generated by the horticultural practices may also appeal to female workers, who may seek supplemental seasonal, rather than primary, employment. Considering the more distributed time demand and absence of state procurement quotas or any other limitations in the horticulture cultivation cycle, these new employment options may appeal to the unemployed and underemployed population in the project areas as well.

**Figure 1: On-farm labor demand per hectare for selected field crops and established orchards**



Source: Uzbekistan - Strengthening the Horticulture Value Chain Policy Note (2013).

7. Along with the positive social impacts of the project, the Social Assessment has highlighted several concerns and potential risks. The first risk is related to competition for land as a limited resource. A number of political-economy and social factors contribute to that. A more significant profitability of the horticulture sector may lead to a greater competition for land and land tenure prioritized in favor of larger farmers or individuals with greater economic and political means, particularly in a context where land registration and acquisition processes may lack transparency. Additionally, limited investment opportunities in the country elevated land as one of the main investment options for the high income population, driving up prices and competition for land. That in turn, may also lead to economic marginalization or even loss of land by smaller and more vulnerable dehkan farmers.

8. Second, the Law on Farming of the Republic of Uzbekistan (article 22) states that there can be no intervention in the operation of a farm from the government or any other entity. The SA indicated that farmers feel that their land tenure is not guaranteed and the government may interfere in their operations. Commercial farmers may lease the land for up to fifty years and dehkan farmers have inherited land ownership. Frequent land and agriculture sector reforms, however, lead to changes in size of land plots, shifting from smaller to larger ones. Re-allocation and re-assessment of land may also result in changes in land designation for different types of crop. Farmers may not have proper documentation for their land,

<sup>37</sup> WB. 2013 (February). Republic of Uzbekistan. Strengthening the Horticulture Value Chain. Policy Note.

leaving them vulnerable to land re-allocations and manipulation. A lack of clarity and certainty regarding land tenure may negatively impact a sense of ownership and willingness to maintain, improve and invest in the land and innovative practices. It may also result on greater disputes over land.

9. Third, the Social Assessment indicated that while the horticulture sector offers significant economic opportunities, it lacks sufficient support and protection mechanisms such as those available to state-supported crops such as cotton and wheat. Farmers have expressed concern that unlike cotton and wheat production, the horticultural sector does not enjoy the same benefits, faces limited long term credit line opportunities, and is ineligible for subsidies and other forms of assistance programs. Smaller farmers experience more challenges than larger ones in accessing credit lines or other development opportunities due to limited resources and capacity. Additionally, there exists no horticulture association that can help advocate on behalf of the horticulture farmers. While the government policies aim to develop horticulture, the farmers engaged in it express low level of stability.

10. Such support or lack thereof, extends also to the stage of production and priority given to cotton and wheat in water allocation. Due to water shortages in the country, water is preferentially allocated to producers of cotton and wheat. The horticulture farmers face a lack of clear water distribution schedules and an insufficient water supply, which negatively impacts their yields.

11. Fourth, while the project aims to improve the horticulture sector throughout the different stages of the value chain (from cultivation to export), the farmers have identified challenges related to: a lack of necessary equipment to cultivate new and/or additional crops, poor and unreliable energy and water supply, high gas prices, price gaps between supplies and the final product, as well as issues tied to the transportation/delivery of product to both domestic and international markets. Expansion of production in the horticultural sectors faces further challenges such as: a lack of sufficient and appropriate storage and processing facilities, high costs of maintaining greenhouses and storage facilities due to high energy prices, and finally government control. Farmers are very cautious in assuming the potential risks inherent in an unpredictable market.

12. Fifth, while farmers believe that they receive sufficient information on crop production, they have expressed a need for greater knowledge sharing regarding crop innovations and how to grow new types of vegetables and fruits. For example, what new methods and technologies of irrigation are available. They also indicated that they need information on where and how to purchase machinery, materials, and spare parts.

13. The project design will address the concerns that have been highlighted in the Social Assessment through activities under its components. The project will work with different research institutions in the country to improve research-extension services and provide information about agricultural innovations, industry standards and market opportunities. The project will establish demonstration plots (open field and greenhouse vegetables and potatoes, fruits & berries, post-harvest handling and storage) to transfer information about new technologies and production methods and improve farmers' access to knowledge, as well as cooperation. The project will also offer opportunities to farmers to access long-term credit lines to invest in their farm production. These credit lines may be particularly attractive for smaller horticulture farmers and agribusinesses that may not have means to secure necessary finances otherwise. The project will encourage the creation of a Fruit and Vegetable Industry Association of Uzbekistan (comprising horticulture farmers and traders) tasked to represent the interests of the horticulture producers in the country on the longer-term. The project will also continue the policy dialogue with the Government to support development of the horticulture sector throughout all the stages of the value chain. Addressing the risks related to land tenure is largely outside of the scope of the project. However, part of the training project beneficiaries will receive will cover their rights as land owners or users.

14. Child and forced labor remains a concern in the agricultural sector in Uzbekistan, particularly in cotton harvesting. Such labor practices appear to be limited to the cotton sector only and are ostensibly driven by a combination of socio-economic factors and the peculiarities of agricultural production arrangements in the cotton sector in Uzbekistan. As the main “centralized crop,” cotton is subject to demanding state procurement quotas. It is a very time sensitive crop that must be harvested within a two month window to preserve its quality. Almost one hundred percent of the cotton grown in the country is handpicked. The demand for laborers to pick cotton is substantial. Farmers growing cotton are unable to mobilize the necessary number of seasonal workers in this limited period of time, due also to the diminished size of the available labor force and insufficient financial incentives for workers. Other crops, including horticulture, which do not have imposed state procurement quotas, operate under different circumstances. While still facing potential labor shortage challenges, the demand for labor in that sector is seasonal, due to the intrinsic nature of agriculture, yet more evenly dispersed throughout the horticulture cultivation cycle. Driven by market conditions and an absence of procurement quotas, horticulture tends to be more profitable, and consequently may offer more competitive wages. Considering these factors, horticulture offers more appealing socio-economic incentives and has been able to attract enough voluntary labor.

15. The project will explicitly engage only in horticulture where child and forced labor issues are uncommon. Nonetheless, to mitigate any potential risks, the project includes awareness raising and training of beneficiaries on the national legislation regarding child and forced labor (including international conventions signed by Uzbekistan). Additionally the project documents require that all beneficiaries (as defined in the Loan Agreement) must comply with all applicable child labor laws and regulations on child and forced labor. The project will also participate in the Third Party Monitoring (TPM) and Feedback Mechanisms (FBM) set up by the World Bank for the agricultural portfolio in the country to focus on issues of child and forced labor in connection with the project activities or within the project area. The TPM/ FBM will be funded by a separate TF. While the Trust Fund is yet to be established, the Bank has an ongoing dialogue with bilateral donors on this agenda and there is wide support for the approach that Bank has adopted for elimination addressing the issue of child and forced labor in connection with World Bank-financed project activities or project areas. It is therefore expected that financial contributions from several bilateral donors for TPM/FBM will be provided. In the event that no funding is secured before project effectiveness, the World Bank’s own administrative budget will initially be used to start the program.

16. On September 23, 2013, the World Bank’s Inspection Panel registered a Request for Inspection concerning the Uzbekistan: Rural Enterprise Support Project – Phase II (RESP II) and its Additional Financing. The Requesters claimed that RESP II harmed those they represent and their communities through the inadequacy of the project’s measures to prevent Bank funds from contributing to “Government orchestrated forced labor” in the cotton sector. In response to the Request, Bank Management did not agree with the allegations that non-compliance with Bank policy caused the harm alleged in the Request. On the contrary, Bank Management stated that RESP II contributes to the country’s diversification away from cotton production, the cultivation of which in many regions of Uzbekistan is associated with severe adverse social impacts including those raised in the Request.

17. The World Bank has been addressing child and forced labor issues in Uzbekistan through a multi-pronged approach, including: (a) pursuing continuous country dialogue and collaboration with international/multilateral agencies and donors to address these issues; (b) sector analytic work and policy dialogue, such as assisting government in formulating its horticulture strategy through the Horticulture Development policy note; and (c) strengthening project-level mitigation measures and binding provisions. Under RESP II, these included awareness raising and training of beneficiaries (e.g., credit line beneficiaries, Water Consumer Associations) on national legislation regarding child labor; provisions in



sub-financing agreements signed between the participating financial institution (PFI) and beneficiaries that require the said beneficiaries to comply with national labor legislation as well as any applicable law and regulation on child labor; monitoring by PFIs and the implementing agency of the use of child and forced labor during the monitoring visits to the beneficiaries, with use of such labor disqualifying the beneficiary from further borrowing from the sub-financing; and supervision/implementation support by the World Bank. Following the Inspection Panel, these provisions and measures have been expanded to include forced labor. In addition, third-party monitoring (TPM) and a feedback mechanism (FBM) will be implemented, including RESP II, to help address potential child and forced labor use in connection with the project activities or within the project areas. The adoption of TPM and FBM has been supported and endorsed by other development partners.

