Report and Recommendation of the President to the Board of Directors

Project Number: 45229
June 2013

Proposed Grant and Administration of Technical Assistance Grant
Republic of Tajikistan: Access to Green Finance Project

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 3 June 2013)

Currency unit – somoni (TJS)
TJS1.00 = $0.21
$1.00 = TJS4.76

ABBREVIATIONS

ADB	–	Asian Development Bank
JFPR	–	Japan Fund for Poverty Reduction
MFI	–	microfinance institution
MOF	–	Ministry of Finance
NBT	–	National Bank of Tajikistan
PAM	–	project administration manual
PIU	–	project implementation unit
PMU	–	project management unit
SGES	–	smart green energy solutions
TA	–	technical assistance
UNDP	–	United Nations Development Programme

NOTES

(i) The fiscal year (FY) of the Government of Tajikistan and its agencies ends on 31 December. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2012 ends on 31 December 2012.

(ii) In this report, "$" refers to US dollars.

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PROJECT AT A GLANCE

1. Project Name: Access to Green Finance Project **2. Project Number:** 45229-001

3. Country: Tajikistan **4. Department/Division:** Central and West Asia Department/Public Management, Financial Sector, and Trade Division

5. Sector Classification:

Sectors	Primary	Subsectors
Multisector	√	Microfinance
		Energy efficiency and conservation

6. Thematic Classification:

Themes	Primary	Subthemes
Economic growth	√	Promoting economic efficiency and enabling business environment
Environmental sustainability		Eco-efficiency

6a. Climate Change Impact

Mitigation	High

6b. Gender Mainstreaming

Gender equity theme (GEN)	
Effective gender mainstreaming (EGM)	√
Some gender elements (SGE)	
No gender elements (NGE)	

7. Targeting Classification:

General Intervention	Targeted Intervention		
	Geographic dimensions of inclusive growth	Millennium development goals	Income poverty at household level
√			

8. Location Impact:

National	High
Rural	Medium

9. Project Risk Categorization: Low

10. Safeguards Categorization:

Environment	FI
Involuntary resettlement	FI–C
Indigenous peoples	FI

11. ADB Financing:

Sovereign/ Nonsovereign	Modality	Source	Amount ($ Million)
Sovereign	Project grant	Asian Development Fund	10.0
Total			10.0

12. Cofinancing: None

13. Counterpart Financing:

Source	Amount ($ Million)
Beneficiaries	1.0
Government	0.1
Total	1.1

14. Aid Effectiveness:

Parallel project implementation unit	Yes
Program-based approach	No

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Republic of Tajikistan for the Access to Green Finance Project. The report also describes proposed administration of technical assistance (TA) to be provided by the Japan Fund for Poverty Reduction (JFPR) for Access to Green Finance, and if the Board approves the proposed grant, I, acting under the authority delegated to me by the Board, approve the TA.

2. The project will leverage Tajikistan's sound microfinance system to provide credit for households for energy-efficient and environment-friendly homes.[1] The JFPR TA grant of $750,000 will build the capacity of participating microfinance institutions (MFIs) and the project management unit (PMU) to facilitate efficient green finance intermediation and promote energy efficiency, particularly for rural households and women. The design and monitoring framework is in Appendix 1.

II. THE PROJECT

A. Rationale

3. **Energy challenges coupled with inefficient energy environment.** Tajikistan depends on hydroelectric sources for 98% of its electricity needs. In summer, when demand is low but glacial melt is high, there is an electricity surplus. In winter, since rivers freeze, hydroelectric power generation declines by 50%. This results in power outages of up to 18–20 hours per day during winter in grid-connected areas. The situation is worse for the 24,000 households located in remote off-grid areas. Over 73% of the population lives in rural areas[2] and spends much of the winter with limited electricity, with lighting and heating in short supply.[3] In addition, more than 50% (over 500,000 households) of the country's housing units were built in the 1960 and 1970s. Many of these homes are in rural areas, and their residents include a large number of the 46.7% of families who live below the poverty line.[4] These homes need improvements to increase energy efficiency and reduce household spending on fossil fuels.[5]

4. The problem of energy poverty is complicated by inefficient energy transmission consumption, and inadequate household understanding about how to use energy in cost-effective, environmentally friendly ways.[6] The United Nations Development Programme (UNDP) estimates that the country's total energy bill was about $1 billion in 2008, which amounted to 20% of the country's gross domestic product that year.[7] This leaves insufficient energy for other productive investment activities, limiting economic growth potential. Rural households depend on fuels such as kerosene, diesel, gasoline, firewood, coal, and manure for their energy needs. Women in these households spend a significant amount of time gathering firewood. Use of

