



**GREEN
CLIMATE
FUND**

Meeting of the Board
16- 19 May 2022
Antigua and Barbuda
Provisional Agenda Item 05

GCF/B.32/02/Add.04

25 April 2022

Consideration of funding proposals – Addendum IV

Funding proposal package for SAP024

Summary

This addendum contains the following five parts:

- a) A funding proposal summary titled “Pakistan Distributed Solar Project” submitted by JS Bank Limited (JS Bank);
- b) No-objection letters issued by the national designated authorities or focal point(s);
- c) Independent Technical Advisory Panel’s assessment;
- d) Response from the accredited entity to the independent Technical Advisory Panel’s assessment; and
- e) Gender documentation of the funding proposal.

These documents are presented as submitted by the accredited entity and the national designated authority(ies) or focal point(s), respectively. Pursuant to the Comprehensive Information Disclosure Policy of the Fund, the funding proposal titled titled “Pakistan Distributed Solar Project” submitted by JS Bank Limited (JS Bank) is being circulated on a limited distribution basis only to Board Members and Alternate Board Members to ensure confidentiality of certain proprietary, legally privileged or commercially sensitive information of the entity.

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Simplified Approval Process Funding Proposal

Project/Programme title: Pakistan Distributed Solar Project

Country(ies): Pakistan

National Designated Authority(ies): Ministry of Climate Change

Accredited Entity: JS Bank Limited

Date of first submission: 24.04.2020 V.1

Date of current submission/
version number: 04.01.2022 V.7

If available, indicate GCF code: *5e7aef1dab53225a39f5fca*



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Contents

Section A PROJECT / PROGRAMME SUMMARY

This section highlights some of the project's or programme's information for ease of access and concise explanation of the funding proposal.

Section B PROJECT / PROGRAMME DETAILS

This section focuses on describing the context of the project/programme, providing details of the project/programme including components, outputs and activities, and implementation arrangements.

Section C FINANCING INFORMATION

This section explains the financial instrument(s) and amount of funding requested from the GCF as well as co-financing leveraged for the project/programme. It also includes justification for requesting GCF funding and exit strategy.

Section D EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section provides an overview of the expected alignment of the projects/programme with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

Section E ANNEXES

This section provides a list of mandatory documents that should be submitted with the funding proposal as well as optional documents and references as deemed necessary to supplement the information provided in the funding proposal.

Notes to accredited entities on the use of the SAP funding proposal template

- The Simplified Approval Process Pilot Scheme (SAP) supports projects and programmes with a GCF contribution of up to USD 10 million with minimal to no environmental and social risks. Projects and programmes are eligible for SAP if they are ready for scaling up and have the potential for transformation, promoting a paradigm shift to low-emission and climate-resilient development.
- This template is for the SAP funding proposals and is different from the funding proposal template under the standard project and programme cycle. Distinctive features of the SAP funding proposal template are:
 - *Simpler documents*: key documents have been simplified, and presented in a single, up-front list;
 - *Fewer pages*: A shorter form with significantly fewer pages. The total length of funding proposals should **not exceed 20 pages**, annexes can be used to provide details as necessary;
 - *Easier form-filling*: fewer questions and clearer guidance allows more concise and succinct responses for each sub-section, avoiding duplication of information.
- Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other funding proposal documents such as project appraisal document, pre-feasibility studies, term sheet, legal due diligence report, etc.
- Submitted SAP Pilot Scheme funding proposals will be disclosed simultaneously with submission to the Board, subject to the redaction of any information which may not be disclosed pursuant to the [GCF Information Disclosure Policy](#).

Please submit the completed form to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“SAP-FP-[Accredited Entity Short Name]-[yyymmdd]”

LIST OF ACRONYMS	
AE	Accredited Entity
AF	Adaptation Fund
AMA	Accreditation Master Agreement
ARA	Adaptation results area
CIF	Climate Investment Funds
CN	Concept note
EDA	Enhanced Direct Access
EE	Executing Entity
ESIA	Environment and Social Impact Assessment
ESMF	Environment and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental Social Safeguard
FP	Funding Proposal
GEF	Global Environmental Facility
GHG	Greenhouse Gas
IDP	Information Disclosure Policy
IRMF	Integrated Results Management Framework
MIGA	Multilateral Investment Guarantee Agency
MOV	Means of verification
MRA	Mitigation results area
NAMAs	Nationally appropriate mitigation actions
NAPs	National adaptation plans
NDA	National Designated Authority
NDC	Nationally determined contributions
PPF	Project Preparation Facility
REDD+	Reducing emissions from deforestation and forest degradation
RFP	Request for Proposals
ToC	Theory of change
tCO₂eq	tons of carbon dioxide equivalent

A. PROJECT/PROGRAMME SUMMARY					
A.1. Has this FP been submitted as a SAP CN before?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
A.2. Is the Environmental and Social Safeguards Category C or I-3?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
A.3. Project or programme	Indicate whether this FP refers to a combination of several projects (programme) or one project. <input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	A.4. Public or private sector	<input type="checkbox"/> Public sector <input checked="" type="checkbox"/> Private sector	A.5. RfP	Not applicable
A.6. Result area(s)	Check the applicable <u>GCF result area(s)</u> that the overall proposed project/programme targets. For each checked result area(s), indicate the estimated percentage of GCF and Co-financers' budget devoted to it. The total of the percentages when summed should be 100% for GCF and Co-financers' contribution respectively.				
				GCF Contribution	Co-financers' contribution¹
	Mitigation total			20 %	80 %
	<input checked="" type="checkbox"/> Energy generation and access			20%	80 %
	<input type="checkbox"/> Low emission transport			0 %	0 %
	<input type="checkbox"/> Buildings, cities and industries and appliances			0 %	0 %
	<input type="checkbox"/> Forestry and land use			0 %	0 %
	Adaptation total			0 %	0 %
	<input type="checkbox"/> Most vulnerable people and communities			0 %	0 %
	<input type="checkbox"/> Health and well-being, and food and water security			0 %	0 %
	<input type="checkbox"/> Infrastructure and built environment			0 %	0 %
<input type="checkbox"/> Ecosystem and ecosystem services			0 %	0 %	
A.7.1. Expected mitigation outcome (Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)	848,700 tCO ₂ eq	A.7.2 Expected adaptation outcome (Core indicator 2: direct and indirect beneficiaries reached)	Indicate total number of direct and indirect beneficiaries		
			Indicate number of direct beneficiaries	Indicate number of direct beneficiaries	
			Indicate % of direct beneficiaries vis-à-vis total population	Indicate % of direct beneficiaries vis-à-vis total population	

¹ Co-financer's contribution means the financial resources required, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e. GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

A.8.1. Total investment (GCF + co-finance²)	Amount: <u> 54,000,000 </u> USD	A.8.2 Total GCF funding requested	Amount: <u> 10,000,000 </u> USD
A.9. Type of financial instrument requested for the GCF funding	<i>Mark all that apply.</i> <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan ³ <input type="checkbox"/> Equity <input checked="" type="checkbox"/> Guarantees <input type="checkbox"/> Others:		
A.10. Implementation period (months)	120		
A.11. Total project/ programme lifespan (years)	408	A.12. Expected date of internal approval	12/14/2020
A.13. Executing Entity information	JS Bank Limited		
A.14. Scalability and potential for transformation (Eligibility for SAP, max. 100 words)			
<p><i>The primary purpose of the Pakistan Distributed Solar Project (PDSP) is to make Net-metered renewable energy solutions a self-sustaining and growing market within the country. Pakistan has large potential for solar solutions, being one of the sunbelt countries with solar irradiation of 6-7 kWh/m²/day in the areas identified for PV development. Overall, the solar irradiation in Pakistan is (4.45 kWh/m²/day), which is 1.23x higher than the world average of 3.61 kWh/m²/day. The Punjab and Sindh provinces are considered the focal points for both kW and MW-scale PV development in the country, due to their high population density, as well as the high level of infrastructure and industry.</i></p> <p><i>Despite the significant potential, Net-metering solar solutions have not gained any momentum. Till 2020, the country has issued a mere 4,950 Net-meters (against a population of over 200 million where more than 70% of people live in urbanized centers) with generation capacity of only 88.6 MW (against total country's generation of 35.7 GW representing only 0.25%). At an average household size of 6.45 persons and a total population of an estimated 225 million people, total number of households equals (225/6.45) 34 million households. Assuming a financial inclusion rate of 21 %, currently, 7.32 million households can receive Solar financing. Given that 64 % (as per 2017 census data) of the population has access to electricity from the grid, 4.69 million households can potentially install Net-meters; a minimum of one Net-meter each household.</i></p> <p><i>By offering concessionary loans, the project has the potential to develop RE, mainly Solar PVs, into a thriving industry within the country, which will not only improve the heavily fossil-fuel reliant energy mix but also create significant employment in the new, growing sector. With a USD 9 Million Pro-Rata Risk Sharing Guarantee (as defined in section A.12), JS Bank (accredited & executing entity) will be able to</i></p>			

² Refer to the Policy on Co-financing of the GCF.

³ Senior loans and subordinated loans.

deploy roughly 4,000 Solar PV Systems to a variety of customers (potential customers include women entrepreneurship, residential, agricultural, and Small & Medium sized Enterprises (SME) categories).

With GCF Funding, the bank can broaden the scope of the project by reaching a previously untapped market segment, which was unable to get financed due to either lack of awareness about financing options or were not included as they could not meet stringent collateral requirements. The project will encourage other institutions (Commercial Banks & other lending institutions) to develop competitive solutions which will inevitably increase the overall market size/acceptance. It will also allow the creation of a secondary market for solar panels that will encourage commercial banks to develop more financial products centered around renewable energy.

A.15. Project/Programme rationale, objectives and approach (max. 300 words)

Climate Rationale of the project:

Currently, 46% of the total GHG emissions generated by Pakistan stem from the energy sector which is predominantly reliant on fossil-fuels. Thermal energy generated from fossil-fuels represent more than 65.2% of the energy mix of the country. Pakistan (6th largest population in the world) had faced a significant shortfall in energy over the last 2 decades due to limited development of energy infrastructure. However, Pakistan was able to increase its generation capacity by 52% over the last decade, though most of the growth originated from fossil-fuel reliant sources.

Even though Pakistan only contributes 0.72% of worldwide GHG emissions, an estimated 6 % of the federal budget is spent on climate-change related expenses^[1]. Furthermore, the country has recently discovered over 175 billion tons of coal in Thar (400 km's away from Karachi - the country's largest city) and has recently started developing coal-based power plants. According to a World Bank energy mix projection, if Pakistan does not focus on developing Renewable Energy, there is the risk to quadruple its carbon emission by 2040. An estimated average annual economic loss of USD 4 billion due to extreme weather events poses a great threat to the nation's development.

