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Report No: 53156-UZ

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 16.5 MILLION  
(US\$25 MILLION EQUIVALENT)

TO THE

REPUBLIC OF UZBEKISTAN

FOR AN

ENERGY EFFICIENCY FACILITY FOR INDUSTRIAL ENTERPRISES PROJECT (UZEEF)

May 21, 2010

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

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2010)

Currency Unit	=	
United States Dollar (US\$) 1	=	Uzbekistani Som (UZS) 1,574
SDR 1	=	1.518240

## FISCAL YEAR

January 1	–	December 31
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## ABBREVIATIONS AND ACRONYMS

AAA	Analytical and Advisory Activities	FAO	Food and Agriculture Organization
ADB	Asian Development Bank	FI	Financial Intermediary
ARO	Adjusted Return on Assets	FRD	Fund for Reconstruction and Development of Uzbekistan
BoP	Balance of Payment	FRR	Financial Rate of Return
CBU	Central Bank of Uzbekistan	FSS	Financial Self-Sufficiency
CAMEL	Capital Adequacy, Asset Quality, Management Quality, Earnings, Liquidity)	FX	Foreign Exchange
CAR	Capital Adequacy Ratio	GDP	Gross Domestic Product
CAS	Country Assistance Strategy	GHG	Greenhouse Gas
CGAC	Country Governance and Anti-Corruption	GM-Uz	General Motors Uzbekistan
China EXIM	The Export-Import Bank of China	GoU	Government of Uzbekistan
CIS	Commonwealth of Independent States	GW	Gigawatt
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	HVAC	Heating Ventilation and Air Conditioning
C & I	Control and Instrumentation	IBRD	International Bank for Reconstruction and Development
CO <sub>2</sub>	Carbon dioxide	ICB	International Competitive Bidding
CoM	Cabinet of Ministers	IDA	International Development Agency
CPI	Consumer Price Index	IDR	Issuer Default Rating
CPIA	Country Performance and Institutional Assessment	IEs	Industrial Enterprises
CRU	Control and Revision Unit	IEG	Independent Evaluation Group
DA	Designated Account	IFAC	International Federation of Accountants
EA	Environmental Assessment	IFC	International Finance Corporation
EBIT	Earnings Before Interest & Tax	IFIs	International Finance Institutions
EBRD	European Bank for Reconstruction and Development	IFRS	International Financial Reporting Standards
ECA	Eastern Europe and Central Asia	IMF	International Monetary Fund
EE	Energy Efficiency	ISA	International Standards on Auditing
EHS	World Bank Group Environmental, Health and Safety Guidelines	ISDB	Islamic Development Bank
EMF	Environmental Management Framework	ITQ	Invitation to Quote
EMP	Environmental Management Plan	JCG	Joint Coordination Group
EUROSTAT	European Statistical Office	JV	Joint Venture
ERR	Economic Rate of Return	KDB	Korean Development Bank
FA	Financing Agreement	KfW	Kreditanstalt für Wiederaufbau

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kV	kilovolt	PFS	Project Financial Statements
kVA	Kilovolt amps	PPAH	Pollution Prevention and Abatement Handbook
kWh	Kilowatt hour	PPP	Purchasing Power Parity
LBBA	Law on Banks and Banking Activities	PV	Photovoltaic
LOC	Line of Credit	REP	Recurring Earning Power
M&E	Monitoring and Evaluation	RES	Renewable Energy Sources
MoE	Ministry of Economy	RESP	Rural Enterprise Support Project
MoF	Ministry of Finance	ROA	Return on Assets
NAS	National Accounting Standards	ROAA	Return on Average Assets
NBU	National Bank of Uzbekistan	ROAE	Return on Average Equity
NGO	Non Governmental Organization	ROE	Return on Equity
NIM	Net Interest Margin	RoU	Republic of Uzbekistan
NPL	Non-Performing Loan	SMEs	Small and medium sized enterprises
OM	Operational Manual	SOEs	Statements of Expenditure
PAs	Project Agreements	S&P's	Standard & Poor's
PAD	Project Appraisal Document	TA	Technical Assistance
PAR	Portfolio at Risk	ToR	Terms of Reference
PBs	Participating Banks	UZ	Uzbekistan
PC	Project Coordinator	UZEEF	Uzbekistan Energy Efficiency Facility for Industrial Enterprises
PCBs	Polychlorinated Biphenyls	US\$	US Dollar
PCU	Project Coordination Unit	UZS	Uzbekistani Som
PDO	Project Development Objectives	WDI	World Development Indicators
PFM	Public Financial Management		

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**UZBEKISTAN**  
**Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)**

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**REPUBLIC OF UZBEKISTAN**  
**ENERGY EFFICIENCY FACILITY FOR INDUSTRIAL ENTERPRISES (UZEEF)**  
**PROJECT APPRAISAL DOCUMENT**  
**EUROPE AND CENTRAL ASIA**  
**ECSSD**

Date: May 21, 2010	Team Leader: Franz Gerner
Country Director: Motoo Konishi	Sectors: District heating and energy efficiency services (100%)
Sector Manager/Director: Ranjit J. Lamech	Themes: Small and medium enterprise support (80%); Climate change (20%)
Project ID: P118737	Environmental category: Financial Intermediary Assessment
Lending Instrument: Specific Investment Loan	Joint IFC:
	Joint Level:

**Project Financing Data**

[ ] Loan [X] Credit [ ] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:

Total Bank financing (US\$ 25 million): SDR 16,500,000

Proposed terms: 35 years to maturity including 10 years Grace Period

**Financing Plan (US\$m)**

Source	Local	Foreign	Total
Republic of Uzbekistan	0.00	0.00	0.00
Participating Banks (PBs)	4.80	0.00	4.80
Sub-Borrowers (i.e. Industrial Enterprises)	4.80	0.00	4.80
International Development Association (IDA)	0.00	25.00	25.00
<b>Total:</b>	<b>9.6</b>	<b>25.00</b>	<b>34.6</b>

**Borrower:**

Republic of Uzbekistan

**Responsible Agency:**

Ministry of Finance

Ministry of Economy

Participating Banks (Asaka Bank, Uzpromstroybank, Hamkorbank)

**Estimated disbursements (Bank FY/US\$m)**

FY	11	12	13	14	15			
Annual	1.00	7.00	7.00	7.00	3.00			
Cumulative	1.00	8.00	15.00	22.00	25.00			

Project implementation period: Start June 30, 2010 End: July 30, 2015

Expected effectiveness date: September 17, 2010

Expected closing date: January 31, 2016

Does the project depart from the CAS in content or other significant respects? <b>Ref. PAD I.C.</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the project require any exceptions from Bank policies? <b>Ref. PAD IV.G.</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Have these been approved by Bank management?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is approval for any policy exception sought from the Board?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the project include any critical risks rated "substantial" or "high"? <b>Ref. PAD III.E.</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the project meet the Regional criteria for readiness for implementation? <b>Ref. PAD IV.G.</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project development objective <b>Ref. PAD II.C., Technical Annex 3</b> The project objective is to improve energy efficiency in Industrial Enterprises (IEs) by designing and establishing a financing mechanism for energy saving investments.	
Project description <b>Ref. PAD II.D., Technical Annex 4</b> The project has two components: (a) development of energy efficiency capacity (US\$1 million); and (b) a credit line for Participating Banks (US\$24 million).	
Which safeguard policies are triggered, if any? <b>Ref. PAD IV.F., Technical Annex 10</b> Environmental Assessment (OP/BP 4.01)	
Significant, non-standard conditions, <b>if any</b> , for: <b>Ref. PAD III.F.</b> <i>Conditions of negotiations:</i> None <i>Board presentation:</i> Approval of GoU and PBs of negotiated documents <i>Credit effectiveness:</i> <ul style="list-style-type: none"> <li>Subsidiary Agreements have been executed on behalf of the GoU and the respective Participating Banks (PBs)</li> <li>The Operations Manual satisfactory to the World Bank has been adopted by Ministry of Economy (MoE) and PBs</li> </ul> <i>Covenants applicable to project implementation:</i>  <i>Other covenants:</i> <b>Safeguards</b> 1. GoU shall cause the PB to: (i) take all necessary measures to implement the Project in accordance with the Operations Manual, the Environmental Assessment Framework and the EMPs, and shall not amend, suspend, abrogate, repeal or waive any provisions of the Operations Manual, the Environmental Assessment Framework and the EMPs, without prior approval of the World Bank; (ii) ensure that no sub-project shall involve any involuntary resettlement or land acquisition; and (iii) ensure that adequate information on the implementation of the Environmental Assessment Framework and the EMPs is suitably included in the Project Reports referred to in Section II.A of Schedule 2 to the Financing Agreement.  2. GoU shall ensure that the PB shall not finance any sub-project with a sub-loan unless: (i) the sub-project has been screened and approved by the PB in accordance with the provisions of the Operations Manual and the Environmental Assessment Framework; and (ii) as the case may be, the sub-project has been subjected to an environmental analysis and its environmental impacts have been addressed in a manner satisfactory to the PB in accordance with the provisions of the	

Operations Manual and the Environmental Assessment Framework.

### **Financial Management, Financial Reports and Audits**

1. MoE and PBs will maintain a financial management system acceptable to the World Bank.
2. The project consolidated financial statements, including Statement of Expenditures (SOEs) and Designated Account (DA) statements will be audited by independent auditors acceptable to the World Bank and on terms of reference acceptable to the World Bank.
3. The annual audited consolidated financial statements and the audit report will be provided to the World Bank within six months of the end of each fiscal year. PBs shall also prepare and furnish to the World Bank no later than forty-five (45) days after the end of each calendar semester, interim unaudited financial reports for the project covering the semester, in form and substance satisfactory to the World Bank.

### **Disbursement Condition**

No withdrawal shall be made for: (a) payments made prior to the date of the Financing Agreement; or (b) under Category (1) unless and until GoU has submitted to the World Bank, evidence satisfactory to the World Bank that financial management arrangements acceptable to the World Bank have been established, including staffing, budgeting, accounting, reporting, and internal control procedures for the purpose of carrying out Part A of the Project.

### **Other Undertakings**

A. GoU shall ensure that each PB shall remain in full compliance with all prudential norms and regulations of the Central Bank of GoU set forth in the "Regulation on Capital Adequacy of Commercial Banks" registered by the Ministry of Justice under No. 949 on 25.07.2000; the "Procedures for Categorization of Asset Quality, Formation and Use of Provisions Established by the Commercial Banks to Cover Possible Related Losses" registered by the Ministry of Justice under No. 632 on 11.02.1999; the "Regulation on Requirements to Commercial Banks' Liquidity Management" registered by the Ministry of Justice under No. 412 on 02.11.1998; the "Regulation on Maximum Exposure to One Borrower or a Group of Interconnected Borrowers" registered by the Ministry of Justice under No. 422 on 02.11.1998; and the "Regulation on Transactions Between Banks and Related Persons" registered by the Ministry of Justice under No. 423 on 02.11.1998; and in particular as regards to: (1) capital adequacy; (2) asset quality; (3) management and governance; (4) liquidity; and (5) profitability and efficiency.

B. 1. Unless otherwise agreed with the World Bank, GoU shall ensure that the PBs shall maintain compliance with the following criteria: (a) the net loans-to-total deposits shall be below 200%; (b) maintaining a positive return on the assets; (c) the non-performing loans shall be below 10 percent of gross loans excluding state guaranteed loans; and (d) the non-performing sub-loans under the Project shall be below 10 percent or less than 3 sub-loans.

2. For purposes of paragraph B.1 above:

(a) the term “net loans” means total volume of loan exposure minus provisions to cover possible losses;

(b) the term “total deposits” means total volume of all deposits of the customers including the state organizations, social organizations, legal entities and individuals;

(c) the term “return on assets” means ratio of net profit to average weighted balance of assets;

(d) the term “non-performing loans” means impaired loans according to IFRS minus loan impairment provisions; and

(e) the term “state guaranteed loans” means loans provided under the guarantee of the Republic of Uzbekistan.

C. GoU shall promptly inform the World Bank of any adverse change in the conditions of any of the PBs from that prevailing as of the date of the Financing Agreement so as to materially and adversely affect the ability of the PB to perform any of its obligations under the respective Project Agreement, or to repay the Subsidiary Financing pursuant to the terms of the Subsidiary Agreement.



## I. STRATEGIC CONTEXT AND RATIONALE

### A. Country and Sector Issues

1. Uzbekistan is an upper low-income, resource rich, double-landlocked country located in the heart of Central Asia. It accounts for nearly half of the region's population, and its economic and social prospects are critical both for the 27 million Uzbeks and the neighboring region.

2. Since independence in 1991, in contrast with most of the Commonwealth of Independent States (CIS) countries, Uzbekistan has adopted a gradual approach to transition and market development. This approach resulted in less painful economic and social conditions than experienced in most CIS countries and, in recent years, strong macroeconomic performance. Today, Uzbekistan has a fast-growing economy which, coupled with a large decline in the population growth rate, has led to a sharp increase of per capita GDP growth to over 8 percent since 2007.

3. Uzbekistan's economy has been resilient to the global financial crisis, which reflects the authorities' prudent policies that enabled them to accumulate considerable resources during the boom years, to support growth in this period. In late 2008 and during 2009, the government adopted and began implementing its anti-crisis program of measures for 2009-2012, which were estimated at around 4 percent of GDP: Some of its key features are to modernize electricity production, introduce energy-saving measures, and increase the industrial enterprises' (IEs) access to credit, in order to raise their competitiveness and productivity.

4. Uzbekistan is a major producer and exporter of natural gas and the second largest producer of electricity in Central Asia. Also, the country has one of the most energy-intensive economies worldwide. According to the latest World Development Indicators (WDI), Uzbekistan uses three times as much energy to produce a unit of GDP than the average for Eastern Europe and Central Asia (ECA) countries, two times as much as neighboring Kazakhstan, and six times as much as Germany.

**Uzbekistan's Energy Use and CO2 Emissions in Comparison, 2006**

	<b>Uzbekistan</b>	<b>ECA</b>	<b>Kazakhstan</b>	<b>Russia</b>	<b>Germany</b>
<b>Energy use per unit of GDP</b> (kg of oil equivalent per constant 2005 PPP US\$)	0.84	0.28	0.42	0.37	0.13
<b>CO2 emissions per unit of GDP</b> (kg/2005 PPP US\$)	2.1	0.7	1.4	0.9	0.3

Source: World Development Indicators (WDI), 2009

5. Uzbekistan is also the 35<sup>th</sup> largest carbon dioxide (CO<sub>2</sub>) emitter worldwide: It emits much more CO<sub>2</sub> per unit of GDP than most other countries in the region, more than twice as much as energy-rich Russia, and three times the ECA average.

6. There is wide consensus within the Government of Uzbekistan (GoU) and industry that the potential for energy savings through energy efficiency (EE) measures in IEs is huge. Its energy-intensive industries include brick and cement manufacturing, light industries (e.g., textiles), electrical equipment producers and food processing. These industries mostly use

highly-subsidized natural gas and electricity to run their production processes. The share of energy consumption in total production costs can be up to 40 percent for cement and brick factories, and 20 percent for textile industries. Most of the equipment and machinery is outdated Soviet-technology.

7. Improving EE and reducing energy consumption in the production process will improve Uzbek industries' overall competitiveness, free up scarce gas resources for lucrative exports to Russia, and reduce greenhouse gas emissions. Recognizing this, the GoU declared energy conservation in IEs as one of its key economic policy priorities and passed several resolutions/decrees that aim to incentivize energy savings. One of those measures is a targeted increase in energy prices to industrial sectors that do not implement EE measures: For example, the GoU recently targeted the highly energy-intensive building materials sector.

8. Although the industrial sector is quite varied, typical EE investments involve simple replacements or upgrades of energy systems, process technology, and the use of waste for heat and other purposes. Also, investments for renewable energy sources (e.g., biogas, small hydro and solar) in order to decrease fuel and electricity consumption would be sound. However, most of the industries are not familiar with the various energy-savings technologies and processes, and energy investment best practices. Also, they do not appreciate the financial benefits from investing in energy conservation.

### **The Banking Sector**

9. Uzbekistan's banking sector has remained stable and competition is increasing—including non-bank financial intermediaries such as leasing. The sector continues to be dominated by state-owned commercial banks, and plans to partially privatize some banks were put on hold as a result of the global financial crisis. Capitalization appears to be adequate and there is significant financial sector infrastructure in terms of service points, modern payment systems and real-time credit information systems.

10. Bank supervision by the Central Bank of Uzbekistan (CBU) is based on compliance with *Basel I* requirements. *Basel I* is a set of minimum capital requirements for banks.

11. The banking sector has withstood the external shocks caused by the global financial crisis, partly due to the small number of foreign banks and limited exposure of Uzbek banks to foreign banks.

12. Financing instruments have been concentrated in larger IEs that often get preferential access to financing and foreign exchange. Indeed, cross-ownership arrangements between larger IEs and state-owned Uzbek banks are common. Conversely, small and medium-sized IEs have limited access to finance because state-owned banks do most of their lending through special programs with below-market rates that support large and often state-owned IEs. Only 10 percent of loans and 1 percent of banking assets are linked to loans to small and medium-sized enterprises and retail sectors. Interest rate spreads appear to be comparable to other CIS countries.

## **B. Rationale for Bank Involvement**

13. The proposed pilot Uzbekistan Energy Efficiency Facility for Industrial Enterprises (UZEEF) project was requested by the GoU, which considers the EE agenda in the industrial sector to be one of its top economic policy priorities. The project's main objective is to design and establish a sustainable financing mechanism for energy-savings investments.

14. The project was discussed with the International Finance Corporation (IFC), the private sector arm of the World Bank group, which supports the proposed activity. The IFC has backed several general credit lines for enterprises since the mid-1990s. Other international financial institutions (IFIs), including the World Bank, European Bank for Reconstruction and Development (EBRD) and Asia Development Bank (ADB) also have extended credit lines in Uzbekistan. The proposed UZEEF credit line will complement and reinforce ongoing ones by establishing a new banking product that exclusively targets EE investments.

15. There is very little awareness among Uzbek industry and banks about energy conservation in general and EE investment opportunities in particular. Thus, a major goal of the operation is to raise awareness and build capacity in these sectors. The project will also help the GoU develop policies and strategies to tackle energy conservation in industry on a larger scale. The credit size of the UZEEF project is limited; to maximize development impact, participating banks (PBs) and IEs will leverage IDA funds.

16. The World Bank is uniquely positioned to provide the GoU with support, given the Bank's experience in successfully implementing similar credit lines in other client countries (e.g., Turkey, China and Croatia). The Bank's successful experience in integrating technical assistance (TA) and lending operations with the GoU's policy agenda will be crucial for launching the pilot project and creating a sustainable business model to scale up the activity in a later phase.

17. The project is the first World Bank energy operation in Uzbekistan. It will provide an excellent basis to strengthen and extend the cooperation between the World Bank and the GoU on the energy agenda and the energy challenges the country faces.

## **C. Higher Level Objectives to Which the Project Contributes**

18. The project's objectives are consistent with the fourth pillar of the Country Partnership Strategy (CAS) FY08-11 which stresses the importance of reducing greenhouse gas emissions and increasing EE within the Uzbek economy. It is also consistent with the Bank's efforts to promote clean energy technologies and conservation and would increase corporate commitments to increase EE lending operations.

19. The project will develop a new financial product focusing on EE investments that will target private IEs, along with those that are mainly privately-owned. Also, it will promote energy savings and reduce GHG emissions. The GoU has indicated it is interested in scaling-up the project once it is successfully tested.

## II. PROJECT DESCRIPTION

### A. Lending Instrument

20. The project is a specific investment loan operation that includes a development of energy efficiency capacity component. Two state joint-stock commercial banks (Asaka Bank and Uzpromstroybank) and a leading private joint-stock commercial bank (Hamkorbank) were pre-selected as the PBs for the project, after due diligence.

21. This will be an IDA credit for SDR 16.5 million, equivalent to US\$25 million, of which US\$24 million will be on-lent by MoF to the three PBs, and US\$1 million will be a development of energy efficiency capacity component carried out by MoE. The PBs will be responsible for debt service and will bear all credit risks associated with the Bank credit allocated to them.

### B. Project Development Objective and Key Indicators

22. The project objective is to improve EE in IEs by designing and establishing a financing mechanism for energy saving investments.

23. The project development objective will be achieved through (a) development of energy efficiency capacity; and (b) a line of credit for PBs.

24. Key performance indicators include: (a) leveraged amount of EE investments disbursed by PBs; (b) the amount of energy saved by IEs; and (c) development of an EE strategy by the Ministry of Economy (MoE). Further, financial core indicators for UZEEF (i.e., outstanding loan portfolio, portfolio quality and financial sustainability) will be monitored and reported.

### C. Project Components

25. The project has two components: (a) a US\$1 million development of energy efficiency capacity managed by MoE and (b) a US\$24 million credit line for EE investments for IEs, administered by the PBs.

26. **Component A – Development of Energy Efficiency (EE) Capacity (US\$1 million):** This component has several broad objectives: (a) to assist the MoE, which is responsible for EE in Uzbekistan, in developing an EE strategy for IEs that will enable the GoU to systematically and effectively scale-up and extend this operation in the next phase; (b) to address the lack of knowledge, experience and expertise in identifying, preparing and implementing EE projects in the industrial sector through targeted training; (c) to develop an EE communication strategy for the industrial sector; and (d) to create and maintain the Project Coordination Unit (PCU) under MoE to coordinate the implementation of the UZEEF project.

<b>Component A - Development of Energy Efficiency Capacity</b>
a. Develop an EE strategy for industrial enterprises in Uzbekistan
b. Develop an EE communications strategy and outreach programs
c. Enhance EE capacity among industries, banks, industry associations and energy professionals through training
d. UZEEF project management and coordination

27. **Component B – Credit Line to Participating Banks (PBs)** (US\$24 million): The Asaka, Uzpromstroy and Hamkor Banks will sign Sub-Credit Agreements with an allocation of US\$8 million to on-lend to IEs to carry out EE investments. During implementation, the MoF will reserve the right to reallocate these amounts, subject to approval by the World Bank, depending on the actual disbursement progress and demonstrated project pipeline of each PB. In addition, PBs will co-finance project activities; they will follow their existing loan approval processes for IEs, which were reviewed by the World Bank team and considered adequate to verify and monitor long-term investments by IEs. The PBs are responsible for ensuring that sub-loan applications and approvals under the project meet all Uzbek and World Bank requirements.

#### **D. Lessons Learned and Reflected in the Project Design**

28. Lessons from other IFI credit lines underscore the importance of the following: (a) the simplicity of project design and the need to build on existing institutions; (b) that there be clear responsibility and ownership of PBs’ credit lines; and (c) that potential political interference in the overall lending portfolio strategy and credit line approval process be limited.

29. The pilot faces additional challenges: (a) the IEs lack awareness and capacity to identify and prepare viable EE projects; and (b) they have limited experience assessing and evaluating EE sub-loan applications.

30. The UZEEF project-specific challenges and lessons from other credit line operations have been incorporated in the project’s design. The operation will build on existing institutions and the only requirement is that PBs and MoE designate project implementation units (PIUs) and form a project coordination unit (PCU) within their respective organizations. These units will be largely staffed by their existing personnel but it may be necessary to hire new permanent or temporary staff to ensure sufficient capacity in specific functions. The project design is simple: PBs will be responsible for Component B and MoE for Component A.

31. To ensure impartiality and reduce delays in allocating funds and avoid possible political interference in the PBs’ commercial practices, it was agreed they will have the sole responsibility for implementing the credit line and approving/monitoring sub-loan applications. It was also agreed that for the pilot, the funds will be channeled through two state commercial banks (Asaka and Uzpromstroy Bank) and a private commercial bank (Hamkorbank). Further, companies must be majority privately owned to reduce the risk of investing in non-viable commercial enterprises.

#### **E. Alternatives Considered and Reasons for Rejection**

32. During project preparation, alternative implementation arrangements were considered including the creation of a Central PIU, either within MoF or MoE, which would manage and

implement Components A and B, including supervising sub-loan applications and clearing sub-loan approvals by the PBs. During pre-appraisal, both MoE and MoF advised against this approach, expressing a strong preference for the PBs to be solely responsible for the implementation of the credit line component. By avoiding a central PIU arrangement, one of the most important challenges of any credit line operation in Uzbekistan—interference in decision processes at the banking level that reduce the efficiency or impact of the operation—will be mitigated.

33. During discussions, it was suggested that a single Designated Account (DA) could be established at the Central Bank of Uzbekistan (CBU) for each of the three PBs and for the MoE with regard to the development of energy efficiency capacity component. However, both ministries advised that each PB and the MoE should manage and be responsible for its own DA under this operation. Separate DAs for PBs at the CBU will further reduce the risk of interference in the day-to-day operation of the credit line. MoE will open an account through a commercial bank.

34. Various potential financial intermediaries (banks and leasing companies) were pre-screened during the identification mission in October 2009. Following the screening and after discussions with the GoU, it was agreed that two state banks (Asaka and Uzpromstroy) and a private bank (Hamkor) will be pre-selected for the project, based on their experience, qualifications and demonstrated interest to participate.

35. The credit line is limited to IEs that are fully or majority privately owned. Allowing majority state-owned companies to participate was considered during project preparation. However, to (a) mitigate conflicts of interest within state-owned banks, (b) ensure that limited IDA funds are channeled to productive commercial enterprises and sectors and (c) focus on IEs that find it difficult to access financing, it was decided that majority state-owned companies would not be eligible.

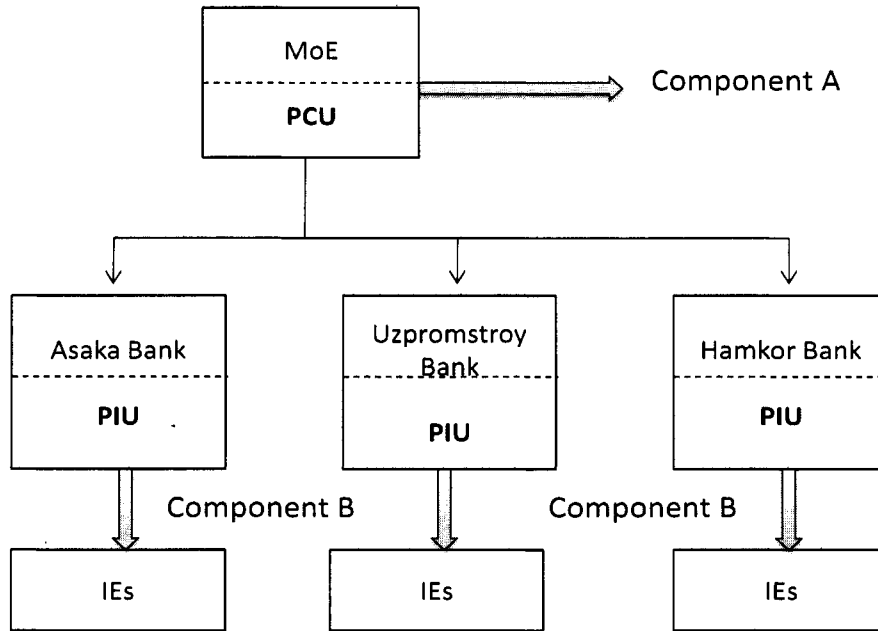
### **III. IMPLEMENTATION**

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

36. The MoE has the overall project coordination responsibility for the project and for the implementation of Component A—the Development of Energy-Efficiency Capacity. A PCU will be established within MoE and a project coordinator (PC) and other staff will be hired and funded under the project to implement Component A and coordinate the pilot. The PCU will manage certain efforts, including compiling and presenting financial and other reporting requirements (e.g., progress reports).

37. The PBs—Asaka, Uzpromstroy and Hamkor—will be responsible for implementing Component B—the Credit Line to Participating Banks. The organizational structure for project implementation and the detailed institutional arrangements are described below.

### Implementation Arrangements for the UZEEF Project



38. The PBs have the full responsibility for Component B, including appraising and approving the sub-loan applications and bear all credit risks associated with them.

39. Each PB will designate and, if necessary, hire dedicated staff to form a project implementation unit (PIU) with the following responsibilities. These include a director of the PIU, safeguards expert, engineering expert, credit officer, procurement specialist and financial management specialist. The PIU will coordinate and implement sub-lending activities and be the entity within the PBs for interacting with the World Bank, MoE and other stakeholders. The PIUs will have the primary responsibility for marketing and pipeline development for EE investments for their respective Banks. Also, they will be responsible for assessing potential IE applications and projects for eligibility screening.

### B. On-lending Framework for Participating Banks (PBs)

40. The project will be implemented over five years. The MoF will represent the Republic of Uzbekistan in signing the Financing Agreement (FA). It will also pass the World Bank credit on to the PBs, according to Subsidiary Agreements to be signed between MoF and each of the PBs. The World Bank will sign separate Project Agreements (PAs) with each of the PBs (Asaka, Uzpromstroy and Hamkor). Sub-Loan Agreements will be signed between the PBs and eligible IEs.

41. **Subsidiary Agreements (between MoF and PBs):** MoF will pass the IDA credit on to PBs at terms and conditions that will incentivize EE investments for IEs without distorting the financial markets. On-lending terms and conditions between MoF and PBs will include:

- a. Transparent and non-discriminatory on-lending between MoF and the three PBs, providing sufficient information to potential sub-borrowers so they can access the facility at a competitive price;
- b. the principal amount of the Sub-financing shall be in Dollars and shall have a maturity of not less than fifteen (15) years, including a grace period of five (5) years;
- c. interest shall be charged, on the principal amount thereof withdrawn and outstanding from time to time, at a rate equal to 6-month LIBOR plus an on-lending margin reflecting the administrative costs and risk margin of the MoF; and
- d. the Participating Banks shall provide a minimum equivalent to 20% of the amount of the Sub-financing for co-financing the Sub-project.