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1 Subborrowers at household level may include individuals doing microbusiness activities.
2 Asian Development Bank (ADB). 2012. *Tajikistan Fact Sheet*. Manila.
3 United Nations Development Programme (UNDP). 2011. *Energy and Communal Services in Kyrgyzstan and Tajikistan: A Poverty and Social Impact Assessment.* Bratislava.
4 International Monetary Fund (IMF). 2012. *Republic of Tajikistan: Poverty Reduction Strategy Paper—Progress Report. IMF Country Report No. 12/33*. Washington, DC.
5 Government of Tajikistan, Agency for Construction and Architecture. 2012. *Country Profiles on the Housing Sector: Tajikistan.* Dushanbe.
6 Tajikistan's transmission and distribution loss was 17.2% in 2011. ADB. 2012. *Central Asia Regional Economic Cooperation (CAREC): Power Sector Regional Master Plan.* Consultant's report. Manila.
7 The energy bill includes the country's expenditure on petroleum products, coal, gas, electricity, and heating from district heating systems. UNDP. 2011. *Energy Efficiency Master Plan for Tajikistan: Energy Efficiency for Economic Development and Poverty Reduction*. Dushanbe.

these fuels exposes families to health hazards caused by indoor air pollution. Families are unaware of available options to lower energy costs and improve household living conditions.

5. **Pilot interventions by other donors.** German development cooperation through GIZ and Habitat for Humanity have undertaken pilot projects for green finance. The Warm Comfort program implemented by GIZ has installed thermal insulation and energy-efficient solutions in about 200 households in the Gorno-Badakshan region.[8] In this program, home improvement solutions for energy efficiency were manufactured and supplied by local cooperatives.[9] The Habitat for Humanity program for home energy efficiency improvements collaborates with two MFIs—IMON and Arvand—for household loans to cover costs for energy-efficient roofing and other carpentry works (doors, windows, flooring). The program has so far reached over 6,000 households since 2011. Key lessons learned from both projects are that (i) home improvements reduce heating requirements up to 40%, resulting to energy savings; (ii) strengthening public awareness of energy efficiency and better energy consumption patterns are necessary; and (iii) MFIs' credit assessment capacity for home improvement loan clients must be strengthened. Both pilot projects cannot expand due to lack of funds, particularly in local currency.

6. **Need to scale up and expand pilot interventions**. Although small-scale interventions have been initiated by these donors, more than 50% of the country's households are still in need of home improvements for energy efficiency or off-grid clean power generation. A larger-scale intervention with a focus on energy efficiency and environment-friendly solutions—smart green energy solutions (SGES)—can help address the energy challenges that Tajikistan faces. The proposed project will engage the country's microfinance system to provide affordable credit for SGES.[10] SGES can decrease energy consumption by 15%–50%, enabling these households to consume less fossil fuel.[11] A household survey commissioned by the Asian Development Bank (ADB) also indicated potential demand for solar SGES, with 48% of households expressing interest in acquiring a solar SGES.[12] Some 91% of these households indicated that they would borrow to purchase solar SGES if loans were available.[13]

7. **Provision of better financial access to smart green energy solutions.** The project will address the two key barriers limiting effective demand: lack of affordable financing, and insufficient buyer and lender awareness about SGES. The project will provide loans through selected MFIs to households and micro entrepreneurs to purchase and install affordable SGES. Innovative promotion and delivery mechanisms will be used to help make SGES widely

[8] The Warm Comfort program partnered with a microfinance institution, Madina, in the Gorno-Badakhshan region.
[9] GIZ confirmed that local cooperatives are fully operational and making sustainable profits.
[10] For the purpose of this project, SGES are defined as products acquired by households that improve household energy efficiency, or that consume energy more efficiently than existing products, or that generate energy utilizing an environment-friendly technology. The Project Administration Manual (accessible from the list of linked documents in Appendix 2) contains a nonexclusive list of these products that includes energy-efficient roofs and doors, double-glazed windows, advanced water pumps, solar water heaters, and systems generating electricity by solar power. The list will be amended from time to time by agreement between ADB and the government, including following the introduction of new technologies or in response to requests by MFIs participating in the project.
[11] Initial List of Smart Green Energy Solutions Products (accessible from the list of linked documents in Appendix 2). A household survey showed that about 30% of off-grid households currently use diesel generators. They would benefit from solar home solutions, as the operation and maintenance cost is lower than generators. Twenty percent of households that currently use firewood and coal for heating purposes expressed interest in credit to purchase solar water heaters, which can be used year-round and have low operation and maintenance expenses.
[12] Tajikistan's geography and high horizontal solar irradiance (4 kilowatt hours per square meter per day) are particularly suited for harnessing solar energy solutions, especially in off-grid areas. Solar solutions can include solar panel-based electrification solutions and other solar products.
[13] ADB undertook a survey of 560 households in April–May 2012 in on-grid and off-grid areas of 15 districts in Tajikistan, which found that expenditure for kerosene, diesel, propane, wood, coal, manure, and candles for lighting, heating, and cooking needs averaged $200 per annum.

acceptable and affordable to low-income households.[14] The MFI support will include capacity building and technical advice to MFIs and their clients from SGES experts and engineers who will complete needs assessments, discuss options, and advise on SGES loan structuring.