18. The government of Uzbekistan is increasingly moving away from heavy reliance on cotton as its main crop to greater crop diversification. An increasing amount of land is allocated by the state for various agricultural purposes (notably, horticulture) and these are not subject to the state quota system. The Horticulture Development Project (HDP) is aligned with the government's strategy of crop diversification and encouraging horticulture in Uzbekistan. The project focuses exclusively on the horticultural farming and its design includes provisions to minimize the risks of child and forced labor in connection with the project activities or within the project area. First, the project requires beneficiaries to comply with any applicable legislation and regulations on child and forced labor. Second, it includes trainings and awareness raising of beneficiaries on applicable legislation and regulation regarding child and forced labor. In the context of limited information availability, the experience of the RESP II demonstrated that such trainings, outreach and awareness raising activities under project activities are successful in educating the population about applicable laws and regulations on child and forced labor. The project will also benefit from participating in the TPM and FBM, which will focus on child and forced labor issues in connection with the project activities or within the project area.

19. Further details on cotton production, child and forced labor, the Inspection Panel Request, and the TPM/FBM may be found in the annexes to the Project Appraisal Document for the proposed South Karakalpakstan Water Resources Management Improvement Project.

## **Annex 8: OP 10.00/Financial Intermediary Financing Compliance Note**

### **UZBEKISTAN: Horticulture Development Project**

#### **Access to Credit Component**

## **I. GENERAL PROJECT OVERVIEW**

### **Project Summary**

1. The proposed project will contribute to development of the horticulture sector in Uzbekistan, using a comprehensive approach, which will address both the low productivity and limited competitiveness of the sector. **Component 1: Agricultural Support Services** takes an integrated approach toward enabling farmers in the project area to enhance the productivity, improve the quality and enhance post-harvest technologies; and empower the farmers to better understand, adapt and actively be able to seek out and access new and alternative markets. This will be achieved by: (a) strengthening the participating research institutes<sup>38</sup> and plant protection services<sup>39</sup> to provide demand driven, participative technology transfer that will help the farmers to respond to the emerging market opportunities; (b) enhancing farmer's capacity through an extensive training program, and (c) ensuring food safety and quality of the horticulture products.

2. **Component 2: Access to Credit** will improve access to financial services for agribusinesses operating in Uzbekistan's horticulture sector, in particular towards enhanced competitiveness of the sector, improved quality and food safety standards, and establishment of market linkages. The component will finance such investments as new cultivars, seeds/seedlings, water-saving irrigation facilities (such as drip irrigation), cold storage and other cold chain facilities, and value added handling/processing equipment and facilities. The project will also support introduction of new financial products to support development of productive linkages in the sector. **Component 3** will deal with project management. The total financing of the project is US\$150 million, of which US\$111.86 million have been budgeted for Component 2: Access to Credit. Of the US\$111.86 million, US\$111.36 million have been allocated for credit line and US\$0.5 million for Participating Financial Institution (PFI) training activities.

### **Objectives of the project**

3. The project development objective is to enhance the productivity and profitability of the horticulture sector in the project area. This is to be achieved by the implementation of three integrated components, namely (i) agricultural support services; (ii) access to credit; and (iii) project management.

### **Flow of funds**

4. For the purposes of the Credit Line, the World Bank loan funds will be channeled through the Ministry of Finance (MOF) as the Borrower's representative. The implementation of the Access to Finance Component will be carried out by the Rural Restructuring Agency (RRA), which has prior extensive experience in implementing World Bank projects, including with credit lines (Rural Enterprise

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<sup>38</sup> Participating research institutes are – (a) Shredder Institute for Fruit Growing, Viticulture and Winemaking (Mirzayev Institute); (b) The Uzbek Research Institute for Vegetables Melons and Potato (RIVMP); (c) Uzbek Scientific Plant Protection Institute; and (d) “Uzglavgoskarantin” Laboratory Research Center for Plant Quarantine.

<sup>39</sup> Plant Protection Services – under the Ministry of Agriculture and Water Resources.

Support Projects 1 and 2, as well as the Additional Financing to the RESP II – a credit line of US\$40 million). The Ministry of Finance, representing the Borrower, the RRA and each qualified PFI will sign a Subsidiary Loan Agreement for the purposes of implementing the project's credit line. Separate Credit Line Investment Guidelines will determine the criteria, eligible activities, detailed withdrawal procedures, and responsibilities of all parties implementing the Credit Line. Key criteria have been reflected in section V. Onlending Terms of this Note. The PFIs will receive the credit line proceeds under the framework of the Subsidiary Loan Agreement and on-lend to eligible beneficiaries for implementation of eligible sub-projects in accordance with the Credit Line Investment Guidelines and their banking considerations.

### **Additional information**

5. **Project Beneficiaries:** The proposed project will contribute to more inclusive growth by prioritizing support to small and medium sized producers and agribusinesses trying to reach and compete in horticulture markets. The project is expected to reach approximately 8,000 farmers with the total land area of about 120,000 ha, providing access to cold storage, processing, marketing and value addition facilities supported through the project. A substantive number of these beneficiaries will be women involved in the agricultural processes on-farm for pre- and post-harvest practices for the selected commodities. The project will also use a value chain approach to provide direct investment support to the farmers and producers groups for: (i) development of more effective and efficient farming systems; (ii) introduction of technology packages for increased productivity and value addition, and; (iii) improved market access. These services will be made available with a defined focus on how they reach the women in agriculture. It is expected that beneficiaries will be able to establish effective and efficient production systems and create market linkages.

6. **Approach.** The access to finance component will serve as a catalyst, to bring the relevant knowledge required for effective support of the horticulture sector, to the banking sector, complemented by the credit line. As described below, the needs in the horticulture sector are vast, and this project can only assist in setting up systems/financial products that will be expanded with private finding in the future. The component will build on the experience gained during RESP II which has achieved sizeable results with provision of financial services to Uzbekistan's agricultural enterprises. Under RESP II, to date, US\$35.8 million equivalent has been provided in 415 sub-financings by six participating financial institutions. The quality of the portfolio of sub-financings under the project was continuously very good, delayed payments (anything above 1 day) of principle on average was less than 1%. In addition to the Credit Line resources, the sub-borrowers have co-invested US\$15.9 million equivalent of own funds, bringing the total amount of investments in the agricultural sector under the project to US\$51.7 million. The training of the existing Participating Financial Institutions (PFIs) has been completed, exceeding the original targets and receiving good feedback, with over 540 PFI staff trained in various subjects.

7. The HDP's Access to Finance Component will:

(i) **further expand access to finance for farmers and agribusinesses.** The component will provide lending resources (in total, tentatively, US\$107.9 million) for use by banks and leasing companies for on-lending for investment and short-term loans to farmers and agribusinesses operating in the horticultural sector. On the investment side, attention will be focused on investments supporting the enhanced competitiveness of the sector, access to new technologies, value addition in the sector, and improved market access through establishment of market linkages.

8. The project will introduce a range of innovative value chain financing products<sup>40</sup>, to support development of market linkages and value chains. These products are expected to take the focus of the financial sector off the traditional forms of collateral, help agribusinesses borrow to deliver under signed contracts, and develop relationships between farmers, agro-processors, wholesalers, retailers, etc. The project will also support working capital loans.

(ii) **implement a capacity building program for the participating financial institutions** involved in the project, given the novelty of the non-traditional financial products to support value chain development. The training program will build on the Investment Lending and Leasing in Agriculture training carried out under the RESP II. The training program will cover: (i) value chain financing products; and (ii) tree-crop financing methodologies. The PFIs will receive training on applicability of the new financial products in lending to horticulture-related activities, assessing the suitability and effectiveness of these new financial products, and on mitigation of the related risks. The training will be about 5 days long, and will be targeting loan officers and branch managers of PFIs. An international bank training company will be hired under the project, to do the initial training, as well as transfer this specific knowledge to a local bank training company, which will take over the training activities at the later stages of the project. For the PFIs trying to test value chain financing products, a longer-term (resident) TA will be provided, to ensure the PFIs can appropriately structure the deal and manage the risks. In addition, all PFIs will have to undergo Environmental Training.