42. The proceeds obtained by MoF under the Subsidiary Agreements will create the possibility for a flow of funds to support additional EE investments, which can be channeled back to PBs.

43. **Sub-loan Agreements (between PBs and IEs):** A non-subsidized, 'market-based approach' for on-lending between PBs and IEs will be adopted. The Sub-loan shall be:

- a. in an amount not exceeding US\$1.5 million equivalent to any individual sub-borrower or group of sub-borrowers;
- b. denominated and repayable in US dollars, Uzbek Som linked to US dollars or in Uzbek som, depending on the assessment of the sub-borrowers' capacity to repay in foreign currency and the need to purchase imported goods and services;
- c. repaid with a maturity and grace period as set forth in Operations Manual for various types of sub-borrowers and sub-projects;
- d. charged interest on the principal amount withdrawn and outstanding from time to time at a rate sufficient to cover the cost of borrowing of the Participating Bank concerned plus a reasonable risk-adjusted spread and profit margin;
- e. co-financed by the sub-borrower in an amount equivalent to 20% of the cost of each sub-project.

### **C. Monitoring and Evaluation of Outcomes and Results**

44. Monitoring and evaluation of the project involves: (a) performance indicators, as noted in Annex 3; (b) semi-annual progress reports; (c) quarterly compliance certificates by PBs; (d) a midterm review of implementation and outcome progress; and (e) an Implementation Completion Report (ICR). The PCU, together with the PIUs of PBs, will develop a progress report template (including a monitoring and evaluation plan), as part of preparing the Operational Manual (OM).

45. The PCU will be responsible for coordinating monitoring/evaluation of the project's implementation progress, including the collection of project performance information from the Asaka, Uzpromstroy and Hamkor Banks.



46. The most significant weaknesses of the FM system that have been identified are: (a) PBs and the PCU lack prior experience in World Bank-financed projects; (b) no FM manual exists that clearly describes financial reporting, accounting and internal control policies/procedures, and budgeting/planning mechanisms to be followed by implementing agencies; (c) accounting and financial reporting at the PCU will be maintained in Excel spreadsheets which increases the risk of accounting and reporting errors; (d) PBs and the PCU will prepare SOEs and IFRs using Excel forms which, again, increases the risks of accounting and reporting errors.

47. For capacity building purposes the following actions will be taken:

<b>Actions for Capacity Building</b>	<b>Responsible</b>	<b>Completion Date</b>
1. Establishing FM capacity (staff, part time consulting, outsourcing) with relevant experience for PCU.	MoE	Prior to project disbursement
2. Organizing training on World Bank FM policies and procedures for the PBs and the proposed PCU.	PBs and MoE	Prior to project disbursement
3. Establishing/maintaining a budgeting, accounting and reporting system under the project.	PCU	Prior to project disbursement

#### **D. Sustainability**

48. Market-oriented structural reforms have already progressed in some areas that will promote the sustainability of the UZEEF project. For example, many targeted IEs depend on FX to purchase modern technology and equipment from abroad; and, the introduction of current account convertibility in October 2003 that enabled companies to access FX was important, despite some remaining bureaucratic hurdles and occasional restrictions in the availability of foreign currency. In addition, the realignment of energy prices closer to cost-recovery levels along with targeted price increases to industries that do not introduce energy-saving technologies, further promote this business line. Uzbekistan is catching up when it comes to EE measures, in general, and in industry, in particular. However, reducing energy consumption and increasing industrial productivity is a top economic policy objective for the coming years.

49. The project has an important demonstration purpose for generating longer-term funding opportunities in a new business line that targets IEs. The funds available are limited and there is a wide consensus within Government and industry that there is a large untapped bankable energy conservation investment potential in the country's energy-intensive IEs. IEs have shown great interest during the preparation of this project considering the relatively short payback periods of good EE projects. The PBs aim to develop and sustain viable commercial EE lending businesses and see a large upside potential among its client base.

50. The credit's development of energy efficiency capacity component will provide training and capacity building on the EE agenda for MoE, PBs and IEs, and raise awareness through a communications campaign. An EE strategy and other relevant policies for IEs will be developed as part of the project. If implemented successfully, the Government plans to scale up and extend the facility to more Uzbek banks and industrial sectors.

## E. Critical Risks and Possible Controversial Aspects

### Uzbekistan- Risk Identification Worksheet

Risk factors	Description of risk	Rating <sup>a</sup> of risk	Mitigation measures	Rating <sup>a</sup> of residual risk
<b>I. Country and/or Sub-National Level Risks</b> <b>Macroeconomic Framework</b>	Uzbekistan's macroeconomic position remains strong—cushioned by considerable foreign reserves of about 34% of GDP or 11 months of next year's imports and large fiscal savings at the onset of the global crisis. The main crisis impact was on Balance of Payments (BoP) through declining demand for certain Uzbek exports and reduced remittances. However, the drop in automobile exports and remittances was alleviated by an increase in domestic sales and a 40 percent salary increase. The main exports (e.g. gold and gas) either remained stable or actually benefited from the price changes. As a result, total exports grew by 2.4 percent and the trade surplus reached US\$2.3 billion in 2009. After the GoU launched a fiscal stimulus package, economic growth was 8.1%, there was a surplus in the current account BoP of an estimated 7% of GDP, and the budget was balanced in 2009. However several issues emerged in 2009: There was a large spread between official and curb foreign exchange rates (42 percent in February 2010) and the international ratings for Uzbek banks were downgraded.	Moderate	These risks are outside any specific project. The Bank, IMF and other donors are monitoring conditions and working with the Government through its AAA instruments to strengthen macroeconomic forecasting and sensitivity analysis to increase the preparedness in case of negative macroeconomic developments. The Bank is currently providing support to strengthen tools to manage macroeconomic vulnerability.	Moderate
<b>Country Engagement with World Bank</b>	Engagement was strengthened after the new CAS was produced, but there is a risk of deterioration of engagement if tensions over some issues prevail (e.g. data sharing and publication, procurement practices).	Substantial	Continued engagement, awareness of sensitive issues by the country team, advocacy and intensive consultations. The Bank is preparing its Progress Report of the FY08-FY11 CAS which will be discussed with the authorities.	Moderate
<b>Country Governance</b>	The country has a strong executive system with few checks and balances which increases the degree to	Substantial	The Bank, in close coordination with other donors, including the IMF and the ADB,	Substantial

Risk factors	Description of risk	Rating <sup>a</sup> of risk	Mitigation measures	Rating <sup>a</sup> of residual risk
	<p>which special interests can divert resources or influence policy-making via illicit and non-transparent means. There is little transparency, external accountability and citizen participation. Further, rigid, hierarchical government procedures, approvals and decision-making processes and procurement practices along with strict top-down discipline discourage bottom up initiatives and experimentation.</p>		<p>continued advocating for more transparency and stronger accountability mechanisms through TA, CPIA-driven Policy Dialog TA in particular, and investment projects, and through the dialogue on these issues within projects. These activities, together with engagement through the CGAC process, particularly to support improved accountability at a sector level, will gradually help.</p>	
<b>Systemic Corruption</b>	<p>Diversion of public/project money remains a risk and poor financial management and M&amp;E systems makes assessment of leakage difficult. Low salaries in the public sector contribute to administrative corruption and other rent-seeking behaviors.</p>	High	<p>The Bank continues to assist authorities in strengthening their PFM systems through AAA and TA, including supporting PFM reforms and Treasury modernization. In addition, having a strong partnership with authorities at central and local levels, creating a hotline for reporting complaints, and regular surveys/monitoring will likely increase supervision of procurement and financial management.</p>	Substantial
<b>II. Sector Governance, Policies and Institutions</b>				
<b>Energy Sector Governance, Policies, Institutions</b>	<p>The Government issued various decrees and resolutions and declared energy conservation as one of its top policy priorities. Government commitment is strong and MoE has assumed leadership to raise awareness and promote the EE agenda in the industrial sector. Government envisages scaling up the pilot project if implemented successfully and speedily. MoE is responsible for overall project coordination and two state-owned banks (Asaka and Uzpromstroy) participate in the project. Further, IEs with a limited share of public ownership are allowed to participate that could create some political</p>	Moderate	<p>A development of energy efficiency capacity component under UZEEF will enable MoE to prepare communication campaign for EE and carry out targeted training for IEs. To mitigate the risk of political interference in the sub-loan applications, MoE will not be part of their evaluation and approval, which will be the sole responsibility of the PBs. Further, PBs will not be allowed to have any ownership stake in IEs.</p>	Moderate

Risk factors	Description of risk	Rating <sup>a</sup> of risk	Mitigation measures	Rating <sup>a</sup> of residual risk
interference in the allocation of sub-loans.				
<b>III. Operation-Specific Risks</b>				
<b>Technical design</b>	There is a wide misunderstanding in the industrial sector about the nature of EE projects, which are often confused with simply replacing old and outdated equipment. This may affect the quality and quantity of the IEs' sub-loan applications and the speed/timing of the PBs' preparing a project pipeline. Also, PBs could take a long time to identify suitable clients and projects among their customer base.	High	The project design details exactly the type of EE investments that will be eligible under the project. This will help PBs assess and evaluate and IEs to prepare relevant project documentation. Target training will be carried out for IEs and PBs on the type of EEs that will be eligible. Pre-appraisal workshops were carried out for the building materials, light, and electrical equipment industries. During appraisal, other industries (food processing, leather and chemical producers, etc) were targeted and informed about the facility. PBs have started identifying clients among their customer base and promoting the pilot facility.	Substantial
<b>Implementation capacity and sustainability</b>	PBs have implemented credit lines with IFIs and international donors but not specifically on EE investments. An appraisal of all three PBs was carried out and assessed that the Asaka, Uzpromstroj and Hamkor Banks are qualified to participate in the project. MoE, which is responsible for implementing the development of energy efficiency capacity component, has limited experience with implementing World Bank projects. Thus, a new Project Coordination Unit (PCU) will be established and financed under the project to coordinate the pilot and implement the development of energy efficiency capacity component. Creating this unit and making it fully operational may take time.	Substantial	Each PB has formed a Project Implementation Unit (PIU), including a director, and relevant technical, procurement, FM and safeguards' staff. Further, all sub-loan applications will need to provide documentation from a qualified designated institute showing the EE investment and the associated annual savings. PBs are already developing sub-project pipelines and talking to their client base. Training will be provided to both PBs and the PCU to ensure adequate capacity of all implementing agencies.	Moderate
<b>Financial management</b>	No FM system exists; lack of FM capacity at the MoE could result in untimely submission of consolidated IFRs and annual financial statements,	Substantial	Accounting and financial reporting procedures will be detailed in the FM chapter of the OM which will be strictly followed by the FM	Moderate

Risk factors	Description of risk	Rating <sup>3</sup> of risk	Mitigation measures	Rating <sup>3</sup> of residual risk
	along with weak record-keeping under the development of energy efficiency capacity component.		staff of the PCU. FM staff with relevant experience will be recruited for the PCU, and FM training will be provided to staff in PBs and the PCU. Satisfactory FM arrangements will be maintained at PBs and the PCU.	
<b>Procurement</b>	PBs will be responsible for ensuring that sub-borrowers will comply with WB procurement rules. However, no unified legislative framework exists and domestic modes of procurement are inefficient and not transparent. Capacity and experience of MoE and PBs with WB procurement are limited.	High	Only IEs that are majority privately owned and use commercial practices are eligible under the project. IEs that are required to use public procurement procedures are not eligible. Procurement training will be carried out for designated PB staff. MoE will hire staff with relevant procurement capacity and all development of energy efficiency capacity components will require prior WB review and approval.	Substantial
<b>Social and environmental safeguards</b>	While EE improvements tend to present low environmental risks, the lack of upfront information regarding specific investments (inherent in FI lending) presents a risk of non-compliance with WB safeguard policies, particularly as the PBs have limited experience in this respect. There is also some reputational risk associated with providing support for existing industries' ongoing operations which could have environmental or social issues.	Substantial	Environmental risks are reduced through eligibility screening: Projects that are World Bank Category A or Uzbek Category I will not be eligible for financing. Projects requiring land acquisition will also be excluded. PBs all have technical staff with experience in compliance with Uzbek environmental laws and regulations who will receive training on WB safeguard policies at project launch and during project implementation. For the first two subprojects at each PB and/or until the World Bank feels the PBs have achieved the needed capacity, the World Bank will assist the PBs in carrying out safeguards' requirements for sub-loan applications. "Due diligence" for ongoing facilities/operations will be achieved by ensuring that project information packages	Moderate

Risk factors	Description of risk	Rating <sup>a</sup> of risk	Mitigation measures	Rating <sup>a</sup> of residual risk
			include documentation verifying that ongoing facilities/operations have all the necessary current Uzbek environmental permits for construction/operation and that there are no outstanding environmental issues or liabilities to be addressed.	
<b>IV. Overall Risk (including Reputational Risks)</b>				
<b>Memo items:</b> Memo items: 1. CPIA 2007/2008/2009 ratings (overall and four clusters): Overall: 3.1/3.0/3.3 Economic Management: 3.7/4.0/4.0 Structural Policies: 2.7/2.8/2.8 Policy of Social Inclusion/Equity: 3.7/3.7/3.7 Public Sector Management and Institutions: 2.5/2.7/2.8 2. IEG rating for UZ for FY05-09 is 80% satisfactory, and the Sector rating for Energy and Mining is 79.2% satisfactory <sup>a</sup> Rating of risks on a four-point scale – High, Substantial, Moderate, Low – according to the likelihood of occurrence and magnitude of potential adverse impact.				

## **F. Credit Conditions and Covenants**

51. **Effectiveness Conditions:** Signing of Subsidiary Agreements between MoF and PBs are conditions of effectiveness. An Operations Manual (OM) satisfactory to the World Bank has to be adopted by MoE and the Participating Banks.

52. **Covenants Applicable to:**

### **Safeguards**

1. GoU shall cause the PB to: (i) take all necessary measures to implement the Project in accordance with the Operations Manual, the Environmental Assessment Framework and the EMPs, and shall not amend, suspend, abrogate, repeal or waive any provisions of the Operations Manual, the Environmental Assessment Framework and the EMPs, without prior approval of the World Bank; (ii) ensure that no sub-project shall involve any involuntary resettlement or land acquisition; and (iii) ensure that adequate information on the implementation of the Environmental Assessment Framework and the EMPs is suitably included in the Project Reports referred to in Section II.A of Schedule 2 to the Financing Agreement.

2. GoU shall ensure that the PB shall not finance any sub-project with a sub-loan unless: (i) the sub-project has been screened and approved by the PB in accordance with the provisions of the Operations Manual and the Environmental Assessment Framework; and (ii) as the case may be, the sub-project has been subjected to an environmental analysis and its environmental impacts have been addressed in a manner satisfactory to the PB in accordance with the provisions of the Operations Manual and the Environmental Assessment Framework.

### **Financial Management, Financial Reports and Audits:**

1. MoE and PBs will maintain a financial management system acceptable to the World Bank.

2. The project consolidated financial statements, including Statement of Expenditures (SOEs) and Designated Account (DA) statements will be audited by independent auditors acceptable to the World Bank and on terms of reference acceptable to the World Bank.

3. The annual audited consolidated financial statements and the audit report will be provided to the World Bank within six months of the end of each fiscal year. PBs shall also prepare and furnish to the World Bank no later than forty-five (45) days after the end of each calendar semester, interim unaudited financial reports for the project covering the semester, in form and substance satisfactory to the World Bank.

### **Disbursement Condition:**

No withdrawal shall be made for: (a) payments made prior to the date of the Financing Agreement; or (b) under Category (1) unless and until GoU has submitted to the World Bank, evidence satisfactory to the World Bank that financial management arrangements acceptable to the World Bank have been established, including staffing, budgeting, accounting, reporting, and internal control procedures for the purpose of carrying out Part A of the Project.

### **Other Undertakings:**

A. GoU shall ensure that each PB shall remain in full compliance with all prudential norms and

regulations of the Central Bank of GoU set forth in the “Regulation on Capital Adequacy of Commercial Banks” registered by the Ministry of Justice under No. 949 on 25.07.2000; the “Procedures for Categorization of Asset Quality, Formation and Use of Provisions Established by the Commercial Banks to Cover Possible Related Losses” registered by the Ministry of Justice under No. 632 on 11.02.1999; the “Regulation on Requirements to Commercial Banks’ Liquidity Management” registered by the Ministry of Justice under No. 412 on 02.11.1998; the “Regulation on Maximum Exposure to One Borrower or a Group of Interconnected Borrowers” registered by the Ministry of Justice under No. 422 on 02.11.1998; and the “Regulation on Transactions Between Banks and Related Persons” registered by the Ministry of Justice under No. 423 on 02.11.1998; and in particular as regards to: (1) capital adequacy; (2) asset quality; (3) management and governance; (4) liquidity; and (5) profitability and efficiency.

B. 1. Unless otherwise agreed with the World Bank, GoU shall ensure that the PBs shall maintain compliance with the following criteria: (a) the net loans-to-total deposits shall be below 200%; (b) maintaining a positive return on the assets; (c) the non-performing loans shall be below 10 percent of gross loans excluding state guaranteed loans; and (d) the non-performing sub-loans under the Project shall be below 10 percent or less than 3 sub-loans.

2. For purposes of paragraph B.1 above:

(a) the term “net loans” means total volume of loan exposure minus provisions to cover possible losses;

(b) the term “total deposits” means total volume of all deposits of the customers including the state organizations, social organizations, legal entities and individuals;

(c) the term “return on assets” means ratio of net profit to average weighted balance of assets;

(d) the term “non-performing loans” means impaired loans according to IFRS minus loan impairment provisions; and

(e) the term “state guaranteed loans” means loans provided under the guarantee of the Republic of Uzbekistan.

C. GoU shall promptly inform the World Bank of any adverse change in the conditions of any of the PBs from that prevailing as of the date of the Financing Agreement so as to materially and adversely affect the ability of the PB to perform any of its obligations under the respective Project Agreement, or to repay the Subsidiary Financing pursuant to the terms of the Subsidiary Agreement.

#### **IV. APPRAISAL SUMMARY**

##### **A. Due Diligence of Participating Banks (PBs) and OP 8.30 Compliance Review**

53. Bank Operational Policy 8:30 requires that all PBs that participate in a World Bank-financed credit line are viable financial institutions at the time of project appraisal and throughout project implementation.

54. PBs should be able to meet the established eligibility criteria set by OP 8:30 in order to participate as such. These criteria establish standard financial performance benchmarks that are structured to reflect the core areas of a financial institution: (a) capital adequacy; (b) asset quality; (c) management and governance; (d) liquidity; and (e) profitability and efficiency. These



benchmarks are primarily aimed at setting a basic standard of financial health and soundness for eligible PBs.

55. The Bank performed financial due diligence according to these established eligibility criteria and confirmed the pre-selection of Asaka, Uzpromstroy, and Hamkor Banks as the PBs.

56. An OP 8.30 review was carried out prior-to pre-appraisal and was based on relevant project preparatory documents and reports.<sup>1</sup> Key recommendations for appraisal included:

- a. Realistic and market-based costing of the credit line and adoption of commercially oriented lending policy/rates;
- b. Justifications for supporting a credit program under this project;
- c. Adequately address the PBs' eligibility and specify the monitoring requirements with emphasis on evolving market business conditions.

57. The following banks have been selected to be PBs in the credit line, and the OP 8.30 review confirmed that they meet the requirements established in the guidelines.

58. **Uzpromstroybank** holds 12 percent of total bank sector assets and is the 2<sup>nd</sup> largest bank in Uzbekistan with a strong market presence throughout the country. It focuses on long-term financing of investment projects for large corporate clients from oil, gas, power and chemical industries, most of which are state-owned enterprises or joint ventures with the state. The state has 64 percent direct ownership and 12 percent indirect ownership through state-owned enterprises.

59. **Asaka Bank** is the 3<sup>rd</sup> largest bank in Uzbekistan with approximately 12 percent market share with a large network throughout the country. The largest client is the domestic car producer General Motors Uzbekistan, a joint venture between the US car maker and Uzavtosanoat. Other major clients include companies from textiles, trade, manufacturing, pharmaceuticals, construction and agriculture. The MoF holds 67 percent of shares, Uzbekistan's Fund for Reconstruction and Development holds 17 percent, and Uzavtosanoat holds 17 percent.

60. **Hamkorbank** is majority privately owned. The bank has less than 2 percent of market share and is the 13th largest bank in Uzbekistan. It focuses on providing services to small and medium-sized enterprises and the retail sector. The bank operates in 10 regions and has its strongest presence in the Fergana Valley. IFC is currently considering investing a minority stake in Hamkorbank.

61. Several specific risks were identified, including the quality of the loan book and lending practices. These will be monitored through an ongoing review of the eligibility criteria for PBs which involve, inter alia, assessing profitability, capital adequacy, asset quality, prudential compliance, corporate governance and risk management. The risks will also be mitigated through the eligibility criteria for sub-borrowers and sub-projects, the terms and conditions of the sub-

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<sup>1</sup> These included: (a) a Project Concept Note; (b) a Draft Appraisal of Potential PBs (against criteria in OP 8:30 guidelines); and (c) a Draft Operational Manual prepared by PBs.

credit agreements, and, where necessary, by bringing in experts to advise and strengthen PB capacity.

62. **Monitoring and Compliance of PBs:** Information about the credit line will be disseminated by PBs to potential sub-borrowers and industry associations. Active monitoring of sub-loan pricing and terms/conditions will be implemented to ensure compliance. For the duration of the project implementation period, beginning in September 2010 after the UZEEF project becomes effective, compliance certificates will be submitted quarterly. They will be signed by authorized PB signatories who confirm ongoing compliance with laws and regulations issued by the Uzbek authorities on agreed prudent ratios.

## **B. Economic and Financial Analysis**

63. The UZEEF facility will allow EE sub-loan applications up to US\$1.5 million per sub-borrower and PBs and IEs will each co-finance 20 percent. While co-financing by IEs will necessarily be transaction-based (i.e., contributed for every sub-loan), co-financing by PBs will be monitored annually on the overall disbursed amounts; this will give PBs flexibility about which sub-loans to co-finance. PBs will be responsible for selecting sub-projects for EE financing.

64. It is widely recognized that most EE investments are economically justified, especially as international energy prices are expected to be high for the medium term. Although domestic energy prices in Uzbekistan were adjusted upwards on several occasions over the last few years, they continue to be far below international market prices, especially for natural gas. The Government has started targeting IEs that do not implement EE investments with increased gas and electricity prices. There are also significant environmental benefits expected from EE investments as they use more efficient technologies.

65. Environmental benefits and high international energy prices will result in potentially higher economic rates of return (ERR) than financial rates of return (FRR) for eligible projects. The UZEEF project is built on the premise that the proposed EE sub-projects will be economically justified if they are financially viable. The on-lending PBs are only requested to analyze and confirm that the selected sub-projects are financially viable.

66. Several manufacturing industries—including light industry, electrical equipment and building materials—were analyzed during project preparation. Workshops were held and site visits carried out by the team to better understand the technologies used and the potential for EE investments. Analysis and discussions with industries and their associations indicated that typical EE investments in IEs will be up to US\$1.5 million. Boiler and kiln upgrading tend to be the largest investments with large energy savings potential. Improved lighting, thermal insulation, heat ventilation and air conditioning (HVAC) systems etc. will require smaller investments but can also greatly reduce the IEs' energy consumption.

67. PBs have indicated they are in the process of preparing a project pipeline, are in discussions with some of their clients and do not foresee any problems with disbursing the limited funds speedily. A more detailed economic and financial analysis and project pipeline is presented in Annex 10.

### C. Technical

68. Limited data and information is available on the Uzbek industrial sector and the current technologies used. During identification and pre-appraisal meetings, workshops were held with industry associations and companies to discuss potential EE savings. Several site visits were carried out which verified that in the buildings' material industry (e.g., cement, tiles, bricks), textiles and electrical equipment, many companies use outdated energy-intensive Soviet-era technologies that are often over 30-40 years old. Lack of awareness and misunderstanding about EE projects remain: These are often confused with simply replacing old or outdated equipment that does not necessarily conserve energy in any substantial way.

69. To mitigate risk, technical eligibility criteria for EE investments were developed. These will guide industries and PBs on the types of EE investments eligible under the project. In addition, IEs are required to verify EE technologies and savings by a qualified Uzbek design institute. This will ensure that the design of the subprojects will be technically sound and the required minimum 20 percent of EE savings are achieved.

### D. Fiduciary

70. The MoE and PBs will be responsible for implementing the financial management (FM) of the project, including the flow of funds, budgeting, internal controls, accounting, reporting and auditing. Neither MoE nor PBs have substantial experience in implementing Bank-financed projects.

71. **Fiduciary Risk at the Project Level:** The FM arrangements of all PBs (including internal PIUs) were assessed during the pre-appraisal mission in February 2010 and were found satisfactory. These included (a) a good internal controls framework over lending operations; (b) the project's DA to be maintained by PBs at the CBU is less vulnerable to the financial crisis; (c) the internal audit function for the project will be carried out by the PBs Internal Audit Department, and (d) the PBs' accounting system will be used for project accounting.

72. The proposed PCU within MoE has not yet been established; thus, there is no prior experience in implementing Bank-financed projects. Financial management capacity will be created in the PCU by project disbursement to ensure that (a) arrangements under the development of energy efficiency capacity component are met and (b) semi-annual IFRs and annual financial statements are consolidated.

73. The overall financial management risk for the project before mitigation measures is *Substantial*. After mitigation measures, the risk is *Moderate*.

74. As the project will be implemented in an environment of widespread corruption, adequate mitigation measures have been put in place and will be closely monitored to ensure that the residual project risk is acceptable, including: (a) a formal internal control framework described in the Operational Manual; (b) the flow of funds mechanism agreed with the Recipient will be enforced; (c) the project financial statements will be audited by independent auditors and on terms of reference acceptable to the Bank; and (d) regular FM supervision and procurement prior and post reviews will be conducted to monitor and assess the corruption risk.

75. **Fiduciary Risk at the Country Level:** According to the Country Financial Accountability Assessment report for Uzbekistan, the capacity of the accounting profession in the country is generally low, and there is no critical mass of professionally qualified accountants. Knowledge of internationally recognized accounting and auditing standards, such as International Financial Reporting Standards (IFRS), International Public Accounting Standards (IPSAS) and International Standards on Auditing (ISA), is limited, in both the public and private sectors. Bank activities are regulated by the Law on the CBU, the Law on Banks and Banking Activity (LBBA), and by other relevant legislation. The LBBA requires that banks be audited annually by auditors holding CBU audit licenses; also, that the audit include an assessment of a bank's capital adequacy and a classification of credits, risks and liquidity. In accordance with Uzbek banking laws and CBU decrees, banks must disclose financial and other information to the authorities to demonstrate compliance with the prudential and regulatory framework. Although the LBBA does not specifically provide for it, the CBU requires that annual bank financial statements be prepared in accordance with IFRS. An external audit is conducted by the Chamber of Accounts, but due to capacity constraints, the World Bank does not rely on this agency's audits.

76. No other country system FM elements are planned to be used under the project. PBs have been audited by international auditors for several years and usually unqualified opinions have been issued on their financial statements.

77. Fiduciary risk at the country level is considered *high* before mitigation measures and *substantial* after mitigation measures.

78. **Procurement:** Since the country public procurement assessment in 2003 (conducted jointly by the World Bank and ADB), little progress has been made in reforming the system. Procurement still suffers from the following weaknesses: (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 for public procurement; (d) weak capacity for reviewing bidders' complaints; (e) no independent scrutiny of contracts; (f) no comprehensive anti-corruption measures; and (g) low skills/capacity of the staff handling public procurement at every administrative level. Thus, the procurement environment is considered a high risk.

79. PBs will be responsible for ensuring that sub-borrowers (ie. IEs) will comply with the agreed procurement rules and procedures for sub-loans. The PCU under MoE will coordinate project implementation and the development of energy efficiency capacity component. The PBs' procurement capacity was assessed and it is expected that a PCU with sufficient procurement capacity will be created. Overall procurement arrangements for the UZEEF project are considered acceptable.

80. The PBs' procurement capacity, using commercial practices, is considered acceptable. Projects that will require IEs to follow public procurement laws and processes will not be eligible under the UZEEF operation.

81. To mitigate the risks, further procurement training will be provided to the PBs, IEs and the PCU during project launch and implementation.

82. Procurement will be carried out according to the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits," published in May 2004 and revised in October 2006 (Procurement Guidelines) and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers," published in May 2004 and revised in October 2006 (Consultant Guidelines). The Bank's Anticorruption Guidelines (of October 2006) will be implemented. Further details are provided in Annex 8.

## **E. Social**

83. The project is expected to have overall positive social benefits because it promotes EE and thus reduces greenhouse gas emissions and other pollutants into the atmosphere. It will also have positive impacts from the perspective of consumers and workers who are employed by the participating IEs. With regard to consumers, the company's energy costs will be reduced per unit of output with positive impacts on final prices of consumer products and services.

84. From the workers' perspective, retro-fitting production processes will increase EE and improve workplace conditions (such as indoor air quality and lighting). EE investments often entail replacing old and unsafe equipment with new technologies that have higher safety standards and can reduce work-related accidents caused by operating equipment and industrial processes.

85. Despite its benefits, the project could have some short-term health and safety risks to workers who could be exposed to hazardous wastes during the retro-fitting process (for example, inadequate disposition of gases used for cooling, exposure to asbestos from old insulation, and contact with industrial waste). To eliminate or mitigate these risks, PBs need to ensure that all participating IEs include in their applications a plan for properly managing waste. Mitigating measures and supervision should be carried out as part of the EMP procedures established for this operation.

86. The project will not trigger any social safeguard policies. Moreover, the PBs will ensure that eligible investment projects, as defined in the OM, specify that potential project beneficiaries may not participate if their project will require involuntary land acquisition. The PBs will verify the status of the property prior to approving any sub-project. In addition, the sub-loan agreements between the PBs and IEs will specify that the participating industries will fully comply with the existing national labor laws, including those related to children and women.