Pakistan is amongst the top ten countries in the world at risk of being affected by extreme weather events. Pakistan is aiming for an average annual growth rate of 7% up till 2025 (as per Vision 2025^[2]). Facilitating such growth will require strong investment in the Energy sector to meet the growing needs of the economy. The current population demographics necessitate adding 1.5 million jobs per year to prevent rising unemployment.

The following were highlighted as high priority goals in the country's INDCs (2016): increasing grid efficiency, establishing a large-scale distributed grid of solar, wind and hydro energy, increasing efficiency in irrigation motors and pumps. It also acknowledged the need for capacity building activities in Energy, Transport and Agriculture. Building technical expertise and raising awareness for the Energy sector were highlighted. The provincial government of Khyber-Pakhtunkhwa has demonstrated such commitments made in the federal government's Climate Change Act (2017) by completing 150 of the planned 200 micro-hydropower projects.

Purpose and activities of the project/programme

The project shall provide concessional financing along with collateral free loans to women entrepreneurship, residential, Agri-based and most SME customers. Pro- Rata Risk Sharing Guarantee will help in mitigating the default risk for JS Bank. Since the energy mix of Pakistan is heavily reliant on fossil-fuels, this shift from complete reliance on the national grid to a renewable energy source will mitigate carbon emissions.

Climate Outcome of the project/programme

The overall project has a total GHG emissions reduction outcome of 848,700 tonnes CO2 equivalent. The project has the potential to install Solar PV Systems for 4,000 customers (with a potential to have an impact on 25,520 people - given an average of 6.38 people per household[3]). Total life of the project is estimated to be 34 years, where JS Bank will be deploying loans during the first 10 years - assuming a useable life of 25 years which is as per warranty and support provided by Solar Vendor. The estimated life of solar panels is 25 years. Hence the beneficiaries or vendors are not required to replace the Solar PVs, other than by their own choice.

Rationale for GCF funding

The primary reasons why GCF intervention is imperative for the Pakistan Distributed Solar Project (PDSP) are summarized as follows:

- 1) lack of specialized renewable energy financial solutions developed by existing financial institutions due to high risk and lack of commercial incentives,*
- 2) high initial cost of investment of Solar PV for locals (starting from USD 5,000 per household),*
- 3) lack of awareness about reliability and effective cost of Solar PV solutions,*

GCF funding will provide JS Bank with the unique opportunity to avail a Pro- Rata Risk Sharing Guarantee - something not fully available in Pakistani financial markets. The guarantee will offer a hedge against non-performing loans, something that is necessary to develop a self-sustaining market for Solar PVs. This will bridge the above-mentioned shortcomings of the existing scheme that would benefit potential customers by offering simplified and accessible financing solutions for end customers.

Financial Instrument to be financed by the GCF

The total funding requested under the projects USD 10 Million which is broken into USD 9 Million in the form of a Pro-Rata Risk Sharing Guarantee (where GCF on a loan-by-loan basis, covering defaults at the guarantee rate of Ninety Percent (90 %) and the remaining Ten Percent (10%) will be covered by JS Bank) and USD 1 Million in the form of a grant to promote/incentivize awareness/growth of the project.

One of the reasons to opt for a guarantee is the possibility to leverage the existing facility issued by the State Bank of Pakistan (SBP). SBP has offered a promotional RE financing scheme in Pakistan which offers

concessional loans to customers at a fixed rate of 6% in the local currency (Pakistani Rupee). Despite the reasonable offering, few customers from the SME sector or Residential sector have been able to qualify for the scheme. (Kindly Review section B.1 for more details).

Material event: Discontinuation of SBP Renewable Energy Scheme

In an event where State Bank of Pakistan discontinues or alters the commercial terms the Renewable Energy Scheme, AE shall inform GCF and renegotiate the terms pertaining to the PDSP project/agreement with GCF's board. GCF will be duly informed about the policy revisions. Any change in the renewable energy scheme will be reported and consulted with GCF and if required will seek an approval from GCF.

[1] <https://www.climatefinance-developmenteffectiveness.org/countries/pakistan>

[2] <https://www.pc.gov.pk/uploads/vision2025/Pakistan-Vision-2025.pdf>

[3] https://www.pbs.gov.pk/sites/default/files/pslm/publications/hies10_11/tables/table01.pdf

B. PROJECT/PROGRAMME DETAILS

B.1. Context and baseline (max. 500 words)

While Pakistan is not a significant contributor to global GHG emissions, it is however ranked 5th amongst countries most affected by Climate change[1]. Annual mean temperature in Pakistan is expected to rise by 3°C to 5°C by 2050[2] which is going to increase frequency of extreme events (floods, heat waves & cyclonic activity).

Water from Indus and other rivers account for 92% of water used in agriculture, which receives majority of its water directly from glaciers in the Himalayas. There is a serious risk of glacial lake outburst floods (GLOFs) which threatens farmer livelihoods & agriculture industry which accounts for 24% of the country's GDP. Climate Risk Index reports 870 lives were lost during 1999-2019 due to climate change. Projected temperature increases are expected to be above global averages, negatively impacting agricultural production, water availability and a threat to human health and safety.

Energy sector accounts for 46% GHG emissions and is the largest source of GHG emissions in the country due to high reliance on fossil-fuel based sources of generation. Further, the energy sector is at risk due to climate change, specifically, the drought and induced water shortage will impact availability of water for country's power generation system given 25% of the existing generation capacity is hydro based.

As a country, Pakistan recognizes the risks of climate change. The National Climate Change policy focuses on adoption of innovative technological solutions to solve the climate change challenges of mitigation for reduction of GHG emissions in the energy-intensive industries and buildings. Several mitigation and adaptation measures and actions are already being undertaken with domestic public resources, but there is a dire need to mobilize internal and local private sector capital for climate finance, technology development/transfer and capacity building. The country needs US\$ 40 billion to reduce 20% of its emissions by 2030 and US\$ 7-14 billion annually for adaptation.

Predominant Gender Gap

According to a World Economic Forum (WEF) Pakistan has been ranked among the worst four countries in the world in gender parity with only Iraq, Yemen and Afghanistan faring worse as the country slipped to 153rd position out of 156 countries. The gender gap in the country has widened by 0.7 percentage points to 55.6%. Studies indicate Women do not have equal access to justice, ownership of land and non-financial assets or inheritance rights. In Pakistan, women are much less likely to own a house (3%) or land (2%) than men (72% and 27%, respectively). The country has been ranked 93rd out of 115 in property rights protection and 86th in gender equality in the International Property Rights Index (IPRI) 2008. Although Pakistan's female labor force participation rate of 24% has recently begun to converge towards the South Asian average of 32%, it still ranks tenth lowest out of 189 countries. Less than one third of the 31 million working aged women in Pakistan are deemed economically active. Less constrained choices for male workers yield better employment and livelihood opportunities. Men monopolize lucrative sectors like trade, construction and transport and receive wages on average 18% higher than women (WEF, 2014). According

to the Labor Force Survey (LFS) in 2014-15, Pakistani women account for 11.5% of employees in the informal sector but only 3% in the formal sector.

Due to systemic, cultural, and weaker economic access, there is a significantly low presence of women in the formal lending sector in Pakistan. SBP's internal gender disaggregated data shows that unique accounts held by adult women comprise of 25% of total unique bank accounts. The Central Bank (SBP) is trying to reduce the gender gap by employing multiple initiatives on commercial financial institutions. Currently only 13% of the staff of banks and 1% of branchless banking agents are women. More women working in leadership positions at financial institutions can also aid the development of policies and practices for improving gender balance across the financial sector as well as developing women friendly products and services. Financial Institutions (FIs) are being asked develop policies to improve gender diversity and ensure a minimum of 20% female participation in the work force by 2023. The policy recommendations will be applicable on SBP's regulated entities, including commercial banks, Islamic banks, microfinance banks, development finance institutions and electronic money institutions.

Gender mainstreaming and gender sensitive approaches to product development are imperative to improve formal lending to women. While the project will use a gender sensitive approach to product development, PDSP will mainstream gender in its awareness campaign but realigning usage of towards women. The project intends to create awareness of Solar PV financial solutions but will focus these awareness campaign by showing women as the key user its campaign to make the financial solution more inclusive. Furthermore, the AE intends to promote women entrepreneurs who have attained these financial solutions to showcase acceptability and access.

Ongoing project related to this FP:

Existing State Bank of Pakistan (SBP) Financing Scheme for Renewable Energy:

The Government of Pakistan has taken initiative with the State Bank of Pakistan (Central Bank of Pakistan), announcing the 'Financing scheme for Renewable Energy' in June 2016, with loans being offered at 6% interest rate for PV projects up to 50 MW. The aim of the scheme is to establish a healthy market for Renewable Energy products; the scheme is applicable till June 2022. If the scheme is discontinued, the rate of finance will no longer be subsidized, for all banks, and refinance (liquidity cover) will no longer be provided by the Central Bank. JS BANK is in talks with the Central Bank, impressing the scheme's importance to the RE Market. Absence of the scheme will slow down uptake of loans by customers. However, with rising electricity tariffs and the trend of decreasing prices of Solar PV systems will counteract this effect. The current rate being offered with the central bank (SBP) Renewable Energy scheme is 6%, without the scheme this rate would be KIBOR based which is currently hovering around 7.56% without incorporating the spread charge by a commercial lending institution. Given average market spread the lending rates would hover around 11% compared to a fixed 6% rate.

Barriers in the existing renewable energy financing schemes:

- **Limited financial incentive for Commercial Banks:** *While the rate is attractive for end customers, the default risk is a major concern for local commercial banks.*
- **Non-liquid secondary market:** *Due to a limited number of Solar PV solutions in comparison to the overall market potential, there is no formal secondary market for Solar PV based assets.*

- **Small-size service solar vendors:** No large-scale vendors operate in the market that can provide Solar PV solutions for the mass market.
- **Collateral Mismatch:** Commercial banks often require property/land as collateral specially for large Solar PV solutions. SME businesses either refrain from providing property as collateral or do not have sufficient collateral.
- **Lack of awareness/marketing:** Foremost reasons for limited growth in Solar PV solutions is the lack of awareness about its reliability. Since commercial banks lack financial incentive and small-scale service providers lack capital; therefore, none of the active participants in the sector have focused or promoted the awareness to the mass market in the country.

Baseline Scenario:

The project, PDSP intends to displace approximately 43 MW worth of electric capacity by providing loans to approximately 4,000 customers, which would have been completely reliant on the fossil-fuel based national grid for their energy needs. We estimate the project to contribute approximately 24,962 t CO₂eq/yr. The project will contribute to the mitigation objective of the country described in its INDC by reducing 848,700 tCO₂eq over the duration of 34 years. Installation of Solar would inevitably reduce reliance on national grid/or petrol/diesel backup generators to environmentally friendly energy solutions. (For more details review section E 1.4).