8. The cost of SGES varies widely. For example, a small household may be able to replace all of its incandescent lightbulbs with more energy-efficient bulbs for less than $100. However, the cost of other SGES is several multiples of the average monthly income of low-income Tajik households. Many SGES are unaffordable if they must be paid up front, but are feasible for families if credit is made available on reasonable terms and tenor. To achieve meaningful household energy savings, complementary SGES products can be bundled together. For example, a household renovation may include energy-efficient roofs, double-glazed windows, insulated doors, and insulated ceilings and floors. High-cost SGES (such as energy-efficient water pumps) may be shared by multiple households borrowing from an MFI as a group. SGES loan size per product financed under the project is expected to range from $200 to $5,000 equivalent to accommodate ranges of household income and SGES preferences.[15]

9. **Sustainable green finance.** During the project, the MFIs will borrow from a Green Finance Fund set up by the Ministry of Finance (MOF) with an $8.8 million grant provided by ADB for the credit line. The credit line will be lent by the MOF to MFIs under subsidiary loans with subsidiary loan interest and principal repayments being revolved on a perpetual basis during and after the project's implementation period. The Green Finance Fund will provide credit line support to MFIs for energy efficiency initiatives. The project's credit lines to MFIs will be in local currency with 5-year duration. This will help MFI borrowers without exposing them to currency risk, as well as provide longer-term liquidity to MFIs. By taking loans to invest in household energy efficiency, clients will experience measurable savings in energy expenses. This will help people understand the benefits of energy efficiency investments**.**

10. The project aims to support commercial viability for SGES. This approach is recognized as an important component of the government's strategy to provide a sustainable energy-efficient environment.[16] Pilot interventions (para. 5) have helped develop supplier capacity to meet market demand. Once the commercial viability of green finance is proven, MFIs and banks will use their own capital to finance SGES acquisition by households and businesses.

11. The project will help strengthen MFI lending for energy-efficient products, supporting MFI portfolio diversification strategies. MFIs that are interested in developing or expanding their SGES loan portfolios must meet the eligibility criteria agreed by the MOF and ADB (para. 20).[17] MFIs selected for the project will benefit from knowledge and capacity building for SGES product lending, strengthening of client selection and portfolio management, and public information campaigns.

12. **Benefits to women.** The project will have significant benefits for women. Introducing SGES such as energy-efficient cooking stoves, heating units and solar water heaters, and water purifiers will reduce time spent in gathering firewood and other fuels for cooking, heating, and safe drinking water, and increase women's borrowing options.[18] SGES enables better house-

[14] A previous ADB project was instrumental in the creation of a sound microfinance system in Tajikistan. ADB. 2009. *Completion Report: Microfinance Systems Development Project in Tajikistan*. Manila.
[15] The average annual cash income of households surveyed by ADB ranged from $383 to $2,917 equivalent for the lowest two quartiles. The average household size in Tajikistan is seven persons.
[16] ADB. 2010. *Country Partnership Strategy: Tajikistan, 2010–2014*. Manila.
[17] ADB. 2007. Lending and Grant Policies (Asian Development Fund). *Operations Manual*. OM D2. Manila; ADB. 2003. Financial Intermediation Loans. *Operations Manual*. OM D6. Manila.
[18] Most rural households boil water using firewood or coal to make it safe to drink.

hold health conditions by providing clean heating, cooking, and water, and warmth in winter. The project will also increase women's financial literacy through the provision of targeted training services to actual and potential clients.

13. **Private sector development.** Although nascent, a few SGES solutions are currently assembled and manufactured locally through local cooperatives and skilled workers. By making credit and information available, the project will help create more effective demand. This will stimulate growth in SGES production and trade. To ensure that the quality and service being delivered by the private sector meet appropriate technical standards, the project will provide international and national experts to help set and prioritize quality benchmarks and facilitate local cooperative links with other institutions that have relevant experience and knowledge.