## **F. Environment**

87. In accordance with World Bank environmental safeguard policies (OP/BP/GP 4.01), the project has been assigned Category "FI" since individual sub-projects to be financed by the PBs will be identified after project implementation.<sup>2</sup> As agreed with the ECA Safeguards Secretariat,

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<sup>2</sup> For a Financial Intermediary (FI) operation, the World Bank requires that each PB screen proposed subprojects and ensure that sub-borrowers carry out appropriate EA for each subproject. Before approving a subproject, the PB verifies (through its own staff, outside experts, or existing environmental institutions) that the subproject meets the environmental requirements of national and local authorities and is consistent with the World Bank's environmental policies.

the framework approach is appropriate and an Environmental Management Framework (EMF) document was jointly prepared by the three PBs.

88. In accordance with recommendations of the ECA Safeguards Secretariat, it was agreed that the most appropriate manner to apply the World Bank's disclosure policy would be to place the EMF on each of the PBs websites. On March 10, 2010 the Uzbek language EMF was presented on the Asaka, Uzpromstoy and Hamkor Banks' websites ([www.asakabank.com](http://www.asakabank.com), [www.uzpsb.uz](http://www.uzpsb.uz), [www.hamkorbank.uz](http://www.hamkorbank.uz)).

89. A public consultation meeting was held on March 17, 2010 for which notices were posted in various Uzbek newspapers, inviting stakeholders to participate. The English language version of the EMF and minutes of the consultation meeting were available at the Infoshop on March 25, 2010. The EMF is presented in Annex 11.

90. The EMF describes procedures to be followed by sub-borrowers (ie. IEs) and PBs in order to satisfy GoU and World Bank EA regulations and policies. The EMF's main features include procedures for screening, environmental assessments (EAs), public consultations, EA reviews and approvals, public disclosures, supervision, and reporting. The screening procedure specified in the EMF is designed to consider only the potential sub-projects which present modest or no environmental risks based on the GoU and World Bank criteria.

91. Thus, projects determined to be Level I (high risk) under the GoU's EA regulations and/or Category A under World Bank criteria would not be eligible to participate in the project. The overwhelming majority of EE sub-projects are expected to have positive environmental effects and either minor impacts primarily associated with construction activities (e.g. dust, noise, disposal of non-hazardous wastes) or no environmental impacts.

92. A primary requirement of the EMF is that sub-borrowers (ie. IEs) provide the PBs with an information package demonstrating that the proposed investment is in full compliance with Uzbek EA regulations and procedures. Further, since EE sub-projects are almost always associated with an existing operation/process, the information package will also include documentation that the industrial facility in which the sub-project investment will be made has all necessary Uzbek EIA approvals before construction and operations. For example, if a waste heat boiler is to be financed in a cement plant, it must be shown that the sub-project complies with all Uzbek EA requirements, that the cement plant met all Uzbek environmental requirements before it was constructed, and that there are no outstanding environmental liabilities in its operating history.

93. All PBs have the technical staff needed to assure compliance with Uzbek EA safeguards. However, they have indicated they want more training to develop the skills for implementing the EMF requirements related to World Bank environmental policies. These additional responsibilities include:

- a. Screening in accordance with World Bank criteria;
- b. Guiding sub-project investors in preparing environmental management plans (EMPs); and
- c. Carrying out supervisory and reporting activities.

94. The World Bank project team will train PB technical staff in safeguards during the project launch mission. The team's environmental specialist will provide the PBs' safeguards staff with a series of training sessions on implementing the EMF during project preparation, loan effectiveness, and for their first few sub-project applications. Also, the specialist will travel to Uzbekistan several times in the next year for other projects and to organize half-day or one-day workshops which would be an efficient and cost-effective way of training, providing hands-on experience and building capacity. The potential environmental impacts to be associated with the anticipated sub-projects are either minor or negligible. Therefore, these arrangements are considered acceptable.

### G. Safeguard Policies

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

### H. Policy Exceptions and Readiness

95. The project does not require any policy exceptions.

96. The project is ready for implementation. The Asaka, Uzpromstroy, and Hamkor Banks are in the process of preparing a project pipeline and having discussions with clients. All three established PIUs to implement the project, and the sub-credit and project agreements will be finalized prior to effectiveness, as will the documents required about compliance with eligibility criteria. No specific institutional changes, policies or processes are required (e.g., evaluation and monitoring of applications) and funds can be disbursed once the project becomes effective.

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\* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas.

## **Annex 1: Country, Sector and Program Background**

### **UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)**

#### **Country and Sector Context**

97. Uzbekistan is an upper low-income, resource rich, landlocked country located in the heart of Central Asia. It accounts for nearly half of the region's population, and its economic and social prospects are critical both for the 27 million Uzbeks and for the region.

98. Since independence in 1991, in contrast with the majority of the CIS countries, Uzbekistan adopted a 'gradual' approach to transition and state-led development aimed at promoting import-substituting industries along with energy and food self-sufficiency. This approach resulted in a less painful economic and social transition than experienced in most CIS countries and, in recent years, a strong macroeconomic performance.

99. Major progress has been made in maintaining disciplined fiscal management that resulted in low public debt and limited budget since 2003. The IMF estimated that in 2009, the annual average CPI inflation will increase to 12.5 percent due to wage and benefits hikes despite lower imported food and oil prices and the continuing depreciation of the Uzbek Som in 2009. The consolidated fiscal position was strengthened in 2008, supported by strong revenues from the commodity sector, particularly from the increased price of gold and, even more so, from natural gas exports—negotiated with Uzbekistan's main gas buyer, Gazprom.

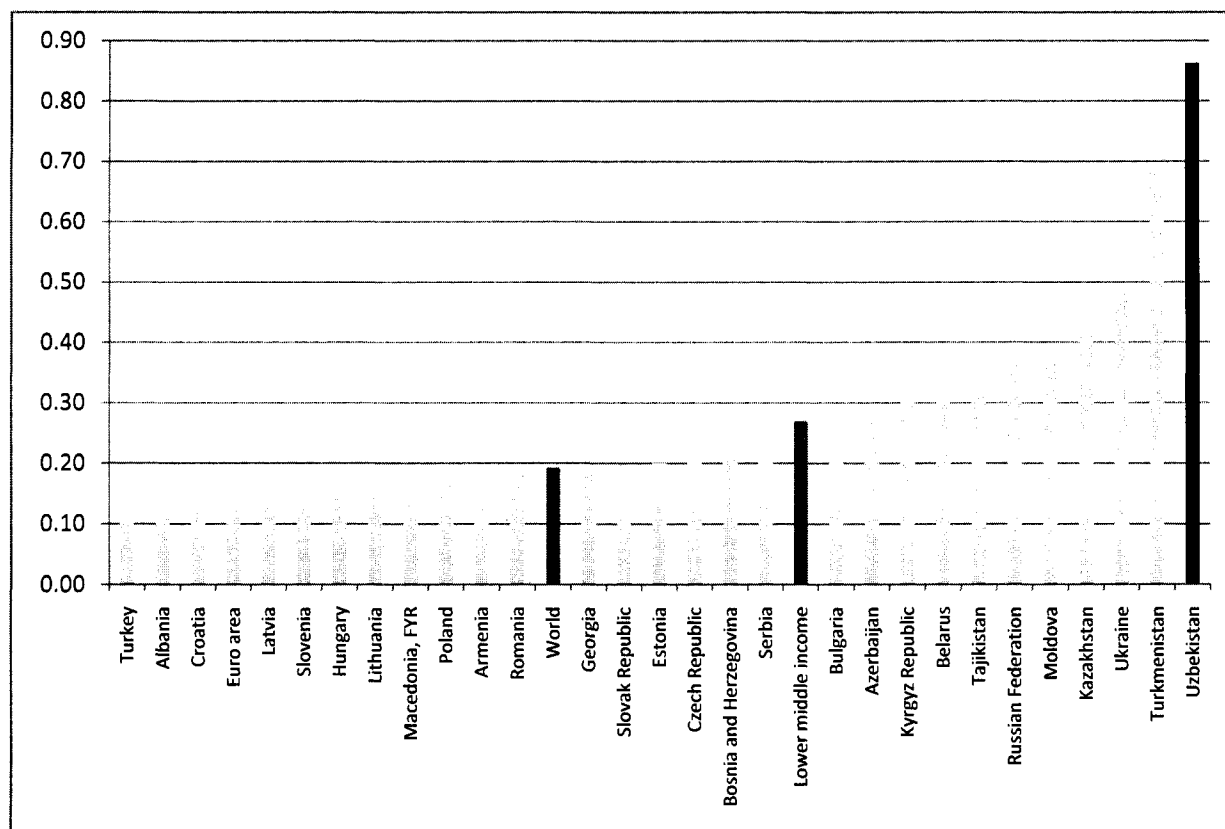
100. Uzbekistan has a fast growing economy, with growth rates of around 4 percent in 1996-2003, to over 7 percent in 2004-2006, and over 9 percent in 2007-2008. This growth, coupled with a large drop in the population growth rate (1.3 percent a year), led to a sharp increase of per capita GDP growth to over 8 percent in the first half of 2008. Nevertheless, employment generation and private consumption have lagged and there has not been a commensurate reduction in poverty in recent years.

101. Uzbekistan's economy has been much more protected from the global crisis than most countries, particularly in ECA, which largely reflects the authorities' prudent policies that enabled them to accumulate considerable resources during the boom years, to support growth in this period. In late 2008 and during 2009, the government launched anti-crisis measures for 2009-2012, estimated at around 4 percent of GDP. Key features were to modernize electricity production, reduce energy consumption, introduce energy savings measures per unit of industrial output, and increase IEs' access to credit.

102. In energy, Uzbekistan is a major producer and exporter of natural gas to Russia and Europe and the second largest producer of electricity in Central Asia. At the same time, the country has one of the most energy-intensive economies worldwide. According to the latest World Development Indicators (WDI), Uzbekistan uses three times as much energy to produce a unit of GDP as compared to average lower-middle income countries and nearly double that of neighboring Kazakhstan and Tajikistan.



**Energy Use per Unit of GDP, ECA, 2006  
(kg of oil equivalent per constant 2005 PPP US\$)**



Source: World Development Indicators (WDI), 2009

103. Uzbekistan is a major source of greenhouse gases and the country emits much more CO<sub>2</sub> per unit of GDP than most other countries in the region and twice as much as energy-rich Russia. This makes Uzbekistan the thirty-fifth largest carbon dioxide emitter worldwide: Uzbekistan emitted 200 million tons of CO<sub>2</sub> in 2006, and the number is estimated to double over the next decade as the economy grows—unless mitigation measures are adopted.

**Energy Efficiency Challenges to Ensure Sustainable Development**

104. The historically subsidized energy supply has led to Uzbekistan’s high energy intensity; the key contributors are IEs that mostly operate old and outdated equipment and machinery.

105. Electricity and natural gas are the major energy sources of the industrial/manufacturing sector. From 2002-2004, electricity tariffs changed significantly. Tariff levels were simplified, cross-subsidies were reduced and rates were increased. At the beginning of 2002, the average tariff was equivalent to 1.4 US cents per kWh. Today, the average (non-weighted) tariff is 4.2 US cents per kWh. In the public sector, tariffs rose by a factor of 8 since 2002.

### Uzbekistan Electricity Tariffs, July 2009

Group	Customer	UzS per kWh	USc per kWh
I	Industrial – connected to more than 750 kVA	51.15	3.4
II	Industrial – connected to 750 kVA	64.8	4.2
III	Agriculture/rural production (eg pumping stations)	64.8	4.2
IV	Electric rail, road and city transport	64.8	4.2
V	Non-industrial, budgetary organizations, city lighting	64.8	4.2
VI	Trading organizations, restaurants, service industries	66.6	4.3
VII	Residential – heating, cooling	64.8	4.2
	Residential – cooking	32.4	2.1
VIII	Advertising, commerce	110	7.1
IX	Auxiliary needs of energy system (Uzbekenergo)	64.8	4.2

Note: Effective since July 1, 2009 and approved by the Ministry of Finance (MoF)

### Uzbekistan Natural Gas Tariffs, January 2010

Customer	UzS per tcm	US\$ per tcm
Residential	35,000	22.7
Organizations (state, commerce, industry)	50,000-80,000	32.5-51.9
Export		240-300

106. While industrial plants pay US\$32-\$52<sup>3</sup> per thousand cubic meters (tcm) of natural gas, the country currently receives US\$240-\$300 for the same quantity exported to Russia. Natural gas is a major fiscal revenue source for Uzbekistan and there is a substantial upside potential to generate even more by exporting the gas that could be saved—if the industrial processes were more efficient. Consequently, the Government has targeted energy-intensive industries with price increases of up to 50 percent unless EE technologies are adopted.

107. There is wide consensus within Government and industry that the potential for energy savings through EE measures in IEs is large. Typical energy intensive industries include brick and cement manufacturing, light industries (e.g., textiles), electrical equipment and food processing.

108. Thus, the Government has made improving the EE of IEs as a key economic policy priority and approved several decrees and policies: The aim is to improve productivity and reduce production costs through EE investments that will reduce GHG emissions, make Uzbek industry more competitive in international markets, and free up natural gas for exports.

<sup>3</sup> The cost varies by type of industry: For example, brick factories only pay US\$32/tcm.

## Energy Efficiency Laws/Regulations for Industrial Enterprises (IEs)

<b>Law on ‘Efficient Usage of Energy’ – 1997</b>
This law provides the overall legal framework for EE savings and conservation, establishes national standards for energy use, and offers a mechanism for increasing EE..
Article 10 on ‘Cornerstones of State Regulation on Efficient Use of Energy’ presents guidelines that impact the EE agenda for IEs. These include:
<ul style="list-style-type: none"><li>• Implementing national, regional and sector-targeted programs and projects;</li><li>• Creating EE standards for energy production and use of equipment and goods;</li><li>• Introducing energy audits of enterprises/organizations;</li><li>• Establishing EE pilot projects to demonstrate the potential for savings;</li><li>• Developing seasonal and peak and off-peak tariffs for oil products, gas and electricity to encourage cost-efficient use of energy in production/consumption.</li></ul>
<b>President’s Decree #2812 – 2001</b>
This decree aims to speed the reform of the energy sector including restructuring and increased private and foreign participation to improve efficiency.
<b>President’s Resolution #4058 - Program of Measures to Support Enterprises</b>
This resolution aims to increase overall competitiveness of Uzbek enterprises domestically and abroad by modernizing processes and reducing energy consumption, to make them more energy efficient. The program focuses on the following components:
<ul style="list-style-type: none"><li>• Speeding up the modernization process by encouraging enterprises to use more efficient technologies;</li><li>• Reduce overall production costs by increasing energy savings.</li></ul>

### Uzbekistan Banking Sector Overview

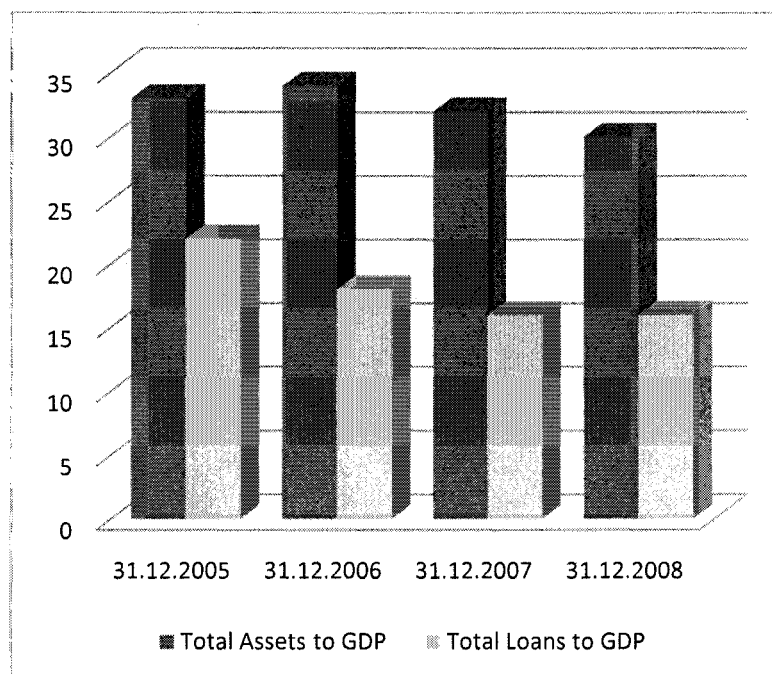
109. Uzbekistan’s banking sector has remained stable, competition is increasing (including from non-bank financial intermediaries such as leasing companies), capitalization continues to be adequate, and there is significant infrastructure (eg. service points, a modern payment system, and real-time credit information systems).

110. The banking sector withstood external shocks originating in the global financial crisis of 2007-2008, partly due to the small number of foreign banks operating in Uzbekistan and the limited exposure of Uzbek banks to foreign banks. Banking liabilities to non-residents are just 10.4 percent of total banking liabilities and 11.7 percent of assets, and these are mostly long-term loans from international financial institutions. Although liquidity positions remain tight, due to the accumulation of banks’ cash surpluses in the central bank, sudden liquidity squeezes are unlikely for the banking system as a whole.

111. Low integration into international capital markets is one of the reasons why financial intermediation lags behind the real economy. Banking assets and loans have grown rapidly in nominal terms since 2005, yet the ratio of banking assets to GDP—at 16 percent—is very low in general, and even in a regional context. In Kazakhstan, the same ratio was 48 percent at the end

of 2008.<sup>4</sup> Access to finance by small and medium-size enterprises (SMEs) is particularly low, as state-owned banks channel most of their lending to large industrial enterprises that often have a government stake (through special programs ensuring below-market rates). Only 10 percent of loans and 1 percent of banking assets relate to loans granted to small and medium-size enterprises and retail sectors; this is significantly below their share in value added and employment. Similarly, on the liabilities side, household savings comprise a small share of the total funding base—17 percent of total non-equity funding in 2008. At the same time, non-bank financial institutions remain underdeveloped.<sup>5</sup>

**Total Assets and Total Loans to GDP**



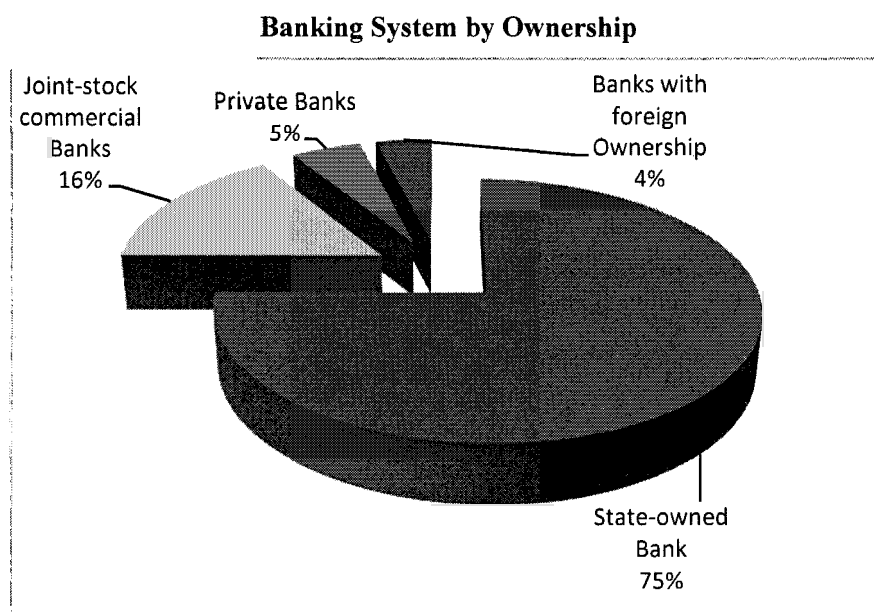
Source: Moody's Global banking System Outlook, page 6

112. The banking sector is dominated by state-owned commercial banks; plans to partially privatize some were put on hold as a result of the global financial crisis. The three largest, of the 29 operating in the country, accounted for 59 percent of total assets at the end of 2008. These banks are specialized, since they were established to serve particular industries and client segments, which translates into high industry concentration and risk exposure.

<sup>4</sup> According to Moody's, total assets to GDP at the end of 2008 were 31 percent; according to other sources, the ratio is 24 percent, lower than in Kyrgyzstan.

<sup>5</sup> The capital market is small and market capitalization was US\$ 3.3 trillion (11.7 percent of GDP) at the end of 2007. The leasing sector is small but growing: Around 50 percent of the market is covered by leasing companies, while the other 50 percent is covered by banks. The insurance market is also small but growing. Insurance premiums as a share of GDP are 0.3 percent (compared to 3 percent in Ukraine, 2.3 percent in Russia, and 1 percent in Kazakhstan). There are 27 insurance companies, including one life insurance company and one re-insurance company; four are state-owned. As of April 2008, there were 58 licensed credit unions with 70,000 members. Total assets were US\$42 million (mostly loans), with capital of US\$8 million.

113. The National Bank of Uzbekistan (NBU) is a leading bank, given its size and role in FX transactions and foreign investments. Asaka Bank supports the car industry and is becoming increasingly active in the SME segment; Aloka Bank serves the state-owned communications industry; Ipoteka Bank serves socially-oriented mortgage lending; Agro Bank serves agricultural lending; and Uzpromstroybank serves large state energy and industry companies. Private banks are oriented towards SMEs and the retail sector and consequently have more diversified loan portfolios.



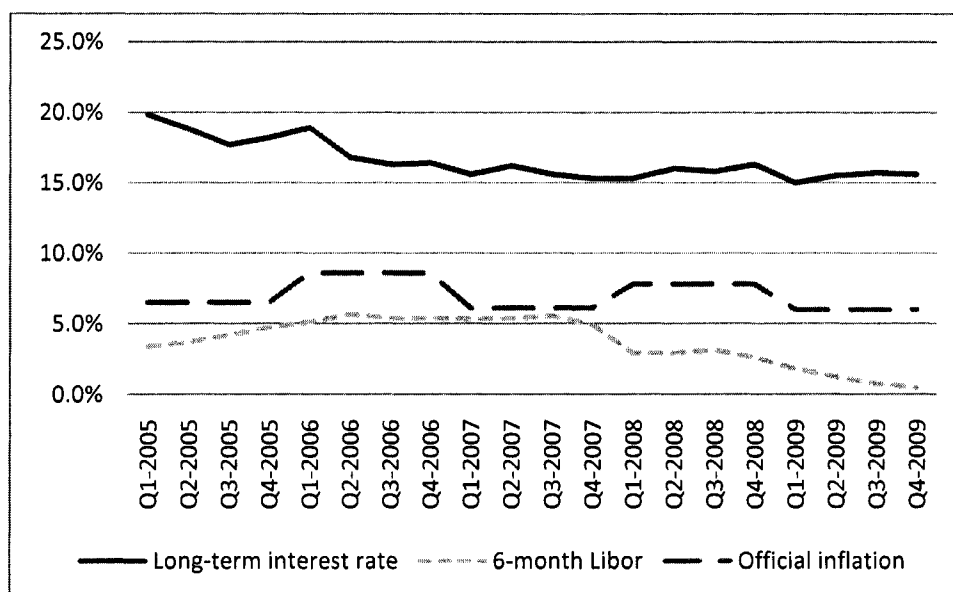
Source: Moody's Global banking outlook, page 7

114. The revenue models of Uzbek banks— in particular, those that are state-owned— differ from those in ECA countries which liberalized the banking system during the transition and have seen a growing share of foreign participation. Besides traditional intermediation services, state-owned banks perform numerous non-banking functions, such as tax payment control and tax collection, financial management on behalf of clients, registration and control over export and import operations, and restructuring of agricultural enterprises and those being liquidated.. Certain activities violate provisions on banking secrecy because banks must provide information on demand about balances or debits for tax purposes, without notifying owners of accounts, and the banks' management is liable.

115. Differences also exist with respect to international banking practices on the liabilities side. While private banks rely on clients' deposits, state-owned banks rely more on state funds and equity. Retail deposits accounted for only 17 percent in total non-equity funding at the end of 2008. Because of inflation and controls in the FX regime, depositors' savings eroded over the years in real terms, which is a disincentive to save in banks. Further, depositors can find it hard to access their savings and withdraw cash: Limitations on withdrawals are not due to individual banks' liquidity problems but rather to shortages of cash in the system. Overall, the reliance on non-banking functions as a source of revenue and centralized funding from public sources means banks invest little in the development of core banking services.

116. Interest rate spreads appear to be comparable to other CIS countries. According to CBU data, the average deposit rate in UZS for individuals was 13.5 percent at the end of 2007; for legal entities, it was 4.4 percent. The average short-term lending rate was 17 percent and long-term lending rate was 15.3 percent, which implies a spread slightly above 10 percent. As of June 2008, NBU reports lending at 14 percent in UZS and 4 percent in FX, and paying 5.2 percent on deposits in UZS and 2 percent in FX. Interest rates and spreads in private banks are higher, due to profit-maximization and pricing that reflects credit risks: In one private bank, lending rates are 20-25 percent in UZS to individuals, 16-18 percent to corporations, and 10-12 percent in FX, while its deposit rates average 22 percent in UZS and 7-8 percent in FX.

**Reference Interest Rate and Inflation, 2005-2009**



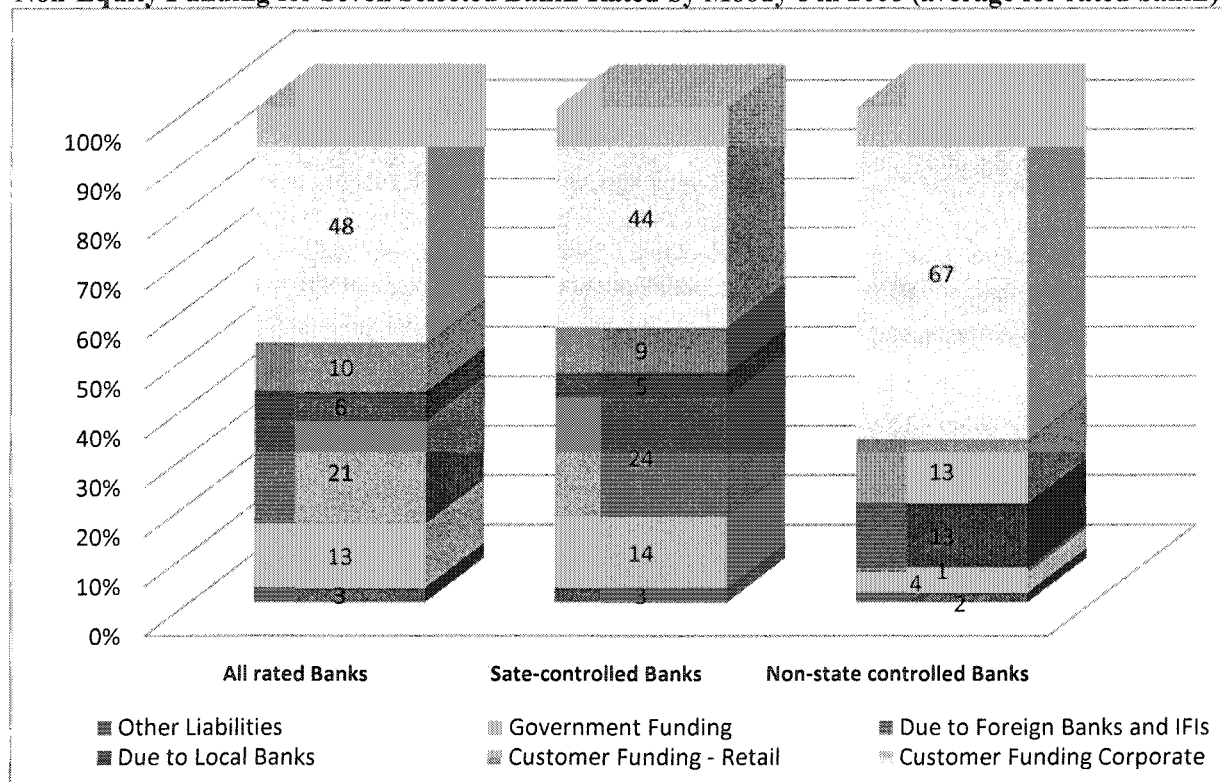
Source: IMF Article IV 2008, British Bankers' Association, CBU

117. Although the sharp deterioration of external conditions did not upset financial stability, it affected the credit quality of the banks' loan portfolio, because Uzbek exporters (especially related to raw materials and capital-intensive manufacturing industries) could not offset lower demand and prices. This resulted in worsening loan collections: Rating agencies estimate the level of NPLs (non-performing loans) could peak at 10-15 percent of total gross loans.<sup>6</sup>

118. The government has taken several remedial actions to improve the capital cushions and health of banks, introducing an unlimited (blanket) guarantee for retail depositors in March 2009. Also, minimum capital requirements for all banks were increased and joint-stock and state-owned banks were supported with capital increases (US\$285 million in six banks, which is 20 percent of the system's pre-contribution total capital), signaling strong support to the domestic banking sector. This intervention reversed the trend in ownership, moving toward greater state-participation.

<sup>6</sup> Rating agencies emphasize that the level of NPLs is difficult to evaluate as the local banks' approaches to disclosure are not homogenous given the underdeveloped local statutory requirements, which differ from international standards. Still, stress tests under a worse-case scenario in which NPLs reach 25% could be dealt with given the capital injections made by the government.