[1] https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_2.pdf

[2] <https://www.adb.org/sites/default/files/publication/357876/climate-change-profile-pakistan.pdf>

B.2.1. Project/Programme description (max. 1,000 words)

Project Objective

The primary objective of PDSP (Pakistan Distributed Solar Project) is to promote financing/lending solutions for Solar PV products, particularly distributed generation. PSDP is designed to provide an innovative intervention to tackle existing climate mitigation barriers whilst creating an enabling environment for Low- Carbon infrastructure in the country.

Component 1: Strengthened institutional and regulatory systems for low-emission planning and development

Output 1.1 Increased deployment & sustainability of renewable energy

Activity 1.1.1: Formation/Execution of Pro- Rata Risk Sharing Guarantee (as defined in section A.12) to mitigate default risk for JS Bank

- The AE will update the collateral requirements of the financial solutions which pertain to the program.
- Updating collateral requirements will include not limited to re-designing of risk framework and updating Product Programmes for renewable energy product portfolio. Product Programme is a document that is

created, reviewed, and approved holistically within the bank (by all concerned functions and authorities) to establish the official structure of the service/product being offered.

- Ensuring all matters pertaining to the effectiveness of the FAA are closed. Developing an internal reporting/tagging mechanism to record loans disbursement against guarantee proceeds.

Activity 1.1.2: Re-designing Renewable Energy / Solar Financing product portfolio

- *Redesigning & updating the loan documentation of financial solutions that would fall under the program, PDSP. Reclassification of existing products into 3 different segments: Residential, Agri & SME (Small & Medium Enterprises). Ensuring these products will be designed to promote easier access for women to avail the financing (Review note on Khud Mukhtar Program below).*
- *Fixing interest rate of loan at 6% in accordance with the SBP renewable energy scheme for all 3 product segments except in connection with loans under Khud Mukhtar Program explained below. If the SBP scheme is discontinued or if the financial terms change the project will need to be restructured and be brought back to the Board or GCF secretariat, in accordance with the applicable GCF's policies.*
- ***Expanding the Khud Mukhtar program:*** *“Khud Mukhtar” which means independence is a financial solution designed by JS Bank for businesswomen. Under PDSP program the existing service will be augmented & improved where it will now also start offering Solar Rooftop Financing to women. Salaried Women, Women-owned or led businesses will be able to access financing for a tenure of up to 3-5 years at a subsidized rate. To promote the product, JS Bank will further reduce its spread by an additional 1% to makes the cost of borrowing easier to end customers, bringing it down to 5% for end borrowers.*
- ***Residential:*** *Increase maximum limit of the amount on loans being offered to PKR 4 Million from PKR 2 Million where no additional collateral is required. JS Bank currently offers loans up to PKR 2 Million where the only collateral required is Solar PV equipment - with the guarantee in place - the maximum limit will be increased to PKR 4 Million. JS Bank will be able to offer a larger Solar PV solution to its existing and new customers.*
- ***Agri:*** *Currently all Agri Customers are required to provide 100% collateral to avail financing for Solar Tube-wells. With the guarantee in place, the bank will take a two-pronged approach to ease loan access for farmers:*
 - *Offer a wider array of Agri based Solar PV solutions - Creation of new Solar Finance products to meet existing needs of farmers and agriculturalists. E.g., Solar PV financing for Agri-storage spaces.*
 - *Reducing the minimum collateral requirements; Currently Agri customers have to provide 100% collateral via their Agri-passbook (a general ledger used to issue financing to farmers in Pakistan), the bank will reduce the collateral requirements for on-grid solutions.*
 - *Equipment used as collateral for loans; Agri customers will be able to collateralize the equipment which they will purchase through the loans provided.*
- ***SME (Small & Medium Enterprises):*** *SME is defined as a firm having up to 250 employees and paid-up Capital up to PKR. 25 Million and an annual sales up to PKR. 250 Million. Currently any SMEs requiring financing for more than PKR 10 Million have to provide additional collateral to avail financing. With the guarantee in place, JS Bank will increase this limit to PKR 20 Million and will also consider review of lending larger amounts in case the customer has a banking history with the bank.*

- *Amending minimum equity requirements will not affect the credit due diligence process for the bank. While the guarantee will mitigate the default risk for the bank, the customer due diligence protocols will be kept in place to ensure minimal default cases.*
- *Redesigning mentioned above bears no additional direct cost to the AE and is an in-kind contribution since JS Bank (and other banks) have Product Development departments for this purpose. Any cost affiliated will be borne by JS Bank for designing per se. The aim is to adjust the existing products to be more consumer friendly.*

Activity 1.1.3: Deployment of the loans under PDSP

- *The mass marketing campaign as defined in activity 2.1.1 will reach out to potential customers for all segments Residential, Agri & SME's. The intervention is intended to provide loans amounting to PKR equivalent of 44 USD Million in all segments (Residential, Agri & SME's) combined, translating into an estimated capacity generation equivalent of 43.15 MW over the course of 10 years. The applicable interest rate on these loans will be capped at 6% to end borrower as per the SBP renewable energy scheme (except for the loans which fall under Khud Mukhtar Program as mentioned in activity 1.1.2).*

Output 1.2 Strengthened awareness of climate threats & Importance of sustainable interventions

Activity 1.2.1: Developing a stakeholder consultation & coordination channel to promote a secondary market for Solar PV systems

- *Engaging internal and external legal counsel to update the loan legal documentation done by JS Bank to comply with the requirements of the FP/FAA. The revised legal documentation will ensure subrogation & counter indemnity from end customers/borrowers.*
- *Development of vendor coordination channel (webpage) by creating one of the largest primary sales channels for Solar Vendors.*
- *This channel will be used to create a secondary market for Solar PV equipment.*
- *Creating a secondary market will be vital for the long-term sustainability of the eco-system.*
- *Conditions for access to the channel will include meeting Gender balance requirements of Solar Vendor's staff, set out by the Executing Entity.*

Activity 1.2.2: Developing a database of approved Net-metering solutions installed in the country financed by the project

- *JS Bank will maintain a record of all Solar PV modules installed under the project, PSDP.*

- *It will use data to develop better insights about the efficiency of installed modules, track units generated by the entire project, challenges/issues faced by customers, reliability of maintenance services provided to customers by solar vendors.*
- *Entire dataset will be disaggregated by gender*
- *Valuable learning/insights developed over the life of the project will be shared with the regulator, SBP.*

Activity 1.2.3: Developing a consolidated webpage to engage new customers, track performance and manage regional coverage of sales force

- *Collection of project data on a unified platform to simplify access for existing and potential customers.*
- *Dialogue with Power sector institutions will cause shifts in regulatory systems, to improve efficacy of policies and safeguard stakeholder interests*
- *AE will be using inhouse capacity to develop & maintain the website/webpage. The intellectual property will be owned and managed by the AE.*

Narrative with the central bank will improve its monitoring and promoting of Renewable Energy Financing in the banking industry.

Component 2: Increased number of small, medium, and large low-emission power suppliers

Output 2.1 Improved attractiveness of renewable energy financing solutions

Activity 2.1.1: Awareness/Marketing campaign through digital and conventional mediums for targeted segments of products

Mass Market Campaign: *A large scale campaign to be designed and executed by JS Bank for the promotion of Solar PV financing solutions. Currently there is limited capital being deployed for awareness campaigns about Solar PV solutions:*

- *Grant proceeds will be used to market Solar PV solutions under PDSP. All traditional and digital mediums will be utilized to Solar PV solutions and their benefits. A majority of the expenditure schedule is on digital mediums (Through-The-Line and Below-The-Line): at 80% for the first year and not lower than 40% throughout the life of the project. Traditional media (Above-The-Line) will be capitalized to permeate the older demographic: up to 45% of expenditure.*
- *Mass Marketing campaigns will be centered around creating better access for women for financing products under the PDSP program. When designing the campaign, the bank will conduct a small qualitative survey to identify gender-based barriers*

Campaign Scope:

- *Targets of campaign: to highlight climate change threats to as many people as possible and offer solutions to those people with an understanding of applications (of the solutions). Campaign will be used to debunk common misconceptions surrounding Solar PV solutions in Pakistan.*
- *Campaign to focus on the benefits of reducing carbon emissions for the customer, community, and country.*
- *Knowledge shared via advertising will be vetted by external consultants of the field.*
- *Success of the campaign will increase demand for Solar Financing solutions, thereby displacing high-emission power generation.*

Campaign Scope: Gender Mainstreaming

It is important to showcase the usage of these financial solutions to women to reinforce that women have accessibility and acceptance. While these products are gender neutral, this sense of neutrality has been conveyed/communicated to increase representation of women availing these products.

- *The project management team and the gender specialist will be involved during the concept phase of the campaign development.*
- *Develop content by using testimonials from existing customers, especially female success stories.*
- *Emphasis will be laid upon communications being sensitive to beliefs of ethnic and religious minorities to avoid negative experiences.*

Output 2.2 Increased capacity for renewable energy solutions

Activity 2.2.1: Capacity building of key -project stakeholders

- *JS Bank staff, Solar PV Vendors, existing customers, banking regulators (SECP, SBP and FBR), power generation regulators (NEPRA, AEDB, NTDC, MOE) and the relevant bodies for environmental protection (PEPA, MOCC) will be included in the dialogue for capacity building of the eco-system of PDSP.*
- *Developing courses and trainings on renewable energy solutions for sales force and other stakeholders.*
- *Courses will be centered on theory behind GHG emission reduction, risk-mitigation methods, and efficiency-improving technologies. E.g., coupling Solar PVs with Solar Panels (if affordable).*
- *Trainings will focus on the application of methods and technologies espoused in the courses.*
- *Quotas of trainings to be prepared with customized roles for each type of stakeholder.*
- *Courses and trainings will encompass nation-wide regions; wherever it is feasible to conduct, in terms of demand and cost.*

- *The beneficiaries of course and trainings will be JS Bank's Sales staff, Solar Vendors, customers, and the regulators (SBP, AEDB and NEPRA).*
- *Courses will be developed with product-wise differentiation.*
- *Selection of trainers will be based on advice of consultants and criteria for efficacy (reputation, achievements, and capacity to train i.e., number of trainings per year and number of people trained per training).*
- *Trainings will be offered to the Sales staff of other banks (local commercial banks to attend session on their own discretion). The newly hired sales force will tap prospective customers to ensure subscription. (Trainers will be hired in accordance with JS Bank's procurement policy)*
- *Capacity of Solar vendors, whether large, medium, or small, will be enhanced via trainings by experts and forums of consultant. The transfer of knowledge and techniques will increase efficiency and efficacy of the vendors, in terms of product fit, usage of appropriate materials (e.g., cables, metal structures holding the Solar PVs) and after sales services (e.g., regular maintenance of Solar systems and mobile monitoring of the systems).*
- *While RE financing initiatives have been present in Pakistan for some time. The AE is trying to change perceptions by explaining the importance of individual participation in combating climate change. While the curriculum will be designed to explain the benefits of solar solutions, it will also explain the importance of adopting renewable energy consumption solutions.*
- *Hiring & Onboarding of a Gender Specialist in the AE. The specialist will be assisting in project planning, design and the execution of the project. The gender specialist will be a part of the AE's Diversity Team and will also be member of the project management team.*

The curriculum intended to be designed for management and other stakeholders will cover the following core concepts:

- *Introduction to Climate Change/Awareness of Climate Threats/Risk of climate change to individuals, organizations, societies*
- *Basics on global/local initiatives to combat climate change*
- *Benefits of Individual/Institutional responsibilities towards climate change*
- *Importance of renewable energy and its contributions towards climate change*
- *Technical understanding of Solar Panels*
- *Financial benefits of installing Solar Panels*
- *Reliability of Solar Panel Solutions and Solar Irradiance in Pakistan*
- *Harmful effects of Solar PV installations to the local community and how to ameliorate the externalities.*

Key reasons and mitigants for Gender Gaps/Disparity in financial services

Net Metering

Net meter installation is not an activity done by the bank. Vendor submits the application on behalf of a customer and then a net meter is installed. All Solar PV modules are sol with the intention of the net metering license. The bank just ensure that the application is done by the vendor in a timely manner and the bank follows up with the vendor.