14. **Environmental, social, and other benefits.** Use of SGES will result in improved local environmental and health benefits for rural households by substituting fossil and wood fuels with clean alternatives or by lowering the volumes of fossil and wood fuels used. These benefits include reduced exposure to indoor air pollution, reduced pressure on forestry and coal resources to meet household heating and cooking needs, and reduced greenhouse gas emissions. Other benefits include reduced time spent by households to purchase, transport, and store diesel, kerosene, coal, and wood in remote areas for power generation, heating, and cooking; improved education opportunities for children during dark hours; and less eye strain as a result of better household lighting.[19] The project will enable (i) reduction of carbon emissions, (ii) support for the development of supply chains for SGES, and (iii) demonstration of households' willingness to pay for energy solutions, thereby providing a baseline for pricing energy produced by the formal power network.[20]

15. **Strategic fit and lessons.** The project is consistent with the government's development objectives and ADB's Strategy 2020, which promotes inclusive and environmentally sustainable growth. [21] The project is included in the country operations business plan[22] and will help develop Tajikistan's private sector, which is a key component of ADB's country partnership strategy (footnote 16). The project also supports ADB's Energy for All Initiative to develop innovative approaches to affordable, modern, clean energy and to scale up the use of energy-efficient products for poor households.[23] The project reflects good design practice shown in an earlier microfinance project in Tajikistan, particularly simplicity of design, involvement of more than one MFI in the project, and significant capacity building elements. (footnote 14).

B. Impact and Outcome

16. The impact will be increased energy efficiency in Tajik households. The outcome will be increased access to finance for SGES in Tajikistan.

C. Outputs

17. The outputs will be:

[19] A 2008 World Bank study found that replacing kerosene lamps with electric lighting had daily health benefits estimated at $2.50 per household. Source: World Bank. 2008. *The Welfare Impact of Rural Electrification: A Reassessment of the Costs and Benefits*. Washington, DC.

[20] Using average carbon emissions reductions for similar SGES (CO_2 emission reduction data from similar projects registered under the United Nations Framework Convention on Climate Change [UNFCCC]), an estimated total of 142,211 tons of CO_2 emissions would be avoided over 15 years.

[21] ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

[22] ADB. 2012. *Country Operations Business Plan: Tajikistan, 2013–2014.* Manila.

[23] ADB. 2008*. Technical Assistance for Energy for All Initiative*. Manila; ADB. 2009. *Energy Policy.* Manila.

(i) **increased outreach by MFIs for green finance, particularly to women borrowers:** this output includes (a) selection of MFIs and signing of agreements, (b) MFI management and staff training, (c) SGES technical support to MFIs and clients, and (d) MFI lending to clients for SGES, including at least 30% women;

(ii) **increased public awareness of energy efficiency:** this output includes (a) nationwide awareness-raising workshops and local training, (b) product demonstrations and marketing campaigns by MFIs and SGES equipment providers, and (c) training in the benefits of SGES products and in financial literacy;

(iii) **increased usage of SGES most helpful to women, such as energy-efficient cooking stoves, heating units, and solar water heaters:** this output includes (a) technical training targeted to women, to ensure that SGES loan products are properly designed to be most beneficial to women, (b) MFI training to develop women-friendly SGES products and enhance outreach to women; and (c) ongoing expansion of the SGES eligible product list to reflect women's needs; and

(iv) **increased private sector participation:** this output includes (a) linking MFIs with local cooperatives and manufacturers of SGES products in Tajikistan, (b) establishing quality benchmarks for SGES products, and (c) providing training to potential borrowers on products which can help microenterprises grow.

D. Investment and Financing Plans

18. The government has requested a grant not exceeding $10 million from ADB's Special Funds resources to help finance the project.[24] The project is estimated to cost $11.12 million equivalent (Table 1). ADB's financing includes costs associated with operation of the PMU, including recurrent costs, to facilitate the project's implementation in Tajikistan.[25] The financing plan is in Table 2.

Table 1: Project Investment Plan

Item	Amount ($ million)	Share of Total (%)
A. SGES subprojects[a]		
1. Credit line to MFIs[b]	8.80	79.1
2. Contributions from subborrowers	0.98	8.8
Subtotal A	**9.78**	**87.9**
B. PMU support[c]	1.31	11.8
C. Taxes and duties[d]	0.03	0.3
Total (A+B+C)	**11.12**	**100.0**

MFI = microfinance institution, PMU = project management unit, SGES = smart green energy solutions.
[a] For SGES subprojects, at least 10% of the subproject costs shall be met by cash contributions from subborrowers. The balance of the subproject costs shall be financed by subloans from the MFIs.
[b] The credit line component is not subject to taxes (e.g., stamp duty type taxes upon subloan issuance).
[c] Includes in-kind government contribution: remuneration of PMU staff, office furniture and equipment, and other associated costs.
[d] Taxes and duties on PMU-related expenditure will be financed from government sources in the form of an exemption.
Source: Asian Development Bank estimates.