**Non-Equity Funding for Seven Selected Banks Rated by Moody's in 2008 (average for rated banks)**



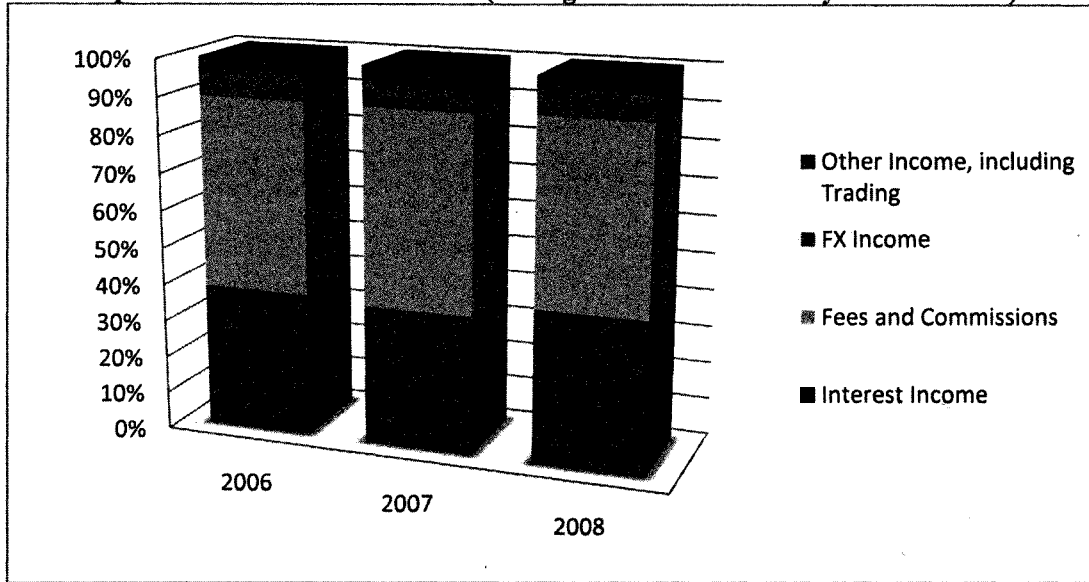
Source: Moody's Global banking outlook for Uzbekistan, page 4

119. Profitability indicators are stable, and capital adequacy exceeds the prescribed minimum by a wide margin, but future performance is under pressure. Profitability ratios differ significantly among banks. State-owned banks have little flexibility in setting interest rates on individual deposits or retail loans (due to special state-funded programs with below-market rates), which results in losses for banks from retail operations.

120. There are downside risks on the income side. First, most of the banks' income is from fees and commissions from clients' settlements and FX operations. This income is tied to the international money transfer systems, and could fall due to unemployment in CIS countries and the drop in income from Uzbek emigrants. Second, profitability may fall due to the increased state influence over banks, which is leading to further controls over lending and lending under non-market conditions. The third factor is the rising level of NPLs (non-performing loans).

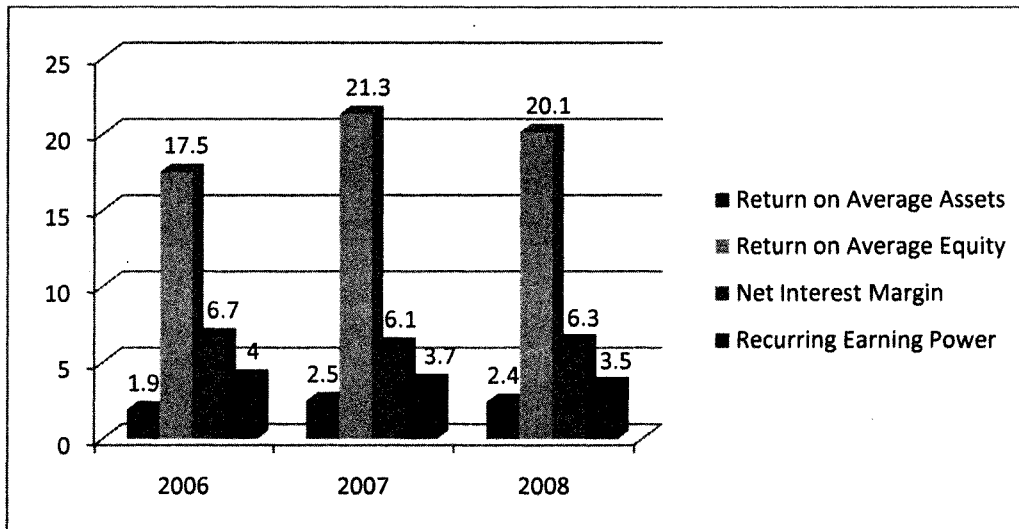
121. Bank supervision by the Central Bank of Uzbekistan (CBU) is based on compliance with Basel I banking supervision requirements. Uzbekistan is considered to have a sound prudential framework (see Annex 9 for details), but supervision focuses on regulatory compliance. Minimum prudential requirements for Uzbek banks are based on international standards and in some areas are more rigid than in other countries. The Capital Adequacy Ratio (CAR) is set at 10 percent; under local rules, however, government-guaranteed loans and loans granted to state companies can receive a zero risk weighting, which results in higher capital adequacy ratios under the local regulatory standards.

**Operational Income Structure - (average for seven of Moody's rated banks)**



Source: Moody's Banking Sector Outlook

**Dynamics of Profitability Metrics – ROAA, ROAE, REP, NIM (average for seven of Moody's rated banks, in percents)**



Source: Moody's Banking Sector Outlook

122. Banks' daily reporting requirements are substantial and supervision focuses on their compliance with regulations. Full implementation of Basel II will not be established in the next few years and may be put on hold given the development of new international prudential standards. On-site inspections are carried out annually, when the CAMEL (capital adequacy, asset quality, management quality, earnings and liquidity) rating is applied. CBU introduced most of the principles of good corporate governance through by-regulation, but a gap remains between practice and established guidelines, which constrains the sector's credit conditions. Risk management practices are being strengthened at banks but there is still some way to go to reach international best practices.



## Annex 2: Major Related Projects Financed by the Bank and/or other Agencies

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

123. Uzbekistan's banks have experience implementing credit lines with international finance institutions (IFIs), including EBRD, ADB, ISDB, KfW and several export/import agencies (including China EXIM, Korea KDB). Within the World Bank Group, both IFC and IDA have successfully implemented credit lines since the mid 1990s. The World Bank is currently carrying out a credit line operation under the Rural Enterprise Support Project (RESP), Phase II, of over US\$68 million, with Ministry of Agriculture and Water Resources. RESP, Phase I, of over US\$36 million, was successfully implemented and closed in 2008.<sup>7</sup>

#### Major Related Projects Financed by the World Bank

Project	Sector Issue	Latest Supervision Ratings of Bank Project	
		Implementation Progress	Development Objective
<b>World Bank</b>			
Rural Enterprise Support Project - Phase I (closed June 2008)	Financial intermediary lending to develop agriculture sector, farming and associated agribusiness activities	Satisfactory	Satisfactory
Rural Enterprise Support Project - Phase II	See above	Satisfactory	Satisfactory

124. The IFC has opened six credit lines with local banks since the mid 1990s, all focusing on increasing access to finance for small and medium-size enterprises. Most of those projects were financed over various phases and the following are now under implementation:

- US\$8.5 million to Uzbek Leasing
- US\$15 million to Asaka Bank
- US\$15 million to National Bank of Uzbekistan (NBU)
- US\$10 million to Hamkorbank

125. The design of the proposed EE credit line project has benefited from lessons learned from similar operations in China, Croatia and Turkey. The team also benefited from IFC's experience with several credit lines focusing on small and medium-size enterprises since the mid-1990s and from the World Bank RESP project. Two banks also participating in the UZEEF project are Asaka and Hamkor Banks, which have implemented several credit lines with IFC.

<sup>7</sup> The FAO made a comprehensive final evaluation of RESP and the evaluation report states: "The qualitative farm survey undertaken in December 2007 showed clear evidence of the positive impacts and therefore relevance of both the irrigation and drainage improvement and the rural finance components on farm performances of project beneficiaries. After implementation of RESP I in 2007, returns from cotton and wheat production are higher for all RESP beneficiaries than for the control group."

### Annex 3: Results Framework and Monitoring

#### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

##### Results Framework

Project Development Objectives	Project Outcome Indicators	Use of Project Outcome Information
Improve EE for IEs by designing and establishing a financing mechanism for energy saving investments.	<ul style="list-style-type: none"> <li>a. Leveraged EE investments</li> <li>b. Energy savings</li> </ul>	<p><i>YR1-YR3:</i></p> <ul style="list-style-type: none"> <li>• Track project progress and measure success of pilot</li> <li>• Assess whether project activities need to be adjusted to ensure speedy and efficient implementation</li> </ul> <p><i>YR5:</i></p> <ul style="list-style-type: none"> <li>• Feed lessons into strategy for scaling up activities</li> </ul>
Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
<b>Component A – Development of EE Capacity</b>		
<ul style="list-style-type: none"> <li>a. Develop EE strategy for IEs</li> <li>b. Develop EE communications strategy</li> <li>c. Enhance EE capacity</li> <li>d. Establish the PCU</li> </ul>	<ul style="list-style-type: none"> <li>a. EE strategy for IEs</li> <li>b. EE communications strategy</li> <li>c. EE training program</li> <li>d. Fully functional PCU</li> </ul>	<p><i>YR1-YR5:</i></p> <ul style="list-style-type: none"> <li>• Monitor implementation progress</li> <li>• Feed lessons into strategy for scaling up activity</li> </ul>
<b>Component B – EE Credit Line to Participating Banks (PBs)</b>		
<ul style="list-style-type: none"> <li>a. Disburse project funds</li> <li>b. Ensure sustainability and quality of credit line</li> </ul>	<ul style="list-style-type: none"> <li>a. Disbursement of funds</li> <li>b. Outstanding loan portfolio</li> <li>c. Portfolio quality</li> <li>d. Financial sustainability</li> </ul>	<p><i>YR1-YR2:</i></p> <ul style="list-style-type: none"> <li>• Low levels of disbursement may flag weak business development capacity of PBs and interest of IEs</li> <li>• Introduce necessary adjustments in OM</li> </ul> <p><i>YR5:</i></p> <ul style="list-style-type: none"> <li>• Feed lessons into strategy for sustaining and scaling up</li> </ul>

**Arrangements for Results Monitoring**

Project Outcome Indicators	Baseline 2009	Target Values					Data Collection and Reporting		
		YR1	YR2	YR3	YR4	YR5	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
a. Leveraged amount of EE investments disbursed (US\$ million)*	0	1.7	11.3	21	29.4	34.6	Quarterly and semi-annual reports (QSARs)	Reports of PBs compiled by PCU	PBs/PCU
b. Cumulative annual energy consumption savings (MWh/year)**	0								
c. Cumulative CO <sub>2</sub> emission reductions (million tons of CO <sub>2</sub> )**	0								
<b>Intermediate Outcome Indicators</b>									
<b>Component A - Development of EE Capacity</b>									
a. Establishment and operation of PCU	0	PCU formed							
b. EE strategy for IEs	0						QSARs	PCU	PCU
c. EE communications strategy	0								
<b>Component B - Credit Line - SME Finance Core Indicators</b>									
a. Cumulative disbursed IDA funds***	0	1.2	8.1	15	21	24			
b. Cumulative number of sub-loans	0								
c. Outstanding loan portfolio of PBs****									
- PB 1	180								
- PB 2	98								
- PB 3	10419								
d. Portfolio quality*****									
- PB 1	1.14%								
- PB 2	6.94%								
- PB 3	0.79%								
e. Financial sustainability*****									
- PB 1 (AROA)	1.63%								
- PB 2 (AROA)	0.86%								
- PB 3 (ROA)	4.7%							Project Reports	PBs/PCU

\*IDA investments leveraged by PBs and IEs.

\*\* Due to the uncertainty about the industries applying for credit lines, the actual energy savings of the technologies applied and CO<sub>2</sub> reduction can only be calculated ex-post after the submission and approval of sub-loans by the PBs. However, the only projects eligible are those that can demonstrate annual energy savings of 20 percent and more.

\*\*\*Disbursement of IDA funds is indicative and funds can be disbursed over a shorter period depending on the PBs' capacity.

\*\*\*\*Number of loans to SMEs with initial size of up to US\$1 million.

\*\*\*\*\*Portfolio at Risk (PAR) measured by non-performing loans (NPLs): Total outstanding principle balance of all loans where any payment is more than 30 days late, divided by the gross outstanding loan portfolio. The aggregate PAR for the project is the weighted average PAR for each PB.

\*\*\*\*\*Financial sustainability is key to assessing both the quality of the operation and the risks to sustainability. Subsidized PBs must report adjusted returns on assets (ARO) or financial self-sufficiency (FSS). Unsubsidized PBs must provide returns on assets (ROA) or returns on equity (ROE). Calculations of financial stability are detailed in the Operational Manual (OM).

## Annex 4: Detailed Project Description

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

126. **Component A – Development of Energy Efficiency (EE) Capacity (US\$1 million).** This component has several broad objectives: (a) to assist the MoE, which is responsible for EE, to develop an EE strategy for IEs that will help the GoU to systematically scale-up and extend this operation to a second phase; (b) to address the lack of knowledge, experience and expertise in identifying, preparing and implementing EE projects in the industrial sector and banks through targeted training; (c) to develop an EE communications strategy for the industrial sector; and (d) to create and maintain the PCU under MoE to coordinate the implementation of the UZEEF project.

<b>Component A – Development of EE Capacity</b>
a. Develop an EE strategy for IEs in Uzbekistan
b. Develop an EE communications strategy and outreach programs
c. Enhance EE capacity among industry, banks, industry associations and energy professionals through EE training
d. Arrange for UZEEF project management and coordination

127. The GoU has issued several decrees/resolutions but does not yet have a comprehensive EE strategy for IEs. Developing such a strategy—to help shape government policy to systematically target EE improvements in IEs—is a major objective. This will require a comprehensive review of existing IEs, current technology used, energy savings potential and lessons learned from international experience. The report will recommend ways to tackle energy conservation in IEs over the next 5-10 years.

128. Developing an EE communication strategy will be critical, not only to raise awareness but also to attract international donors to provide assistance. The strategy will also include dissemination and marketing of successful EE projects carried out under UZEEF.

129. The EE training component aims to enhance EE capacity among industry associations, IEs, banks and energy professionals to identify and evaluate EE projects and prepare business plans. Training will include:

- a. Energy efficiency workshops, to introduce technologies to specific industries and provide training on indentifying and preparing EE investments;
- b. Energy efficiency indicators, to monitor and evaluate progress in the industry;
- c. Energy auditing techniques, including various types, and ways to measure and evaluate energy savings, reporting and monitoring;
- d. Demand side management, to help IEs target and monitor EE improvements, prepare energy balances, and identify cost effective energy measures.
- e. Appraisal of EE investment projects, to implement best practices, build credit appraisal capacity for EE project finance, and support potential IEs, thereby generating a robust project pipeline of high-quality projects.

130. The Project Coordination Unit (PCU), located in the MoE, will coordinate the UZEEF project and implement the development of energy efficiency capacity Component A. The PCU will (a) recruit local and international experienced consultants to carry out all aspects of the TA for the duration of the project, which will be funded from the Component; and (b) coordinate the UZEEF project monitoring and reporting requirements. The PCU will be entitled to incur limited operating cost (eg. for basic equipment, project travel, conference room rentals).

131. **Component B – EE Credit Line to Participating Banks (PBs) (US\$24 million):** Asaka, Uzpromstroy and Hamkor Banks will sign subsidiary agreements with an allocation of US\$8 million to on-lend to IEs to make EE investments. Subject to World Bank agreement, the MoF can reallocate these amounts according to the implementation progress and demonstrated project pipeline. In addition, PBs will co-finance project activities under the UZEEF project matching at least 20 percent of IDA funds. Sub-borrowers (ie IEs) will contribute another 20 percent, which is common practice for loan applications for IEs in Uzbekistan. In total, every US\$1 of IDA funds under the UZEEF facility will be leveraged by at least US\$.40 by PBs and IEs.

132. PBs will follow their existing sub-loan approval processes for IEs which were reviewed by the Bank team and considered adequate for verifying and monitoring investments with the expected long-term maturity. The PBs are responsible for ensuring that sub-loan applications and approvals under the UZEEF project are adequate and fulfill all Uzbek and World Bank requirements. PBs have indicated that substantial demand exists among their customer base for this facility and a project pipeline is being developed.

133. PB staff will be trained at project launch and, if considered necessary, this can be reinforced during supervision by World Bank staff to ensure all environmental, social, procurement and financial management aspects of the project are adequately addressed. World Bank Category A and Uzbek Category I projects will not be eligible; hence, no major safeguards' issues are expected under this operation. If required, PBs will hire additional technical staff to carry out their responsibilities at their own costs.

### Annex 5: Project Costs

#### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

Project Cost By Component and/or Activity	Local US\$ million	Foreign US\$ million	Total US\$ million
<b>Component A – Development of EE Capacity</b>			
Development of EE Capacity	0.4	0.6	1
<b>Component B – EE Credit Line</b>			
Credit line to participating banks (PBs)	N/A	24	24
Industrial enterprises (IEs) – 20%	4.80	0	4.80
Participating banks (PBs) – 20%	4.80	0	4.80
<b>Total Project Costs</b>	0.4	24.6	25
<b>Total Financing Required</b>			<b>34.6</b>

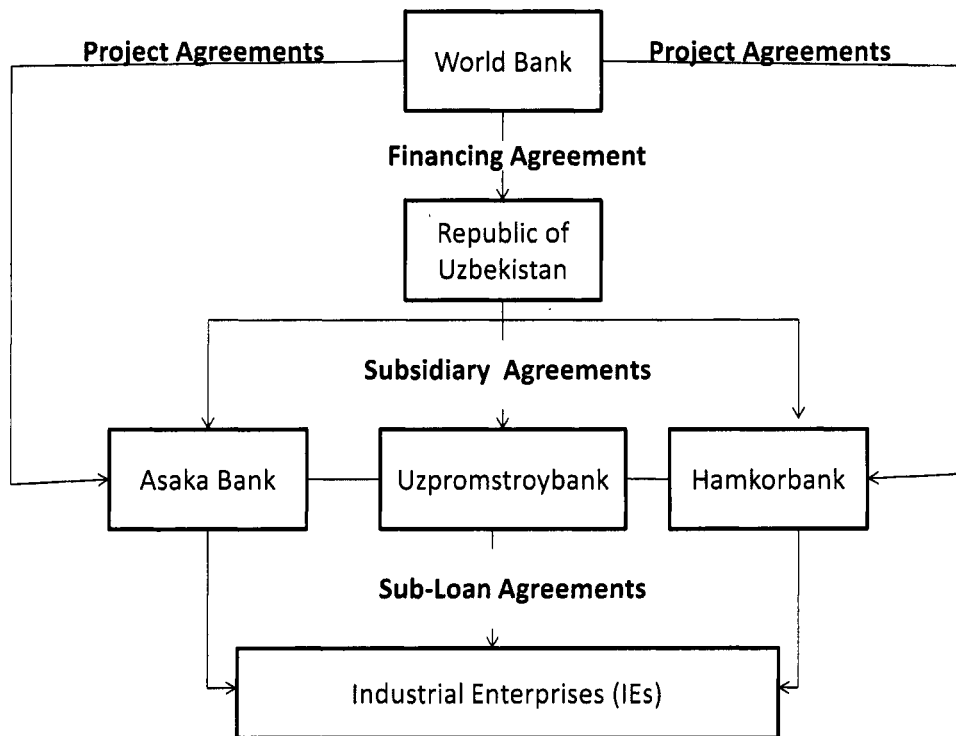
## Annex 6: Implementation Arrangements

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

#### Overview of Legal Arrangements

134. The proposed project will be implemented over five years. The Ministry of Finance (MoF) will represent the Republic of Uzbekistan in signing the Financing Agreement (FA). MoF will pass on the World Bank credit to PBs, in accordance with Subsidiary Agreements to be signed between MoF and PBs. MoF has indicated that the credit will be passed on to PBs at terms and conditions that will promote EE investments for IEs without distorting financial markets. The World Bank will sign separate Project Agreements (PAs) with each of the PBs, including Asaka, Uzpromstroy, and Hamkor Banks. Sub-Loan Agreements will be signed between PBs and eligible IEs.

#### Legal Arrangements under the UZEEF Project



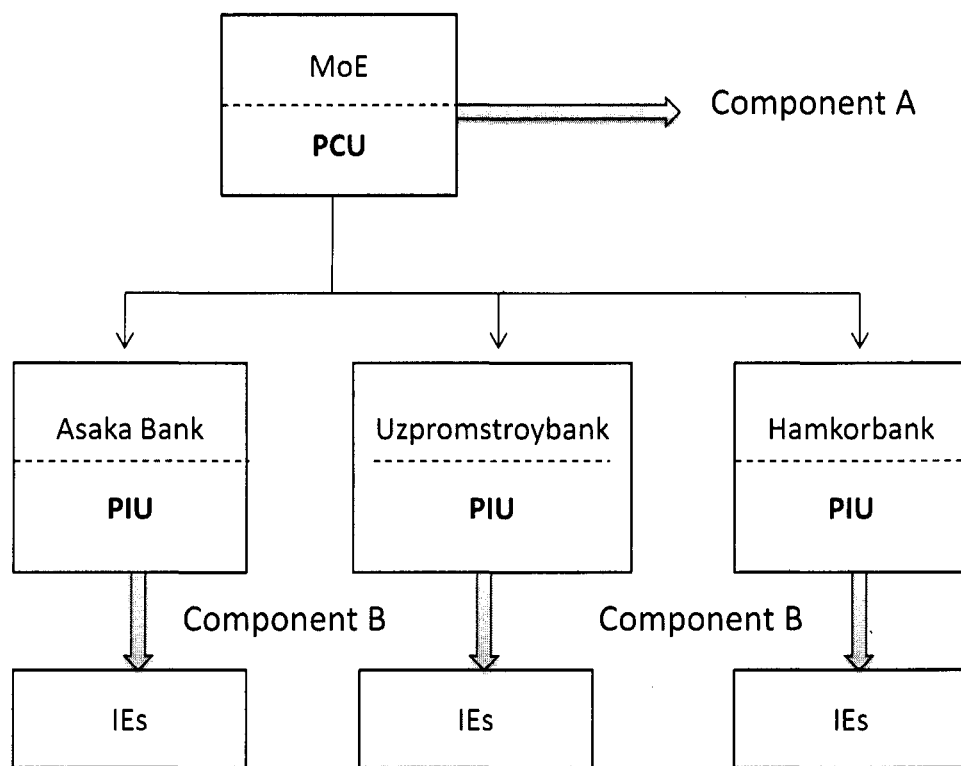
#### Institutional Arrangements

135. The MoE has the overall project coordination responsibility for the UZEEF project and is responsible for implementing Component A – Development of EE Capacity. A PCU will be established within MoE to carry out the tasks and a project coordinator, along with other staff, will be hired with funding from Component A.



136. PBs, including Asaka, Uzpromstroy, and Hamkor Banks, will implement the credit line with eligible IEs and are responsible for Component B. The organizational structure and institutional arrangements are described below.

**Implementation Arrangements for the UZEEF Project**



137. The PBs have full responsibility for the EE lending process and approvals and bear all the associated credit risks. To a large extent, the lending will be implemented within the existing institutional framework and under the PBs' business procedures and regulations.

138. MoE will not be involved in the review/approval of the sub-loan applications of eligible IEs. This is the sole responsibility of the PBs.

139. Each PB has formed a Project Implementation Unit (PIU) staffed with a director, safeguards expert, engineering expert, credit officer, procurement specialist and financial management specialist. The PIU will coordinate and implement the sub-lending activities and act as the PBs' focal point to interact with the World Bank, MoE and other stakeholders. The PIUs will have the primary responsibility for marketing and pipeline development for EE investments (for their respective banks). PIUs will also screen potential IE applications and projects for eligibility.

140. The PCU of the MoE will assume specific UZEEF project coordination roles, including compiling and presenting financial and other required documents (e.g., progress reports).

141. MoE, in cooperation with the PBs, will select an independent external auditor to conduct the annual project audit; this will be financed from Component A. MoE has the main responsibility for signing the contract and coordinating the auditor's work.

142. PBs are responsible for conducting and financing their respective audits. MoE and PBs will manage separate Designated Accounts (DA). Asaka, Uzpromstroy, and Hamkor Banks will supervise/monitor all sub-loans to ensure they are implemented according to Uzbek and World Bank requirements and guidelines.

**Operations Manual (OM)**

143. A Joint Coordination Group (JCG) was established among MoE, MoF, and the heads of each PIU in the PBs which prepared an acceptable draft OM for project implementation. It covers the EE lending operations, such as procurement arrangements, technical, environmental and financial due diligence procedures, and the methodology for selecting eligible EE investment sub-loan projects. The OM was submitted to the World Bank for review and will be finalized and adopted by each PB prior to project effectiveness.

**Eligibility of Industrial Enterprises (IEs)**

144. PBs will be required to confirm the IEs' eligibility to participate in the UZEEF project as part of the sub-loan application and approval process. To this end, they will need to verify the following: (a) the category of IE; and (b) pre-selection eligibility criteria. Ongoing eligibility criteria will be verified as part of project supervision and implementation.

<b>Categories of IEs that are Eligible under UZEEF</b>
Incorporated companies that produce goods in the manufacturing sector as defined under Category D under the European Statistical Office (EUROSTAT) classification. Eligible industrial branches are listed in Attachment II.
<b>Pre-Selective Eligibility Criteria for IEs</b>
<ul style="list-style-type: none"> <li>• State ownership or control in IEs is below 25 percent.</li> <li>• IEs should not have more than 1% of the shares in the PBs.</li> <li>• PBs should not have any ownership stake in the IEs.</li> <li>• Demonstrated profitability in the last two business years.</li> <li>• A maximum debt-to-equity ratio of 75:25</li> </ul>
<b>Ongoing Eligibility Criteria for IEs</b>
<ul style="list-style-type: none"> <li>• Sub-borrower (IEs), after receiving the sub-loan, should generate enough cash during the pay-back period so the company's debt service coverage ratio (EBIT/interest expense) is at least 1.1:1.</li> <li>• Sub-borrowers must demonstrate annual EE savings of 20 percent.</li> </ul>

**Selection of Eligible EE Projects**

145. Evaluation of eligibility for the IEs' sub-loan applications for financing of EE projects is a critical responsibility for the PBs. To date, there is little understanding about the EE concept, the nature of EE projects, and how to successfully implement this project and build capacity. Three categories of projects considered eligible under the project were identified. These include investments in (a) energy systems, (b) process technology and (c) waste heat and waste use.

146. Investments in energy systems relate to upgrading boilers and switching fuels, using co-generation facilities and electric-driven systems, including compressed air systems, electric chillers, machinery and lighting. They also include heat piping (steam, water) and associated equipment.

147. Investments in process technology relate to upgrading and replacing equipment, machinery and facilities.

148. Investments in waste heat and waste use may include the use of waste heat (of hot/warm gases, liquids and solids) and burning combustible waste (gases, liquids, solids) when pollution can be effectively controlled. Investments in building envelopes and HVAC systems will only be eligible when combined with EE investments in a, b and c.

149. Use of renewable energy sources (RES) in order to decrease fuel and/or electricity consumption in IEs may also be considered. Investments may include (a) biogas production and use, and/or biomass use in boilers, co-generation facilities, or process furnaces and stoves, and (b) use of solar water heaters for sanitary hot/warm preparation (kitchen, laundry, low temperature process water etc.).

150. Other RES applications including geothermal energy, photovoltaic (PV), small hydro and wind mills may be eligible if the technology is proven and complies with other aspects of the UZEEF project. This relates in particular to environmental and safeguards procedures which state that any project considered EA Category I under Uzbek legislation or Category A under World Bank procedures will be excluded.

151. Attachment I graphically shows the typical 'energy flow' of an IE and the three broad eligible sub-categories.

152. Attachment II categorizes the eligible IEs. Those that do not fall within these categories and are not listed on the Exclusion List (see Annex 8 – Procurement) may still be eligible, subject to approval by the PBs and the World Bank.

153. Attachment III presents typical EE investments in the industrial sector. This catalogue is indicative and does not include all possible technologies and EE investments. 'Other EE Investments' that are not included will be considered if the sub-loan applicant can demonstrate annual energy savings of 20 percent when adopting proven technologies in its (industrial) sector.

#### **The UZEEF Project Exclusion List**

154. The IFC exclusion list defines the types of projects that it does not finance and which also apply to the UZEEF operation. PBs are required to ensure that all projects financed under the sub-loans are not on the exclusion list.