9. **Demand.** On the demand side, steady economic growth over the last 10 years (including an 8.1% GDP growth rate reported in the third quarter of 2012), supplemented by strong population increase (at an annual rate of 2.7%) has resulted in an expanding domestic market for horticultural goods, as the increase in domestic incomes has been accompanied by a shift in the Uzbek dietary preferences that favors horticulture. Uzbekistan is also well positioned to take advantage of the large and growing markets for horticultural products in Russia, Kazakhstan and other countries<sup>41</sup>, however, this requires replacement of the more traditional varieties that the producers have been growing so far, with new fruit tree varieties, demanded by the changing consumer preferences even in Uzbekistan's traditional markets. Therefore, the demand comes from two sources: (i) Replacement of the tree-stock (new varieties) of the existing orchards and vineyards. In 2011, Uzbekistan had 193,000 Ha under orchards and vineyards. To replace at least 25% of this area with new orchards and vineyards requires around US\$240 million, assuming an average per Ha investment cost of US\$5,000, which would include new sapling varieties, (drip) irrigation, land preparation (machinery hire), and poles and wire, but excluding operating costs, and purchase of farm machinery, if needed. (ii) Planting of new orchards and vineyards. The area devoted to agriculture has been increasing steadily, and, for instance, in 2010, additional 240 thousand hectares of land were reassigned to horticultural production under new government policies. Estimating that 50% of this land will be planted with orchards and/or vineyards, this generates a financial investment requirement of about

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<sup>40</sup> Some examples include: (1) Transaction finance: An agro-processing Company signs a contract on delivery of apricot jam, but does not have sufficient working capital to purchase the raw material, and limited available assets to use as collateral. The contract may be used as collateral. The Bank will issue a working capital loan, with a repayment schedule that matches the inflows of funds from the contract. The Company will buy apricots, process them, and deliver to the Buyer in accordance with the delivery schedule in the sales contract. Any deviations from the schedule will provide the Bank with an early warning of potential repayment problems. (2) Contract farming. In spring, an agro-processing Company borrows from a commercial Bank a working capital loan, purchases inputs for the farmers with whom it has previously signed contracts for delivery of certain agricultural produce in the fall, which the Company then plans to process. The Company distributes the inputs to the farmers, if needed they may also mobilize an extension specialist. In the fall, the farmers deliver the produce (the Company may need to borrow additionally to pay the farmers); the Company processes it, sells, and repays the loan.

<sup>41</sup> Horticultural export earnings have grown from US\$373 million in 2006 to US\$1.16 billion in 2010. Data from the Horticulture Policy Note for Uzbekistan, June 10, 2013, ECSAR.

US\$600 million. Long-term investments are also needed for sorting, post-harvest handling, and processing operations. Thus, the investment needs to develop the sector are vast and demand for funds is expected to be high<sup>42</sup>.

10. On the supply side, lending to agriculture by the participating financial institutions has grown during the past 4 years:

*Table 1: Annual Growth Rate of the PFIs' Agricultural Credit Portfolio*

PFI	2008-2011 (%)			
	2008 (base)	2009	2010	10/1/2011
OJSCB Agrobank	0	32	24	95
OJSCB Mikrokreditbank	0	34	43	60
OJSCB Uzpromstroybank	0	6	4	21
OJSCB Qishloq qurilish bank	0	10	5	4
OJSCB Turonbank	0	22	78	31
OJSCB Hamkorbank	0	4	7	6
Growth rate of all PFIs' agricultural credit portfolios	0	18	27	36
Achievement of the project's indicator - minimum annual growth rate of 10%		Yes	Yes	Yes

11. At the same time, availability of long-term funding in the financial sector remains a major constraint, thus preventing producers and processors from taking full advantage of the market opportunities described above. As described below, IFI credit lines remain the main source of long-term funding for PFIs. The HDP preparation mission discussed with the potential PFIs the likely demand for credit resources during the project period, and received the following information:

*Table 2. Potential Demand for Funding for under the HDP:*

Financial Institution	Tentative Demand, US\$ million equivalent
Hamkorbank*	20.0+
Infinbank	10.0
Ipak Yoli Bank	10.0
Mikrokreditbank*	30.0
Qishloq Qurilish Bank*	5.0
Turonbank*	25.0+
Uzbekleasing	4.0+
Xalq Bank	20.0
<b>Total</b>	<b>124.0+</b>
Ipoteka Bank	Will inform later

\* Denotes an existing PFI of RESP II.

## II. COORDINATION BETWEEN THE BANK AND IFC

### Collaboration with IFC

12. Uzbekistan became a member of IFC in 1993. Since 1996, IFC invested US\$110 million to support 28 private sector projects in the financial, agribusiness and food sector. As of June 30 2013, the

<sup>42</sup> Under RESP II, 6 PFIs disbursed US\$31 million credit line in about 2.5 years.

IFC's portfolio in Uzbekistan stood at US\$24.4 million with investments in the financial and general manufacturing sectors. The IFC strategy in Uzbekistan is mainly focused on the financial sector and agribusiness. Through a combination of investment and advisory services, IFC works to improve the business environment, promote public-private partnerships, improve tax administration, and develop credit information infrastructure.

13. In 2013, IFC initiated a three-year regional program - ECA Agribusiness Standards Advisory - which aims to support local food producers and processors in implementing internationally recognized food safety solutions. Within the program IFC: (i) provides assistance to food processing companies in Uzbekistan to implement environmental, social, and food safety practices by providing firm-level support. Food companies along the value chain, including farms, processing companies, and logistics in Uzbekistan are being shut out of the modern food value chains due to inadequate food safety, environmental, and social practices. This inhibits opportunities for growth in a key sector of the regional economy. The IFC's work with food companies leads to growth in the sector by increasing sales, reducing costs, and improving efficiency and operations of the client companies. Companies also have better access to other markets through implementing internationally recognized standards the demand for which increases every year. Client companies are selected to provide demonstration effect for the sector. IFC also supports capacity building of local institutions by stimulating development of local capacity for promotion and implementation of the environmental, social, and food safety practices in line with international best practices. This is achieved through training local consultants, both through formal training and practical on-site training. Selected consultants are further engaged as partners during client work. Further IFC promotes sector-wide demand by raising awareness about various agribusiness standards through public outreach trainings and seminars, extensive media campaign, and publications. All of the activities are to be in compliance with IFC's pricing policy and provided on full cost recovery basis.

14. The IFC Food Value Chains Development Program, on a full cost recovery basis, will help companies along the agribusiness value chain to improve their competitiveness and long-term value chain sustainability by: (i) building shared value partnerships to reduce risks and costs; (ii) supplier development to ensure better quality, consistency, and reliability of supplies; (iii) improving farmer outreach and increasing sales; (iv) improving access to financing for agricultural producers. The advisory work consists of the following phases: (a) diagnostics: 1-3 months to identify opportunities and potential for improvements, define priorities for in-depth advisory intervention and for an implementation plan; (b) in-depth support: 1-5 years of in-depth advisory support on value chain development.

15. In 2014 IFC also has launched a US\$5 million regional access to finance – supply chain project (CAAP) with allocation to Uzbekistan about US\$1.25 million. The goal of the Project is to improve access to finance, productivity and access to markets for farmers-producers of select supply chains in KG, TJ and UZ. The Project will work with FIs and larger payers in supply chains (aggregators) to build their capacity to services their clients (farmers and small agri businesses) with the following objectives: (a) 20,000 farmers reached (in UZ - 6,000 farmers), (b) US\$50 million in financing to agri sector facilitated (in UZ - US\$15 million), and (c) additional increase in sales revenue of US\$50 million achieved along supply chains (in UZ - US\$15 million). The Project intends to work with 2 FIs in UZ and provide them with in-depth advisory programs which include the following components: (i) basic agrifinance and supply chain finance training, including classroom and on-the-job training; (ii) implementation (including manuals, methodology and usage training) and access to a web-based agricultural risks management/cashflow-based lending tool; (iii) advanced agri supply chain training including leasing and other asset based lending methodologies.

### III. POLICY FRAMEWORK FOR FILS

#### Macroeconomic Environment

16. Uzbekistan has a fast-growing economy with an average real growth rate of GDP at 8.4 % between 2008 and 2012, and was real 8% during the first half of 2013. Per capita income has more than doubled in real terms since 2004 (US\$1,510; 2011, Atlas Method). Poverty declined from 27.5% of the population in 2001 to 16.0 % in 2011 due to rapid economic growth, large government investments in education, health and infrastructure development, increases in public sector salaries, and increased remittances. The country is an oil and gas exporter, and due to its isolation, has remained relatively shielded from global impacts (the high GDP growth rate during the most recent crisis period confirms that). Services, transport and communication, as well as trade and agriculture have been fastest-growing sectors, mostly due to domestic consumption. The current account balance has been positive for the last several years, although the surplus has narrowed, estimated to 3% of GDP in 2013, on account of the drop in gold exports and lower cotton and food prices, and strong import supported by remittances and FDI. Based on Government information, inflation was 6.8% in August 2013 (Based on IMF estimates, the inflation has maintained double digits during the past years, and was 13.8% in November 2011, 10.7% in October 2012, and 11.3% in August 2013)<sup>43</sup>.

17. The Central Bank of Uzbekistan (CBU) has been continued for the last several years the liquidity-mopping operations, to contain inflation by sterilizing the money in circulation. These measures have resulted in shortages of available cash for social payments and cash withdrawals from the banking sector (most of the disbursements take place by transfer to the supplier)<sup>44</sup>. The foreign exchange rate is closely regulated and managed by the government. Aiming at improving competitiveness of the export sector, the UZ Soum has continued depreciating both against US Dollar and EURO.