Fill in the GCF results area table below to map each project/programme outcome identified in section B.2.1 to the contributing GCF results area(s) by referring to the description of eight results areas provided in the guidance note.

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
1. Increased electricity generation from Renewable Energy (Solar Panels)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Enhanced financial sustainability of Renewable Energy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Enabling of an environment for low-emissions energy solutions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If any co-benefits have been identified in section D.3, fill in the co-benefit table below to map each co-benefit to the corresponding category as defined in the FP guidance note.

Co-benefit number	Co-benefit					
	Environmental	Social	Economic	Gender	Adaptation	Mitigation
1. Creation of green jobs and higher employment in the industry	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.3. Implementation / institutional arrangements (max. 750 words)**Implementation Structure**

For the PDSP, JS Bank is also the executing entity. The total proceeds from GCF amount to USD 10 Million which are broken down into two categories: 1) USD 9 Million equivalent Pro-Rata Risk Sharing Guarantee and 2) USD 1 Million Grant proceeds for the development and promotion of a national mass market campaign for RE financing products. The proceeds of both categories will be used solely for the

contractual arrangements for the execution of the project. The contractual arrangements of the Pro- Rata Risk Sharing Guarantee will be outlined in the Term Sheet and FAA of PDSP. The contractual arrangements of the Grant are elaborated in detail in the Procurement Plan (JS Bank will fulfill the role of the executing entity in this case).

Pro- Rata Risk Sharing Guarantee.

Guarantee Terms & Conditions

The guarantee will cover the financing number of Solar PVs, in case of default from a customer. The guarantee provided will be a Pro- Rata Risk Sharing Guarantee (where GCF on a loan-by-loan basis, covering defaults at the guarantee rate of Ninety Percent (90 %) and the remaining Ten Percent (10%) will be covered by JS Bank) for JS Bank's lending portfolio amount. With this Pro- Rata Risk Sharing Guarantee in place, JS Bank will disburse PKR equivalent loans amounting to a maximum ceiling of about 5.0x guarantee amount. For simplicity the ceiling of loans that can be disbursed by JS Bank against USD 9 Million Pro- Rata Risk Sharing Guarantee would equate to PKR 7.040 billion equivalent of USD 44 Million (assuming exchange rate of 160 PKR/USD). The guarantee will cover all of JS Bank's customers and will allow larger scale clean energy projects to access long-term, Pakistani Rupees financing. This guarantee will be managed by a designated team of resources within JS Bank.

Subrogation Rights:

In the event of a default of PSDP loans GCF will be subrogated to the rights of the AE to recover their funds in accordance with the procedures set out in the Term Sheet. As per of the Sub Loan documents, the sub-borrower (I.e. customer of PDSP) will have to sign a counter-indemnity in favour of GCF which will arise only as a consequence if JS Bank calls the guarantee.

Guarantee Scope

With a Pro- Rata Risk Sharing Guarantee the bank will disburse an equivalent (in Pakistani Rupees) of 44 USD Million in loans, through PDSP, since only a fraction of the loans are expected to default. The GCF Guarantee is intended to provide a 90% Loss cover for all the defaulted loans up to the amount of 9 USD Million and the rest 10% will be covered by JS Bank. This will allow for greater participation of lending from the Bank. For PDSP the assumption being taken is that a maximum of 20% of the loans disbursed will be loss making; at present there are 0% non-performing loans in the Solar Financing Portfolio. The guarantee will help the bank address limitations pertaining to collateral requirements - that is required by the risk management function - and, more importantly, increase its appetite to disburse more volume of loans under PDSP. The guarantee facility is expected to significantly improve access to financing for smaller scale projects by allowing the Bank to increase its loan volume, since the guarantee mitigates default risks for the bank.

Grant for Awareness Campaign - USD 1 Million

JS Bank will develop a mass marketing campaign for PDSP (designed by project implementation unit in accordance with the project scope).

This campaign will cover the salient features of the financing product and the benefits of adopting RE/Solar products. It is imperative to develop and create awareness about the reliability of RE solutions. PDSP progress reports will provide details of the marketing spending by JS Bank, along with campaign plans. JS Bank also plans to use grant from GCF to engage different banks for capacity building and knowledge sharing. Key activities include training sessions, knowledge and experience sharing through different

projects, highlighting the importance of RE solutions as well as clearing misconceptions of Net-metering/reliability of solar panels.

No material exchange or gifts will be provided to ANY entities throughout this project. Only Solar Vendors, Marketing Agencies, Experts and Consultants will be paid and that too for rendering their services in PDSP only. The borrowers will not receive funding, instead payment will be made directly to Solar Vendors. Complete documentation and reporting will be conducted in accordance with JS Bank's and Central Bank's AML/CFT/Sanctions policies.

Contractual Arrangements under PDSP

JS Bank will execute an FAA with GCF which will be based on the term and conditions explained in the Funding Proposal. The Guarantee will be issued by GCF to JS Bank as the sole beneficiary for the purpose of providing partial credit risk support to JS Bank as lender of the Sub-Loans. JS Bank as the accredited entity shall be solely responsible for the administration of GCF Proceeds. JS Bank will also be the Executing Entity for all the Components of the Project as defined in the funding proposal

- *Financial Flows: The GCF Proceeds will be transferred to the GCF Account where they will be administered by the Accredited Entity in accordance with the AMA and FAA.*
- *JS Bank will withdraw GCF Reimbursable Funds from the GCF Account solely upon the occurrence of the Triggering Events and in accordance with the Guarantee Call Mechanism.*
- *Under Output 1.2 and Component 2, JS Bank will use GCF Non-Reimbursable funds to finance the Eligible Investments (as defined below) necessary to implement the activities under Output 1.2 and Outputs under Component 2.*
- *Commercial and Legal Implementation Arrangements for Output 1.1 – Strengthened institutional and regulatory systems for low-emission planning and development*

The prospective Sub-Borrowers will submit applications to JS Bank & it will consider approval of loans following its own policies and procedures and in accordance with this term sheet and the Funding Proposal.

JS Bank will select the Sub-Borrowers in accordance with the relevant eligibility criteria as briefly mentioned Component 1 of this funding proposal (detailed eligibility criteria provided in Annex 14A). The Sub-Loans shall only finance new Solar PV equipment which shall be procured & installed by vendors meeting the relevant Eligibility Criteria (details on financing equipment are provided in Annex 14).

JS Bank has signed, or will sign, an agreement with each Eligible Vendor. Each such agreement includes provisions setting out the obligations of the Eligible Vendor (including in respect of buy back of equipment) following a default under any relevant Sub-Loan and enforcement of security by the Accredited Entity.

GCF will provide the GCF Non-Reimbursable Funds to the Accredited Entity under the FAA for the implementation of activities under Component 2 (the "Grant"). JS Bank will implement the activities under Output 1.2 and Component 2 by the Completion Date (defined below). JS Bank will procure consultant(s) and/or consultancy firm(s) to perform technical assistance activities under this Component.

External Third-Party Stakeholders***AEDB - Alternative Energy Development Board***

Main objective is to facilitate, promote and encourage development of Renewable Energy in Pakistan. They validate solar installation service providers and review Net-metering applications submitted by customers.

SBP - State Bank of Pakistan

The central bank of Pakistan plays a pivotal role in offering liquidity to commercial banks and DFIs through its refinance schemes for special initiatives (Covered in section B1). As a regulatory authority, the entire project arrangement will be notified to/approved by SBP to ensure that they have no concerns regarding PSDP. In case the approval requires any arrangements with GCF, the AE will notify GCF in due course.

Pakistan is a member country of United Nations (UN). The Government of Pakistan gives effect to the Resolutions of relevant United Nations Security Council (UNSC) Sanctions Committees under UNSC Act. In this respect, JS Bank has implemented systems and controls to ensure compliance with the directives issued by relevant Government authorities and the AML/CFT/CPF Regulations issued by State Bank of Pakistan. JS Bank undertakes Targeted Financial Sanctions (TFS) under relevant laws (UNSC Act, Anti-Terrorism Act) and Regulations and ensures that no funds or other financial assets/resources/services, are made available to/for the benefit of Proscribed/ Designated Persons (individuals and entities) unless authorized by relevant authorities. Under PDSP, the systems and controls will apply to customers and their transactions.

JS Bank will screen all its customers, prospective customers (including their beneficial owners and authorized signatories in case of commercial and agricultural segments), employees, agents, vendors etc. against various watchlists including UNSC consolidated sanctions list. For this purpose, the Bank has implemented an automated screening system for vetting customers and transactions.

Solar Vendors

Solar Vendors will provide Solar PVs, installation, technical assistance and maintenance services to customers, producers and consumers of electricity generated through PDSP. All vendor who are certified by AEDB will be onboarded. Customers will have the discretion to choose their desired vendor. Currently the AE have 84 vendors onboarded which can grow in the future. Complaint management will be initiated from JS Bank in cases related to Vendor maleficence. Monitoring of the Solar PVs and their system will come under the ambit of the Vendor. (Kindly review section C.6 for more details on vendor arrangements).