### UZEEF Exclusion List

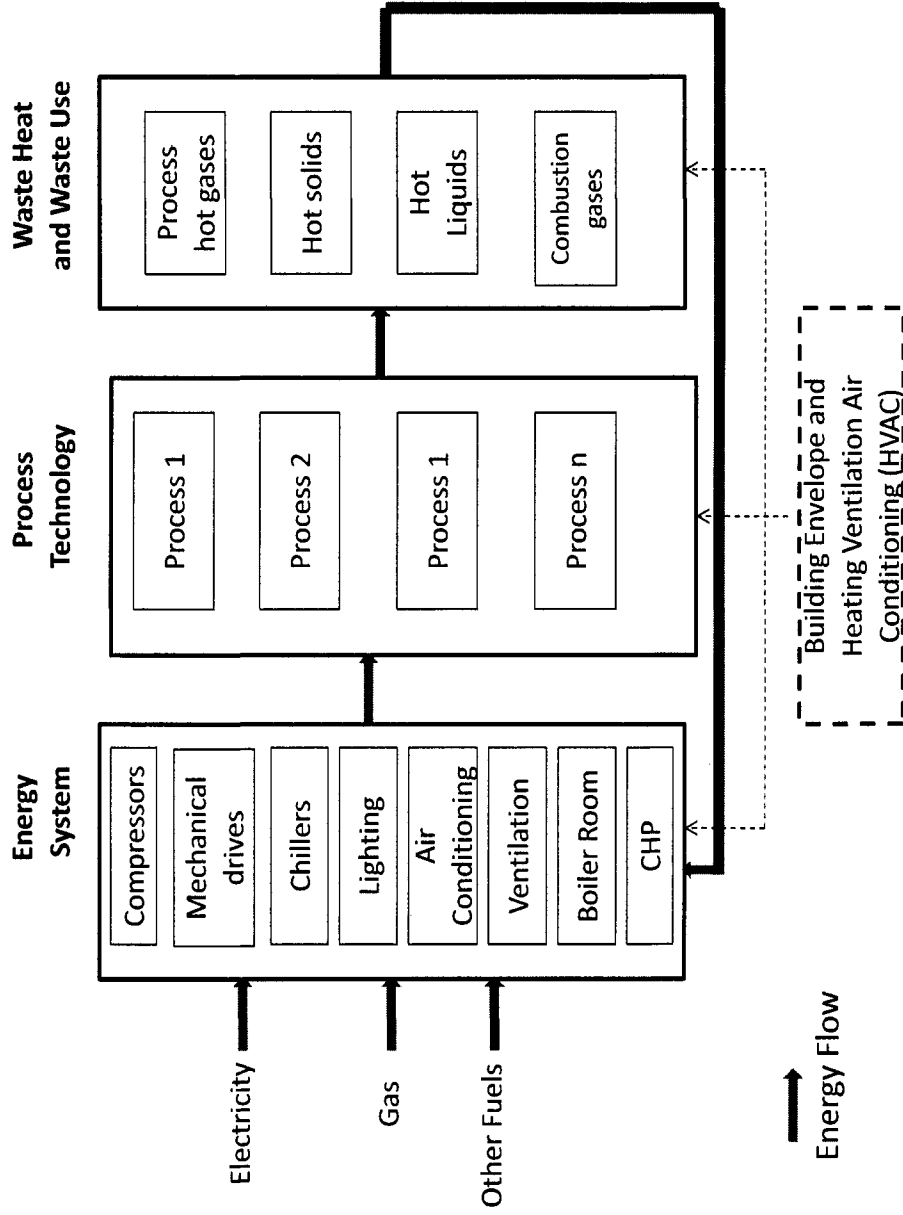
- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCBs, wildlife or products regulated under CITES
- Production or trade in weapons and munitions\*
- Production or trade in alcoholic beverages (excluding beer and wine)\*
- Production or trade in tobacco\*
- Gambling, casinos and equivalent enterprises\*
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where the World Bank considers the radioactive source to be trivial and/or adequately shielded
- Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing using nets in excess of 2.5 km. in length and commercial logging operations for use in primary tropical rainforests
- Production or trade in wood or other forestry products other than from sustainably managed forests
- Production or activities involving harmful or exploitative forms of forced labor\*\*/harmful child labor.\*\*\*

\*This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operation.

\*\*Forced labor means all work or service not voluntary performed that is extracted from individuals under the threat of force or penalty.

\*\*\*Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interference with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

**Attachment I**  
**Energy Flows and Investments in Typical Industrial Enterprise (IE)**



## Attachment II

### Categories of Eligible Industrial Enterprises (IEs) under the UZEEF Project Manufacturing Sector Category D under EUROSTAT

	INDUSTRIAL BRANCH	SECTOR
<b>Manufacturing</b>	<b>D</b>	
<i>Food products, beverages and tobacco</i>	<i>DA</i>	
Food products and beverages		15
<i>Textiles and textile products</i>	<i>DB</i>	
Textile yarns and textiles		17
Wearing apparel, furs		18
<i>Leather and leather products</i>	<i>DC</i>	<i>19</i>
<i>Wood and wood products</i>	<i>DD</i>	<i>20</i>
<i>Pulp, paper; publishing and printing</i>	<i>DE</i>	
Paper and paper products		21
Publishing, printing and reproduction		22
<i>Coke and refined petroleum products</i>	<i>DF</i>	<i>23</i>
<i>Chemicals and chemical products</i>	<i>DE</i>	<i>24</i>
<i>Rubber and plastic produc</i>	<i>DH</i>	<i>25</i>
<i>Other non-metallic mineral products</i>	<i>DI</i>	<i>26</i>
<i>Basic metals and stand. metal products</i>	<i>DJ</i>	
Basic metals		27
Metal products, except machinery		28
<i>Machinery and equipment n.e.c.</i>	<i>DK</i>	<i>29</i>
<i>Electrical and optical instruments</i>	<i>DL</i>	
Office, machinery and computers		30
Electrical machinery and apparatus n.e.c		31
Radio, TV and communications equipment		32
Medical, precision and optical instruments		33
<i>Transport equipment</i>	<i>DM</i>	
Motor vehicles and trailers		34
Other transport equipment		35
<i>Manufacturing, n. e.c</i>	<i>DN</i>	
Furniture; manufacturing n.e.c.		36
Recycling		37

Note: EUROSTAT is the statistical office of the European Union in Luxembourg. Its task is to provide the EU with statistics that allow for comparisons between countries and regions.

### Attachment III

#### Catalogue of Eligible Energy Efficiency Investments under the UZEEF Project

##### A – Energy Efficiency Investments in Energy Systems

<b>BOILER ROOM with associated pipe system (steam, water, condensate)</b>	
A.1	Switching fuels from those that are expensive to ones that are less costly (including combustible waste and biomass)
A.2	Replacing or adjusting fuel burners
A.3	Improving the control & instrument system (C&I), particularly flue-gas, oxygen-based combustion control
A.4	Thermal insulation of boiler shells, distribution piping, fittings and connecting parts, tanks, heat exchangers and other equipment
A.5	Replacing poorly or non-functioning steam headers
A.6	Replacing or repairing regulating and stop valves (eg. in case of leaks)
A.7	Redesigning and removing needless pipes in the distribution system (to simplify system)
A.8	Salvaging boiler flue gases heat
A.9	Installing condensate return system
A.10	Automatic blow down (fully automatic, timer based, etc.)
A.11	Salvaging waste heat from boiler blow down
A.12	Feed water and return condensate pre-heating before entering the boiler
A.13	Chemical treatment of feed water and condensate before entering the boiler
A.14	Distributed boilers instead of one centralized boiler (within distributed production facilities)
A.15	Installing heat (hot water) accumulators to run boilers at nominal capacity as long as possible
A.16	Installing steam accumulators where there is a substantial change in steam demand in short time periods (to equalize steam boiler operations regardless of demand and achieve maximum possible efficiency)
A.17	Replacing oversized (compared to actual demand) or worn out, outdated and non-reliable boilers
A.18	Replacing oversized steam piping where there is significantly reduced steam demand (consumption), to reduce heat losses in steam distribution
A.19	Replacing existing with new condensing boilers (reducing heat losses with flue gases due to lower flue gas temperature at the stack), particularly when natural gas is the fuel
<b>ELECTRIC ENERGY SYSTEMS – COMPRESSED AIR SYSTEM</b>	
A.20	Reducing forced pressure to the minimum required
A.21	Larger pre-cooling on inlet air
A.22	Replacing inlet and outlet air filters
A.23	Reducing air leaks in compressed air distribution systems
A.24	Salvaging air heat and using it for space heating or pre-drying process, etc.
A.25	Separating the part of compressed air piping not in use
A.26	Cleaning inlet air to meet required (design) cleanness and installing high performance treatments for specific applications
A.27	Installing separate compressors in parts of the system with very different compressed air demand (than in major part of the system)
A.28	Using blowers instead of compressors for providing low pressure air
A.29	Completely replacing worn out, outdated air compressed systems, particularly air compressors, controls and instruments

	<b>COMBINED HEAT AND POWER PRODUCTION (CHP) - COGENERATION</b>
A.30	Co-generation of heat and power based on different technologies firing natural gas
A.31	Co-generation of heat and power based on synthetic gases like biogas (digesters), agricultural and industrial waste, biomass, etc.
A.32	Tri-generation when heat and cooling demand exists (eg. the beverage industry: heating demand for pasteurization, cooling/chilling of water for CO <sub>2</sub> better absorption; electric chillers replaced with absorption chillers run by heat from co-generation facility)

## B – Energy Efficiency Investments in Process Technology

	<b>DRYING FACILITIES</b>
B.1	Improving controls and instruments
B.2	Improving thermal insulation of shell
B.3	Installing synchronous burners
B.4	Fuel switching
B.5	Salvaging waste heat
B.6	Refurbishing and upgrading facilities
B.7	Improving fuel supply installations
B.8	Installing equipment for moisture separation
B.9	Improving air (flue gases) recirculation
B.10	Replacing inefficient, warm out drying facilities
	<b>ELECTRICITY-SAVING MEASURES</b>
B.11	Switching to night tariffs for some parts of production facilities
B.12	Correcting the power factor
B.13	Reorganizing the production process to avoid peak capacity overflow
B.14	Upgrading/replacing electricity metering devices
B.15	Replacing electric drives with new variable speed drives (frequency regulation) or installing variable speed drives at existing rotation equipment (fans, pumps, compressors, etc) operating with variable regimes (fluid flows)
B.16	Replacing inefficient electric drives with modern energy-efficient electric drives
	<b>MAIN PROCESS TECHNOLOGY</b>
B.17	Improving controls and instruments (C & I)
B.18	Replacing inefficient equipment of the process technology
B.19	Salvaging waste heat (gains from the process) to use for space heating, process heating etc.
B.20	Switching fuels (energy) (eg. coal replaced by gas in brick factories)
B.21	Replacing main process technology
	<b>BUILDINGS - Envelope Improved Heating, Ventilation, Air Conditioning (HVAC), and Lighting</b>
	<b>(1) SPACE HEATING</b>
B.22	Installing thermal insulation of equipment, distribution piping, fittings and valves located outdoors
B.23	Improving temperature controls (three-way valves, regulators, temperature sensors, thermostat, electric drives) and heating in accordance with sliding heating curves
B.24	Applying zone temperature regulations
B.25	Installing thermostat-based temperature regulations in separate zones
B.26	Installing local temperature controls at radiators (thermostatic valves)
B.27	Improving heating system (heat substations, redesigning piping, replacing risers and other valves, etc).
B.28	Installing heat pumps



B.29	Switching fuels from more to less expensive, particularly electricity in space-heating with other sources
B.30	Using renewable energy sources for space-heating (geothermal energy, solar thermal, biomass, etc)
B.31	Switching from steam to hot water space-heating
<b>(2) MECHANICAL VENTILATION AND AIR CONDITIONING</b>	
B.32	Zone temperature regulations
B.33	Waste heat recuperation systems
B.34	Installing roof fans
B.35	Using natural ventilation when possible
B.36	Ventilating during the night
B.37	Installing demand side systems in HVACs
B.38	Applying absorption cooling methods
B.39	Using renewable energy sources
<b>(3) LIGHTING</b>	
B.40	Installing automatic lighting system (timer operated or other)
B.41	Installing natural light sensors for on/off switches
B.42	Removing unnecessary lights
B.43	Replacing incandescent bulbs with more efficient ones (flu pipes, high pressure sodium bulbs, metal halogen bulbs)
B.44	Moving sensors for on/off switches (empty room, no moving, and vice versa)

**C – Energy Efficiency Investments in Waste Heat and Waste Use**

<b>WASTE HEAT AND WASTE USE</b>	
C.1	Burning combustible waste (gases, liquids, solids) without harmful pollutants or where pollution can be effectively controlled (boilers, furnaces, stoves – in boilers and co-generation facilities and/or furnaces and stoves in process technology)
C.2	Salvaging waste heat using regular heat exchangers when waste gases or liquids are not abrasive or corrosive (pre-heating of condensate, feed water, combustion air, use in HVAC systems or main process technology)
C.3	Salvaging waste heat of abrasive or corrosive fluids (gases, liquids) using ceramic or other special heat exchangers and using heat as set out in C.2
C.4	Using latent steam heat to change pressure (in condensate return system).
C.5	Collecting, separating, cleaning (if needed) condensate from steam systems and returning it to boilers or a co-generating energy system (reducing condensate losses)

**D – Other Energy Efficiency Investments**

D1	To be specified by sub-borrower
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## **Annex 7: Financial Management and Disbursement Arrangements**

### **UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)**

#### **Country Issues**

155. According to the Country Financial Accountability Assessment report for Uzbekistan, the capacity of accountants is generally low and there is no critical mass of qualified professionals in this field. Knowledge of internationally recognized accounting and auditing standards, such as International Financial Reporting Standards (IFRS), International Public Accounting Standards (IPSAS) and International Standards on Auditing (ISA), is limited, in both the public and private sectors.

156. Although Uzbekistan has many bookkeepers trained in the basic concepts of accounting and proficient in their application, there are significant capacity constraints which hinder the development of a modern system of accounting and financial reporting in the public sector: Accounting systems used at the central/local government levels are predominantly manual. Also, there is no central management information system, and significant reliance is placed on banking records and computer spreadsheet packages.

157. The significant part of the project (the EE Credit Line Component B) will be implemented by three commercial banks: Asaka, Uzpromstroy, and Hamkor Banks. The CBU supervises the banking sector, regulates prudential and financial reporting, sets the banks' accounting standards, and licenses bank auditors (in addition to the audit licenses required by the Auditing Law and issued by the licensing authority).

158. The banks' activities are regulated by the Law on the CBU, the Law on Banks and Banking Activity (LBBA) and by other legislation. As a rule, banks are established as joint-stock companies, and founders can be both legal and natural persons, including foreigners. The CBU (a) supervises the operations of banking organizations, (b) establishes rules for the conduct of banking operations, bookkeeping, bank statistical reporting and annual reporting; and (c) has the right to receive and inspect reports and other bank documents, to demand information on operations and transactions, to establish internal audit requirements for banks, to instruct a bank to improve its operations and procedures, and to specify the qualification requirements for the head and chief accountants of banks and their branches.

159. The LBBA requires that banks be audited annually by auditors holding CBU audit licenses. The audit should include an assessment of a bank's capital adequacy and a classification of credits, risks and liquidity.

160. According to Uzbek banking laws and CBU decrees, banks must disclose financial and other information in a prescribed format to authorities to demonstrate compliance with the prudential and regulatory framework. Although the LBBA does not specifically provide for it, the CBU requires that annual bank financial statements be prepared according to the IFRS. However, the LBBA does require that annual financial statements be published together with the audit report no later than May 1 of the year following the reporting year. In reality, banks maintain their accounts and prepare their financial statements according to National Accounting Standards (NAS), and auditors make the adjustments to convert the NAS statements to IFRS

statements. The banks publish their financial statements in the print media, releasing four statements: (a) an income statement, (b) a balance sheet, (c) changes in equity and (d) a cash-flow statement (along with an extract from the audit opinion).

161. Specific procedures will be developed by the project to secure proper financial accountability under the development of energy efficiency capacity component and minimize project FM risks. The development of energy efficiency capacity component of the project will be implemented through a stand-alone PCU that will install parallel accounting systems to those used in MoE. Generally, the project implementing entities in the country use the cash basis of accounting, which is not in accordance with IFRS, but is allowed under IPSAS, and in many cases is sufficient for proper project accounting.

162. External audits are conducted by the Chamber of Accounts, but due to capacity constraints, the World Bank does not recognize audits conducted by this agency. Additional FM arrangements in the project will include (a) the audit of project financial statements by an independent auditor acceptable to the World Bank, and (b) on the terms of reference acceptable to the World Bank. In 2009, the World Bank conducted a review of local audit firms to determine their capacity to audit World Bank-financed projects. At present, two firms were considered eligible to conduct such audits, although other firms from outside the country can and do participate in tenders for audit of World Bank-financed projects.

163. Although the country risk is high, the residual risk considering the implementation arrangements at the PBs and the PCU, is assessed to be significant.

### **Risk Assessment and Mitigation**

164. The overall FM risk for the project before mitigation measures is substantial and after mitigation measures the risk is moderate. Although the project will be implemented in an environment where corruption is perceived as high, mitigation measures are in place to ensure that the residual risk is acceptable. The table below summarizes the FM assessment and risk ratings of this project:

### Financial Management Risk Assessment

	FM Risk	Risk Mitigating Measures	Residual Risk
<b>INHERENT RISKS</b>			
<b>Country Level</b>			
Weak PFM institutions (additional information is included in country issues in the previous section)	H	The project's development of energy efficiency capacity component and consolidation of IFRs and annual financial statements will be implemented by the PCU within MoE. No MOE's FM arrangements will be used. Project implementation arrangements at the PCU will maintain an independent FM system, use of private project auditors, and recruit qualified, experienced staff. Changes to the institutional structure at the PCU can only be made with concurrence by the World Bank. The EE credit line component will be implemented by PBs and sub-loans will be disbursed by them. DAs maintained by PBs will be opened and maintained in the CBU. The banking system is well regulated by the CBU.	S
<b>Entity Level</b>			
Risk of political interference in the PCU and PBs' management.	H	The PCU within MoE will maintain an organizational structure and staff satisfactory to IDA. Any changes to the structure or key PCU staff will require prior World Bank agreement. The composition and structure of the PBs will provide for their independence as implementing agencies.	S
<b>Project Level</b>			
Project is medium-size. Sub-loans to be disbursed through PBs and development of energy efficiency capacity component to be implemented by the PCU. PBs will open and maintain DAs at CBU while DA under the development of energy efficiency capacity component will be maintained by the PCU in a local commercial bank.	S	Detailed implementation arrangements in the OM will promote close monitoring of activities under the project (including the flow of funds) by the World Bank.	M
<b>Overall Inherent Risk</b>	<b>H</b>	Risk-based FM supervision and annual audits	<b>S</b>
<b>CONTROL RISKS</b>			
<b>Budgeting</b> . The budgeting system at the proposed PCU is not established. PBs have their own budgeting procedures and the project funds will be taken into consideration in budget	S	A budgeting system will need to be established and maintained at the PCU. Budget procedures will be elaborated by implementing agencies and described in the OM. The approved budget will be used for IFRs.	M

	<b>FM Risk</b>	<b>Risk Mitigating Measures</b>	<b>Residual Risk</b>
formulation and revision.			
<b>Accounting</b> Accounting transactions related to the EE credit line component will be recorded in the PBs' accounting system. SOEs and IFRs will be prepared in Excel formats. There is no accounting system at the PCU. The PBs' FM staff lacks prior experience in World Bank-financed projects.	S	An accounting system will need to be established and maintained at the PCU. An FM section will be included in the OM to present the FM policies and procedures applicable to the project. Experienced FM staff will be recruited for the PCU who will be trained on WB policies and procedures for the PCU and PBs.	M
<b>Internal Control</b> The PBs' internal control system will be used for the project and internal audits will be carried out by the PBs' Internal Audit Department. However, no internal control system has been created at the PCU.	S	Sound internal control procedures will be established and maintained at the PCU. An FM section will be created in the OM to present internal control policies and procedures applicable to the project.	M
<b>Flow of Funds</b> PBs' will open and maintain the DAs at the CBU. PCU within MoE will open a DA through commercial bank.	S	IDA funds will flow through the CBU's DAs to the PBs and through commercial banks to the PCU or direct payments to the final sub-borrowers.	M
<b>Financial Reporting</b> Project-consolidated interim un-audited financial reports (IFRs) will be prepared under the project.	S	Designated staff at each PB will be responsible for the timely preparation of separate IFRs. The PCU will be responsible for consolidating the IFRs and submitting them to the WB. Consolidated IFRs will be produced in Excel formats. Experienced staff with FM capacity must be recruited for the PCU and together with designated FM staff of PBs, will be trained on WB policies and procedures.	M
<b>Auditing</b> The audit of the project's consolidated financial statements will be carried out by independent auditors acceptable to WB. Annual financial statements will be consolidated by the PCU.	S	The PCU, with help from the PBs, will coordinate the hiring of external auditors. The audit of the project will be conducted by independent private auditors acceptable to the WB, with TOR approved by the WB and procured by the PCU.	M
<b>Overall Control Risk</b>	S		M
<b>Overall FM Risk</b>	S		M

H = High, S = Substantial, M = Moderate, L = Low

### **Strengths of the Current FM System**

165. The strengths of the FM system include: (a) the project's DAs under the EE credit line component to be established at the CBU are less vulnerable to the effects of the financial crisis; (b) strong FM arrangements at PBs; and (c) the internal audit function for the EE credit line component will be carried out by the PBs' Internal Audit departments.

### **Weaknesses and Action Plan**

166. The most significant identified weaknesses of the FM system are: (a) PBs and PCU lack prior experience in World Bank-financed projects; (b) no FM manual exists that describes financial reporting, accounting and internal control policies and procedures, or budgeting and planning mechanisms to be followed by implementing agencies; (c) accounting and financial reporting at the PCU will be maintained in Excel spreadsheets which increases the risk of accounting and reporting errors; (d) PBs and the PCU will prepare SOEs and IFRs using Excel forms which will encounter the same problem.

167. For capacity-building purposes, the following actions will be taken:

<b>Actions</b>	<b>Responsible</b>	<b>Completion Date</b>
FM capacity (experienced staff, part time consulting, outsourcing) will be established at the PCU.	MoE	Prior to project disbursement
Training will be provided to the PBs and proposed PCU on the WB's FM policies and procedures.	PBs and MoE	Prior to project disbursement
A budgeting, accounting and reporting system will be created and maintained.	PCU	Prior to project disbursement

### **Implementing Entities**

168. The EE Credit Line Component B will be implemented by three PBs: Asaka, Uzpromstroy, and Hamkor Banks. The main purpose of the PCU is to manage the development of energy efficiency capacity Component A and coordinate the consolidation and submission of IFRs and annual financial statements to the World Bank. The PCU will consist of the PC, FM and other staff, consultants, outsourced entities.

169. The residual risk is moderate.

### **Budgeting and Planning**

170. The PCU will consolidate annual project budgets based on procurement plans and separate budgets received from PBs. PIUs within each PB will prepare the project funds' lending forecasts, which are based on the on-lending capacity of the PBs, the current portfolio, the previous period disbursements, etc. The annual levels of on-lending activities will be forecast prior to the funds being disbursed; they will be submitted for the PBs' authorized official(s) prior approval and submitted to the PCU for consolidation.

171. Consolidated budgets will be prepared according to the IFR format (disbursement categories, components and activities, listed by semesters). The residual risk associated with planning and budgeting is assessed as *moderate*.

### **Accounting Staff**

172. The proposed PCU within MoE will strengthen its FM capacity with staff responsible for: (a) overall FM arrangements under the development of energy efficiency capacity Component, including maintaining accounting records, preparing SOEs and withdrawal applications, and performing financial reporting, budgeting and planning; and (b) consolidating IFRs and annual financial statements and coordinating the audit process.

173. PBs will use their own staff for FM tasks. Each PB will assign staff to its PIU who will be responsible for project accounting, reporting and disbursements. Accounting under the EE Credit Line component will be carried out by the PBs' accounting departments. Each bank's internal auditors will monitor its compliance with the subsidiary-loan agreements. PBs' staff assigned to the project have been found to be qualified and experienced. The risk associated with staffing is substantial before and *moderate* after risk mitigations.

### **Information Systems**

174. All participating PBs maintain their accounting and reporting in 'IABS,' a fully computerized accounting and reporting system that has safeguards against the input of inaccurate data or unauthorized access. In addition, regular back-ups of the accounting and loan data are made by the PBs' IT departments. Because the PBs have adequate accounting and reporting systems, all project-related transactions including movements on DAs will be recorded in the IABS. Each PB's PIU will prepare its project SOEs, IFRs, budgets and GoU reports in Excel spreadsheets.

175. The PCU will maintain its accounting and reporting for the development of energy efficiency capacity Component A in Excel spreadsheets. Consolidated project financial reports, required by the World Bank and GoU, including IFRs, budgets and annual financial statements, will also use Excel. The risk associated with information systems after mitigation is *moderate*.

### **Accounting Policies and Procedures**

176. Project accounting at the PCU and PBs will be maintained on an accrual basis following the country's National Accounting Standards. For reporting purposes, cash basis IPSAS and World Bank guidelines for borrowers will be used. All supporting documents will be maintained in files that can be easily accessed by auditors and World Bank staff.

177. PBs follow the CBU's established rules and internal guidelines/instructions for banking operations, bookkeeping, annual reporting, etc. Internal rules exist for regulating accounting and reporting at each PB.

178. The PCU has no prior experience in maintaining an independent accounting system; nor are there written accounting policies and procedures. Thus, the FM section of the OM will

describe the project's specific activities, internal control procedures and accounting policies/procedures. At the PCU, the project's chart of accounts will track all transactions and report them by financing source and type/category of expenditure. The risk associated with accounting policies and procedures before the mitigation measure is substantial; after the mitigation measure the risk is *moderate*.

### **Internal Controls and Internal Audit**

179. In general, PBs have satisfactory internal control systems. These include credit manuals that describe well-developed credit policies/procedures such as for reviewing and monitoring (a) loan procedures, (b) credit portfolios (by the Internal Audit Department), (c) clients' credit capacity, (d) credit risk identification procedures and (e) credit committees' responsibilities—although there are cases in which the PBs have not fully observed these policies. Each PB's loan department is separated into two divisions to consider short and long-term loans. In turn, each of these is divided into industrial sectors. Such a structure provides for proper segregation duties and learning curve effect of the department's staff.

180. In general, the PBs' internal audit departments have personnel and policies that are able to comply with local laws and conduct internal audits. They operate independently from management and subordinate directly under an Audit Committee.

181. The PCU and PBs have been developing an OM to describe the project's internal control procedures and specific activities. The reconciliation of the project records with IDA disbursement data will be performed regularly (at least monthly) through the WB Client Connection. The risk associated with internal controls and internal audit is *moderate*.

### **Flow of Funds and Disbursement Arrangements**

182. PCU and PB staff do not have a great deal of experience with World Bank disbursement procedures. Each PB will open separate DA at the CBU. The PCU within MoE will open a DA through a commercial bank. Project funds will flow from the World Bank through (a) separate DAs the PBs hold at the CBU and (b) a commercial bank, for the MoE (ie PCU). Funds will be replenished on the basis of traditional World Bank disbursement procedures (advances to the DAs, notices of the advance based on full documentation and SOEs, direct payments, reimbursements, and special commitments). Details on the DA ceiling will be provided in the Disbursement Letter. Withdrawal applications for DA replenishments will be sent to the World Bank at least quarterly. The residual risk associated with the flow of funds is *moderate*.

### **Financial Reporting**

183. PBs have been preparing daily, monthly, quarterly and annual reports for the CBU. These reports must include daily trial balance sheets, monthly balance sheets and income statements, quarterly balance sheets and income statements, cash-flow statements, and changes in non-current assets and equity.



184. Project consolidated management-oriented Interim Un-Audited Financial Reports (IFRs) – previously known as Financial Monitoring Reports (FMRs) – will be prepared under the project. Each implementing agency will produce separate financial reports for the part of the project conducted by the specific PB and submit them to the PCU, where they will be consolidated. The PCU will produce the IFRs every calendar semester throughout the life of the project. Separate and consolidated IFRs will be prepared on a cash basis IPSAS and in a format agreed upon with the World Bank during the assessment which will include: (a) project sources and use of funds, (b) use of funds by expenditure type by implementing agencies, (c) project balance sheets, (d) DA statements, and (e) SOE withdrawal schedules. These financial reports will be submitted to the World Bank within 45 days of the end of each calendar semester. The first semi-annual consolidated IFRs will be submitted after the end of the first calendar semester following the initial disbursement. The risk associated with reporting is *moderate*.

### **External Audit**

185. The project audit will be conducted (a) by independent private auditors acceptable to the World Bank, on terms of reference (TOR) it finds appropriate, and procured by the PCU after consultations with PBs; and (b) according to International Standards on Auditing (ISA) issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants (IFAC). The TORs will include activities involving audits of financial statements, assessments of the accounting system, and a review of internal control mechanisms.

186. The project's annual audited consolidated financial statements will be provided to the World Bank within six months of the end of each fiscal year and also when the project closes. The contract for the audit awarded during the first year may be extended from year-to-year with the same auditor, subject to satisfactory performance. The cost of the project audit will be financed from Component A.

187. The World Bank will not rely on the government's external auditing activities conducted by the Chamber of Accounts, nor audits conducted by the Control and Revision Unit (CRU). Instead, annual audited financial statements and audit reports, including a management letter, will be submitted to the World Bank by each PB within six months of the end of each calendar year. The entity audit should be conducted by auditors acceptable to the World Bank.

188. Bank Operational Policy 8:30 requires that all PBs which participate in a World Bank-financed credit line, are viable financial institutions at the time of project appraisal and throughout project implementation; also, that provision is made for effective monitoring and evaluation of the PBs' progress toward their objectives and development impact throughout the life of the project. This will include a review of their audited financial statements, to determine their continued compliance with eligibility criteria. The following table identifies the audit reports that must be submitted by the implementation agencies and the dates they are due.

Audit Report	Due Date
<b>PBs' ( continuing entities) financial statements</b>	Within 6 months of the end of each fiscal year
<b>Project financial statements (PFS)</b> These include project balance sheets, sources and uses of funds, use of funds by expenditure type by implementing agencies, SOE withdrawal schedules, DA statements, notes to the financial statements, and reconciliation statements.	Within 6 months of the end of each fiscal year and also at the closing of the project

189. The risk associated with external audit is considered moderate.

### Financial Covenants

190. PBs and the PCU will maintain an FM system acceptable to the World Bank. The project consolidated financial statements, including SOEs and DA statements, will be audited by independent auditors and with TORs acceptable to the World Bank. The annual audited consolidated financial statements and the audit report will be provided to the World Bank within six months of the end of each fiscal year. Each PB's annual audited financial statements and audit report, including a management letter, will be submitted to the Bank within six months of the end of each calendar year. The recipient shall also prepare and furnish to the Bank no later than forty-five (45) days after the end of each calendar semester, interim unaudited financial reports for the project covering the semester, in form and substance satisfactory to the World Bank.