#### Financial Sector Framework

18. Uzbekistan's financial sector is comprised of 27 commercial banks and 28 very small microcredit institutions. Overall, the banking sector has performed well over the last several years. State-owned banks dominate the system, with their asset share reaching about 80% of the total bank assets (top five banks dominate the sector with 62.7% of the total assets). In 2011, the total assets of the banking system increased by 32.4%, and total loan portfolio by 35.6%. The banking sector is very isolated (which helped it navigate well through the recent economic crisis, as it had almost no impact on the banking sector development), since only 14.7% of the credits in 2012 were financed from non-country sources. The level of non-performing loans is low (as the Table 3 below of selected potential PFIs key data shows), even by alternative measures of the rating agencies which are assessing the banking subsystem as stable (such as Fitch Ratings in 2012). Through end-September 2012, banks' balance sheet capital increased by 24% year-on-year. Continuous capital injections in the banking sector by the government are facilitating the authorities' development programs.

19. Financial intermediation is relatively low, and the capital adequacy of banks is above 20% (24% in September 2012), which is high by international standards. Banks' credit policy is influenced by state-directed lending<sup>45</sup>, which, to some extent, impedes development of sound risk management. The non-core functions (such as tax administration) undermine trust in banks, hamper access to credit, and inhibit

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<sup>43</sup> IMF data

<sup>44</sup> Based on IMF data, reserve and broad money have both decelerated considerably, from 27 and 52 respectively at the end of 2010, to 16 and 30%, respectively, through October 2012.

<sup>45</sup> In particular, the government-subsidized credit to cotton and wheat producers, at 3% p.a., in form of agricultural inputs.

financial intermediation. At the same time, the bank branch outreach is 49.5 branches per every 100,000 persons. Almost all commercial banks (26 out of 28) have ratings by international agencies. The Central Bank of Uzbekistan (CBU) is taking measures to strengthen banking supervision methodology, prudential standards, and risk assessment practices<sup>46</sup>, which is a welcome development.

20. **Due diligence of PFIs** has been scheduled for the first half of 2014, on the basis on the audited data for 2013 and 2012. Six commercial banks, namely, Agrobank, Qishloq Qurilish Bank, Hamkorbank, Turonbank, Mikrokreditbank and Uzpromstrojbank participated in the implementation of the credit line under the RESP II. It is expected that five of them will participate in the upcoming due diligence. Agrobank will not be able to undergo due diligence at this time, given that it had qualified audit report at the end 2012 and 2011. Five new potential PFIs – one leasing company (Uzbekleasing) and four commercial banks (Infinbank, Xalq Bank, Ipak Yoli bank and Ipoteka Bank) are potentially interested to join the project.

*Table 3. Brief Financial and Operational Results of the potential PFIs – current active PFIs of RESP II. Data are Unaudited, as of September 30, 2013 (US\$ Millions<sup>47</sup>).*

	Name of the Bank	Total Assets	Net Loan Portfolio	Total Customer Accounts*	Equity	Provisions as a % of loan portfolio	All overdue loans as a % of portfolio <sup>48 49</sup>	Ag. loans as a % of Total Loan Portfolio
	Hamkorbank	454.1	249.5	284.5	56.0	3.8%	0.12%	6.0%
	Mikrokredit Bank	328.9	256.4	103.0	101.2	0.14%	0.03%	51.6%
	Qishloq Qurilish Bank	1,152.1	993.8	241.3	152.4	0.4%	0.2%	2.9%
	Turon Bank	296.9	194.0	210.7	30.7	0.49%	0%	7.7%
	Uzpromstroj Bank	3,181.6	2,231.8	928.6	200.5	3.1%	2.4%	0.9%
	<b>Total</b>	<b>5,413.6</b>	<b>3,925.5</b>	<b>1,768.1*</b>	<b>540.8</b>	<b>2.1%</b>	<b>1.4%</b>	<b>5.4%</b>

\* Demand deposits represent 73% of the total volume of customer account balances.

21. **Lending to Agriculture Sector.** The following developments set the background for the lending to the agricultural sector:

- II. The authorities of Uzbekistan are continuing with the program to modernize and diversify the economy, including the diversification of the agricultural sector. The government sees horticulture, among other sub-sectors, as a way to diversify out of wheat and cotton production, which used to be the two strategic crops.
- III. The continued support to production of the two strategic crops (cotton and wheat) that farmers have to produce, which still account for approximately 60% of the total agricultural production. The government supports it through subsidized funding in UZ Soum, which is channeled through

<sup>46</sup> This paragraph has been prepared with data from IMF Country Report and data of the CBU.

<sup>47</sup> Official exchange rate used: US\$ 1 = UZS 2,146.7 as of September 24, 2013.

<sup>48</sup> Loans overdue for 1 or more days.

<sup>49</sup> Includes also restructured loans



the banking sector at an interest rate of 3%, inclusive of a 2% margin for the commercial banks. Maturity of these loans is up to 12 months for wheat and up to 18 months for cotton.

## **Interest Rates**

### *Deposit Rates*

22. Deposit rates continue to be very high in Uzbekistan. Short-term term deposits of up to 6 months in UZ Soums are offered at up to 20%, while deposits above 6 months are generally at 24%. US Dollar deposits carry interest rates of up to 7% for maturity of up to 6 months, and up to 9% above 6 months. However, even the very high interest rates do not help mobilize long-term deposits, as the overwhelming share of deposits are demand deposits.

### *Loan Rates*

23. As of October 2013, the average interest rate (predominantly from own funds of banks) on domestic currency loans was 24 %, versus 23 % on foreign currency loans, and can be up to 32%. Lending rates are generally high, reflecting a combination of factors including the scarcity of on-lending resources, in particular long-term, cost of capital (deposits carry very high rates as explained above), large overheads, reliance on retained earnings to finance growth, etc.

### *Other Rates*

24. The *Refinancing Rate* of the Central Bank of Uzbekistan has been steadily declining over the past several years, and has been set at 10% since January 1, 2014 (the previous adjustment was made as of January 1, 2011 when the refinancing rate was reduced from 14% to 12%).

### *Other donors*

25. A number of IFIs are active in Uzbekistan, including ADB, the World Bank, Islamic Development Bank/Islamic Private Sector Development Corporation, KfW, Landesbank and IFC (which works with only two commercial banks in the sector). The cost of funds to qualified financial intermediaries from international lenders ranges between LIBOR+0.5%, to LIBOR+4% / LIBOR+5%. Maturity of the funding to the banking sector varies between 5 years (such as the Islamic Private Sector Development Corporation) to 20 years (ADB and the World Bank). The margin of the Ministry of Finance (in cases when the funding flows through the government) is 2%. The typical margins of commercial banks vary between 2% and 4%.

## **Directed Credit**

26. **Main Target Groups.** The project's credit line will be targeted at small and medium-sized farmers and agribusinesses operating, or planning to operate in the horticulture sub-sector.

27. **Rationale for Directed Credit.** The credit line will support the much-needed investments in the horticulture sector, contributing to the overall project development objective. The project's interventions have been designed to address, in a *holistic manner*, the primary bottlenecks that have been identified as hindering the development of the sub-sector. This is the approach undertaken in the project where the principal constraints relating to research and development in the horticulture sector, market organization, knowledge, information, and capital would need to be addressed *simultaneously* in order for the project to attain its stated objectives. However, as noted above, there are limited resources in the country's financial

system, especially for long term investment, which is particularly important for tree-crops. Given this scarcity of long-term resources in the financial sector, this credit line will provide additional lending resources for use by the participating financial institutions for on-lending to producers and processors, in particular for investment financing in support of the horticulture sector development. In addition, the potential participating financial institutions lack the skills necessary to engage in this sub-sector — understanding the nature of the financial products (such as tree-crop financing or value chain financing products) and their associated risks, and devising appropriate loan/lease structuring and risk management strategies, etc. — and have expressed interest in such training. It has been demonstrated in other Bank's operations in the region and sector that training is most effective if it is accompanied by resources to actually put the learning into practice. Consequently, given the novelty of the long-term investment financing and value chain financing concepts, a combination of a dedicated credit line and associated capacity building is deemed the most effective approach.

## **Subsidies**

28. There are no subsidies envisaged under the credit line.

## **IV. ELIGIBILITY CRITERIA FOR PARTICIPATING FINANCIAL INSTITUTIONS (PFIs)**

29. In order to become a Participating Financial Institution (PFI), commercial banks and other financial institutions (such as leasing companies) have to qualify under a due diligence procedure in accordance with a set of operational, financial and management criteria indicated below (separate criteria for commercial banks and leasing companies). Following successful qualification, the potential PFIs will have to sign a tri-partite Subsidiary Loan Agreement (SLA) with the Ministry of Finance (MOF) representing the Republic of Uzbekistan and RRA. In order to maintain its eligibility as a PFI, the commercial banks and leasing companies have to meet the said criteria at all times.

30. Potential PFIs (commercial banks and leasing companies) will be individually appraised, through a due diligence procedure, by the RRA and the International Bank for Reconstruction and Development (IBRD)<sup>50</sup>. During the detailed due diligence assessment, particular attention will be given to the overall lending capabilities, and financial and portfolio performance. The PFI must have satisfactory financial and management structure, a satisfactory risk-based capital adequacy, an acceptable asset quality and lending performance, adequate liquidity, and the organization, management and technical staff and other resources required for the efficient carrying out of the operations.