[24] The latest debt sustainability analysis determined that Tajikistan had a high risk of debt distress and was therefore eligible to receive 100% of its ADF allocation as grants.

[25] ADB policy and ADB's country partnership strategy for Tajikistan permit the financing of recurrent costs. ADB. 2005. *Cost Sharing and Eligibility of Expenditures for Asian Development Bank Financing: A New Approach.* Manila; and footnote 16.

Table 2: Financing Plan

Source	Amount ($ million)	Share of Total (%)
Asian Development Bank		
Special Funds resources (grant)	10.00	90.0
Government[a]	0.14	1.0
Subborrowers' share	0.98	9.0
Total	**11.12**	**100.0**

[a] Includes in-kind contributions and exemptions of taxes and duties on PMU-related expenditure. The government contribution will be increased when an expected parliamentary approval is obtained for a waiver of taxes on smart green energy solutions products.

Source: Asian Development Bank estimates.

E. Implementation Arrangements

19. The MOF will be the executing agency. The PMU under the MOF will establish a Green Finance Fund[26] in a commercial bank acceptable to the MOF and ADB will lend $8.8 million equivalent in somoni to eligible MFIs for tenors of 5 years, at an interest rate equal to the National Bank of Tajikistan (NBT) refinancing rate,[27] for onlending to subborrowers.

20. To be eligible to participate, an MFI must (i) comply with capital adequacy requirements and other prudential requirements established by the NBT; (ii) have a ratio of equity to total assets of not less than 12%; (iii) have a ratio of return on assets greater than zero; (iv) have a ratio of return on equity of not less than 10%; (v) have a ratio of intermediation costs of less than 33%; (vi) have a portfolio at risk over 30 days of less than 5%; (vii) have a write-off ratio of less than 5%; (viii) have corporate, financial, management, and governance practices acceptable to ADB and the MOF; (ix) have satisfied ADB's integrity, anti-money-laundering, and counter-financing of terrorism due diligence requirements; and (x) have a demonstrated presence in low income urban and rural areas. An MFI that fails to meet one or two of criteria (ii)–(vii) but still has strong implementation capabilities may be considered for participation if it submits an action plan to overcome the deficiency, as long as it complies with all other criteria. MFIs will also be required to submit audited financial statements for the 2 years prior to entering into a subloan agreement.

21. The MOF will enter into subsidiary loan agreements with the selected MFIs and ADB will enter into project agreements with the same MFIs. MFIs will make loans to creditworthy households for the purchase and installation of SGES. These subloans to MFI borrowers, which will be denominated in somoni in principal amounts of up to $5,000 equivalent for tenors of up to 5 years, will bear interest at rates determined by the MFIs. The MOF will recycle the interest and principal payments made by MFIs back to the same or different eligible MFIs to enable them to make additional loans for SGES.

22. Due diligence was conducted on four MFIs that expressed interest in receiving credit lines under the project: Arvand, Humo, IMON International, and Oxus. All four met the agreed upon eligibility criteria.[28] The government, with ADB concurrence, has selected the two that have existing SGES loan products—Arvand and IMON International—to receive 20% of the total

[26] Green Finance Fund is the title of the imprest account for the credit line to MFIs.

[27] This rate is currently 6.5%. The interest rate on the subloans to MFIs will be reset annually based on NBT's then-current refinancing rate.

[28] Financial Analysis (accessible from the list of linked documents in Appendix 2).

credit line amount (10% each). The remaining 80% will be allocated by the PMU, subject to ADB concurrence, to selected and eligible MFIs that express interest in participating in the project.[29]

23. The MOF, as the executing agency, has created the PMU to monitor the project deliverables in consultation with ADB. The MOF will also establish a steering committee comprising key agencies including the NBT, the Ministry of Energy and Industry, and other relevant stakeholders, to facilitate successful project implementation.[30] This steering committee will meet semiannually to review the project's progress and advise on policy matters. In a key innovation, the PMU will manage funds for three ADB projects with microfinance components (the Access to Green Finance Project, the Rural Development Project,[31] and the proposed Building Climate Resilience in the Pyanj River Basin Project) on a cost-sharing basis and develop skills to operate as a long-term, self-sustaining fund. MFIs will be the implementing agencies for the credit line component. Each MFI will establish a project implementation unit (PIU) adequately staffed and acceptable to ADB, as agreed with the MOF. Implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (footnote 29).