### Supervision Plan

191. As part of its project supervision missions, the World Bank will conduct risk-based financial management oversight at appropriate intervals (the first will be conducted within a year after project effectiveness). During implementation, the World Bank will supervise the project's FM arrangements. It will review: (a) the project's semi-annual consolidated IFRs, annual audited consolidated financial statements and auditor's management letter, and remedial actions it recommends; (b) the entities' annual audited financial statements and audit report, including a management letter; and (c) the following key areas—including the sample sub-loans—project accounting and internal control systems, budgeting and financial planning arrangements, disbursement management and financial flows, including counterpart funds and any cases of corrupt practices involving project resources. These reviews will occur during its on-site supervision missions. As required, a Bank-accredited financial management specialist will assist in the supervision process.

## Annex 8: Procurement Arrangements

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises (UZEEF)

#### General

192. Procurement will be conducted according to the World Bank's (a) "Guidelines: Procurement under IBRD Loans and IDA Credits" published in May 2004 and revised in October 2006, (b) "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" published in May 2004 and revised in October 2006, (c) the financing agreement, and (d) project agreements. Procurement under different expenditure categories is described below. Under Component A, each contract, the various procurement or consultant selection methods, estimated costs, prior review requirements, and time frames have been agreed upon between the implementing agencies and the World Bank, in the initial Procurement Plan, which will be updated at least annually or as required to reflect actual implementation needs and improvements in institutional capacity. A General Procurement Notice (GPN) will be published in **June 2010** in UNDB on-line and in a printed version, as well as in dgMarket online. Specific notices will be published for all ICB/NCB procurement and consulting contracts according to the Guidelines, when the bidding documents or TORs are available.

#### Assessment of the Agencies' Capacity on Procurement

193. **PBs' Responsibilities:** Each sub-loan shall be approved on the basis of a positive evaluation of the EE project and the sub-borrower (i.e., IE) by the PB. The PB has the full responsibility vis-à-vis the GoU and the World Bank to ensure that the terms of the EE project and all expenditures financed with the proceeds of the sub-loan comply with World Bank requirements.

194. During the pre-appraisal mission in January 2010, the World Bank team assessed the implementing agencies' (the MoE and the PBs) capacity to carry out procurement and considered the procurement related institutional arrangement *acceptable*.

195. Procurement under the development of energy efficiency capacity component will be carried out by the PCU (in MoE) and evaluation of bids or proposals will be conducted by ad hoc committees to be established. All procurement under the development of energy efficiency capacity Component A will require **prior review** and no-objection by the World Bank.

196. Procurement for the EE Credit Line Component B will be carried out by sub-borrowers (i.e., IEs) which are fully or majority privately owned and eligible as per the procurement and consultants guidelines. These companies will use commercial practices for their procurement needs. **Sub-borrowers that are required to use and follow public procurement law are not eligible under the UZEEF project.**

#### Procurement Risk Assessment

197. The overall procurement risk is rated *substantial* after mitigation measures. The risks and measures were identified by an assessment of the agencies' capacity and are summarized below:

### Procurement Risk Assessment

Description of Risk	Risk Rating	Mitigation Measures	Residual Risk
The lack of a unified legislative framework, inefficient and non-transparent domestic modes of procurement	Substantial	The sub-loans are aimed at majority private owned enterprises which use commercial practices. IEs that use public procurement procedures will not be eligible.	Moderate
The PCU has no procurement capacity, which could cause procurement delays	High	PCU procurement will be limited to the development of energy efficiency capacity Component A. PCU staff will be trained during the project launch and implementation. All procurement from the PCU will require World Bank review and no objection.	Substantial
The IEs and PBs have limited experience with World Bank procurement practices (i.e. ICB).	Substantial	IEs and PBs are familiar with procurement under commercial practices and will receive additional training at project launch and during implementation to ensure that additional World Bank requirements are fulfilled.	Moderate
Perceived level of corruption is high.	High	The Recipient will adopt the Bank's Anti-Corruption Guidelines ("Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" of October 2006)	Substantial
<b>Overall</b>	<b>High</b>		<b>Substantial</b>

#### **Procurement under Component A – Development of Energy Efficiency Capacity**

198. Procurement will be carried out for Component A by the PCU of the MoE. The PCU will be responsible for ensuring compliance with World Bank procurement guidelines. Goods and consulting services will be procured under this component.

199. **Contracts under Component:** All require prior Bank review and no objection.

200. **Filing and Record-Keeping:** The PCU will keep records of procurement under Component A, including hard and/or electronic copies of procurement documents which will be available to the World Bank upon request.

201. **Procurement Plan:** The initial Procurement Plan for Component A provides information on procurement packages and methods, and Bank review requirements (see Attachment I). It will

be available in the PCU's project database and will be updated in a manner agreed upon with the World Bank, annually or as required, to reflect the needs of the project. For component B, it is not possible to prepare an initial procurement plan because these activities are demand-driven; thus, the procurement plan will not be prepared for component B at appraisal and will not be published in the UNDB or DGmarket. The PBs will collect the proposed ICB procurement plans, if there are any, for every sub-loan and will consolidate and include them in the progress reports. The consolidated procurement plan may be published in the UNDB or DGmarket.

### **Procurement under Component B – Credit Line for PBs**

202. Procurement will be carried out for EE Credit Line Component B by sub-borrowers (i.e., IEs). PBs will be responsible for ensuring that sub-borrowers will comply with the agreed procurement procedures for the sub-loans. Each sub-borrower is required to provide a proposal on the procurement arrangement plus a procurement plan, in case of ICB, with sufficient details (including description of items to be procured, estimated costs, procurement methods, and key procurement milestones) as part of the sub-loan applications to the PBs.

203. For procurement under commercial practices, the documents will include, as applicable, advertisements, Invitations to Quote (ITQ)—including schedule of requirements and technical specifications, list of potential suppliers/contractors to whom the ITQ were issued, quotations (or price lists, bids) received, evaluation reports, contracts, delivery documents, acceptance certifications, and other payment-related documents, evidence which proves the contractors/suppliers are not a subsidiary or affiliated company of the sub-borrower, and other documents indicating that private sector commercial practices are applied transparently and competitively.

204. Contracts estimated at under US\$ 2 million each may follow commercial practices which were reviewed by the Bank and found acceptable. Procurement above US\$2 million per contract will follow International Competitive Bidding (ICB) procedures. PBs will be responsible for sending a copy of all relevant documents of the procurement prepared by the sub-borrowers, which are submitted to the World Bank for prior review and clearance **before the procurement process begins**.

205. **Ineligible Contracts:** Contracts between sub-borrowers and their subsidiaries or affiliated companies will not be eligible for financing out of the credit line. Procurement of second-hand goods is not eligible for financing out of project and particularly under the credit line.

206. **Procurement of Goods, Works and Technical Services (other than consultant services):** For contracts under US\$2 million each, the established local private sector commercial practices, reviewed by the Bank and found acceptable, should be followed (in accordance with paragraph 3.12 of the Procurement Guidelines). Care must be taken with respect to other factors such as time of delivery, efficiency, quality, reliability and reasonableness of the price of goods and, in the case of non-consultant services, of the quality and competence of the parties rendering them, along with the capacity of the civil works contractors and the cost and quality of the works.

207. **ICB (International Competitive Bidding):** This applies to goods, works and technical service contracts equal to and above US\$2 million. The object of ICB is to provide all eligible prospective bidders with timely and adequate notification of a sub-borrower's procurement requirements and an equal opportunity to bid for the required goods and works. Advertising in the local and international press will not be mandatory for contracts up to US\$2 million.

208. The World Bank Procurement Guidelines (Section II) explain ICB procedures. For the standard bidding documents, refer to the World Bank publications such as "Procurement of Goods" (standard bidding documents) and "Procurement of Works" (standard bidding documents for small or larger works), copies of which may be obtained from the World Bank's procurement website ([www.worldbank.org/procure](http://www.worldbank.org/procure)).

209. IEs will be required to carry out ICB, with guidance from the PBs. The World Bank will provide relevant training, assistance and final clearance to PBs and IEs.

210. **World Bank Review under Component B:** The first two sub-loan contracts from each PB and all ICB contracts will be subject to the World Bank's prior review.

211. However, all contracts under the sub-loans not requiring prior review will be subject to ex-post review by the World Bank for verification of compliance with all sub-loan terms and conditions. All underlying documents pertaining to sub-loans should be maintained by the PBs for three years after the project is completed and made available to the World Bank upon request for post review.

### **Frequency of Procurement Supervision**

212. Besides the World Bank's prior review, the capacity assessment of the implementing agencies recommends ex-post reviews on at least 20 percent of the contracts subject to post review. Thus, it is expected that a field supervision mission will occur every six months during which procurement post reviews will be performed as needed. At the least, one post review report, which will include physical inspections of sample contracts—including those subject to prior review—will be prepared each year. At least 10 percent of contracts will be physically inspected.

### **Anti Corruption Measures**

213. The Bank's Anti-Corruption Guidelines (October 2006) and the transparency and disclosure provisions of the Bank's Procurement and Consultants Guidelines (published in May 2004 and revised in October 2006) will be enforced.

214. The companies included in the Bank's "List of Debarred Firms" will not be allowed to participate in the contracts under the sub-loans. The PBs are responsible for cross-checking the suppliers, consultants, and contractors with the Bank's list, which is published on the website.

### **System for Handling Complaints**

215. A mechanism, which will include a project complaint log and filing system, will be established to record and monitor the follow-up of each complaint. To ensure its effectiveness,

information about it will be disseminated and the procedures by which to file a complaint will be publicized through different channels, including the PBs' and MoE website.

216. The PCU and PBs shall respond to all complaints within seven days of their being received, and all correspondence shall be copied to the Bank. Contractors, suppliers, consultants or civil society organizations can lodge complaints directly to the World Bank Investigation Unit (INT) through the following channels:

- By email, to [investigationshotline@worldbank.org](mailto:investigationshotline@worldbank.org)
- Through the Bank website: <http://www.worldbank.org/integrity>
- Through the Fraud and Corruption Hotline available at all times with translation services. Toll-free: +1-800-831-0463, or Collect Calls/Reverse charge: +1-704-556-7046.





**(2) Consultant Services – Component A – Development of Energy Efficiency Capacity**

Package No.	Description of Assignment	Est. Cost (US\$'000)	Selection Method	Review (Prior /Post)	Ad. for EOI Date	Expected Proposal Submission Date	Contract Award Date	Start Date	Completion Date
A	B	C	D	E	F	G	H	I	J
<b>CONSULTANT SERVICES</b>									
<b>UZEEF 2</b>	Communications strategy and public awareness for EE in IESs	150	QCBS	Prior	08/10	09/10	10/10	11/10	11/12
<b>UZEEF 3</b>	EE strategy for IE (survey technologies & international experience, draft policies, propose changes to existing framework, develop technology handbook and guidelines)	270	QCBS	Prior	08/10	09/10	10/10	11/10	11/12
<b>UZEEF 4</b>	EE training for PBs, IEs and energy professionals (EE workshops, energy audits, demand-side management, preparation of EE projects, international best practice)	400*	N/A	Prior	N/A	N/A	N/A	N/A	12/15
<b>UZEEF 5</b>	UZEEF project management (salaries for PC and two other staff for PCU, project audit, etc.)	100**	IC	Prior	07/10	08/10	08/10	08/10	12/15
<b>UZEEF 6</b>	Training for PCU and government officials	50***	N/A	Prior	N/A	N/A	N/A	N/A	12/15
	<b>Total for Consultants</b>	<b>970</b>							
<b>Legend:</b>									
	QCBS	Quality and cost-based selection (in accordance with sections 2.1 - 2.28 of the Consultant's Guidelines)							
	CQS	Consultants' qualifications (in accordance with section 3.7-8 of the Consultant's Guidelines)							
	LCS	Least-cost selection (in accordance with section 3.6 of the Consultant's Guidelines)							
	SSS	Single-source selection (in accordance with section 3.9-13 of the Consultant's Guidelines)							
	IC	Individual consultant (in accordance with Section V of the Consultant's Guidelines)							
	*	Multiple contracts for organizing and conducting EE training, workshops, seminars over the 5-year course of project implementation							
	**	Three contracts of the PCU staff							
	***	Training requirements will be assessed during project implementation and may include participation in World Bank safeguards' trainings in the region and other project-related activities.							

## Annex 9: Due Diligence of Participating Banks (PBs)

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

#### Due Diligence of Participating Banks (PBs) and OP 8.30 Compliance Review

217. Bank Operational Policy 8.30 requires that all PBs which participate in a World Bank-financed credit line are viable financial institutions at time of project appraisal and throughout project implementation. PBs should be able to meet the established eligibility criteria set by OP 8.30 in order to become a PB.

218. The criteria describe standard financial performance benchmarks that are structured to reflect the core areas of a financial institution: (a) capital adequacy; (b) asset quality; (c) management and governance; (d) liquidity; and (e) profitability and efficiency. These benchmarks are primarily aimed at setting a basic standard of financial health and soundness for eligible PBs.

219. The Bank performed financial due diligence in accordance with these established eligibility criteria and confirmed the pre-selection of Asaka, Uzpromstroy, and Hamkor Banks as PBs. However, several specific risks were identified and are summarized below.

<b>Summary Assessment of the Risks in PBs</b>
<i>Financial soundness:</i> All pre-selected PBs have pursued strong asset growth, which creates risks for their future financial health in a context of limited liquidity and access to long-term funds.
<i>Balance sheet mismatches:</i> Due to limited convertibility and lack of long-term funding sources, all pre-selected PBs are burdened by interest rate and currency risks.
<i>Quality of the loan book:</i> The pre-selected state-owned PBs have above-average non-performing loans (NPLs) due to their exposure to state-owned enterprises, which creates credit risks even if such loans are backed by state-guarantees.
<i>Lending practices:</i> The pre-selected state-owned PBs have a high concentration of related-party lending and direct lending to state-owned enterprises.
<i>Interest rates:</i> The pre-selected state-owned PBs are constrained in their setting of interest rates which leads to low interest margins that do not account for the risk profile of sub-borrowers.

220. **Ongoing Eligibility Criteria for PBs:** To monitor these risks, an ongoing review of eligibility criteria for PBs which include, inter alia, assessing profitability, capital adequacy, asset quality, prudential compliance, corporate governance and risk management will be carried out during project implementation. The risks will be mitigated through (a) eligibility criteria for sub-borrowers and sub-projects; (b) the terms and conditions of the sub-credit agreements; and where necessary, (c) by bringing in experts familiar with World Bank credit lines to advise and strengthen the PBs' capacity.

<b>Ongoing Eligibility Criteria for PBs</b>	
<ul style="list-style-type: none"> <li>● Fully comply with CBU prudential requirements (set out in the table below)</li> <li>● Substantially comply with all the prudential and regulatory requirements of CBU, acceptable to the World Bank</li> <li>● Comply with the following criteria, unless the Bank shall otherwise agree: <ul style="list-style-type: none"> <li>✓ Net loans-to-total deposits shall be below 200</li> <li>✓ Positive returns on assets (ROA)</li> <li>✓ Non-performing loans shall be below 10 percent of gross loans excluding state guaranteed loans</li> <li>✓ Non-performing loans under the project shall be below 10 percent or less than three sub-loans.</li> </ul> </li> </ul>	

<b>Central Bank of Uzbekistan (CBU) Prudential Requirements, March 1<sup>st</sup>, 2010</b>	
Capital adequacy	Minimum 10% of risk-weighted assets
Tier 1 capital	Minimum 5% of risk-weighted assets
Capital-to-assets ratio	Minimum 6%
Short-term assets to short-term liabilities	Minimum 30%
Single borrower/associated borrowers exposure	Maximum 25% of Tier 1 capital
Single borrower/ associated borrowers exposure, unsecured	Maximum 5% of Tier 1 capital
Large exposure	Aggregate large exposures should not exceed 8 times Tier 1 capital
Investment in securities, one issuer	Maximum 15% of Tier 1 capital
Investments in trading book securities	Maximum 25% of Tier 1 capital
Total investments in equity and other securities of all issuers	Maximum 50% of Tier 1 capital
Loans to related persons or groups of related persons, secured loans/leasing	Maximum 25% of Tier 1 capital
Loans to related persons, unsecured loans/leasing	5% of Tier 1 capital
Minimum capital for newly established and existing banks	5 million euro equivalent for banks 2.5 million euro for private commercial banks
Net open position	10% of capital, single currency, 20% of capital, all currencies

221. **Pre-selective Eligibility Criteria for PBs:** About 30 banks operate in Uzbekistan today. Pre-selective eligibility criteria for PBs have been developed in the event that other banks are added for scaling-up the project in the next phase.

<b>Pre-Selective Eligibility Criteria for PBs</b>	
<ul style="list-style-type: none"> <li>● Be duly licensed in Uzbekistan to undertake banking operations and at least two years in operation</li> <li>● Have an appropriate corporate governance structure that complies with regulations with respect to independence; the capacity to provide adequate supervision to management and control over the bank's lending decisions;</li> <li>● Have financial reports for the past two years, audited by a reputable auditing firm that is acceptable to the Bank, in accordance with International Accounting Standards (IAS) and International Standards for Auditing (ISA);</li> <li>● Have a large branch network, established credit policy, and risk management;</li> <li>● Show a positive return on assets (ROA) in the last three years;</li> <li>● Have experience in project financing (ratio of corporate loans to total loans at least 30 percent).</li> </ul>	

222. **Monitoring and Compliance of PBs:** PBs will publish key terms and conditions of the credit line and distribute them to potential sub-borrowers and industry associations. Sub-loan pricing and terms/conditions will be monitored to ensure compliance. For the duration of the implementation period, beginning in August 2010 (after the project becomes effective), quarterly certificates signed by PB authorities will confirm ongoing compliance with laws and regulations issued by the Uzbek authorities on agreed prudential ratios below will be submitted to the World Bank.

### Appraisal of Participating Banks (PBs)

223. This section discusses the appraisal of the three banks that were pre-selected to be the PBs in the credit line for the pilot project. Uzpromstroy and Asaka Banks are large state-owned banks, while Hamkorbank is one of the largest private commercial banks.

#### a. Uzpromstroybank

224. **Profile and Ownership Structure:** Uzpromstroybank was established in 1922 as a branch of the Soviet Industry and Construction Bank in Tashkent. The bank is focused on long-term financing of investment projects for large corporate clients from oil, gas, power and chemical industries, most of which are state-owned enterprises and joint ventures between a private investor and the state (JVs). Until 2006, the bank was under direct state control via energy companies Uzbekneftegas and Uzbekenergo. Today, the state has 64 percent of direct ownership and 12 percent indirect, through state-owned enterprises, and controls the Supervisory Board. The bank holds 12 percent of market share (as % in total assets) and it is the second largest bank in Uzbekistan. It has a strong market presence across the country, although 40 percent of its 49 branches (100 mini banks and 501 bank outlets) are concentrated in Tashkent.

**Uzpromstroybank Key Indicators – (UZS in billions)**

	2008	2007	2006
Assets	1.419	961	683
Loans	1.009	599	418
Deposits	739	611	435
Pre-tax profits	17	14	9

225. **Profitability, Capital and Portfolio Quality:** The bank has moderate profitability with a Return on Average Assets (ROAA) of 1.4 percent at the end-2008 versus 2.4 percent estimated for the banking sector as a whole. Liquidity is adequate but below the average for the banking sector, as measured by a loan-to-deposit ratio of 136 percent versus an estimated 110-120 percent system-wide. This reflects the large expansion in its loan book, while deposits increased at a slower rate. Concentration of clients as well as related-party lending is high, with the 20 largest borrowers accounting for 3.7 times the bank's equity. Lending to private companies and individuals was around 50 percent of the bank's total lending in 2008. The bank's rating at the end of August 2009 from Fitch Ratings was "B" for Long-Term Issuer Default Rating (IDR), with a stable outlook.

226. Net interest margin decreased in 2008 (4.37 percent) compared with 2007 (5.49 percent), due to an increase in interest expenses which were not offset by an increase in interest revenues.

However, the bank is generating the bulk of its revenues from non-interest revenues such as fees and commissions and other operating revenues. Net non-interest revenues account for 53 percent of its operating revenues, while net interest revenues account for 31 percent and other operating revenues account for 20 percent of the bank's operating revenues. The cost/income ratio is growing and high compared to international standards, on account of high operating expenses such as salaries for over 4,000 employees, rent, depreciation and taxes (which together make up 81 percent of total operating expenses). The bank will have to improve its efficiency in the future to preserve profitability at the desired levels.

227. Its loan portfolio grew almost 67 percent in 2008: 75 percent of total loans are those to large companies, while SMEs account for 25 percent. 46 percent of total lending is to the industrial sector, 17 percent to construction and 11 percent to trade. The exposure to textile manufacturers, which have been hardest hit by the correction of export prices, represented 2 percent of the portfolio. Long-term loans account for 79 percent of total lending with an average maturity of three years for UZS-denominated loans and seven years for FX loans. The bank's liquidity position is somewhat vulnerable, because most of its liabilities are short-term (demand deposits) and most of the loans are long-term. The bank has limited exposure to market risks. Its investments in securities at the end of 2008 totaled UZS17 billion or 1.2 percent of the bank's assets (mostly treasury notes); operations with foreign currency mostly include trades on behalf of its customers and most of the bank's floating-rate funding was matched against interest-bearing assets tied to the same floating base (the residual mis-match at end-2008 was a moderate 12 percent of eligible capital).

#### Uzpromstroybank's Selected Financial Ratios

Selected financial indicators, in %	2008	2007	2006
CAR	17	13.3	14.1
Equity / total assets	10.7	7.5	7.6
ROAA	1.2	1.3	1.1
ROAE	12.8	18.3	16.7
Cost / income ratio	79.4	75.2	74.9
Interest income / average earning assets	9.7	10.1	9.9
Loans / deposits	136.4	98.1	96.0
Growth of gross loans	66.7	42.9	34.2
NPL <sup>8</sup>	9.3	12.7	22.8
Loan provisioning / gross loans	4.3	5.2	5.5
Liquid assets / total assets	16.4	17.8	17.2

228. **Credit Risk and Loan Collections:** Gross NPL figures decreased over the last three years. This is partly due to the high annual increase in total gross loans, which could create additional risks going forward, and the bank will have to monitor its clients closely. Almost 20 percent of all loans are backed by a state-guarantee which gives a safety cushion to the bank and justifies Fitch's favorable support ratings. Indeed, a large NPL for a JV (6.2 percent of gross loans) is being repaid by the government under its guarantee obligation and therefore the adjusted level of NPLs is 3.5 percent. At the same time, because such loans are considered best-performing loans even if clients default, CAR figures should be accepted with caution as they are

<sup>8</sup> Impaired loans (past due for more than 90 days) as a percentage of gross loans.

not comparable with CAR as it is understood in best international standards. Risk management mostly relates to credit. Uzbekistan banks only recently introduced risk management departments.

229. The bank is actively restructuring loans and foreclosing on collateral. The reported level of performing loans that have been rolled-over or restructured grew to 13 percent of the gross portfolio by the end of 2008 (compared with 5 percent at the end of 2007). The bank reported having a limited involvement in the state's program of restructuring companies, i.e. buying liquidated companies and conducting financial rehabilitation of failed companies through restructuring and then selling assets to potential buyers. However, it was hard to estimate the full scale of such activities and their influence on the bank's overall operation.

230. **Appraisal and Approval:** As the leading institution for investment projects, Uzpromstroy Bank has extensive experience appraising loan applications from enterprises and has successfully completed credit lines with IFIs. Uzpromstroy Bank management is aware of international standards for such projects.

231. The credit approvals in Uzpromstroy Bank are managed through a hierarchical system with six levels of loan authorizations, based on loan amount limits. Loan applications may be initiated in any branch, but loans are processed and authorized depending on their size and currency. The smallest limits are delegated to branch credit committees (consisting of the head of a branch, the chief accountant and a lawyer). Fitch reports that at the end of 2008, about 45 percent of loans were approved by local credit committees. Besides local branches, the bank has established regional and central credit committees. All FX-dominated loans have to be approved by central credit committees. Larger loans need to be authorized by the management board (10 percent of equity), the supervisory board (25 percent of equity) or shareholders' meetings (the highest level of authorization). The bank's credit policies were re-designed at the beginning of 2009 to take into the account the effects of the global economic crisis.

232. Its credit approval process is standardized. The bank uses specialized software to carry out financial analysis and project management. The borrowers' financial condition is determined through an analysis of financial statements and cash flow projections. Investment project appraisals are legally prescribed by a state ordinance (which defines the needed documentation and aspects to be included in the feasibility study). The borrower appraisal includes a standard financial ratio analysis, sometimes accompanied with stress testing and visits to clients. The approval process takes around one month. The bank has a separate department authorized for monitoring a project after approval. To carry out a technical appraisal of a feasibility study, the bank sometimes uses external experts, depending on the complexity of the projects.

233. **Mobilizing Domestic Resources:** Of the bank's total liabilities, 58 percent relate to customer accounts, which are mostly corporate and government deposits in current accounts (76 percent). The largest depositors are also the bank's largest credit clients and shareholders (59 percent of all customer accounts are related-party accounts). Credit rating agencies do not expect the banking system to experience significant stress in terms of the outflow of customer accounts. The reason is that cash withdrawals from corporate accounts are limited by legislation to a narrow range of purposes—mainly for salaries, settlements with farm suppliers, etc.—and corporate deposits are thus likely to remain within the banking system's framework. Individual

deposits, which are especially at risk in times of crisis, comprise an insignificant proportion. Further, 32 percent of total liabilities relate to other forms of borrowing, for example, from the state itself (MoF and the Fund for Reconstruction and Development) and IFIs. However, the bank plans to increase the retail segment and lending to private companies through the planned issue of savings' certificates and certificates of deposit in the near future. Additional funding is expected through the increase of the capital base.

234. **Managerial Autonomy and Governance:** The Bank is state-owned and a majority of the members on its Supervisory Board are from the state (8 out of 9). Its largest shareholders are its largest borrowers—from state-owned companies or companies under different state programs. Such practice is common in Uzbekistan's state banking sector but differs from best international practices. A positive aspect of this situation is that the bank enjoys direct and indirect state support. As in other state-owned banks, Uzpromstroy's management has limited flexibility in determining the volume and terms/conditions for the loans it gives to large industrial enterprises.

235. **Prudential Policies, Administrative Structure and Business Procedures:** Uzpromstroybank generally complies with CBU prudential regulations and its own internal business procedures. However, the bank occasionally does not comply with open currency position limitations established by the CBU (10 percent of equity for a single currency and 20 percent for the total position). Similarly, it is formally not in compliance with large exposure limits for a single client (maximum of 25 percent of regulatory Tier 1 capital) due to its role as the bank serving the investment needs of large state-owned enterprises and Joint Ventures (JVs), although prescribed limits do not apply when the borrower is the state or a state-owned enterprise. The bank has manuals, guidelines and internal policies with strictly defined responsibilities and processes for loan appraisals.

#### **b. Asaka Bank**

236. **Profile and Ownership Structure:** Asaka Bank was founded in 1995 by the government of Uzbekistan to finance the domestic automobile industry. The largest domestic car producer, GM-Uz,<sup>9</sup> continues to be the largest borrower, its deposits represent 16 percent of the bank's liabilities, and Uzavtosanoat (the state-owned partner of the GM-Uz JV) is one of the bank's shareholders. Today, the bank's client base has expanded to companies involved in textile, trade, manufacturing, pharmaceuticals, construction, agriculture and other sectors. With total assets of UZS 1.486.248 million, it is the third largest bank in Uzbekistan with approximately 12 percent market share (slightly less than Uzpromstroybank). It has 26 branches, 99 mini-banks and 123 business outlets across the country, and employs 2,500 staff.

237. At the end of 2008, the Ministry of Finance held 98.33 percent of its shares, and Uzavtosanoat held the remaining 1.67 percent. However, in 2009, the bank increased its equity base twice, so that the Ministry of Finance now holds 66.65 percent, Uzbekistan's Fund for Reconstruction and Development holds 16.67 percent and Uzavtosanoat holds 16.68 percent.

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<sup>9</sup> General Motors Uzbekistan (GM-Uz), a joint venture between the US car maker General Motors Corp. (Fitch rating 'D') (25% plus one share stake) and Uzavtosanoat; it was launched in 2008 on the basis of UzDaewoo Auto, originally an Uzbek-Korean joint venture, of which Uzavtosanoat took full control in 2005 following the bankruptcy of the Korean partner. GM-Uz was affected by the crisis, as exports decreased significantly in 2009, although this was mitigated through higher domestic demand for cars under a special sales program.

The supervisory board consists of state representatives (including a representative from the Central Bank of Uzbekistan). At a certain point, the government decided to partially privatize the bank (a 51% stake) and an international adviser for privatization was hired; however, at the moment, privatization plans are on hold, given the lack of buyers during the financial crisis.

**Asaka Bank Key Indicators – (UZS in billions)**

	<b>2009 unaudited</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Assets	1.850	1.486	1.293	853
Loans	917	806	630	478
Deposits	1.033	946	832	464
Pre-tax profits	26.6	21	10	5

238. **Profitability, Capital and Portfolio Quality:** The bank is profitable: Its pre-tax profit in 2008 was about double that in 2007. ROAA has increased to a modest level of 1.6 percent, below the estimated system-wide average. Liquidity is stable, adequate and higher than for the banking system average, with a loan-to-deposit ratio of 89 percent. At end of July 2009, Fitch Ratings assigned it a Long-Term IDR of “B” with a stable outlook. The bank’s cost-income ratio indicates that its efficiency is better than other banks with state participation due to a smaller branch network and a smaller number of employees (incurring lower operational expenses).