31. The criteria for the initial due diligence and continued maintenance of a PFI status are provided below. These criteria shall be used by the RRA to monitor the continued eligibility of the PFIs operating under the Credit Line of the HDP.

### **(a) Commercial Banks**

#### **A. General Standards:**

- (i) Be in compliance with all banking laws and prudential regulations of the Central Bank of Uzbekistan.
- (ii) Be interested and committed to servicing the range of clients, who are the intended beneficiaries of the HDP.

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<sup>50</sup> The due diligence for participating financial institutions of the HDP has been scheduled for April-May 2014.

- (iii) Have or be willing to open branches or minibanks in the project rayons or ability to ensure other ways of servicing the potential borrowers in the project rayons.
- (iv) Undergo an annual audit that is conducted in accordance with International Standards of Auditing by an audit company acceptable to IBRD for the purposes of audit of financial institutions, with an unqualified audit opinion.
- (v) Have the necessary staff, knowledge, physical and other resources to implement the credit facility under the Project.

**B. Financial Prudential Standards:**

- (i) At all times, meet the prudential regulations issued by the Central Bank of Uzbekistan.
- (ii) Have a risk-weighted capital adequacy ratio of no less than 10%.
- (iii) Do not have exposure to any one borrower as a percentage of its IAS capital of more than 15%.
- (iv) Have aggregate exposure to insiders (defined as members of the Board of Directors and the Management Board of such PFI, employees in management position and shareholders with voting rights in excess of 10%) of no more than 100% of IAS capital.
- (v) Have a positive net income for the current and two immediately preceding financial years, as reflected in the financial statements audited in accordance with ISA.
- (vi) Have acceptable asset quality and quality management policies, procedures and skills.
- (vii) The aggregate share of Sub-financing/Lease portfolio outstanding under all credit lines of the World Bank (RESP I, II and Additional Financing) shall not exceed 75% of the PFI's IAS capital.

**C. Corporate Governance and Managerial Standards:**

- (i) Have a Board of Directors, responsible for setting the overall bank policy and perform appropriate oversight of the bank's operations.
- (ii) Have a qualified and capable management team.
- (iii) Have a sound business plan and appropriate budgeting and budget control procedures.
- (iv) Have sound lending policies and procedures, including in respect of the entire credit cycle, problem loan management, write-offs of assets, credit approval authority, etc.
- (v) Have satisfactory internal control and audit procedures, including accounting principles and procedures, and financial documents, internal controls and reporting, and operational controls, confirmed by external auditors.
- (vi) Not be exposed to undue interest rate risk, as confirmed by annual audited financial statements.
- (vii) Have an internal reporting and management information system capable of providing sufficient information necessary for managing the bank's operations, performance and risks.

**(b) Lease Companies**

**A. General Standards:**

- (i) Have the legal status permitting engagement in leasing operations.
- (ii) Be in compliance with the criteria and prudential regulations specified below, and operate in accordance with the applicable laws in effect in the Republic of Uzbekistan.
- IV. Be interested and committed to servicing the range of clients, who are the intended beneficiaries of the HDP, and ensure the capability of servicing clients in the project areas.
- (iv) Undergo an annual audit that is conducted in accordance with International Standards of Auditing by an audit company acceptable to IBRD for the purposes of audit of financial institutions, with an unqualified audit opinion.
- (v) Provide financial reports at the frequency required by the supervisors under the supervision authority and arrangements set up for this purpose under the Project.

**B. Financial Prudential Standards:**

- (i) At all times, meet the following prudential regulations:
  - a. The leasing company's exposure to a single client will not exceed 25% of the company's net worth (the sum of its unimpaired capital, surpluses and free reserves, as determined at the close of the previous quarter);
  - b. Total commitment to any lessee shall not exceed 25% of the total assets of the lessee;
  - c. No new commitments shall be made to any sector or industry where the exposure of the leasing company exceeds 25% of its outstanding lease portfolio. Exposure to a sector or industry is permissible of up to 50% of the total outstanding lease portfolio, provided the leasing company has appropriate risk management measures in place;
  - d. Income from leasing activities shall account for no less than 65% of the total revenues of the leasing company;
  - e. The average weighted life to final maturity of the leasing company's outstanding borrowings will be substantially identical to or will exceed the average weighted life of the net receivable value of its lease portfolio;
  - f. The leasing company's Long-term Debt to Equity ratio (including guarantees) shall not exceed 6:1 at any time;
  - g. Have acceptable asset quality, both on and off-balance sheet, with the bad lease portfolio not exceeding 5% of total lease portfolio, and acceptable quality management policies, procedures and skills;

- h. In any three-month period, total maturities due and payable under all borrowings by the leasing company shall not exceed total lease receivables due and payable from its lessees unless covered by unutilized funding commitments or rollover facilities from bank loans customarily renewed on a periodic basis;
  - i. The loan loss reserve shall be formed consistent with the size and quality of the lease portfolio, however, minimum 5% of the customer leases outstanding;
  - j. The leasing company's dividend policy shall provide for a fair return to its shareholders, however, it shall provide for retained earnings and reserves at a rate that would sustain the growth of the leasing company;
  - k. Any collateral or other assets belonging to lessees acquired through enforcement proceedings in connection with leasing transactions shall be disposed off within three months after the asset takeover, however, avoiding significant price diminutions.
- (ii) Have a positive net income for the current and two immediately preceding financial years, or since the launch of the leasing company, as reflected in the financial statements audited in accordance with ISA.
  - (iii) Assets of the leasing company must be sufficiently and adequately insured in accordance with good business practices.

**C. Corporate Governance and Managerial Standards:**

- (i) Have a Board of Directors, responsible for setting the overall leasing company's policy and perform appropriate oversight of the leasing company's operations.
- (ii) Have a qualified and capable management team.
- (iii) Have a sound business plan and appropriate budgeting and budget control procedures.
- (iv) Have sound leasing policies and procedures, including in respect of the entire credit cycle, problem loan management, write-offs of assets, repossession procedures, credit approval authority, etc.
- (v) Have satisfactory internal control and audit procedures, including accounting principles and procedures, and financial documents, internal controls and reporting, and operational controls, confirmed by external auditors.
- (vii) Is not exposed to undue interest rate risk, as confirmed by annual audited financial statements.
- (viii) Have the necessary staff, knowledge, physical and other resources to implement the credit facility under the Project.

**V. ONLENDING TERMS<sup>51</sup>**

32. *Currency.* The funds will be available both in Uzbek Soums (UZS) and US Dollars, based on the demand of the sub-borrowers. The Ministry of Finance will assume the foreign exchange risk on the

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<sup>51</sup> Reference to loans and sub- financings also refers to leases.

portion of the credit line funds channeled through the PFIs for on-lending to the ultimate beneficiaries. It is expected that majority of beneficiaries operating in domestic currently will want to borrow in UZS. However, as experience of RESP II credit line has shown, beneficiaries prefer to borrow in foreign currency in cases when they import equipment or technologies from abroad, in particular due to the complicated situation with currency exchange in the country. Same practice is expected to continue under HDP.

33. The *interest rate* to the PFIs is to be finalized during the preparation of the Credit Line Investment Guidelines together with the Ministry of Finance and will need to be acceptable to the World Bank.

34. The proposed on-lending rates in both currencies will be structured on the basis of the following considerations: (i) the cost of IBRD funds to the Borrower, (ii) the need to cover administrative costs associated with the credit line, (iii) nature of the sub-project to be financed, as the project is promoting tree-crop financing, which has been seldom done to date; on-lending rates under RESP II where also many investment loans were financed (although mostly up to 5 years; (iv) cost of funds of other IFIs and donor organizations.

35. *On-lending rates to final beneficiaries.* The PFIs will set their own interest rates and repayment terms to final sub-financings/lease beneficiaries based on their banking considerations. The PFIs will carry out full appraisal of sub-financings/eases and sub-borrowers based on the agreed criteria, and will bear the full risk of subsidiary loan repayment.

36. The *maximum loan/lease size* will be up to US\$ 2 million, to ensure financing for larger loans to invest in cold storages and agro-processing equipment, as well as to support entire value chain development. The maximum maturity of the sub-financings/leases will not exceed 10 years or the amortization period of the asset, whichever is shorter. The actual size and maturity of the loans/leases will depend on the type of investment financed, profitability of the activity, cash-flows generated, collateral, and other banking considerations. Working capital loans will be up to US\$200,000 for up to 18 months, and the value chain financing products will have the maximum loan size of up to US\$2 million and maturity will depend on the nature of the transaction this loan will finance. Maximum financing share: The project will finance up to 100% of the sub-financings/leases in US Dollars, while requiring 20% co-financing from the PFIs for UZ Soum sub-financings/leases. The sub-borrowers will be required to contribute 20% of the sub-project financing.

37. *Eligible Sub-borrowers.* A Sub-borrower under the credit line means any farmer or farmers' association or private enterprise who is either engaged or intend to engage (as a result of the Sub-financing/Lease financing) in an Eligible Entrepreneurial Activity please see paragraph 34 below) in the Eligible Area<sup>52</sup>, with 100% private ownership, duly registered pursuant to the laws of the Borrower, to which a PFI proposes to make or has made a Sub-financing/Lease. The project's credit line will be targeted at small and medium-sized<sup>53</sup> farmers and businesses operating, or interested in engaging, in the Horticulture Sector.