Table 3: Implementation Arrangements

Aspects	**Arrangements**		
Implementation period	October 2013–December 2018		
Estimated project completion date	31 December 2018		
Management			
(i) Executing agency	MOF		
(ii) Key implementing agencies	MFIs		
(iii) Implementation units	PIUs established by each MFI, 3–4 staff each		
Procurement	Shopping	Multiple contracts	$133,000
Consulting Services	National–ICS	756 person-months	$466,800
	National–LCS	Lump-sum[a]	$ 75,000
Disbursement	The grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, ICS = individual consultant selection, LCS = least cost selection, MFI = microfinance institution, MOF = Ministry of Finance, PIU = project implementation unit, PMU = project management unit.
[a] For project audit.
Source: Asian Development Bank.

24. **Procurement waiver**. In light of Tajikistan's extensive trade with non-ADB members and the relatively small size of individual SGES purchases from many different suppliers, it will be difficult and expensive for MFIs to ensure that all procurement of equipment and goods by subborrowers originates in ADB member countries. For example, many energy-efficient wooden doors and windows manufactured in Tajikistan (including those made by suppliers in GIZ's project) are made using timber sourced from non-ADB countries (principally the Russian Federation) because regionally grown timber is not of sufficient quality. Accordingly, approval from ADB's Board of Directors is requested for procurement by subborrowers of equipment and goods from non-member countries using the proceeds of the grant used for the credit line

[29] Project Administration Manual (accessible from the list of linked documents in Appendix 2).
[30] The steering committee composition will be amended from time to time through a mutual agreement between the MOF and ADB during project implementation.
[31] ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Asian Development Fund Grant and Technical Assistance Grant to the Republic of Tajikistan for the Rural Development Project.* Manila.

only.[32] The Board approved similar waivers for other projects in which credit lines were provided to financial intermediaries located in developing member countries in Central Asia (i.e., Armenia, Kazakhstan, and the Kyrgyz Republic).[33]

III. TECHNICAL ASSISTANCE

25. The JFPR will provide TA equivalent to $750,000 on a grant basis to be administered by ADB. The MOF will be the executing agency. The TA will have a 5-year implementation period. The TA grant will help improve stakeholders' capacity to implement the project and enhance the project's sustainability. The impact will be increased access to green finance. The TA will have three outputs: (i) PMU capacity strengthened, (ii) public awareness campaign on SGES developed and implemented, and (iii) an enabling market and financing framework for SGES developed. A gender-sensitive community public awareness campaign will disseminate the technical features and benefits of SGES. The PMU, MFIs, and other project stakeholders will be empowered to sustain the green finance market beyond the project implementation period.

26. ADB will select individuals and a firm for consulting services to provide a total of 85 person-months' consultancy (comprising 66 person-months' national and 19 person-months' international consultancy). The firm consultant selection shall be by quality- and cost-based selection, and both the firm and individuals will be selected in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time). The TA resources will be disbursed in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). Goods and works will be procured in accordance with ADB's Procurement Guidelines (2010, as amended from time to time).

IV. DUE DILIGENCE

A. Economic

27. In addition to financial and economic benefits to households, this project will result in positive benefits to the Tajikistan economy as a result of more efficient energy consumption. These benefits have been estimated and verified based on field experience of similar projects implemented by GIZ and other donor organizations in Tajikistan. The cost–benefit analysis estimates the project's economic internal rate of return at 16%. Sensitivity analysis showed that increased costs and reduced benefits have low impact on the project's economic returns.[34]

B. Financial and Governance

28. Financial management, governance, and integrity due diligence was conducted on four potential participating MFIs (para. 22) to ensure market capacity to engage in the project. All four MFIs satisfied ADB's minimum requirements. They have in place acceptable checks and balances in the credit approval and treasury functions, as well as robust internal auditing procedures. Their audited financial statements are prepared and audited by reputable audit

[32] The Board of Directors must approve the waiver by a vote representing not less than two-thirds of the total voting power of the members of the Board.

[33] ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loan, Loan, and Technical Assistance Grant to Armenia for the Women's Entrepreneurship Support Sector Development Program.* Manila; ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Republic of Kazakhstan for the Small and Medium Enterprise Investment Program.* Manila; ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Senior Unsecured Loan to the Kyrgyz Republic for the Investment and Credit Bank for Small and Medium-Sized Enterprise Finance*. Manila.

[34] Additional details are in the Economic Analysis (accessible from the list of linked documents in Appendix 2).

firms according to standards acceptable to ADB and the MOF. It will be a condition of disbursement of credit line funds to MFIs that adequate anti-money-laundering and counter-terrorism financing customer due diligence measures are in place.

29. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MOF. The specific policy requirements and supplementary measures are described in the project administration manual (footnote 29).

30. The PMU will prepare and maintain financial statements required by ADB and will have them audited in a timely manner by independent external auditors acceptable to ADB. Except as provided in para. 24, all procurement financed by the grant will be in accordance with applicable provisions of ADB's Procurement Guidelines.