239. Net interest revenue accounts for 20 percent of bank’s operating revenue. The net interest margin increased from 2.2 percent to 3.7 percent, but is still at a low level. This increase is a result of cheap funding (short-term liquidity) from related parties (GM-Uz accounts). However, the low levels of NIM are due to two conditions: High GM cash liquidity needs (which block a portion of the bank’s assets in liquid form, i.e. they do not generate interest revenues) and the bank’s involvement in financing large government-supported investment projects (where interest rates are lower than in other commercial loans). Like Uzpromstroybank, Asaka Bank generates most of its revenue through non-interest transactions, which account for 76 percent of the bank’s operating revenue. Almost half of fee income was generated by GM Uz.

240. The increase in equity at the beginning of 2009 improved the bank’s capital base. The CAR is strong, although asset quality and related-party lending should be considered when assessing capital adequacy based on the reported figures. Liquidity management is centralized at the bank’s head office and carried out by the Treasury Department according to regulatory requirements. Given the overall short-term funding profile, the bank maintains a large liquidity cushion, partly placed overnight with the CBU.

**Asaka Bank’s Selected Financial Ratios**

<b>Selected financial indicators, in %</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
CAR	26.1	31.7	27.8	29.5
Equity/total assets	19.9	13.1	13.5	19.5
ROAA	1.6	1.6	0.8	0.8
ROAE	7.4	11.9	4.8	3.3
Cost/income ratio	68.8	66.8	72.9	80.5
Interest income/average earning assets	8.9	7.0	6.2	6.7
Loans/deposits	90.6	92.4	82.4	111.7
Growth of gross loans	41.0	27.6	32.0	11.8



<b>Selected financial indicators, in %</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
NPL	1.14	13.0	22.9	10.1
Loans provisioning/gross loans	4.8	7.8	8.1	7.8
Liquid assets/total assets	38.3	28.7	13.3	33.0

241. The bank's loan portfolio has grown rapidly, especially in its traditional segment of medium-sized and large companies. This policy continues in 2009: In the first eight months, the bank approved UZS 731.5 billion of new loans, of which 26 percent was for SMEs and 74 percent was for large companies. In 2009, 72 percent of lending was in domestic currency, and only 28 percent was for FX loans, with long-term loans accounting for 75 percent of new loans. The overall loan portfolio comprises of about 50 percent of outstanding loans have maturities above one year, including 20 percent due in more than five years. Foreign currency lending (mainly in US dollars) is significant—56 percent of loans at the end of 2008. These mismatches in the bank's balance sheet pose significant market risks.

242. **Credit Risk and Loan Collections:** Reported non-performing loan (NPL) figures are somewhat volatile, but relatively high; the latest audited figures show 13 percent NPLs to total loans.

243. The bank's credit policies were re-designed at the beginning of 2009, to respond to the effects of the economic crisis. The bank is actively restructuring loans: Based on a government directive, the bank rescheduled loans to exporting borrowers—that represented nearly 5.7% of total loans—at the end of 2008 by extending the final loan maturity for an additional year and foreclosing on collateral. Some 9% of total loans were rolled over in 2008. The bank is also involved in a limited way in the state's program to restructure companies, i.e. buying liquidated and failed companies, restructuring them, and selling assets to potential buyers. The full extent of these activities and their influence on the bank's operations was difficult to estimate.

244. **Appraisal and Approval:** Asaka Bank has experience appraising investments for SMEs as well as project finance in large enterprises. The bank was also involved in IFI lending programs and is aware of international standards for such projects. Financing agreements include: (a) EBRD direct investment, Regional Trade Facilitation Programme to support foreign trade, 1998, for Euro 7.1 million, (b) EBRD direct investment, SME credit line, 1996, for Euro 21.3 million, and (c) an IFC SME facility in 1999/2002, for US\$15 million.

245. Credit approvals in the bank are managed through a hierarchical and centralized system where levels of loan authorizations are established according to loan amount limits. Loan applications may be initiated in any branch, and are processed and authorized depending on their size and currency. Smaller short-term loans are approved at the branch levels, while a credit committee chaired by the first deputy chairman approves other loans at the central level. All FX-dominated loans have to be approved by that committee. Large loans need to be authorized by the management board (those whose size is above over 10 percent of equity) or supervisory board. The credit risk department ratifies credit decisions made in branches.

246. The bank's credit approval process is standardized and it is now developing internal rating models. It determines a borrower's financial condition by analyzing its financial statements and cash flow projections. As for other banks, the manner in which it appraises

investment projects is legally prescribed by a state ordinance, which defines the necessary documentation, feasibility study and borrower appraisal. The whole approval process lasts around one month. The bank uses external experts to complete its technical appraisal, which can be government officials or private consultants depending on the complexity of the projects.

**247. Mobilizing Domestic Resources:** Seventy-four (74) percent of the bank’s total liabilities involve customer accounts which are mostly corporate and government deposits in current accounts (64 percent). The largest depositors are both the bank’s largest credit clients and shareholders: GM-Uz deposits account for 16 percent of the bank’s total liabilities. Twenty-four (24) percent of total liabilities relate to borrowing from banks and only 7 percent to retail deposits. The bank plans to increase its retail deposit base. The customer deposit base increased 28 percent in 2008.

**248. Managerial Autonomy and Governance:** Asaka Bank is controlled by the state, whose representatives dominate the bank’s six-member supervisory board. This board includes a representative from the CBU, which could create a conflict of interest. Board members all have banking backgrounds; four are ratified by the Uzbekistan’s Cabinet of Ministers. Such conditions differ from international best practice and principles of corporate governance, but are common in Uzbekistan. On the positive side, this means the bank enjoys direct and indirect state support, as indicated by the support ratings of credit agencies.

**249. Prudential Policies, Administrative Structure and Business Procedures:** The bank is in compliance with the country’s prudential and regulatory framework and its own internal procedures. It has manuals, guidelines and internal policies that list the authorities and processes for lending appraisals, which take into account credit risk.

### c. Hamkorbank

**250. Profile and Ownership Structure:** Hamkorbank was established in 1991 by an industrial state-owned-enterprise in Andijan, Fergana Valley. Today, its ownership structure is mainly private individuals (80 percent of all shareholders) and private legal entities (17 large enterprises). It is one of the largest private banks and the thirteenth largest bank in Uzbekistan, with about 2 percent of market share (measured as % of total assets); its focus is providing services to SMEs and individuals. Since 2001, the bank has cooperated with IFIs (IFC, EBRD) to provide SME loans and micro-finance. At present, it plans to expand micro-finance lending and also to attract large corporate clients (from construction and infrastructure). The bank has 25 branches and 119 mini-banks in 10 regions across the country, and plans to develop more. It has 1,284 employees.

**Hamkorbank Key Indicators – (UZS in billions)**

	<b>2009 unaudited</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Assets	292	213	144	78
Loans	153	125	80	47
Deposits	173	149	91	52
Pre-tax profit	11	7	6	4

251. **Profitability, Capital and Portfolio Quality:** Hamkorbank is profitable: the ROAA has declined slightly but remains well above the average for the banking system, at 3.8 percent. Liquidity measured by loans to deposits is adequate, at 88 percent. According to Fitch Ratings Agency's Report published in the third quarter of 2009, the Bank has a Long-Term IDR rating of "B-" with a stable outlook. Despite an increase in the cost-income ratio, it remained adequate in 2009. The net interest margin grew to 12 percent in 2009, which indicates the bank has a good basis for generating profit. In the same year, its net interest income grew by 44 percent, although net interest income accounted for only 49 percent of operating revenues. Income from net fees and commissions increased by 14 percent in 2009, generating 51 percent of the bank's operating revenues; this income was from money transfers, clearance operations and FX transactions. The bank increased its equity 47 percent in 2008 and 40 percent in 2009 without a decline in ROAE (indicating higher profits). The CAR is reasonable (16.3 percent by the end of 2009).

252. The bank manages its liquidity adequately. The bank's liquidity covenants are set by the EBRD. The bank has low market risks as it does not invest in trading securities, and mainly trades in foreign currency on behalf of its customers. The interest rate risk is monitored monthly by the assets and liabilities management committee.

#### Hamkorbank Financial Ratios

Selected financial indicators, in %	2009	2008	2007	2006
CAR	16.3	17.0	20.6	31.2
Equity/total assets	13.3	11.8	12.3	17.9
ROAA	3.8	4.3	5.7	6.1
ROAE	28.9	30.3	31.0	29.4
Cost/income ratio	66.2	71.0	61.2	58.3
Interest income/average earning assets	16.8	12.1	10.5	14.2
Loans/deposits	88.4	74.1	72.4	86.4
Growth of gross loans	122.4	155.8	168.2	116.3
NPL	0,9	0.4	1.1	1.2
Loans provisioning/gross loans	4.7	2.2	2.2	2.2
Liquid assets/total assets	32.2	30.3	25.9	32.2

253. **Credit Risk and Loan Collections:** The bank did not report data on NPLs for 2009 in its annual report but credit agencies state a low level of 0.89 percent NPLs loans to total loans. However, due to a significant increase in total loans, the bank will need to monitor its debtors closely; an increase in NPLs in the following periods is expected. The bank has a separate unit for problem loans.

254. **Appraisal and Approval:** The bank is involved in various IFI lending programs and is aware of international standards for such projects—for which it received technical assistance in recent years. Financing agreements include: (a) EBRD direct investment, credit line for SMEs, 2007, for Euro 3.6 million; (b) Japan-Uzbekistan Small Business Programme, credit line for small and medium-size enterprises, 2002, for Euro 1.4 million; and (c) Japan-Uzbekistan Small Business Programme, credit line for small and medium-size enterprises, 2004, for Euro 2.1 million, among others.

255. The credit approval process is organized through local and centralized credit committees that have different loan amount limits according to the branch location and managerial experience. Different limits exist for corporate, retail and consumer loans. According to the bank's credit policy and procedures, the local branch may approve corporate loans. The head office has two credit committees--one each for small and large loans. The management and supervisory board approve loans for larger amounts. The bank has divided front and back office functions and organized its loan processing according to international standards.

256. The bank's credit approval process is standardized and advanced. To determine a borrower's financial status, financial statements and cash flow projections are analyzed, using a standard financial ratio analysis. In cooperation with the IFC, the bank developed an internal rating system which determines loan prices and large exposures. The entire approval process for small loans does not exceed seven working days; for large and long-term loans, it lasts about one month. Its credit underwriting standards have been monitored by EBRD representatives since 2002. Recently, the bank established asset liability and risk management divisions, as well as internal control and compliance departments.

257. **Mobilizing Domestic Resources:** The bank significantly increased its capital base in the last three years, increasing paid-in capital, as well as retaining earnings. At the same time, it increased its customer base: Customer accounts increased by 31 percent in 2009 and are now 62 percent of the bank's total liabilities. Sixty-five percent of customer accounts are legal entities' accounts and 35 percent are individual deposits. Concentration increased, but remained moderate, with the top 20 depositors accounting for 16 percent of total liabilities. Demand deposits comprised 30 percent of customer accounts, and the overall contractual maturity profile was very short-term, with 97 percent of total deposits maturing within one year. The related-party exposures were negligible at the end of 2009.

258. **Managerial Autonomy and Governance:** Hamkorbank is a joint-stock company with most of the shares spread among individuals. The composition of the bank's supervisory board changed significantly following the recommendations of an IFC financed TA project; at the end of the first quarter 2009, it was composed of nine members, six of whom were independent. The bank established a corporate governance committee composed by members of the management board. The bank is not exposed in terms of lending to state-owned enterprises and is not required to provide directed lending facilities with below-market interest rates. However, the bank is vulnerable to exposure to private individuals. The bank has complete authority to set the terms/conditions of its loans and to appraise projects and enterprises.

259. **Prudential Policies, Administrative Structure and Business Procedures:** Hamkorbank generally complies with CBU's prudential framework and regulations and fully complies with its internal procedures. Occasionally, it does not comply with open currency position limitations established by the CBU. It has manuals, guidelines and internal policies with strictly defined responsibilities and processes in loan appraisal.

## **Annex 10: Economic and Financial Analysis**

### **UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)**

260. Uzbekistan has one of the most energy-intensive economies world-wide, mostly due to an industrial sector that often operates obsolete and outdated technologies. There is wide consensus within Government and industry that the potential for energy savings through implementation of EE measures in the IEs is huge. For example, energy consumption (per unit of production) in the cement industry is almost double compared to worldwide best practices, the brick and tile industries uses up to 70 percent more energy and the textile industry up to 60 percent. Many industries use 20-40 year old Soviet technologies and despite relatively low energy prices in Uzbekistan, the industry is losing its competitiveness both domestically and abroad.

261. A large number of industries will be eligible to participate in the UZEEF project (see Annex 6 – Attachment II – Eligible Industrial Enterprises). Typical energy-intensive industries include brick manufacturing, textiles, electrical equipment producers, food processing (diaries, meat processing, bakeries etc.) and leather production.

262. Little statistical data/information exists about the industrial sector and sub-sectors, and no studies have been conducted on energy consumption, the potential for energy savings, and technologies used.

263. To prepare this pilot project, assess potential demand for it and prepare a project pipeline, the team has: (a) consulted with industry associations, technical design institutes and companies; (b) carried out workshops with relevant industries; and (c) conducted site visits to better understand existing technologies and savings potential in the manufacturing sector.

264. To raise awareness for the UZEEF project among industries and get a better understanding of potential demand, four workshops were held during pre-appraisal: These included workshops on (a) building materials, with 58 companies and industry associations attending, (b) light industry, with 12 attending, (c) electrical and optical equipment, with 21 attending and (d) food processing, with 15 attending.

265. At the workshops, the UZEEF credit line was introduced and potential projects were discussed with participants. A questionnaire was distributed to collect information of current technologies used by companies as well as energy consumption and associated costs.

266. The team conducted meetings with industry associations and made site visits to discuss specific project proposals, as part of project preparation. There was strong interest, both among the industry associations and companies, to participate in the project and the following list of potential sub-projects was prepared.

**Potential Sub-Projects under the UZEEF Project**

<b>Project</b>	<b>EE Investment</b>	<b>Investment (thousand US\$)</b>	<b>Energy Consumption Reduction, %</b>
<b>Building Materials</b>			
1.	Rehabilitating kilns	1,500	40
2.	Preheating with flue gas – drying before baking	300	20
3.	Replacing burners at baking kilns and combustion controls	300	20
4.	VSD at electric motor drives, fans, etc. and replacing electric motor drives	200	30
<b>Textiles</b>			
5.	EE measures in workshops, replacement engines	500	30
6.	Replacing electric motors	150	40
7.	Replacing steam boiler(s)	300	40
8.	Replacing steam traps, providing thermal insulation of pipes, improving return condensate, treating chemical water, replacing steam pipes, etc.	300	30
9.	Replacing HVAC installations (depending on size/type)	200	30
10.	Replacing lighting	60	30
<b>Electrical and Optical Equipment</b>			
11.	Replacing outdated compressors	200	25
12.	Replacing outdated engines	800	40
13.	Rehabilitating the energy supply systems	100	30
14.	Replacing outdated technological equipment	1,500	20
15.	Replacing air compressors	100	30
16.	Replacing machines for shaping thermal insulation	200	40
<b>Beverages</b>			
17.	Replacing steam boiler(s) with proper C&I	400	30
18.	Installing oxygen-based combustion controls, metering and targeting at air compressed system, VSD at compressors	100	20
<b>Dairies</b>			
19.	Replacing steam boiler(s) with proper C&I	400	30
20.	Improving return condensate systems, thermal insulation of steam and hot water pipes and vessels, oxygen combustion control of boilers, automatic blow-down, compressed air systems, and lighting	200	30
<b>Meat Processing</b>			
21.	Improving refrigeration systems	200	30
22.	C&I system	50	20
23.	Improving compressed air systems	100	30
24.	Replacing steam/hot water boilers	500	30

267. The building materials industry (brick, tiles and cement production) is a major energy-intensive industry in Uzbekistan. The industry association estimates there about 120 brick factories that operate with obsolete technologies that need urgent upgrades and modernization.

While an efficient brick producer uses about 450 to 600 kWh of fuel heat per ton of production, it is estimated that Uzbek brick producers use almost twice as much (i.e., 1,000 kWh per ton). Typical EE investments in the brick industry would include replacing outdated circular kilns with modern ones equipped with drying chambers, or installing of modern tunnel kilns (currently not applied in Uzbekistan), replacing fuel burners, improving combustion controls and hot-gas circulation, replacing electric motor drives, flue gas fans and control/instrumentation equipment (C&I).

268. The cement industry mostly uses wet-process technology that requires approximately 1000 kWh per ton of production, twice as much as used by dry technology; thus, switching to dry technology could reduce energy consumption by half. Introducing other EE investments could further reduce energy consumption by up to 30 percent; this would involve improving clinker coolers, oxygen control of kiln combustion and installing automated systems at conveyor belts.

269. Overall, anticipated investment in the building materials industry will be from US\$100,000 to US\$1 million, depending on the size of the company, with energy savings potential of up to 40 percent and a typical pay-back period of about five years.

270. Uzbekistan's large textile industry has several sub-sectors (e.g., knitting, spinning, weaving, sewing) that vary greatly in their energy demand, technologies used and size of companies. Some sectors like knitting use steam in the industrial process while others, such as the silk industry, mostly use electricity. Typical EE projects, such as replacing electric motors, steam boilers, heat ventilation and air conditioning (HVAC) systems and lighting, have short pay back periods and can generate energy savings of up to 40 percent. It is estimated that such projects in this sector will be from US\$100,000 to US\$500,000.

271. Other industries, including electrical equipment, food industry (beverages, breweries, dairies, meat processing, bakeries, etc.) are also good candidates for the UZEEF project. Typical EE investment projects in these industries would involve replacing outdated steam boilers, compressors, blowers, fans, pumps, electric motors, lighting and processing equipment, and installing modern C&I system, frequency converters, waste heat recuperation, thermal insulation of warm and hot equipment. Anticipated investments will be from US\$100,000 to US\$500,000, with an energy savings potential of up to 40 percent.

272. Overall, typical EE investments in the IEs will be from US\$200,000 to US\$800,000. Upgrading boilers and kilns (or replacing them) tend to be the largest investments with large energy savings. Smaller investments, such as for improving lighting, thermal insulation, HVAC systems, building envelopes etc., will require smaller investments but can also have large impacts in reducing energy consumption and can be combined with larger boiler and kiln investments under the UZEEF project.

#### **Economic and Financial Analysis of Sub-Projects**

273. The UZEEF project will allow sub-loan applications of up to US\$1.5 million and the PBs will be responsible for selecting the sub-projects for EE financing. It is widely recognized that most EE investments are economically justified, especially as international energy prices are expected to be high for the medium term. Domestic energy prices in Uzbekistan were adjusted

upwards on several occasions over the last few years but continue to be far below international market prices, especially natural gas. The Government has started targeting IEs that do not implement EE investments with increased gas and electricity prices. It is expected there will be significant environmental benefits from EE investments through the use of more efficient technologies.

274. Environmental benefits and high international energy prices will bring potentially higher Economic Rate of Returns (ERR) than Financial Rate of Returns (FRR) for eligible projects. The UZEEF project is developed on the premise that the proposed EE sub-projects are economically justified if they are financially viable. The PBs responsible for the on-lending are only requested to analyze and confirm that the selected sub-projects are financially viable.

275. Economic and financial analyses were performed on two typical EE sub-projects envisaged for financing under the proposed project—in the brick and textile industries. The analysis was based on conservative assumptions about expected energy and CO<sub>2</sub> savings. For calculating the ERR, natural gas prices of US\$200/tcm and electricity prices of US\$45/MWh were assumed as international references and CO<sub>2</sub> was priced at US\$10/ton.

276. For the FRR calculations, current Uzbek electricity and gas prices at US\$34/MWh and US\$50/tcm were used. The brick and textile industries are among the targeted sectors that will experience energy price increases mandated by the Government if they do not adopt more EE technologies. Thus, the FRR calculations below are conservative, using current energy prices.

277. **Sub-Project I: Modernization of the Kiln in a Brick Factory.** A typical EE investment will involve replacing an outdated circular kiln with a more modern, efficient one with a drying chamber, which can save up to 30 percent on energy. If a company installs a modern tunnel kiln, energy savings can be up to 50 percent. The economic analysis assumed a US\$1.5 million investment over a 20-year period at a 12 percent discount rate. Energy and CO<sub>2</sub> savings were calculated and the detailed analysis is shown in Attachment I.

278. The ERR of the sub-project is 46.7 percent, including energy savings and CO<sub>2</sub> reductions at US\$10/ton. Without carbon emission benefits, the ERR on energy savings is 44.8 percent. The simple payback period for this project is 2.5 years.

279. The financial analysis is calculated according to the same methodology but does not include CO<sub>2</sub> costs, and energy prices reflect current prices. The FRR for this project is 12.3 percent with a simple payback period of 5.5 years.

280. **Sub-Project II: Replacing Gas-Fired Boilers and Installing AC Electricity Motors in a Textile Factory:** A typical EE investment in the textile industry over US\$440,000 would involve replacing an old 2x2.5 t/h capacity gas-fired steam boiler and replacing AC electric motors (100 units totaling 1,500 kWe capacity) with converters. The ERR for this investment is 39.5 percent including energy and CO<sub>2</sub> savings and 36.8 percent with energy savings only. The FRR for the investment is 11.9 percent and the payback period is about five years. The ERR is lower and the FRR is higher for this investment, compared to replacing kilns in the brick industry, because natural gas is more subsidized than electricity and the latter prevails in the



textiles industry. Energy and CO<sub>2</sub> savings were calculated and the detailed analysis is shown in Attachment II.

281. The analysis of the two sub-projects demonstrates that EE investments which are likely to be considered by the PBs will be economically justified and financially viable. The FRRs are conservative and tend to be higher as Government plans to target energy price increases for those companies that do not improve on energy conservation. Both the economic and financial viability would be enhanced if CO<sub>2</sub> emission reductions could be traded.

282. **Carbon Finance:** This is a pilot project and the World Bank, along with the MoE, will explore the possibility of developing a *Program of Activities (PoA)* for reducing greenhouse gas emissions under the Kyoto Protocol or a future market-based, carbon-finance mechanism. The PoA could provide additional carbon revenues to Uzbekistan through consolidating individual emission reduction activities of IEs.

**Attachment I  
Cost-Benefit Analysis for Installing Modern Kilns in Brick Factories (Thousands US\$)**

Year	Without Project				With EE Project				Benefits			
	Electricity	Gas	O&M	Sub-total	EE Investment	Electricity	Gas	O&M	Sub-total	Energy Savings	CO <sub>2</sub> Savings	Total
0					1,500				1,500			-1,500
1	297	1,197	10	1,504		149	674	7	829	674	85	760
2	297	1,197	10	1,504		149	674	7	829	674	85	760
3	297	1,197	10	1,504		149	674	7	829	674	85	760
4	297	1,197	10	1,504		149	674	7	829	674	85	760
5	297	1,197	11	1,505		149	674	8	830	675	85	760
6	297	1,197	11	1,505		149	674	8	830	675	85	760
7	297	1,197	11	1,505		149	674	8	830	675	85	760
8	297	1,197	11	1,505		149	674	8	830	675	85	760
9	297	1,197	11	1,505		149	674	8	830	675	85	760
10	297	1,197	12	1,506		149	674	9	831	676	85	760
11	297	1,197	12	1,506		149	674	9	831	676	85	761
12	297	1,197	12	1,506		149	674	9	831	676	85	761
13	297	1,197	12	1,506		149	674	9	831	676	85	761
14	297	1,197	12	1,506		149	674	9	831	676	85	761
15	297	1,197	13	1,507		149	674	10	832	676	85	761
16	297	1,197	13	1,507		149	674	10	832	676	85	761
17	297	1,197	13	1,507		149	674	10	832	676	85	761
18	297	1,197	13	1,507		149	674	10	832	676	85	761
19	297	1,197	13	1,507		149	674	10	832	676	85	761
20	297	1,197	13	1,507		149	674	10	832	676	85	761
<b>Total</b>				<b>30,121</b>						<b>13,500</b>	<b>1,700</b>	<b>13,715</b>
<b>Energy and CO<sub>2</sub> Savings</b>										<b>NPV @ 12%</b>	<b>ERR</b>	<b>20,800</b>
<b>Energy Savings Only</b>										<b>NPV@ 12%</b>	<b>ERR</b>	<b>20,250</b>
												<b>44.8%</b>

**Attachment II**  
**Cost-Benefit Analysis for Replacing Gas-Fired Steam Boilers and Installing AC Electric Motors in Textile Factories**  
**(Thousands US\$)**

Year	Without Project			With EE Project				Benefits				
	Electricity	Gas	O&M	Sub-total	EE Investment	Electricity	Gas	O&M	Sub-total	Energy Savings	CO2 Savings	Total
0					440				440			-440
1	405	427	30	863		352	327	9	688	174	39	213
2	405	427	7	839		352	327	9	688	151	39	190
3	405	427	7	839		352	327	9	688	151	39	190
4	405	427	7	839		352	327	9	688	151	39	190
5	405	427	7	839		352	327	10	689	151	39	190
6	405	427	7	839		352	327	10	689	151	39	190
7	405	427	7	839		352	327	10	689	151	39	190
8	405	427	7	839		352	327	10	689	151	39	190
9	405	427	7	839		352	327	10	689	151	39	190
10	405	427	8	840		352	327	11	690	150	39	189
11	405	427	8	840		352	327	11	690	150	39	189
12	405	427	8	840		352	327	11	690	150	39	189
13	405	427	8	840		352	327	11	690	150	39	189
14	405	427	8	840		352	327	11	690	150	39	189
15	405	427	8	841		352	327	12	691	150	39	189
16	405	427	8	841		352	327	12	691	150	39	189
17	405	427	8	841		352	327	12	691	150	39	189
18	405	427	8	841		352	327	12	691	150	39	189
19	405	427	8	841		352	327	12	691	150	39	189
20	405	427	8	841		352	327	12	691	150	39	189
<b>Total</b>				<b>16,800</b>					<b>14,200</b>	<b>3,000</b>	<b>780</b>	<b>3,400</b>
										<b>Energy and CO2 Savings</b>		
										<b>NPV @ 12%</b>		<b>4,600</b>
										<b>ERR</b>		<b>39.5%</b>
										<b>Energy Savings Only</b>		
										<b>NPV @ 12%</b>		<b>4,300</b>
										<b>ERR</b>		<b>36.8%</b>

## Annex 11: Safeguard Policy Issues

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

#### Background

283. This section summarizes the procedures that PBs, sub-borrowers (ie. IEs), and the PCU within MoE, shall apply to sub-loans to be financed under the UZEEF project with regard to Environmental Assessment (EA).

284. The type of energy conservation sub-projects to be financed by the World Bank credit line include investments in: (a) energy systems (e.g. boiler upgrading and fuel switching, use of co-generation); (b) process technology (e.g. upgrading and replacing equipment, machinery and facilities); and (c) waste heat and waste use (e.g. utilizing waste heat and burning of combustible waste).

285. In general, such sub-projects have either minor or no adverse environmental impacts and provide environmental benefits (eg. reducing local pollution—such as dust and sulfur dioxide emissions— or reducing emissions of greenhouse gases, such as carbon dioxide).

286. **Environmental Assessment Framework Document:** The purpose of this environmental assessment (EA) framework document (FD) is to guide sub-borrowers and the PBs with respect to the environmental assessment process to be followed when evaluating individual sub-projects considered for financial support. The FD defines the contents, procedures and institutional responsibilities for EAs of the sub-projects, whose purpose is to ensure they comply with both Uzbekistan environmental assessment laws/regulations and World Bank EA policies and procedures, as specified in OP/ BP 4.01 (Environmental Assessment).

287. The EA procedure covers eight aspects of the sub-project Preparation and Construction Phase and one aspect of the Implementation Phase. Each aspect is described below, along with the requirements and responsibilities.

#### Sub-Project EA Procedures

288. There are two distinct phases with regard to EAs in this operation: the Sub-Project Preparation and Construction Phase and the Sub-project Implementation Phase.

289. The Preparation and Construction Phase includes the following eight elements:

- a. Sub-project review and categorization
- b. EA documentation
- c. Applicable environmental standards
- d. Environmental management systems
- e. Public consultation and disclosure
- f. Grievance mechanisms
- g. Review and approval of EAs

h. Related conditions/responsibilities

290. The Implementation Phase includes monitoring and reporting.

**Preparation and Construction Phase**

291. The sub-borrower (ie IEs) is responsible for preparing EA documents, public consultations, and disclosure. The sub-borrower will discuss the proposed sub-project with appropriate regional or State Uzbek environmental authorities and provide them with the information they need to establish the environmental risk. Uzbek environmental authorities will then screen the proposed sub-project and determine the appropriate EA category as (a) Category I (high risk), (b) Category II (moderate risk), (c) Category III (low risk), or (d) Category IV (local impact). Once the risk level is determined, Uzbek authorities can determine the EA documents needed for a State Environmental Review.<sup>10</sup>

292. After the sub-borrower obtains all required Uzbekistan environmental approvals, it will be required to submit to the PB an information package consisting of items outlined in the paragraph ‘Sub-Project Review and Categorization’ below, to demonstrate that Uzbek EA procedures were followed in strict accordance with Uzbek regulations for State Environmental Review. The PB will review this material, and if necessary, request additional information from the sub-borrower. The PB may then perform a site visit/environmental inspection of the project site and, if necessary, define any additional actions that may be necessary to insure that World Bank EA procedures are followed. These requirements are presented below.

293. **Sub-Project Review and Categorization:** The PB is responsible for project screening. After receiving official project approvals from Uzbek environmental authorities, the sub-borrower will submit an information package to the PB, which will include the following:

- a. A feasibility study
- b. Documents from environmental authorities establishing the Uzbek EA screening decision (Category I, II, III, or IV)
- c. Any environmental impact documents provided to the state or regional environmental authorities
- d. The approval letter from Uzbek environmental authorities
- e. Public consultation minutes (if a public consultation was required or performed).