38. *Eligible Entrepreneurial Activity.* A wide range of investments in horticulture-related activities will be eligible for financing from the credit line, aiming towards enhanced competitiveness of agri-

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<sup>52</sup> Eligible Area. The Credit Line will cover the following oblasts of the country: Andijan, Jizzak, Ferghana, Kashkadarya, Namangan, Samarkand, and Tashkent. All Sub-projects eligible for financing under the Credit Line have to be located outside the official municipal boundaries of the capitals of the oblasts.

<sup>53</sup> However, sound proposals of micro- and large companies that contribute to the project objective will also be supported.

businesses, access to new technologies, equipment and process upgrades for food safety compliance, and improved market access through establishment of market linkages. The project will finance *inter alia* investments in tree-crops, agricultural machinery and food processing equipment, storages and cold storages, packaging, horticulture-related advisory services, and other long-term investments. Agricultural inputs, such as vegetable seed, fertilizer and other items will also be eligible for working capital financing.

39. Additional requirements:

- (i) The Credit Line beneficiaries will have to comply with any applicable legislation and regulation on child and forced labor, in accordance with the relevant provisions of the Financing Agreement and Credit Line Investment Guidelines.
- (ii) A requirement for accessing value chain product financing by a sub-borrower under this credit line will be an upstream or down-stream contractual relationship within the value-chain, to ensure the viability of the productive linkages financed under the credit line.
- (iii) The PFIs will have to hire a horticultural agronomist, or set up arrangements with suitable consulting companies, to ensure the technical feasibility of the investments financed.

40. Each subsidiary loan agreement with the PFIs will be signed for a specific amount, based on the demand (estimate is included in paragraph 9 above; it will be adjusted proportionately, as the PFI demand exceeds the available financing). Progress of disbursements will be monitored by the RRA and the World Bank team, to recommend flexibility in amending the subsidiary loan agreement amounts in case when some PFIs are much slower than others. The withdrawal procedures are briefly described in the paragraph below. Given the likelihood that a number of the PFIs will qualify for participation, it will help ensuring the competitive environment necessary for the sub-borrowers to benefit from competitive terms and conditions of the financing.

41. Withdrawals from the Credit Line. Periodically, as agreed between the PFI and the RRA, PFIs will prepare Statements of Expenditure (SOE), in the agreed format, listing already financed sub-financings/leases, as well as sub-financings/leases approved by its Credit Committee but not yet financed<sup>54</sup>. The SOE will be submitted together with the one-page Sub-financing Information Sheet for each sub-financing/lease. The Sub-financing Information Sheet will contain the key terms and conditions of the proposed sub- financing. The RRA will review the list of sub-financings and the one page summaries for every sub- financing to check the eligibility of the sub- financing against the criteria under the project (it is only a "technical" review by the RRA; the financial appraisal of the sub-financings/lease, loan structuring and all banking considerations lie with the PFI). Upon approval, the money will be transferred to the PFI.

42. Prior review of sub-financings/lease applications by the World Bank will be carried out in the following cases: (i) by each qualified PFI will submit the first three Investment Sub-project proposals and first three Value Chain Financing product proposals, irrespective of the amount of the proposed sub-financings/lease; as well as (ii) any sub-financings/lease proposals in an amount exceeding US\$150,000 equivalent for New<sup>55</sup> PFIs and US\$300,000 equivalent for all other PFIs. The prior review threshold for New PFIs is also expected to reach US\$300,000 once it has been established that the PFIs are providing good quality proposals.

## VI. MONITORING

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<sup>54</sup> In cases when the PFI does not have an opportunity to extend financing due to the short maturity of the available financing or other considerations.

<sup>55</sup> New PFIs are those that did not participate in the implementation of RESP II.

43. The compliance of sub-financings/leases with the eligibility criteria, monitoring of the sub-financing/lease files, and the PFI compliance with the eligibility criteria will be ensured by the RRA. Regular visits to PFI branches to review the loan files for completeness and visits to borrower sites are two key components of the monitoring of credit line implementation. Based on the agreed procedure, on-site visits to the sub-financing/lease sites are carried out not later than within (4) months from the disbursement of the sub-financing/lease. The work is led by the Credit Line Specialists in the RRA's Regional Offices, supervised by the Component Coordinator at the RRA in Tashkent who also does selective on-site monitoring. The component will have Monitoring and Evaluation formats (as part of the PIP to be developed), which will track both the physical implementation of the component, as well as the impact, based on a set of Monitoring and Evaluation indicators. In addition, independent Impact Assessments for the project, covering also the credit line activities, will be done from time to time.

44. Progress reports will be produced quarterly, which will also include reports on monitoring of the financial status of the PFIs, including key performance indicators, such as portfolio quality, liquidity ratios, etc. The RRA also ensures timely collection of the audited reports of the PFIs, in compliance with the provisions of the subsidiary loan agreement. An Environmental Specialist will carry out screening of the proposed sub-financings from the environmental point of view. In addition, continued PFI compliance with the eligibility criteria will be verified by the Bank's team on annual basis, based on the review of the audited statements of the PFIs and other due diligence procedures, as required.

45. The following indicators will be measured under the Access to Finance Component:

- (i) PDO-level:
  - Number of beneficiaries engaged in profitable small-scale agri-business ventures in the horticulture sector promoted through the project
  - Number of women, of the above
  - Increase in the aggregate lending portfolio by PFIs to horticulture sector
- (ii) Intermediate Results Indicators (in the Results Framework)
  - Increase in the %age of financing for horticulture within agriculture portfolio in the PFIs
  - Number of financial sector staff (loan officers and branch managers) trained and supporting investments in horticulture sector
  - Number of Sub-financings/leases provided under the credit line
- (iii) In addition the following indicators will be tracked under the project:
  - Volume of Bank Support: Lines of Credit – SME (core indicator)
  - Volume of Bank Support: Institutional Development – SME (core indicator)
  - Portfolio at Risk (SME) - %.

## **SUSTAINABILITY, BENEFITS AND RISKS**

46. **Arrangements after the HDP closing.** The credit line funds will continue revolving in the PFIs for a period of 20 years, with a gradual repayment of the funds to the MOF according to the agreed schedule. Interest payments on the subsidiary loans and principal amounts repaid by the PFIs will be channeled to the MOF, which will use the money to repay to IBRD. After the end of the 20 year period, the MOF may choose to on-lend the money back in the banking sector for an extended period of time under a separate legal arrangement. Agreements will be made with the MOF towards the project closing that, after the project closing, a department in the MOF will be assigned to carry out the monitoring of the Credit Line implementation.



47. **Sustainability of the Operation.** The technical sustainability of the credit line will be ensured through provision of relevant training and hands-on technical assistance to the PFIs. The PFIs will be trained in applicability of the new financial products, assessing the suitability and effectiveness of these new products, and on mitigation of the related risks. The sustainability of the funding that the PFIs will be receiving will be ensured by using the RRA that has accumulated extensive experience and continues to monitor the implementation of the previous World Bank-financed credit lines.

48. The **benefits** will accrue to PFIs in form of an expanded portfolio in the rural/agricultural market niche, expanded menu of lending products, and broadened client base through the process of “nurturing” their clients. The benefits to farmers and agribusinesses will be in the form of improved access to finance, improved productivity, resulting from the investments, better access to markets and profitability, including from the value chain financing instruments. The improved farm machinery will result in increased yields due to improved land preparation, timely planting and harvesting, and a significant reduction in harvest losses. The diversification of rural economy will bring services closer to the consumers, and will increase incomes where profitability of agriculture is marginal.

49. **Risks.** Given the previous experience with the implementation of RESP II, there is only one risk related to the implementation of the Credit Line. The Government may not be willing to assume the foreign exchange risk on a portion of the credit line, to alleviate the additional risks related to the foreign exchange risk exposure for those borrowers who only operate in local currency. Experience of RESP II shows that 54% of the credit line was disbursed in local currency, i.e., the demand for loans in local currency exceeds demand for loans in foreign currency. Since the government keeps the margin between the IBRD cost of funds and the on-lending rate to the PFIs, and given the long-term maturity of the IBRD financing, the government is in the best position to assume the foreign exchange risk. One of the main reasons for delays with starting the implementation of the credit line of RESP II was the lengthy discussions held with the Ministry of Finance to assume the FX risk. The most effective alleviation of this risk will be the engagement of the government in a structured policy dialogue and discussions.