C. FINANCING INFORMATION**C.1. Total financing**

(a) Requested GCF funding	Total Amount: 10,000,000	Currency: million USD (\$)
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(i + ii + iii + iv + v + vi)						
GCF Financial Instrument		Amount	Currency	Tenor	Pricing	
(i)	Senior loans	<u>0</u>	<u>million USD (\$)</u>	<u>0</u> years	<u>0</u> %	
(ii)	Subordinated loans	<u>0</u>	<u>million USD (\$)</u>	<u>0</u> years	<u>0</u> %	
(iii)	Equity	<u>0</u>	<u>million USD (\$)</u>		<u>0</u> % equity return	
(iv)	Guarantees	<u>9,000,000</u>	<u>million USD (\$)</u>	<u>10</u> years		
(v)	Reimbursable grants	<u>0</u>	<u>million USD (\$)</u>			
(vi)	Grants	<u>1,000,000</u>	<u>million USD (\$)</u>			
(b) Co-financing information⁴		Total amount		Currency		
		<u>44,000,000</u>		<u>million USD (\$)</u>		
Name of institution	Financial instrument	Amount	Currency	Tenor & Grace	Pricing	Seniority
<u>JS Bank</u>	<u>Senior Loans</u>	<u>44,000,000</u>	<u>USD</u>	<u>3-7</u> years (sub loans will range)	<u>6</u> % in local	<u>senior</u>
<u>Click here to enter text.</u>	<u>Options</u>	<u>Enter amount</u>		<u>Enter</u> years <u>Enter</u> years	<u>Enter</u> %	<u>Options</u>
<u>Click here to enter text.</u>	<u>Options</u>	<u>Enter amount</u>		<u>Enter</u> years <u>Enter</u> years	<u>Enter</u> %	<u>Options</u>
(c) Total investment (c) = (a)+(b)		Amount		Currency		
		<u>Up to 54,000,000</u>		<u>million USD (\$)</u>		
(d) Co-financing ratio (d) = (b)/(a)		4.4				
(e) Other financing arrangements for the project/programme (max ½ page)		<p><i>The GCF guarantee will enable USD 44M of senior loans representing a total investment of USD 45M on the ground including grants. In the remote circumstance of the Guarantee being called upon, the program size may accordingly increase by the extent such Guarantee is called upon. In an extreme situation of full recourse to the Guarantee, the program size could go up to USD 54M, however, based on JS Banks previous track records (0% Defaults) on similar portfolio, it is highly unlikely that such a scenario will occur.</i></p>				
C.2. Financing by component						
<p>Please provide an estimate of the cost per component (in line with Components described in Section B.2.1 above) and disaggregate by sources of financing as Annex 3. Also, ensure consistency with the Logical Framework (Annex 2a) and Timetable (Annex 2b) of the project/programme.</p> <p><i>SBP provides re-finance at a cheap rate to all commercial banks for Renewable Energy Finance. The scheme started in 2016. Since it ameliorates liquidity requirements and the cost of funding for the bank, in</i></p>						

⁴ If the co-financing is provided in different currency other than the GCF requested, please provide detailed financing information and a converted figure in the GCF requested currency in the comment box. Please refer to the date when the currency conversion was performed and the reference source.

this regard, PDSP will catalyse the scheme's usage. However, there is no comparative advantage over any bank in the industry with this scheme as it is available for banks.

In an event where State Bank of Pakistan discontinues or alters the commercial terms of the Renewable Energy Scheme, AE shall inform GCF and renegotiate the terms pertaining to the PDSP project/agreement with GCF's board. GCF will be duly informed about the policy revisions. Any change in the renewable energy scheme will warrant a GCF approval.

Demand expected to slow down but market for Solar PV Financing will remain: *In case the Renewable Energy Scheme is discontinued, the customer-end price will rise (with KIBOR) throughout the Banking industry and the spreads (at least for JS Bank) in Solar Financing will decrease. Hence, demand is expected to slow. However, since electricity tariffs are increasing and are expected to sustain this trend for the coming years (due to the last IMF programme signed on by the Government of Pakistan), the opportunity cost of not installing Solar PV systems will continue to increase. Thus, the core basis of a market for Solar solutions will remain.*

The rest will be used to fund the portfolio of new loans. Repayment of the principal will happen dynamically i.e., as and when repayments are received by JS Bank from customers, the PKR amounts will be converted and transferred to the placement account (GCF funds held with JS Bank). Regularity of portfolio MISs and reports will be unaffected.

Component	Output	Indicative cost Options	GCF financing		Co-financing		
			Amount Options	Financial Instrument	Amount Options	Financial Instrument	Name of Institutions
Component 1: Strengthened institutional and regulatory systems for low-emission planning and development	1.1 Increased deployment & sustainability of renewable energy	53,000,000	9,000,000	Guarantees	44,000,000	Choose an item.	JS Bank Limited
	1.2 Strengthened awareness of climate threats & importance of sustainable interventions	90,727	90,727	Grants	0	Grants	JS Bank Limited
Component 2: Increased number of small, medium and large low-emission power suppliers	2.1 - Improved attractiveness of renewable energy financing solutions	721,850	721,850	Grants	0	Grants	JS Bank Limited

	2.2- Increased capacity for renewable energy solutions	169,697	169,697	Grants	0	Grants	JS Bank Limited
Technical Assistance	Click here to enter text.	17,726	17,726	Grants	0	Grants	JS Bank Limited
	Click here to enter text.	Enter amount	Enter amount	Choose an item.	Enter amount	Choose an item.	Click here to enter text.
Indicative total cost (USD)		54,000,000	10,000,000	44,000,000			

C.2.1 Financing structure (if applicable, mandatory for private sector proposal (max.300 words))

For private sector proposals, provide an overview (diagram) of the proposed financing structure. Please note that this section should focus on describing what is being paid for, either by GCF funding and/or co-financing.

- *GCF will be providing a Pro- Rata Risk Sharing Guarantee to JS Bank (the Accredited/Executing Entity) to strengthen its ability to provide finance facilities to clean energy developers, clean energy equipment providers, as well as to support to various individuals/companies who are ancillary aspects of clean energy. The terms and conditions of the guarantee are explained as follows:*
- *Guarantee Period: The Guarantee period will be a total of 10 years from the execution date of the project. Within this time any losses incurred by JS Bank in lieu of the RE loans disbursed by JS bank shall be adjusted against the guarantee. These proceeds will be transferred to the bank in case of any losses incurred by the bank.*
- *Guarantee Ceiling: The total amount of the guarantee established by GCF will be USD 9 Million. GCF will not be liable to reimburse any amount above the guarantee ceiling*
- *The guaranteed party, JS Bank shall not restructure or make any material changes to the guarantee coverage policy without approval/consent from GCF.*
- *Guarantee shall only cover RE financing transactions that have proper due diligence and have the diligence certificate (an internal form by JS Bank to ensure all the following provisions are accounted for):*
 - *All required licenses and permits at the time of the first drawdown*
 - *Adequate insurance plan is in place with a local, reputable insurer*
- ***Subrogation Rights:** In the event of a default of PSDP loans GCF will be subrogated to the rights of the AE to recover their funds in accordance with the procedures set out in the Term Sheet. As per of the Sub Loan documents, the sub-borrower (I.e. customer of PDSP) will have to sign a counter-indemnity in favour of GCF which will arise only as a consequence if JS Bank calls the guarantee.*

C.3 Capacity Building and Technology development/transfer	
<p><i>If the project/programme is envisaged to support <u>capacity building and technology development/transfer</u>, please specify the total requested GCF amount for these activities respectively in this section.</i></p> <p><i>Capacity building project will be centred around clarifying misconceptions of renewable energy products. Internal bank employees and sales force will be trained on developing an understanding of local, available Solar PV solutions, key service providers and potential PV systems that can benefit Net-metering regulations, estimated electricity savings that can be generated by their customers and the bank's existing and new customers. Training sessions to be focused on women staff of the sales force.</i></p>	
C.3.1 Capacity building	Amount: <u>250,000</u> USD
C.3.2. Technology development	Amount: <u>0</u> USD
C.4. Justification for GCF funding request (max. 500 words)	
<p><i>Provide information on why GCF is the appropriate donor for the proposed project/programme.</i></p> <p><i>While Net-metering licenses have reached 86 MW worth of capacity since its launch, it is still only being accessed by and under the reach of a very few/limited affluent customer base which can mostly afford to pay high upfront costs for installation/setup. Current capacity only shows that 0.22% of existing electricity demand is being met by rooftop solar/Net-metering program. There is an immense opportunity to grow this market if and serve a much large middle-income population by developing financial solutions that are more accessible. Reaching 5% of total capacity means that Net-meter capacity has to grow to 1,935 MW which can only be done if there is better product awareness and low entry costs. Government has placed renewable energy as a high priority area, and it will require private sector intervention to be able to achieve the desired goal.</i></p> <p><i>Though the government of Pakistan is ambitious to expand the nation's renewable energy capacities, government financial resources to carry out such projects are limited, as stated in section B.1. Context and baseline. Due to comparatively high costs of investment in RE, future private sector producers (IPP's & CPP's) are going to invest in Natural Gas or Coal based power solutions.</i></p> <p><i>The commercial banks on an average have only deployed 0.4% of their advances towards SBP's renewable energy scheme. GCF intervention in the form of a Pro- Rata Risk Sharing Guarantee will serve an imperative intervention to test the proof of concept where renewable energy lending can be facilitated with easier collateral requirements for end customers. This guarantee will create financial access to a large target market.</i></p> <p><i>GCF intervention can play a vital role in creating and growing an equal-access-for-all renewable energy market in Pakistan by making renewable energy solutions available to the general population. Given the fact that existing schemes have not been able to reach overall market potential. One-off intervention by GCF and JS Bank can lead to the following outcomes;</i></p> <ol style="list-style-type: none"> <i>1- Create mass awareness of available renewable energy solutions.</i> <i>2- Compel other financial institutions to develop their own set of specialized Solar PV financing products which will make the technology accessible to a wider range of people in the country.</i> <i>3- The project has the potential to increase country-wide Net-metering by a 100%. This momentum can organically create a renewable energy industry which will develop a specialized workforce, a secondary market, Solar panels, and Solar PV equipment.</i> 	

To achieve a high RE contribution in the country's overall energy mix, it is imperative to disrupt the sector by developing alternative, environmentally friendly solutions which are accessible to the general public of the country. The PDSP and competing projects (from other financial institutions) will aid in developing a mass private sector contribution towards improving the overall energy mix of the country.

JS Bank is one of the few commercial banks in the sector which is working towards renewable energy solutions as one of its main objectives. Few banks have penetrated this market and even fewer have designated products for RE Finance. The market players have, predominantly, opted for commercial customers - who have larger financing amounts. With the Pro- Rata Risk Sharing Guarantee, JS Bank will have will reach out to many customers (of all categories of customers) due to hedging of collateral. Hence, the Bank will be able to attract more customers - especially customers with small financing amounts - by reducing collateral requirements. The Bank will enable and target the residential and agricultural markets, which are usually neglected by other banks.