C. Poverty and Social

31. Tajikistan is among the poorest countries in Central Asia, with 47% of the population living below the national poverty line and 73.5% of the population living in rural areas. Many of the rural poor depend on remittances sent by their male family members from abroad. Tajikistan has a high percentage of households headed by women (20%) because of high numbers of widows from the country's civil war and significant male outmigration. Households experience unreliable energy supply, especially in winter. The sample survey showed that both female- and male-headed households are equally interested in SGES and are willing to borrow for SGES. The project will address issues of insufficient knowledge by women, affordability of SGES investment, and improvements in livelihoods through cost-conscious SGES options, microfinance lending to women, capacity building for all stakeholders, and public information campaigns.

D. Safeguards

32. ADB will work closely with the MOF and the MFIs to ensure that subloans will comply with ADB's Safeguard Policy Statement (2009).

33. The project conforms to ADB's Safeguard Policy Statement and complies with Tajikistan's labor, environment, health, safety, and social laws and regulations. The project falls under the financial intermediation category with respect to environmental and social safeguards and is treated as C for the environment, involuntary resettlement, and indigenous peoples subcategories. It will have minimal or no adverse environmental impacts or risks and will not generate involuntary resettlement impacts or impacts on indigenous peoples within the meaning of the Safeguard Policy Statement. Only subprojects classified category C for environment, involuntary resettlement, and indigenous peoples will be financed using funds obtained under the project's subloans. The prohibited investment activity list in the Safeguard Policy Statement will apply. In addition, MFIs whose business activities involve adverse environmental or social impacts will be ineligible to participate. Before receiving its first disbursement under the proposed project, each MFI will be required to establish a basic environmental and social safeguards management system with acceptable screening mechanisms.

E. Risks and Mitigating Measures

34. The summary of risks and mitigating measures is provided in Table 4.

Table 4: Summary Risks and Mitigating Measures

Summary Risks	Mitigating Measures
Macroeconomic Risks	
1. High capital cost of imported equipment and spare parts due to devaluation	Some SGES are made locally, which reduces the risk of price increases due to currency devaluation. Increased development of local SGES manufacturers should moderate cost increases.
2. Affordability problem due to high interest rates on loans for SGES	MFIs will work with technology partners, such as those developed by GIZ and Habitat for Humanity, to manage costs; MFIs and the JFPR TA will help households understand and prioritize their SGES needs; local currency credit lines to multiple MFIs will improve affordability.
Information Asymmetry Risks	
3. Lack of knowledge about SGES	Increased public awareness campaigns and capacity building of MFIs and their clients will increase knowledge of the costs and benefits of SGES.
Business Risks	
4. Poor quality SGES	The project will only include SGES products that meet high-quality technical standards developed with assistance provided under the JFPR TA. MFIs will work with clients and monitor selected SGES installations to ensure product quality and use.
5. MFI default risk	Extensive financial due diligence will be performed on MFIs that apply and are selected for credit lines under the project. Only MFIs that meet ADB's eligibility criteria will be selected.

ADB = Asian Development Bank, JFPR = Japan Fund for Poverty Reduction, MFI = microfinance institution, SGES = smart green energy solutions, TA = technical assistance.
Source: Asian Development Bank.

V. ASSURANCES AND CONDITIONS

35. The government and the MOF have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the project administration manual and grant documents.

36. The government and the MOF have agreed on certain covenants for the project, which are set forth in the grant and project agreements.

VI. RECOMMENDATIONS

37. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding $10,000,000 to the Republic of Tajikistan from ADB's Special Funds resources for the Access to Green Finance Project on terms and conditions that are substantially in accordance with those set forth in the draft grant and project agreements presented to the Board.

38. I also recommend that the Board approve the proposal in paragraph 24 of this report to permit procurement (i) in countries that are not (a) developing member countries of ADB or (b) developed member countries of ADB that have contributed to the Asian Development Fund; and (ii) of goods produced in such countries.