## Annex 9: Collaboration with IFC

<b>Joint IFC-Bank Work in Achieving the Twin Goals</b> Project design and implementation involves active collaboration with the International Finance Corporation (IFC), which also views agribusiness sector and inclusive value chain development as a priority. The collaboration will be based on the competitive advantages of the Bank and IFC. The Bank and IFC financed operations will bring US\$__ million of direct investment in Uzbekistan's horticulture sub-sector development, leveraging US\$__ million of private sector investment, as well as ensuring outreach to around 16,000 farmers and agribusiness sector participants. The benefits are expected to multiply in the future, as the investments made under the World Bank operations will continue to operate after the projects close. Strong complementarity has been identified among the following operations:			
<b>WBG Arm</b>	<b>Main Input into the Collaboration, based on the Competitive Advantage</b>	<b>Direct Investment into the Agricultural Sector</b>	<b>Private Investment Leveraged</b>
IBRD Horticulture Development Project	Strengthen the capacity and resource base of small farmers groups and medium-sized farmers to enable them to become participants of value chains and develop productive partnerships to promote commercialization of their agricultural produce. This will be done through providing access to training and knowledge, market information, and financing.	US\$150 million	US\$10 million
IFC Central Asia Agri-finance Advisory Program	Support local food producers and processors in implementing internationally recognized food safety solutions.	US\$4.6 million	US\$100 million
IFC Food Value Chains Development Program	Help companies along the agribusiness value chain to improve their competitiveness and long-term value chain sustainability		
IFC Access to Finance – Supply Chain Project	Improve access to finance, productivity and access to markets for farmers-producers of select supply chains.	US\$1.25 million	US\$30 million

<b>Component 1: Agricultural Support Services (US\$32.03 mln);</b> <b>Sub Component 1. Institutional Support Services,</b>	
<b>IBRD</b>	<b>IFC</b>
The project will assist producers in developing good production and handling practices according to Global-GAP, HACCP and other internationally recognized food safety systems.	Study to determine gaps and development of the manuals for quality management and packaging requirements will be done in close collaboration with IFC Agribusiness Standards Advisory Program to assure bridging the gap

Among activities to be supported are (i) study to determine gaps between current domestic rules/regulations and required international standards; (ii) development of the manuals for quality management and packaging requirements for various products in various countries where products from Uzbekistan are or could be sold. It would also support study visits to selected countries to familiarize with regulatory frameworks and how risks are evaluated, managed and communicated. Based on these lessons, the project would support the development and adaptation of modern food safety system for the horticulture sector, including regulatory framework, control policy, sampling and inspection procedures, accreditation and management rules and tools and training of relevant stakeholders.	between sector/industry needs and policy requirements.  At the same time, on the firm-level IFC Agribusiness Standards Advisory Program will continue on full cost recovery basis (i) provides assistance to food processing companies in Uzbekistan to implement environmental, social, and food safety practices; (ii) supports building local consultants by stimulating development of local capacity for promotion and implementation of the environmental, social, and food safety practices in line with international best practices; (iii) promotes sector-wide demand by raising awareness about various agribusiness standards through public outreach trainings and seminars, extensive media campaign, and publications
<b>Knowledge Management and Market Information System.</b> This sub component focus on providing demand driven, farmer-led, decentralized, integrated extension services for horticulture crops through a variety of approaches, including participative bottom up planning, exposure visits, trainings, demonstrations, field days, and use of media and information technology. The objective is to increase horticulture productivity by (i) improved production technologies; and (ii) improving farmer access to knowledge. All activities under this Sub Component will be linked to a Knowledge Management and Market Information System (KMMIS), where all accumulated information and knowledge will be collected, classified, stored and made available to farmers and other market participants at any time.	<b>Food Value Chain Competitiveness &amp; Sustainability.</b> IFC's Food Value Chains Development Program on full cost recovery basis will help companies along the agribusiness value chain to improve their competitiveness and long-term value chain sustainability by: (i) building shared value partnerships to reduce risks and costs; (ii) supplier development to ensure better quality, consistency, and reliability of supplies; (iii) improving farmer outreach and increasing sales; (iv) improving access to financing for agricultural producers. Advisory work consists of the following phases: (a) diagnostics: 1-3 months. Identifies opportunities and potential for improvements, defines priorities for in-depth advisory intervention and for an implementation plan; (b) in-depth Support: 1-5 years of in-depth advisory support on value chain development
<b>Component 2: Access to Credit (US\$118.5 mln); Sub-component 2: Technical Assistance to PFIs (tentatively, US\$0.6 million)</b>	
<b>IBRD</b>	<b>IFC</b>
<b>Component 2: Access to Credit (US\$118.5 mln).</b> The subcomponent aims to enhance access to financial services for farmers and agribusinesses <sup>56</sup> operating in Uzbekistan's horticulture sector, to enable them to undertake the investments to strengthen their productivity and competitiveness. It will support activities including the purchase of new cultivars, seeds/seedlings, water-saving irrigation facilities (such as drip irrigation), cold storage and other cold chain facilities, and value added handling/processing equipment and facilities. The component will build on the experience gained during Second Rural Enterprise Support Project (RESP II) which has achieved sizeable results with the provision of financial services to Uzbekistan's agricultural enterprises.	Subject to standard IFC's financing requirements and due-diligence procedures, IFC will consider investments above US\$2 million per beneficiary to finance cold chain, value added handling/processing facilities including fleets of specialized transportation vehicles
The project will implement a capacity building program	Training program will be designed in close collaboration

<sup>56</sup> Agribusinesses under this component cover agro-processing companies, owners and operators of storages, traders and other companies involved in the horticulture sector.

<p>for the financial institutions involved in the project. The training program will build on the Investment Lending and Leasing in Agriculture training carried out under the RESP II. The training program will cover: (i) value chain financing products; and (ii) tree-crop financing methodologies. The PFIs will receive training on applicability of the new financial products in lending to horticulture-related activities, assessing the suitability and effectiveness of these new financial products, and on mitigation of the related risks. An international bank training company will be hired under the project, to do the initial training, as well as transfer this specific knowledge to a local bank training company, which will take over the training activities at the later stages of the project.</p>	<p>with IFC Access to Finance – Supply Chain Project.</p> <p>For the PFIs trying to test value chain financing products, a IFC Access to Finance – Supply Chain Project will provide on full cost recovery basis in-depth advisory programs which include the following components: (i) basic agrifinance and supply chain finance training, including classroom and on-the-job training; (ii) implementation (including manuals, methodology and usage training) and access to a web-based agricultural risks management/cashflow-based lending tool; (iii) advanced agri supply chain training including leasing and other asset based lending methodologies.</p>
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## **Annex 10. Economic and Financial Analysis**

### **I. Project Benefits**

1. The Project is expected to increase productivity and profitability of horticulture producers through enhanced agricultural support services and improved access to credit and markets (including export markets). The project benefits would derive from: (i) increased productivity and production of pomaceous and stone fruits due to the introduction of intensive technologies and improved access to markets and (ii) increased productivity and production of grapes and vegetables due to the introduction of improved seeds and varieties, modern technologies and improved access to markets.

### **II. Financial Analysis of Production Models**

2. Several indicative business activities which may be supported by the HDP were identified during the project design process. The five illustrative models were prepared to demonstrate the likely activities (loan sub-projects) to be financed with support of the Project: two models for intensive production of pomaceous and stone fruits and three models for production of improved table grapes, tomato and melons. It is expected that about 80-85% of credit recourses will be allocated for fruits and grapes, while the remaining 15-20% - for vegetables.

#### **Pomaceous Fruits Intensive Production**

3. The financial model of the pomaceous fruits intensive orchard illustrates the incremental benefits that would derive from the establishment of an intensive apple orchard on 30 ha replacing the old orchard. The anticipated main benefit would occur from the increased yield and production of apple as a result of the introduction of intensive technology. The yield increase is expected from the current 10 tonnes to 50 tonnes per one hectare at full development of the loan subproject.

4. The investment costs are estimated at about USD 1,330.7 thousand including construction costs of a cold storage, out of which 20% is the contribution of the subproject beneficiaries. Annual operation and maintenance cost is estimated at USD 151,073. The model records a financial NPV of USD 1,355.1 thousand over a fifteen-year period and a financial IRR of 21.7% before financing which is well above the opportunity cost (12%). The loan conditions for this investment are as follows: repayment period is 8 years with 2 years of grace period and an annual interest rate of 10%. After financing the model shows better financial return: a financial NPV of USD 2,366.9 thousand over a fifteen-year period and a financial IRR of 87.2%.

#### **Stone Fruits Intensive Production**

5. The financial model of the stone fruits intensive orchard illustrates the incremental benefits that would derive from the establishment of an intensive bird cherry orchard on 30 ha replacing the old orchard. The anticipated main benefit would occur from the increased yield and production of cherry as a result of the introduction of intensive technology. The yield increase is expected from the current 10 tonnes to 50 tonnes per one hectare at full development of the loan subproject.

6. The investment costs are estimated at about USD 987.1 thousand including construction costs of a cold storage, out of which 20% is the contribution of the subproject beneficiaries. Annual operation and maintenance cost is estimated at USD 136,970. The model records a financial NPV of USD 1,842.8 thousand over a fifteen-year period and a financial IRR of 25.0% before financing which is well above the opportunity cost (12%). The loan conditions for this investment are similar to those applied for the

previous model: repayment period is 8 years with 2 years of grace period with an annual interest rate of 10% . The financial NPV after financing is positive - USD 3,081.9 thousand and the model also shows good financial return.