294. The PB will then review materials and exclude from financing any proposed sub-project that includes, or is connected to any production facility included on the Exclusion List presented in Annex 8 – Procurement Arrangements.

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<sup>10</sup> Environmental legislation defines activities based upon on their impact on the environment: Category I (high risk); Category II (middle risk); Category III (low risk) and Category IV (local impact). A more detailed description of environmental review requirements is presented in Decree #491, of December 2001, on Regulations on State Environmental Review in the Republic of Uzbekistan.

295. The PB will then evaluate project eligibility and the EA category assigned based upon criteria of the facilities' environmental performance (Items 1-4 of Attachment I) and World Bank EA screening policies for the proposed project. If the facility is considered eligible, the proposed sub-project is assigned to one of three categories—A, B or C—using the World Bank environmental screening criteria presented in items 5, 6 and 7 in Attachment I in Section VI.

296. The independent environmental risk evaluation, based upon World Bank screening procedures for environmental risk and the Uzbek screening decision, can result in the possible outcomes as summarized in the Table below.

Uzbek EA Screening Category	World Bank Screening EA Decision		
	Category A	Category B	Category C
I			
II			
III			
IV			

297. While in most cases it is likely that a sub-project determined to be “Category I” under the Uzbek screening system would likely also be “Category A” under the World Bank system, it is possible under some circumstances, Uzbek screening procedures could yield different outcomes (e.g. the Uzbek system might consider a sub-project a -Category II while World Bank procedures would indicate a high level of environmental risk-Category A). These potential outcomes are highlighted in gray in the above table.

298. Any sub-project considered Category I by Uzbek procedures or Category A by World Bank procedures will be excluded from consideration for UZEEF.

299. As a result, the remaining four possible outcomes are as follows:

- a. Category B (World Bank) - Category II (Uzbek)
- b. Category B (World Bank) - Category III (Uzbek)
- c. Category C (World Bank) - Category III (Uzbek)
- d. Category C (World Bank) - Category IV (Uzbek)

300. For Category C projects, the World Bank has no documentation or procedural requirements. Therefore, the remainder of this framework will discuss only sub-projects that the PB evaluates as “Category B”.

301. **Environmental Assessment (EA) Documentation:** Normally, an EMP (see Attachment II at the end of this framework) would meet World Bank Category B EA requirements.

302. To the greatest extent possible, the sub-borrower should utilize the information presented in the approved Uzbek EA documents when preparing the EMP document. The PB will review the two documents (EMP and Uzbek EA) to ensure they are consistent in terms of environmental

issues, mitigating measures, monitoring requirements and institutional responsibilities. They should be prepared in both English and Uzbek.

303. **Applicable Environmental Standards:** Sub-projects requiring an EMP will include mitigating actions to assure compliance with environmental standards of performance. If both Uzbek and World Bank standards exist for a particular mitigating measure, the stricter of the two standards will apply. For example, if the environmental issue of concern is “noise” and the World Bank noise standard is stricter than the Uzbek one, the mitigating measure selected should meet the stricter World Bank standard. World Bank Group environmental standards are found in the Environmental, Health and Safety Guidelines, updated in April 2007.<sup>11</sup>

304. The mitigation section of the EMP (see Attachment II) should include a column to indicate the standard that applies to the particular mitigating measure: Either the Uzbek standard or the World Bank standard. The World Bank standards are in the PPAH, which is now in use.

305. **Environmental Management System:** The PB must evaluate the organizational capacity of the sub-borrower to implement its (the PB's) EMP. Specifically, the PB will assess the capacities, roles, responsibilities and authorities of the sub-borrower's institutional units to perform the mitigation, monitoring, data analysis, and reporting requirements specified in the EMP. Specific personnel, including management representative(s) with clear lines of responsibility and authority should be identified in the evaluation. Lines of communication and authority and links to the overall management organization should be described. The PB will also review the appropriateness/effectiveness of the sub-borrower's grievance mechanisms (see section below) to address any concerns the affected public or communities may have during project implementation.

306. The evaluation should state that sufficient personnel and funds are available from the sub-borrower to perform these functions on an ongoing basis. If the sub-borrower's organization cannot adequately implement the EMP requirements, the PB must recommend organizational arrangements or capacity-strengthening measures to ensure this is corrected. These recommendations should be specified as a condition of the sub-loan.

307. **Public Consultation and Disclosure:** The sub-borrower is responsible for conducting at least one public consultation(s). This involves (a) notifying the public, (b) conducting the consultation and (c) recording significant findings, conclusions, recommendations and next steps. Details of the documents required for public consultations are presented in Attachment II.

308. The purpose of public consultation(s) is to solicit views of groups or individuals who may be negatively affected by the sub-project. Affected groups or people should identify the environmental issues they believe to be significant. Any significant issues established during the public consultations should be incorporated into the EMP.

309. Public disclosure provides affected groups or individuals with the opportunity to examine the draft EMP document before it is finalized so they can review it and comment on the mitigating measures agreed upon, as well as the responsibilities for implementing them. Since

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<sup>11</sup> <http://www.ifc.org/ifcext/sustainability.nsf/Content/EHSGuidelines>

Uzbek and World Bank consultation and disclosure requirements may differ somewhat, World Bank requirements are presented below.

310. The sub-borrower is responsible for conducting at least one public consultation according to World Bank EA policy in order to discuss (a) the issues to be addressed in the EMP or (b) the draft EMP itself. Therefore, for the sub-project, the PB will review any documents produced at public consultations that relate to Uzbek EAs, to determine if they are consistent with the World Bank requirements presented in Attachment III. If the Uzbek public consultation is satisfactory, there would be no further consultation requirement. However, if public consultations are not held or the PB determines the consultation documents are not adequate, the sub-borrower will be required to perform at least one public consultation to discuss the issues of concern to communities and include them in the EMP. Documents produced as a result of the consultation should follow the requirements presented in Attachment III and be submitted to the PB as part of the sub-project file.

311. Uzbek language and/or local language versions of the EMP and the record of the public consultation should be placed at a public location near the project site and on the sub-borrower's website.

312. **Grievance Mechanism:** To insure that consultations, disclosures, and community engagement continues throughout the sub-project construction and operation phases, the sub-borrower and the PIU will, consistent with the risks and adverse impacts of the project, establish a grievance mechanism as part of their environmental management system. This should allow the sub-borrower and/or the PIU to receive information about concerns connected with the sub-projects, brought to their attention by affected communities or individuals. The sub-borrower will inform the affected communities during the public consultation of the mechanisms to ensure grievances are addressed promptly and transparently.

313. **Review and Approval of Sub-Project:** As indicated above for the first step, the sub-borrower will submit any Uzbek EIA documents to appropriate Uzbek environmental authorities for review and approval. Only after the PB receives official approval from Uzbek environmental authorities will the sub-project be considered eligible for an UZEEF loan.

314. The PB will be responsible for reviewing and approving the EMP as part of its sub-project appraisal process. However, for the first two sub-projects, the PB will submit English language versions of the EMP and the record of the public consultation to the World Bank for review and approval (or "No Objection"). In addition, the PB should discuss with the World Bank if there are any additional English language information/documentation requirements. For example, English language versions for any or all of the following information may be of interest to the World Bank:

- a. Disclosure date and location (physical or website address) of the EMP
- b. Copy of the EIA approval letter for the "connected project"(see para 316. below)
- c. Construction start date for the "connected project"
- d. Documentation that the "connected project" complies with all environmental laws and regulations.



315. **Review and Approval of the Connected Project:** The sub-borrower must also validate that the existing production facility which will be defined as the “connected project” has a valid, approved EA<sup>12</sup> if required by the Uzbek environmental authorities and a verification that the existing production facility(ies) is (are) operating with all appropriate environmental approvals, permits, licenses, etc. as required by Uzbek environmental regulations, and that the facility does not have a record or history of environmental liabilities (fines, penalties, legal actions taken or pending etc.). This is only required if the existing production facility was constructed *after* EA regulations were officially adopted in Uzbekistan or Uzbek environmental authorities had a retroactive EA requirement for it. This would also involve review of any existing documentation for environmental compliance, such as EA or monitoring reports prepared for and/or by the environmental authorities as the basic means of verification followed by site inspections, and ultimately, by audits when required.

316. The single exception to this requirement that the “connected” project be fully compliant with all Uzbek environmental laws would be if the proposed sub-project is an official requirement from Uzbek environmental authorities as necessary for the Sub-borrower to (a) secure a valid approved EA, approval, permit, license, etc. for the “connected” project, (b) meet Uzbek pollution control standards, or (c) eliminate any environmental fees, penalties or legal liabilities (see Attachment I, Screening Criteria 1, 2 and 3).

317. **Related Conditions and Responsibilities:** The PBs will ensure that an appropriate clause is included in the loan agreement obligating the sub-borrower to exercise due diligence in implementing the mitigation, monitoring, and reporting measures specified in the EMP and strictly follow the procedures according to related Uzbek laws and regulations in the event that culturally significant artifacts or sites are found.

318. During the sub-project tender, it is the responsibility of the sub-borrower to assure that all tender documents and construction contracts include all EMP requirements. During sub-project implementation, the PBs will have the right to check tender documents and construction contracts to verify this condition has been satisfied.

### **Implementation Phase**

319. The sub-borrower is responsible for insuring that all World Bank EMP requirements are properly implemented.

320. **Monitoring and Reporting by PB:** During normal sub-project supervision activities, the PB will check with local environmental authorities to determine if the sub-project implementation is meeting GoU specified requirements. The PB should also include in its supervision visits to sub-project sites a confirmation that the EMPs are being faithfully

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<sup>12</sup> The World Bank environmental safeguard policies require an evaluation of any activities which, although not directly involved with the World Bank investment, may be “connected” to that investment and whose performance depends on the World Bank investment. For example, if the World Bank was financing a transmission line extending from an existing power station, the policy would require a verification that the power station was operating with all appropriate environmental approvals, permits, licenses, etc. required by the sub-borrowers’ country.

implemented. The overall supervision report should include a section covering environmental management/EMP implementation.

321. The PB should require each sub-borrower to include, as part of its normal reporting, a section on environmental performance with respect to the sub-project investment, which would include critical mitigating actions taken and any significant environmental incidents. Also, if during a site visit, the PB determines that environmental management procedures are not being followed adequately, the PB should request more frequent reporting (semi-annually or quarterly) until the sub-borrower demonstrates the situation has been corrected.

322. The PB will include an environmental section in all reports prepared for the World Bank. As appropriate, the section will discuss details of any environmental issues that occurred during the reporting period and the actions taken by the PB and/or any of their sub-borrowers to resolve them.

323. **Monitoring and Reporting by Sub-Borrower:** The sub-borrower should carefully document monitoring results in accordance with the Monitoring Plan included in the EMP; it should identify any necessary corrective or preventive actions taken during the monitoring period, as well as the results/outcomes of similar actions that may have been taken in the previous reporting period.

### **Institutional Arrangements**

324. The project will be administered by the PBs' PIUs. Each PB will assign staff to manage environmental risk and assure that procedures in the Framework Document are properly followed during implementation. World Bank safeguard specialists will train this staff on how to perform the tasks required under this Framework in identifying and managing environmental risks in project evaluation/implementation. Training will initially be provided to the PB staff at the project launch. During implementation, World Bank safeguard specialists will provide continuing support. If certain themes or issues regarding use of the Framework emerge, a more formal training to the staff addressing those specific issues will be organized.

**Attachment I**  
**Environmental Eligibility Checklist for the Existing Enterprise and Screening**  
**Criteria for the Proposed Project**

CRITERIA		N/A	YES	NO	Comments
1	Does the enterprise have a valid operating permit, licenses, approvals etc.?				If no, (a) all required licenses/permits/approvals etc. must be obtained prior to project approval, or (b) the project investment must include funds to obtain them
2	Does the enterprise meet all Uzbek environmental regulations regarding air emissions, water discharges and solid waste management?				If no, (a) the facility must take corrective measures to meet all environmental regulations prior to project approval, or (b) the investment must include funds to meet them.
3	If the enterprise has any significant outstanding environmental fees, fines or penalties or any other environmental liabilities (e.g. pending legal proceedings involving environmental issues etc.) will the investment be used to correct this condition?				If the enterprise has outstanding liabilities, it must take corrective measures to remove them prior to project approval.
4	If any complaints were raised by local affected groups or NGOs regarding conditions at the facility, will the investment be used to remedy these complaints?				If yes, the PB should examine the nature of the complaints and actions taken to address them. If there are significant unresolved complaints, the PB should consult with the WB regarding appropriate actions.
5	Will the project likely have significant, diverse environmental impacts that are sensitive, diverse, or unprecedented? Impacts may affect an area broader than the sites of facilities subject to physical works.				If yes, assign "Category A"
6	Will the project have potential adverse impacts on human populations or environmentally important areas-including wetlands, forests, grasslands, and other natural habitats-are less adverse than those of Category A. Are the impacts site specific, few if any irreversible and mitigating measures are readily developed				If yes, assign "Category B"
7	Will the project likely have minimal or no adverse impacts				If yes, assign "Category C"

**Attachment II: Environmental Management Plan (EMP) Format**

325. **Sub-Project Description:** The EMP will include a brief description of the sub-project, which describes the nature of the investment, location, and any characteristics of the area that are of particular interest, e.g. near a protected area or one of cultural, historical, religious interest etc. Also, it will briefly describe the general land use characteristics (farming, small industry etc.), and the location(s) of the nearest population centers. Further, it will briefly summarize the major sub-project-related environmental issues, how they will be managed, who will manage them and what, if any, are the environmental risks. Sub-project related environmental issues should be distinguished as those that are site specific (e.g. sources and use of biofuels) and those that are more generic (e.g. control of dust emissions).

**MITIGATION PLAN**

Phase	Issue	Mitigating Measure	Applicable Standard		Estimated Cost of Mitigation (If Substantial)	Responsibility*	Start Date	End Date
			Uzbek	World Bank/IFC				
Construction	Site Specific							
	•					•		•
	•					•		•
	Generic							
	•					•		•
	•					•		•
Operation	Site Specific							
	•					•		•
	•					•		•
	Generic							
	•					•		•
	•					•		•

\*Items indicated to be the responsibility of the contractor should be specified in the bid documents

### MONITORING PLAN

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored- frequency of measurement or continuous?	Monitoring Cost What is the cost of equipment or contractor charges to perform monitoring	Responsibility	Start Date	End Date
<b>Construct</b>	•						•	
	•						•	
	•						•	
	•						•	
<b>Operate</b>	•						•	
	•						•	
	•						•	
	•						•	

326. **Institutional Arrangements:** A brief narrative discussion should be prepared to indicate how monitoring data is going to be used to maintain sound environmental performance—who collects the data, who analyzes it, who prepares reports, whom the reports are sent to and how often, and what he/she does with the information.

**Attachment III: Consultation with Local NGOs and Project Affected Groups**

327. Provide documentation of the following:

<b>Documentation</b>
<ul style="list-style-type: none"><li>• Manner in which consultations were announced<ul style="list-style-type: none"><li>- Name of media, date(s), description or copy of the announcement</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Dates of consultations</li></ul>
<ul style="list-style-type: none"><li>• Location of consultations</li></ul>
<ul style="list-style-type: none"><li>• Who was invited<ul style="list-style-type: none"><li>- Name, organization/occupation, telephone/fax/e-mail number/address (home and/or office)</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Who attended<ul style="list-style-type: none"><li>- Name, organization/occupation, telephone/fax/e-mail number/address (home and/or office)</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Meeting program/schedule<ul style="list-style-type: none"><li>- What was presented and by whom</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Summary minutes (comments, questions and response by presenters)</li></ul>
<ul style="list-style-type: none"><li>• List of decisions reached and any actions agreed upon with schedules, deadlines and responsibilities</li></ul>

## Annex 12: Project Preparation and Supervision

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

	Planned	Actual
PCN review	09/04/2009	09/11/2009
Initial PID to PIC	09/15/2009	10/20/2009
Initial ISDS to PIC	09/15/2009	10/20/2009
Appraisal	03/23/2010	04/6/2010
Negotiations	04/21/2010	04/23/2010
Board/RVP approval	05/27/2010	06/17/2010
Planned date of effectiveness	09/17/2010	
Planned date of mid-term review	09/17/2012	
Planned closing date	01/31/2016	

#### 328. Key institutions responsible for preparing the project

- Ministry of Finance (MoF)
- Ministry of Economy (MoE)
- Asaka Bank
- Hamkorbank
- Uzpromstroybank

#### 329. Bank staff and consultants who worked on the project:

Name	Title	Unit
Franz Gerner	Senior Energy Economist/Task Team Leader	ECSS2
Galina Alagardova	Financial Management Specialist	ECSC3
John Gabriel Goddard	Economist	ECSF1
Janna Ryssakova	Social Development Specialist	ECSS4
Ghada Youness	Senior Counsel	LEGEM
Fasliddin Rakhimov	Procurement Specialist	ECSC2
Jose-Manuel Bassat	Senior Communications Officer	EXTOC
Iskander Buranov	Operations Officer	ECSS2
Hannah Koilpillai	Senior Finance Officer	CTRFC
Bernard Baratz	Consultant – Environmental Specialist	ECSS2
Nenad Pavlovic	Consultant – Energy Efficiency Specialist	ECSS2
Djurdjica Ognjenovic	Consultant – Banking Sector Expert	ECSS2
Elena Klementyeva	Program Assistant	ECCUZ
Yolanda Gedse	Program Assistant	ECSS2
Yukari Tsuchiya	Program Assistant	ECSS2
Eugenie Muminova	Interpreter/Translator	ECCUZ

#### 330. Bank funds expended to date (after negotiations):

1. Bank resources: US\$198,000
2. Trust funds: n/a
3. Total: US\$198,000

**Annex 13: Documents in the Project File**

**UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)**

331. Appraisal of Participating Banks (Asaka Bank, Uzpromstroybank, Hamkorbank)
332. Country Financial Accountability Assessment Report for Uzbekistan
333. Moody's Banking Sector Outlook



## Annex 14: Statement of Loans and Credits

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZEEF)

Project ID	FY	Purpose	Original Amount in US\$ Millions					Difference between expected and actual disbursements		
			IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig.	Frm. Rev'd
P110538	2010	FERGHANA Valley Water Resources Mgt	0.00	65.54	0.00	0.00	0.00	66.95	0.00	0.00
P112719	2010	BUKHARA & SAMARKAND SEWERAGE PROJECT	0.00	55.00	0.00	0.00	0.00	55.84	0.00	0.00
P107845	2009	BASIC EDUC - Phase Two	0.00	28.00	0.00	0.00	0.00	30.12	0.00	0.00
P109126	2008	RURAL ENTERPRISE SUPPORT PROJECT II	0.00	67.96	0.00	0.00	0.00	63.45	3.62	0.00
P094042	2007	BASIC EDUC	0.00	15.00	0.00	0.00	0.00	10.67	9.81	-0.22
P051370	2005	HEALTH 2	0.00	40.00	0.00	0.00	0.00	17.52	13.95	0.00
P009127	2003	DRAINAGE, IRRIG & WETLANDS IMPRVMT	35.00	25.00	0.00	0.00	0.00	23.12	13.83	0.00
P049621	2002	BUKHARA/SAMARKAND WS	20.00	20.00	0.00	0.00	0.17	6.64	2.59	0.00
Total:			55.00	316.50	0.00	0.00	0.17	274.31	43.80	- 0.22

### UZBEKISTAN STATEMENT OF IFC's Held and Disbursed Portfolio In Millions of US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
1996	ABN AMRO Uzbek	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
1999	Asaka Bank	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
2003	Asaka Bank	4.26	0.00	0.00	0.00	4.26	0.00	0.00	0.00
1999	NBU-SME	3.73	0.00	0.00	0.00	3.73	0.00	0.00	0.00
2000	SEF Asia Granite	1.00	0.00	0.32	0.00	1.00	0.00	0.32	0.00
1999	SEF Elma Cheese	0.51	0.00	0.00	0.00	0.51	0.00	0.00	0.00
1997	SEF Fayz	0.01	0.30	0.00	0.00	0.01	0.30	0.00	0.00
2001	SEF Hamkorbank	0.50	0.00	0.00	0.00	0.50	0.00	0.00	0.00
2001	SEF Parvina	0.00	0.00	0.82	0.00	0.00	0.00	0.27	0.00
1995	UZBEK LEASING	0.00	0.36	0.00	0.00	0.00	0.36	0.00	0.00
2000	UZBEK LEASING	0.00	0.18	0.00	0.00	0.00	0.18	0.00	0.00
2003	UZBEK LEASING	1.75	0.00	0.00	0.00	0.25	0.00	0.00	0.00
Total portfolio:		13.76	1.84	1.14	0.00	12.26	1.84	0.59	0.00

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
2007	Hamkorbank II	0.00	0.00	0.00	0.00
Total pending commitment:		0.00	0.00	0.00	0.00

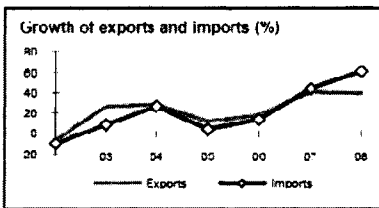
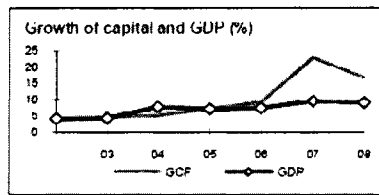
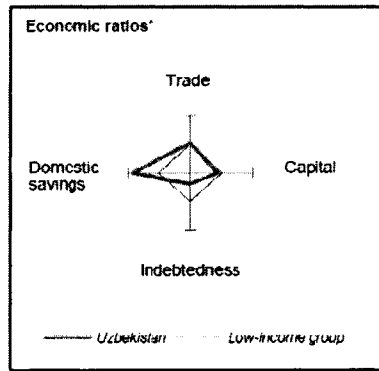
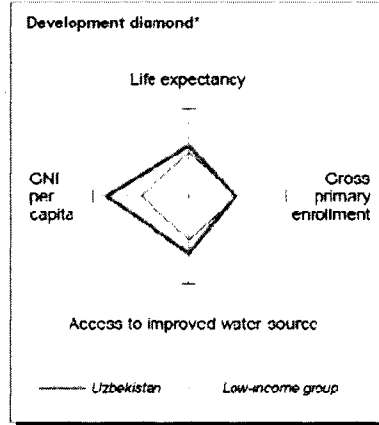
## Annex 15: Country at a Glance

### UZBEKISTAN: Energy Efficiency Facility for Industrial Enterprises Project (UZZEF)

## Uzbekistan at a glance

12/9/09

POVERTY and SOCIAL	Uzbekistan	Europe & Central Asia	Low-income		
<b>2008</b>					
Population, mid-year (millions)	27.3	441	973		
GNI per capita (Atlas method, US\$)	900	7,418	524		
GNI (Atlas method, US\$ billions)	24.7	3,274	510		
<b>Average annual growth, 2002-08</b>					
Population (%)	1.3	0.1	2.1		
Labor force (%)	3.4	1.0	2.7		
<b>Most recent estimate (latest year available, 2002-08)</b>					
Poverty (% of population below national poverty line)	..	..	..		
Urban population (% of total population)	37	64	29		
Life expectancy at birth (years)	66	70	59		
Infant mortality (per 1,000 live births)	34	21	78		
Child malnutrition (% of children under 5)	4	..	28		
Access to an improved water source (% of population)	88	95	67		
Literacy (% of population age 15+)	..	90	64		
Gross primary enrollment (% of school-age population)	94	98	98		
Male	96	99	102		
Female	93	97	95		
<b>KEY ECONOMIC RATIOS and LONG-TERM TRENDS</b>					
	1988	1998	2007	2008	
GDP (US\$ billions)	..	15.0	22.3	27.9	
Gross capital formation/GDP	27.2	20.2	19.4	23.0	
Exports of goods and services/GDP	..	22.5	40.3	44.0	
Gross domestic savings/GDP	21.0	19.9	29.5	29.1	
Gross national savings/GDP	..	19.5	38.7	35.8	
Current account balance/GDP	..	-0.7	19.0	12.0	
Interest payments/GDP	..	1.0	0.8	0.5	
Total debt/GDP	..	22.4	17.6	14.3	
Total debt service/exports	..	10.3	6.8	5.0	
Present value of debt/GDP	..	..	16.2	12.0	
Present value of debt/exports	..	..	32.3	24.3	
	1988-98	1998-08	2007	2008	2008-12
(average annual growth)					
GDP	-1.7	6.0	9.5	9.0	7.5
GDP per capita	-3.7	4.7	7.0	7.2	6.0
Exports of goods and services	..	13.9	40.7	39.5	1.2
<b>STRUCTURE of the ECONOMY</b>					
	1988	1998	2007	2008	
(% of GDP)					
Agriculture	29.3	31.3	24.0	21.4	
Industry	35.0	26.2	32.0	30.0	
Manufacturing	25.1	10.5	12.6	12.1	
Services	34.9	42.5	44.0	47.9	
Household final consumption expenditure	76.6	59.6	53.8	53.2	
General gov't final consumption expenditure	2.2	20.5	16.7	17.8	
Imports of goods and services	..	22.8	30.2	38.8	
	1988-98	1998-08	2007	2008	
(average annual growth)					
Agriculture	-0.3	6.2	6.1	4.5	
Industry	4.3	4.1	6.6	6.8	
Manufacturing	..	1.9	3.0	4.0	
Services	-1.7	7.0	14.8	13.1	
Household final consumption expenditure	..	..	..	..	
General gov't final consumption expenditure	..	..	..	..	
Gross capital formation	-5.1	6.7	22.9	16.7	
Imports of goods and services	..	10.6	44.0	61.1	



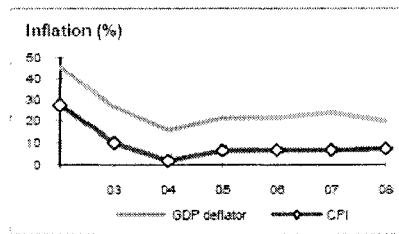
Note: 2008 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

\* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

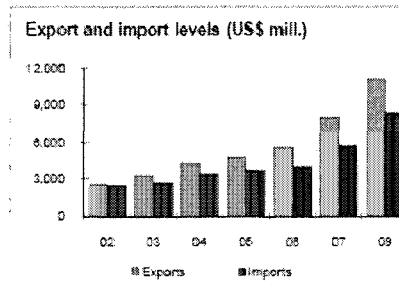
## PRICES and GOVERNMENT FINANCE

	1988	1998	2007	2008
<b>Domestic prices</b>				
<i>(% change)</i>				
Consumer prices	..	29.0	6.8	7.4
Implicit GDP deflator	-1.3	39.0	24.0	19.9
<b>Government finance</b>				
<i>(% of GDP, includes current grants)</i>				
Current revenue	..	40.2	31.7	31.6
Current budget balance	..	7.2	4.5	2.9
Overall surplus/deficit	..	-3.8	4.5	5.1



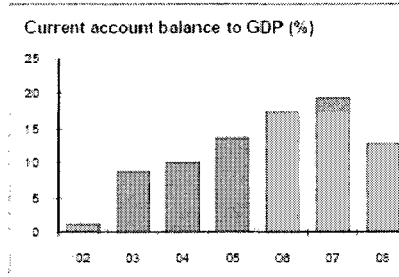
## TRADE

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Total exports (fob)	..	3,048	8,026	11,130
Cotton	..	1,198	1,127	1,066
Gold	..	788	1,144	3,991
Manufactures	..	198	1,545	1,516
Total imports (cif)	..	3,125	5,730	8,424
Food	..	512	434	700
Fuel and energy	..	16	174	414
Capital goods	..	1,554	3,094	4,884
Export price index (2000=100)	..	104	164	189
Import price index (2000=100)	..	102	118	131
Terms of trade (2000=100)	..	102	140	145



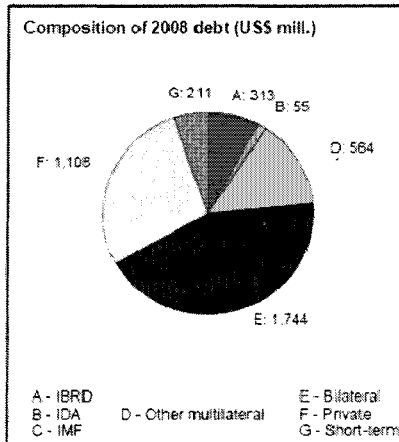
## BALANCE of PAYMENTS

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Exports of goods and services	..	3,372	8,991	12,539
Imports of goods and services	..	3,417	6,736	10,850
Resource balance	..	-45	2,255	1,690
Net income	..	-101	62	-84
Net current transfers	..	43	1,990	1,980
Current account balance	..	-103	4,307	3,585
Financing items (net)	..	104	-2,153	373
Changes in net reserves	..	-1	-2,155	-3,958
<b>Memo:</b>				
Reserves including gold (US\$ millions)	..	1,168	2,593	2,684
Conversion rate (DEC, local/US\$)	..	94.5	1,263.5	1,318.8



## EXTERNAL DEBT and RESOURCE FLOWS

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	..	3,363	3,931	3,995
IBRD	..	177	317	313
IDA	..	0	43	55
Total debt service	..	352	754	692
IBRD	..	10	43	47
IDA	..	0	0	0
Composition of net resource flows				
Official grants	0	25	70	80
Official creditors	..	198	-2	42
Private creditors	..	432	-199	-146
Foreign direct investment (net inflows)	..	140	739	918
Portfolio equity (net inflows)	0	0	0	0
World Bank program				
Commitments	..	82	15	68
Disbursements	..	10	33	28
Principal repayments	..	0	25	29
Net flows	..	10	8	-1
Interest payments	..	10	18	18
Net transfers	..	0	-10	-19



Note: This table was produced from the Development Economics LDB database.

12/9/09



## **MAP SECTION**





This map was produced by the Map Design Unit of The World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.