*With GCF involvement and a Pro- Rata Risk Sharing Guarantee, this project can facilitate lending beyond 10 years (even after GCF has exited). GCF's financial support to provide Pro- Rata Risk Sharing Guarantee will aid development of a long-term concessional loan with **mass participation from the private sector of Pakistan**. The participation from the private sector, both vendors and customers, will increase as a result of the Marketing Campaign, increased Risk Appetite of the bank (in terms of quantity, not quality) and Capacity Building under PDSP. All three aforementioned factors will accelerate the creation of a robust Secondary Market for Solar PVs amongst Solar Vendors. The PDSP will develop an inclusive, self-sustaining eco-system, potentially, for all forms of renewable energy in Pakistan.*

C.5. Exit strategy (max. 300 words)

Explain how the project/programme will successfully exit once implementation is over, including how results and benefits will continue beyond the project/programme period and its contribution to paradigm shift will be maintained.

The program PDSP is designed to address the existing problems faced by the market and to grow the renewable energy lending segment. This intervention is designed to double the existing number of Net-metering licenses issued in the country more importantly create a self-sustaining ecosystem for renewable energy lending.

With the guarantee, JS Bank will be able to scale its renewable energy portfolio without requiring additional collateral from the end consumers. This success of PDSP will serve as proof of concept for other commercial banks to follow in the future. Once scalability is achieved by JS Bank other banks will also develop specialized financial solutions.

With higher success rate of loans disseminated to women without any default will inevitably create more acceptability and make financing to women easier in the future. Market awareness will create acceptability of renewable energy solutions as a collateral for financial institutions. Increase growth in loans will lead to an increase in green jobs with more solar vendors entering the market and increasing the business size of existing solar vendors. Overall influx of new Solar equipment will increase will inevitably create a create a secondary market. Banks will become more comfortable lending to residents if there are large Solar

Vendors operating in the country, these large operators will be able to employ high skilled technical resources to efficiently install Solar PV modules, have the capacity to service buy back arrangement with commercial banks, offer higher quality & standardized products to end consumers. The aim of PDSP is to create a self-sustaining lending eco-system for renewable energy solutions where there is higher participation from local financial institutions.

- a. The Guarantee Facility is designed for the AE to promote RE financial solutions. This program will enable AE to further develop niche RE centric financial solutions in the future because of the experience gained over the life of the project.*
- b. The benefits of PDSP will lead towards creation of a self-sustaining and growing demand for RE solutions, primarily Solar PV modules. The community and its members are end beneficiaries of PSDP as they will benefit from being able to access and install environmentally friendly alternates to meet their day-to-day power requirements. Marketing activities as explained in Component 2 are intended towards increasing general awareness about climate change and to establish the reliability of Solar PV modules. A well-informed community will derive the change towards combating climate change.*
- c. Higher irradiation levels across the country are a strong indicator of the potential of Solar PV modules. Furthermore, Solar PV modules is the cleanest, widespread, and most reliable distributed model available for the community. There are solar vendors present across the country and will benefit a larger proportion of the local populations.*
- d. The project will help create testimonials and success stories of financing provided to women. These testimonials combined with the mass awareness will help create a more inclusive lending mechanism and would eventually ease access to formal lending to women.*
- e. The primary purpose of PDSP is to develop a self-sustaining eco-system for financing and installation of RE solutions in Pakistan. Furthermore, the program is designed to enhance the reach of an existing RE scheme developed by the Government and Central Bank. The Bank aims to stimulate positive competition and compel other financial institutions to develop their own specialized solutions for their customers. When there are ample products and customers in the market, it will develop a liquid and thriving secondary market. The primary purpose of PDSP is to develop a self-sustaining eco-system for financing and installation of RE solutions in Pakistan. The Bank aims to stimulate positive competition and compel other financial institutions to develop their own specialized solutions for their customers. When there are ample products and customers in the market, it will develop a liquid and thriving secondary market.*

In 5-10 years, due to higher influx of RE/Solar solutions being implemented by people, a secondary self-sustaining market will develop automatically which will include repair/maintenance and resale of solar equipment. With more influx of technology, commercial banks will be comfortable with taking Solar PV systems as collaterals for respective loans which will further facilitate access by the general public for Solar PV solutions.

JS Bank expects that by developing awareness and a secondary market, RE financial solutions will become business-as-usual and other banks will offer competitive collateral free solutions to customers. People will

be aware of the benefits of RE Solutions and will consider opting solutions at normal market rates in the future. Further there is sufficient evidence to expect the cost of implementing RE solutions, especially solar financing, will go down due to more innovative and efficient solutions being developed every passing year.

Furthermore, current trends are showing the following:

- 1) Increase in efficiency of Solar PV (hence decrease in cost) in terms of power capacity per unit area of PV*
- 2) Increase in electricity tariffs (hence increase in income from Solar PV Systems)*
- 3) Depreciation of PKR (nominal increase in value of Solar PV Systems).*

Considering all these factors, JS Bank expects the adoption of Solar Financing to increase (both in number of customers and sizes of orders).

C.6. Financial management/procurement (max. 300 words)

Describe the project/programmer's financial management including financial accounting standards, disbursement and procurement arrangements (details in Annex 8 for procurement). Explain how the AE will ensure that its fiduciary standards (based on its accreditation type) are adhered to at all times. Explain the methodology and frequency of the periodic financial reviews, reporting of the project expenditures including the audit requirements and the frequency of the audit to ensure that funds are used for the intended purposes and project complies with the covenants, if any.

JS Bank Pakistan is going to be the executing entity for PDSP. JS Bank is also the accredited entity for this project and, in that role, will have the overall responsibility and oversight for the project, including project preparation and implementation, financial management and procurement. As a commercial institution, JS Bank already conducts detailed due diligence on each case that is processed in the existing RE financing products offered by the bank. Furthermore, commercial banks are highly regulated in Pakistan. Each institution must follow strict guidelines to meet regulatory and internal requirements. For issuing any loan under the RE scheme, the application process must follow a guideline to become eligible to rebated financing of 6%. JS Bank will be able to provide quarterly update reports of the projects; under the ambit of the Green Banking Office. These reports will contain the following information;

- Customer Information & Updates:*
 - ü Summary of new customers incorporated under PDSP in terms of volume of customers, value of total loans and the RE generated (Solar Panel Wattage)*
 - ü General updates about the overall stage of the project*
 - Marketing activities updates - Budget & Expenditure*
 - ü A summary of the final approved marketing plan and a write up of the marketing strategy for GCF's clarification*
 - ü Marketing ROI and analysis of market spending in terms of the reach generated by the campaign.*
- Issues & Challenges*

ü *Detailed explanations of the issues being faced in fund deployment.*

ü *Performance of fund deployment in line with the budget*

· *Customer Feedback & Review*

ü *Complaints and issues faced by customers including new and potential customers*

The bank strictly follows International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB). The only exceptions are: directives issued under: SBP; SECP; provisions and directives issued under: Banking Companies Ordinance, 1962; Companies Act 2017.

While each Solar vendor is evaluated by Alternative Energy Development Board (AEDB) which ensures no underage employees are hired by the vendors. JS Bank follows its own vendor onboarding process which ensures that no vendor can employ forced or underage labor. JS Bank evaluates Solar PV Vendors based on the following criteria:

- *AEDB certification for distributed generation companies*
- *The procurement/compliances departments ensure no use of underage employees and Forced labor.*
- *Vendors should have complete remote access to their installed Solar PV Systems.*
- *As per the project's agreement with GCF, use of force labor/ underage employee will be prohibited in any activity related to this project. While we will make sure that our solar vendors do not indulge in Force/ Underage labor, JS Bank will have the solar vendors sign an agreement/affidavit with the bank stating that no Solar vendors shall employ Force labor/ underage employees, and the vendor will do their due diligence in choosing their suppliers ensuring no force labor/underage employees work under the supplier*
- *Operationally Bi- Annual surprise audits of various vendors will take place and in term of non-compliance Vendor will be removed from the Bank Vendor List. More details on these measures are elaborated in Annex 13 – Environmental Social Action plan of the Funding Proposal.*
- *JS Bank intends to follow the international best practices & adopt the guidelines issued by GCF to ensure compliance with the operational framework provided by GCF (ESMS).*

If the above criteria are met, the Vendor's profile (financials and market standing) is reviewed. If acceptable, the Solar PV company is offered an agreement. Upon signing, the company is onboarded. JS Bank has more than 70 Authorized Vendors, all playing an active role in contributing to clean energy access and power generation.

The Bank assesses Marketing/Advertising agencies as per the following selection criteria for onboarding:

- *RFP (Request for proposal) is sent out to prospective agencies*
- *CB (Creative Brief) is presented to all those agencies that qualify for the RFP*
- *Financial Bid (agencies to quote a cost) is taken from all those that accept the CB*

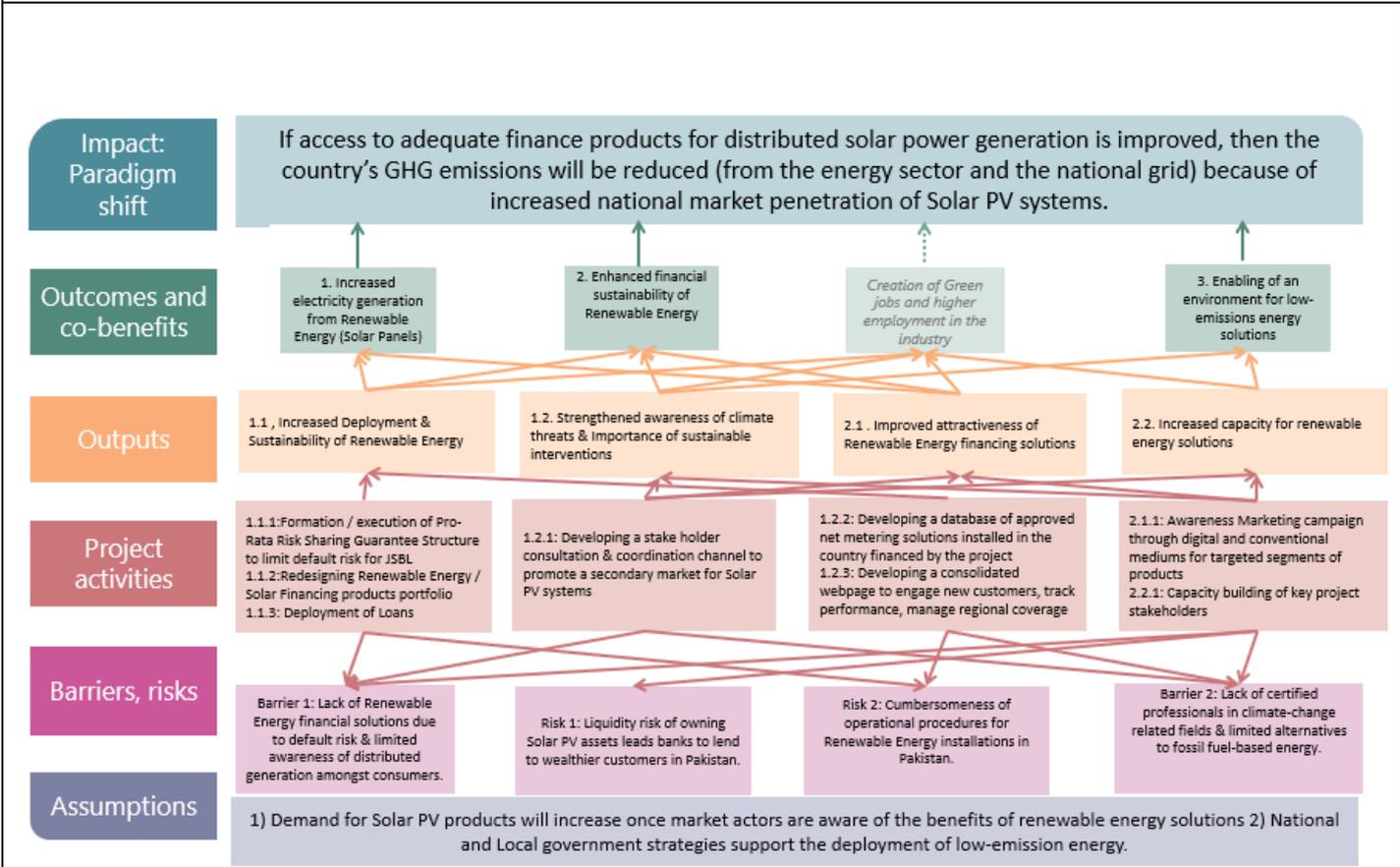
Approval is sought from CEO (Chief Executive Officer) - Contract is signed for 1 year and is renewable.