### **Table Grapes Production**

7. It is expected that some farmers will prefer to implement a horticultural sub-project using non-intensive traditional technology, but with introduction of drip irrigation. Establishment of a new vineyard for production of table grapes is one of those that will be most likely selected by farmers.

8. The financial model of such investment illustrates the incremental benefits that would derive from 50 ha vineyard. The anticipated main benefit would occur from the increased yield and production of table grapes as a result of the introduction of drip irrigation. The yield is expected to be up to 20 tonnes per one hectare at full development of this loan subproject.

9. The investment costs are estimated at about USD 475.9 thousand in total mainly for land preparation and drip irrigation equipment, out of which 50% is the contribution of the subproject beneficiaries. Annual operation and maintenance cost is estimated at USD 136,970. The model records a financial NPV of USD 2,939.2 thousand over a fifteen-year period and a financial IRR of 36.9% before financing which is well above the opportunity cost (12%). The loan conditions for this investment are more favourable than for the intensive models: repayment period is 10 years with 2 years of grace period with an annual interest rate of 9% (however it requires beneficiary contribution to be up to 50% of total investment). The financial NPV after financing is positive - USD 169.2 thousand and the model also shows good financial return (IRR 19.9%).

### **Tomato Production**

10. It is expected that some farmers will be willing to invest in vegetable production using improved seeds and technologies. The financial model of one of such investments illustrates the incremental benefits that would derive from the production of tomato on 20 ha of irrigated arable land. The anticipated main benefit would occur from the increased yield and production of tomato. The yield is expected to be up to 30 tonnes per one hectare every year.

11. The investment costs are estimated at about USD 101.2 thousand in total mainly for land levelling and preparation for irrigation. It is expected that up to 50% of the project cost will be contributed by the subproject beneficiaries. Annual production cost is estimated at USD 61,228. The model shows a financial NPV of USD 128,920 over a fifteen-year period and a financial IRR of 152.7.0% before financing. Given high profitability of tomato production, the loan conditions for this investment are less favourable than for the intensive models and other vegetable production models: repayment period is 5 years with 1 year of grace period with an annual interest rate of 12%. The financial NPV after financing is positive - USD 64,650 and the model also shows good financial return.

### **Melon Production**

12. Some farmers will invest in melon production using improved seeds and technologies. The financial model of one of such investments illustrates the incremental benefits that would derive from production of melons on 30 ha of irrigated arable land. The anticipated main benefit would occur from the increased yield and production of melon. The yield is expected to be up to 25 tonnes per one hectare every year.

13. The investment costs are estimated at about USD 110.6 thousand in total which will be mainly spent for land levelling and preparation for irrigation. It is expected that up to 50% of the project cost will be contributed by the subproject beneficiaries. Annual production cost is estimated at USD 50,576. The model shows a financial NPV of USD 112,764 over a fifteen-year period and a financial IRR of 68.6.0% before financing. Given high profitability of melon production, the loan conditions for this investment are less favourable than for the intensive models: repayment period is 5 years with 1 year of the grace period with an annual interest rate of 12%. The financial NPV after financing is positive - USD 67,470 and the model also shows good financial return.

14. All models show the prospective benefits and good rates of return derived from the access to required financing (through loan contracts):

Table 1. Summary of Financial Benefits and Returns of Production Models

Production Models	Estimated Costs (USD)			Annual Net Benefits (USD)-after financing			Incremental annual net benefits per USD1 of investment (USD)	IRR-before financing (%)	NPV-before financing (USD)
	Loan Contract	Beneficiary Contribution	Total	Without Project	With Sub-Project -Full Development	Incremental			
Pome fruits Intensive	1,064,526	266,131	1,330,657	232,643	808,927	576,284	0.43	21.7%	1,355,126
Stone fruits Intensive	789,688	197,422	987,110	293,283	1,063,030	769,747	0.78	25.0%	1,842,784
Table grapes	237,994	237,994	475,987	-	84,973	84,973	0.18	36.9%	2,939,188
Tomato	50,614	50,614	101,228	-	7,092	7,092	0.07	152.7%	128,920
Melon	55,289	55,289	110,578	-	9,422	9,422	0.09	68.6%	112,764
<b>Average</b>	<b>439,622</b>	<b>161,490</b>	<b>601,112</b>	<b>105,185</b>	<b>394,689</b>	<b>289,504</b>	<b>0.31</b>		
	<b>73%</b>	<b>27%</b>	<b>100%</b>						

### III. Economic Analysis

NPV =USD 47.5 mln; ERR =27.8%

15. The period of analysis is 20 years to account for the phasing and gestation period of the proposed interventions. The scenario presented in the economic analysis is conservative; the analysis that appears below is indicative and demonstrates the scope of profitability originated from the conditions prevailing at the time of the preparation.

16. The analysis identifies the quantifiable benefits that relate directly to the activities undertaken following implementation of the project components, or that can be attributed to the project's implementation.

17. The illustrative models described above have been used for the calculation of the overall benefit stream, on the basis of economic prices.

18. Considering the illustrative examples as a reasonable assumption of the investments likely to be implemented, an estimated average incremental annual net benefit per 1 USD of investments is used. The incremental net benefits were calculated by multiplying this indicator by the amount of estimated investments, but considering the gradual increase of such benefits over the period of six years (see the table below).

19. A 70% success rate was applied to the models, i.e. it was assumed that at least 70% of the investments would achieve the estimated returns. No financing flows have been undertaken in the

calculations as they are already reflected in the project costs or represent transfer payments (duties and taxes).

Table 2. Estimation of Benefit Stream of All Loan Sub-Projects

Average incremental annual net income per 1 USD of investment (full development)							0.31			
Success rate							70%			
000'USD	Project Year									
	1	2	3	4	5	6	7	8	9	10-15
Phasing of benefits, %	10%	20%	30%	40%	60%	80%	100%	100%	100%	100%
Economic investment costs of crediting	23,426	23,426.1	23,217.8	23,217.8	23,217.8	23,217.8				
Incremental net benefits of:										
PY1	517	1,034	1,551	2,068	3,101	4,135	5,169	5,169	5,169	5,169
PY2		517	1,034	1,551	2,068	3,101	4,135	5,169	5,169	5,169
PY3			512	1,025	1,537	2,049	3,074	4,098	5,123	5,123
PY4				512	1,025	1,537	2,049	3,074	4,098	5,123
PY5					512	1,025	1,537	2,049	3,074	4,098
PY6						512	1,025	1,537	2,049	3,074
Total incremental net benefits from loans	362	1,085	2,168	3,609	5,770	8,651	11,892	14,767	17,277	19,429

20. Given the above benefit and cost streams, the base case Economic Rate of Return (ERR) is estimated at 27.8%. The base case net present value of the project's net benefit stream, discounted at 10%, is USD 47.5 million as shown in the table below:

Table 3. Project Economic Analysis – Summary Table

Million USD	Project Years									
	1	2	3	4	5	6	7	8	9	10-20
<b>Benefit Stream</b>										
Estimated benefit stream	0.4	1.1	2.2	3.6	5.8	8.7	11.9	14.8	17.3	19.4
<b>Total Benefits</b>	<b>0.4</b>	<b>1.1</b>	<b>2.2</b>	<b>3.6</b>	<b>5.8</b>	<b>8.7</b>	<b>11.9</b>	<b>14.8</b>	<b>17.3</b>	<b>19.4</b>
<b>Investments</b>										
Project Economic Cost (without loans)	14.3	5.7	4.8	4.7	4.0	4.0				
<b>Total Investments</b>	<b>14.3</b>	<b>5.7</b>	<b>4.8</b>	<b>4.7</b>	<b>4.0</b>	<b>4.0</b>				
<b>Incremental Net Benefits</b>	<b>-14.0</b>	<b>-4.6</b>	<b>-2.6</b>	<b>-1.1</b>	<b>1.7</b>	<b>4.7</b>	<b>11.9</b>	<b>14.8</b>	<b>17.3</b>	<b>19.4</b>
NPV @12% (USD mln)	47.5									
ERR	27.8%									

21. **Sensitivity Analysis.** Economic returns were tested against changes in benefits and costs and for various lags in the realisation of benefits. In relative terms, the ERR is equally sensitive to changes in costs and in benefits. In absolute terms, these changes do not have a significant impact on the ERR, and the economic viability is not threatened by either a 20% decline in benefits or by a 20% increase in costs. A fall in total project benefits by 20% would reduce the base ERR to about 24.4%. A one-year delay in project benefits reduces the ERR to 23.6%. The results are presented in the following table:

Table 4. Sensitivity Analysis of Project Economic Return



Sensitivity Analysis ( 20-year period)	Base case	Costs Increase			Increase of Benefits		Decrease of Benefits			Delay of Benefits	
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 year	2 years
<b>ERR</b>	<b>27.8%</b>	26.0%	24.4%	20.5%	29.7%	31.6%	25.8%	23.6%	21.3%	23.6%	20.5%
<b>ENPV (USD mln)</b>	<b>47.5</b>	44.7	41.9	33.5	55.1	62.6	40.0	32.4	24.8	37.4	28.4