Takehiko Nakao
President

4 June 2013

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Increased energy efficiency in Tajik households	More than 20,000 households use energy-efficient and clean SGES by 2021 (baseline 2012: 6,000)	TAJSTAT MFIs and NGOs involved in SGES Project surveys	**Assumption** Increased public awareness of the benefits of SGES **Risk** Low quality of products and services being provided and supplied in the country
Outcome Increased access to finance for SGES in Tajikistan	Cumulative number of loans by MFIs for SGES increased to at least 12,000 (totaling at least $16 million) by 2019 (baseline 2012: 6,200; $5 million)	MFI progress reports	**Assumption** Continued credit demand for SGES and sound functioning of microfinance institutions **Risk** Loan delinquencies caused by poor underwriting or deteriorated economic conditions
Outputs 1. Increased outreach by MFIs for green finance, particularly to women borrowers	At least 4,500 loans for SGES (totaling at least $8.8 million) made using project credit lines by 2019, of which at least 30% (totaling at least $1.76 million, i.e., at least 20% in aggregate principal amount) are made to women borrowers	MFI progress reports	**Assumption** MFIs are able to select their clients efficiently and expeditiously **Risk** MFIs' credit risks
2. Increased public awareness of energy efficiency	At least 20% of households are aware of and understand the benefits of energy efficiency by 2019 (baseline 2012: TBD at start-up, expected to be <1%) At least 400 persons (of which at least 50% are women) receive training on taking advantage of SGES by 2019	Project monitoring survey conducted by the PMU PMU progress reports	**Assumption** Effective public awareness and marketing campaigns by MFIs and SGES equipment providers (coordinated by PMU in partnership with GIZ and Habitat for Humanity)
3. Increased usage of SGES most helpful to women, such as energy-efficient cooking stoves, heating units, and solar water heaters	Loans by MFIs from the project's credit lines for the installation of energy-efficient cooking stoves, heating units, and solar water heaters in at least 1,000 homes by 2019	MFI progress reports	**Assumption** Successful engagement with MFIs, GIZ, and Habitat for Humanity; continued government support

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	Time spent by women collecting firewood and manure reduced (baseline and target to be established by survey within first 3 months of project implementation)	Project surveys	**Risk** Higher capital, operations, and maintenance cost of imported equipment, resulting in lower demand
4. Increased private sector participation	Number of skilled workers engaged in jobs related to SGES increased by 15% during the project implementation period (2013–2018) (baseline 2012: 500)	MFIs and NGOs involved in SGES PMU progress reports	**Assumptions** Energy-efficient technology improvements, identification of profitable business models, and continued government support

Activities with Milestones	**Inputs**
1.1 Initial two MFIs sign subsidiary loan and project agreements (by October 2013). 1.2 Orientation for MFI managements on green finance (by December 2013). 1.3 Loan officers of initial two MFIs trained for credit decisions on green finance (by December 2013). 1.4 Internal targets set for developing green finance, including outreach to women borrowers, and strategy developed by MFIs (by December 2013). 1.5 Additional MFIs apply for, are selected, and sign subsidiary loan and project agreements (December 2013–September 2014). 1.6 SGES loans delivered, used, and repaid with monitoring and reporting of project results (through December 2018). 2.1 Awareness workshop and/or seminar in each quarter (first seminar in December 2013). 2.2 Gender-sensitive product awareness training, including training on livelihood development from SGES for women (January 2014–December 2018). 2.3 Gender-sensitive technical training (January 2014–December 2018). 3.1 Technicians' training on SGES most useful to women (by March 2014). 3.2 Loan officers trained for credit decisions for SGES useful to women (December 2013–September 2014). 3.3 MFI internal targets set for outreach to women borrowers for SGES most useful to women (February 2014–September 2014). 4.1 Public awareness campaign in all participating regions (December 2013–June 2018). 4.2 Technicians' training in participating regions (February 2014–June 2018). 4.3 Distribution of SGES (February 2014–November 2018). 4.4 Energy-efficient equipment quality benchmarks adopted by MFIs (by November 2014).	Grant ADB: $10.00 million Government: $0.14 million Borrowers from MFIs: $0.98 million Japan Fund for Poverty Reduction: $0.75 million

ADB = Asian Development Bank, MFI = microfinance institution, NGO = nongovernment organization, PMU = project management unit, SGES = smart green energy solutions, TAJSTAT = Tajikistan Statistics, TBD = to be determined.

LIST OF LINKED DOCUMENTS
http://www.adb.org/Documents/RRPs/?id=45229-001-2

1. Grant Agreement
2. Project Agreement: Microdeposit Organization IMON International
3. Project Agreement: Microdeposit Organization Arvand
4. Sector Assessment (Summary): Microfinance and Energy Sectors
5. Project Administration Manual
6. Contribution to the ADB Results Framework
7. Development Coordination
8. Financial Analysis
9. Economic Analysis
10. Country Economic Indicators
11. Summary Poverty Reduction and Social Strategy
12. Gender Action Plan
13. Risk Assessment and Risk Management Plan

Supplementary Documents

14. Microfinance Sector Analysis
15. Energy Sector Assessment
16. Private Sector Development Road Map
17. Financial Management Assessment Report (Microfinance Institutions)
18. Financial Management Assessment of Ministry of Finance (Executing Agency)
19. Initial List of Smart Green Energy Solutions Products
20. Demand Analysis for Smart Green Energy Solutions