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

D.1. Impact potential (max. 300 words)

Describe the potential of the project/programme to contribute to the achievement of the Fund’s objectives and result areas. As applicable, describe the envisaged project/programme benefits for mitigation and/or adaptation. Provide the intended outcomes for mitigation by elaborating on how the project/programme contributes to low-emission sustainable development pathways. Provide the intended outcomes for adaptation by elaborating on how the project/programme contributes to increased climate-resilient sustainable development. This should be consistent with section 3 reporting GCF’s core indicators in the Logical Framework (Annex 2a).

D.2. Paradigm shift potential (max. 300 words)



With this project GHG emissions from the national grid can be avoided. Strengthening of the national grid - via distributed power generation - will allow for alternative fuels to be utilized in the future and will catalyze the transition to a net-zero economy. Interventions can become subsistent and tenable with a holistic approach to training, procurement, management, and organizational coordination. The benefits derived in the power sector will exhibit the pathway to a low-emission future. Propagation of Green Finance will have far-reaching consequences, specifically to those demographics that are most in need i.e., female consumers. A better understanding of the interventions coupled with more adept modes of financing will accelerate the growth of the green-banking market. Understanding and utilization of alternative energy will be bolstered.

The goal of the project is to create financial products that promote access and acceptability to distributed clean power generation. The current power generation landscape in Pakistan is heavily dependent on fossil fuels. Energy generated from clean & green sources still represent a small portion of the energy mix. In order to create a paradigm shift in the energy mix, participation needs to stem from all stakeholders in the country. The project is aiming to instigate a systemic change in the private sector by developing financial solutions to attract inclusive mass participation in Solar PV based distributed generation systems.

By developing and marketing Solar PV financial solutions, the project will increase the capacity/volume & number of small low emission energy suppliers. Products will be tailored to address any gender-based barriers which limit access to financing. Awareness campaign designed for the financial solutions will create awareness about low emissions and carbon friendly ways of generating electricity. It will also be focused on establishing the reliability of Solar PV modules. Promotion of Solar PV modules by a leading financial institution will derive competition from other financial institutions, which will eventually lead to an increase in the overall market size and create many green jobs.

Consequently, electricity generation from renewable energy will be enhanced and distributed power production will expand. Potential for new ventures and projects in renewable energy will be created due to facilitation by Distributed power production - in Solar and other avenues like Wind and Biofuels. Improved employment in the Green industry will contribute to prosperity reduce reliance on fossil-based electricity generation. The ancillaries to Solar solutions will experience heightened demand, thereby setting a trend for environmentally conscious consumption and spending.

The impact of Pakistan Distributed Solar Project will make economically viable solutions for GHG emissions reduction in the energy sector on a national scale, across various socio-economic classes, assuming national and local government strategies continue to support the deployment of low-emission energy. Financial solutions designed for women would improve market acceptability. The enhancement of consumer service quality in the Solar PV industry will propagate the market for eco-friendly installations, assuming demand for Solar PV products will increase once market actors are aware of the benefits of renewable energy solutions. Advances in the finance sector can create opportunities for those markets, further improving the ability to counter the effects of climate change.

The project aims to double the existing number of net-metering solutions in the country (Distributed Generation Solutions). Deployment of loans expands Solar energy capacity and acceptance of clean sources of generation. The project will make access to financial solutions easier and attractive for end-borrowers by partnering with external stakeholders such as the regulator (SBP) and multiple Solar Vendors.

The project activities are designed under PDSP are targeted to tackle multiple barriers which limit the development of accessible renewable energy solutions. Formation / execution of Pro-Rata Risk Sharing Guarantee Structure to will limit default risk for the Accredited Entity which would enable an open/inclusive product design which will become more accessible to the mass population and will be tailored to address barriers for women to financing. Better financial solutions aided with the marketing initiatives given below will lead to higher deployment of Loans.

Furthermore, the AE will be developing a database of approved net metering solutions through this project and will be developing a consolidated webpage to engage new customers, track performance, manage

regional coverage of loans. All these initiatives are designed to promote a transparent successful product portfolio of small-scale renewable energy solutions. A stakeholder consultation & coordination channel will be able to promote a secondary market for Solar PV systems. High influx of installation will inevitably create a secondary market. This will make Solar PV solutions more accessible to low-income households.

To promote the new financial solutions and to create awareness on climate change, the AE will conduct an awareness marketing campaign through digital and conventional mediums for targeted segments of products. Awareness of renewable energy financing solutions can be cultivated by targeted and informative advertising with a key focus on gender; these will assist in the paradigm shift by changing the expectations of end consumers.

Capacity building of key project stakeholders where facilitation of a renewable energy ecosystem will be promoted. Allowing for socially equitable circular gains in the Solar Energy industry will have an impact outside the industry, providing support for scalability and replicability primarily due to the training and capacity building sessions imparted due to the project. This will also improve knowledge of the sustainability of climate change related interventions will be improved.

Lack of Renewable Energy financial solutions due to default risk & limited awareness of distributed generation amongst consumers. Banks and Solar PV vendors are not adequately experienced, nor do they have the capacity to independently provide distributed power generation solutions. The market for Solar Finance requires more sophistication and participation of other financial institutions; only a handful of banks offer financial solutions for Rooftop Solar despite a favorable central bank policy- However none of the existing products are not tailored to female customers e.g., Women-led households or Women-owned businesses. Cumbersomeness of operational procedures for Renewable Energy installations in Pakistan.

Liquidity risk of owning Solar PV assets leads banks to lend to wealthier customers in Pakistan. Alternatives to Carbon-based energy are not readily available, since most of the machinery and expertise for alternative energy are non-native - on the other hand fossil fuels can be domestically sourced and professionals of the field are locally available. Despite Pakistan being ranked consistently in the top ten most vulnerable nations to climate change, clear understanding of the climate threats is still not prevalent due to lack of capacity building and lack of certified professionals in climate-change related fields.

D.3. Sustainable development (max. 300 words)

Describe the wider benefits and priorities of the project/programmes in relation to the Sustainable Development Goals and provide an estimation of the potential in terms of:

Economic co-benefits

Compared with fossil-fuel technologies, which are typically mechanized and capital intensive, the renewable energy industry is more labor-intensive. This means that, on average, more jobs are created for each unit of electricity generated from renewable sources than from fossil-fuels. Employment also has spillover effects as industries in the renewable energy supply chain will benefit and unrelated local businesses will benefit from increased household and business incomes. As per IRENA's Renewables Readiness Assessment Report for Pakistan^[1], the installed capacity for renewable energy in Pakistan in 2015 was 1200 MW and employment generated was 15,500. A considerable number of jobs could be created alongside higher income generation for people - manifested through the capacity building of PDSP,

Marketing agencies employed via the awareness campaign, logistics companies involved, underwriters and insurers hired and new Solar PV vendors that are created.

Social co-benefits

The funds will be targeted at providing concessional financing for SMEs and residential housing sector. It is often observed that such businesses find it difficult to avail affordable funding options from conventional lenders due to the rigid lending parameters set by such lenders. It is worthwhile to note that affordable and continuous power supply is the key resource needed to carry out their business activities, especially for startups. Large commercial and industrial players use their captive power plant to generate electricity using Natural Gas (which is subsidized). Small and Medium Enterprises (SMEs), which are commercial and industrial units, do not have the capacity to generate their own electricity and depend on the grid. JS Bank will target SME firms in the commercial and industrial segments along with residential segments, which do not get any subsidies from the government for electricity. Options to set up off-grid projects with educational entities, health institutions, industrial estates and clusters of SMEs will be explored. JS Bank will reduce its spread by an additional 1% under its Khud Mukhtar program to promote access to financing to Businesswomen, salaried women, and women in general.

Environmental co-benefits

To overcome power deficits, over the last few years there has been increased use of diesel-based distributed generation solutions, some of which were placed in urban areas, creating direct exposure to air and noise pollution. As renewable energy projects, to be developed under this project, follow adequate environmental and social safeguards, the need for these diesel-based solutions will be reduced, resulting in associated domestic, environmental benefits and improved health and safety. As per international best practices, suppliers are required to have waste management plans to ensure environmentally sound disposal. Since the market of solar panels is nascent in Pakistan and the average life of a panel is 25 years, disposal of panels has not been experienced by any of the vendors so far and none of them have a policy regarding disposal of panels. JS Bank will ensure that all of its vendors have a waste management plan for disposal of their solar panels when they cannot be used anymore. For those panels that are returned or resold, avenues for recycling and reusing will be explored in due course.

Gender sensitive development impact

The project will offer support for implementation of various type of activities aimed at improving job opportunities for women in the renewable energy sector. The project will benefit women in the following ways:

- *Higher focus of capacity building on female staff within the organization*
- *Preference of female staff at key leadership positions of the project*

Through the designated Women Entrepreneurship product for Solar Finance, the project will encourage economic empowerment of women. Reducing the electricity costs of startups can provide much needed facilitation during the initial stages of development. Therefore Under “Khud Mukhtar” program JS Bank will further reduce its spread by an additional 1% to makes the cost of borrowing easier to Businesswomen, salaried women, and women in general

[1] <https://www.irena.org/publications/2015/Jun/Renewable-Energy-Capacity-Statistics-2015>

D.4. Needs of recipient (max. 300 words)

Describe the scale and intensity of vulnerability of the country and beneficiary groups, and elaborate how the project/programme addresses the issue (e.g. the level of exposure to climate risks for beneficiary country and groups, overall income level, etc).

Variety of Financing Options: *The current scheme offers homogenous financing solutions which, at times, do not address the needs of specific customer needs. There is limited room for product differentiation, at least in the lending element. With GCF funding, easier availability of debt will help customers secure long-term debt financing with easier repayment options.*

Lower Load shedding:

While this is not a direct outcome but improved Solar PV capacity will reduce demand & sole reliance of electricity from the national grid. It may assist in reducing the overall volume of load shedding in the country. It will also reduce reliance on the national grid, thereby partially addressing the issue of circular debt. Load shedding (scheduled power outages) are a common occurrence in urban areas in Pakistan. By addressing electricity gaps in those durations, the PDSP will be able to address business continuity needs for commercial and self-employed businesses.

Market place for Solar PV vendors:

A lucrative secondary market which can reduce the initial investment required to setup Solar PV solutions will give access to a lower income group, while also creating an avenue for lending institutions to sell off equipment in case of foreclosures/auction - a practice that is common for other asset classes in Pakistan, such as vehicles and property. One of the goals of the PDSP is to establish that for our Solar PV and Solar Panel vendors. With growth in customers and power capacity, increased units of Solar apparatus will be deployed, and their After-sales services will require facilitation. The PDSP is designed to allow JS Bank to intermediate between customers and vendors; given that consumer rights laws are weak, and courts are inundated. Our complaint management system will service needs in this regard. Furthermore, as the project progresses, recycling, and resale of used units will require a platform. Avenues will be explored in order to facilitate this need as well.

Lower reliance on household diesel/petrol generators will improve air quality:

It will also help Pakistan in reducing air pollution, with Pakistan having some of the most polluted cities in the world. Thermal power plants, the newly built coal power plants and personal Backup generators - which are usually petrol or diesel - contribute to Nitrogen dioxide, Sulphur dioxide and Carbon monoxide emissions. Replacing these electricity sources with Solar PVs will ameliorate air quality and aggregate to provide the same for neighborhoods. There are similar advantages in terms of noise pollution.

Knowledge Transfer:

A marketing campaign for energy literacy will meet needs for awareness and understanding of the installed technologies, to better prepare consumers on management and ad-hoc maintenance of the physical apparatus. Our internal execution team and Sales force will be targeting stakeholders and customers respectively, so that there is homogeneity in knowledge affiliated with the PDSP. For future possibilities, other RE campaigns will benefit from the multiplying effects of energy literacy.

D.5. Country ownership (max. 500 words)

Please describe how the project/programme contributes to the country's (or countries') identified national priorities (e.g. country's NDC, national climate strategies, relevant sectoral policies, or other plans such as Nationally Appropriate Mitigation Actions (NAMAs), National Adaptation Plans (NAPs), National Adaptation Programmes of Action (NAPAs), Technology Needs Assessments (TNAs), National Communications to the UNFCCC or equivalent). Please describe which priorities identified in these documents the proposed project is aiming to address and/or improve.

The project is aligned with the country's National Climate Change Policy (NCCP), Pakistan's Intended Nationally Determined Contributions (INDCs), Pakistan's Alternative Renewable Energy Policy (AREP) 2019 which seeks to generate electricity using renewable sources by 30 percent by year 2030; and the crosscutting government priority of job-creation and poverty alleviation, embedded in all governance policies and procedures. Also, as per the Strategic framework on Pakistan, the GCF Country Project, which includes climate change initiatives and priorities for the engagement with GCF, features renewable energy prominently. Solar voltaic for power generation is a priority for a country like Pakistan where the energy mix has a very miniscule percentage of renewables. Switching to efficient renewable sources for meeting energy requirements has also been promoted along with solarization of houses and implementing of Net-metering.

INDCs show the approach (top down or bottom up), process and targets established by a government to reduce GHG emissions in the country. Pakistan has identified three main sectors (and their contribution to overall emissions in 2008), namely Energy & Transport (51%), Industry & Waste (5.8%) and Agriculture & Forestry (39%). Electricity generation contributed 28% of the 51% from Energy & Transport (14.3% of the total), which is the biggest sub-category. By substituting the conventional fossil-fuel based power supply with Solar PV grids, PDSP reduces additional GHG emissions.

The AREP 2019 states converting existing solar units to hybrid versions for better adaptability. Solar parking lots to be established by municipal authorities for Electric Vehicle charging. Off grid solar solutions are unregulated and installations are scaled for a capacity of 430 MW, which is less than maximum potential. Solar PV cell manufacturing machinery is the only exception to duties imposed on import of goods.

The NDA in Pakistan is the Ministry of Climate Change (MOCC) and has set out ambitious targets in the NCCP (National Climate Change Policy) of 2012. Climate change mitigation is an essential component as per the policy. It mentions development of RE resources, including but not limited to Solar. It specifically highlights the promotion of building designs conducive to Solar installations for self-sufficiency. As per UNFCCC, Pakistan is eligible for financing and investments from International Organizations for Environment-related projects. This premise was the basis for the NCCP to initiate the institutional and

capacity building efforts which have led to the relevant expertise and channels being deployed in the country. JS Bank is one example of an AE with GCF. The PDSP focuses on capacity building in coordination and support from the SBP, MOCC and peripheral government bodies like the Pakistan Environmental Protection Agency. The NCCP also raises importance of stakeholder awareness in this regard and advises training workshops for this purpose. As part of the PDSP awareness campaign, we are looking for funding via a GCF grant to train our staff on the relevant technical information so that they may be better able to advertise, sell and manage the products and portfolios. Another component that is relevant is that of technology transfer, in the NCCP, which would aid growth of PDSP as more efficient Solar PVs would make customer adoption more attractive.

Pakistan's Vision 2025 lays out a comprehensive plan on how to achieve sustained, indigenous, and inclusive growth. One of the goals is Energy Security on which emphasis is laid to secure adequate, safe, and clean energy resources. Although the government's focus is on diversity - outlining multiple alternate energy options - renewable energy has been highlighted as an area of great potential. Coupled with the importance derived from Capital Markets, there are common interests in Modernizing Infrastructure and Energy Security in the strategic pillars. Up till 2025, the vision fundamentals are to address foundations for growth and human development. Pakistan has similar aims for SDGs and MDGs, a common one being environmental sustainability. As a party to the Kyoto Protocol, the opportunities from the Clean Development Mechanism (CDM) are to be availed, with the intent of using a designated CDM Cell so that CDM Projects can be pursued. Any Carbon Credits earned from this mechanism will be reinvested by the government in more related projects.

As per the Integrated Energy Development Model in Vision 2025, application of least cost energy system strategy takes precedence over short term energy and cost saving methods. This entails that total power output will be developed and energy supply and demand matching will be enhanced; to prevent/reduce energy wastage. The PDSP is in line with the strategy given that much of commercial and personal consumption takes place during daylight hours, particularly for air conditioning and cooling, which is also peak radiation time for Solar PVs. Any excess can also be stored or consumed because of the battery storage options and Net-metering mechanisms. The document states promotion of Impact Investment culture will be pursued amongst Venture Capitalists.

JS Bank maintains and will continue to maintain contact with the MOCC vis a vis regulatory matters. Our legal team is up to date with the intentions of the Bank's senior management and, hence, has served the PDSP with legal support. Necessary formalities and inspections have been performed.

D.6. Efficiency and effectiveness

D.6.1. Estimated cost per t CO ₂ eq, defined as total investment cost / expected lifetime emission reductions (Mitigation and Cross-cutting)	(a) Total project financing	US\$ 54,000,000
	(b) Requested GCF amount	US\$10,000,000
	(c) Expected lifetime emission reductions	848,700 tCO ₂ eq
	(d) Estimated cost per tCO ₂ eq (d = a / c)	US\$ 63.63 / tCO ₂ eq
	(e) Estimated GCF cost per tCO ₂ eq removed (e = b / c)	US\$ 11.78 / tCO ₂ eq

D.6.2. Expected volume of finance to be leveraged by the proposed project/programme and as a result of the Fund's financing, disaggregated by public and private sources (Mitigation and Cross-cutting)	<p>(f) Total finance leveraged</p> <p>(g) Public source finance leveraged</p> <p>(h) Private source finance leveraged</p> <p>(i) Total Leverage ratio (i = f / b)</p> <p>(j) Public source leverage ratio (j = g / b)</p> <p>(k) Private source leverage ratio (k = h / b)</p>	<p>US\$ 44,000,000</p> <p>US\$ 0</p> <p>US\$ 44,000,000</p> <p>4.4</p> <p>4.4</p> <p>4.4</p>
D.6.3. Describe how the financial structure is adequate and reasonable in order to achieve the proposal's objective(s), including addressing existing bottlenecks and/or barriers; providing the minimum concessionality; and without crowding out private and other public investment. (max. 500 words)		
<p><i>Provide the rationale of requested concessionality and explain the methodology and assumptions used to define it. Justify why the level of concessionality of the GCF financial instrument(s) is the minimum required to make the investment viable considering the incremental cost or risk premium of the project/programme. Additionally, how does the grant and the proposed pricing fit with the concept of minimum concessionality? Who benefits from concessionality? Refer to the financial analysis where appropriate.</i></p> <p><i>Please describe the efficiency and effectiveness of the proposed project/programme, taking into account the total financing and mitigation/ adaptation impact the project/programme aims to achieve, and explain how this compares to an appropriate benchmark.</i></p> <p><i>If an economic analysis applies to this SAP funding proposal, please specify the expected economic rate of return and net present value based on a comparison of the scenarios with and without the project/programme.</i></p> <p><i>Provide summary of financial analysis (Annex 10) and include (if applicable):</i></p> <ul style="list-style-type: none"> • <i>Expected financial rate of return with and without the Fund's support</i> • <i>Identification of the financial needs and gaps</i> • <i>Identification of the constraints and barriers to access finance</i> • <i>Investment analysis with sensitivity under various stress scenarios wherever applicable</i> <p><i>Please explain how best available technologies and practices have been considered and applied. If applicable, specify the innovations/modifications/adjustments that are made based on industry best practices.</i></p> <p><i>The estimated cost of the project over lifetime per tCO₂eq would be 63.6 USD/tCO₂eq. The SBP refinance scheme where customers are provided loans at 6 percent is set to expire in June 2022. The USAID guarantee for solar panels has very limited scope because it is not a first loss guarantee. With GCF involvement, concessional financing along with a guarantee will allow for this project to be carried out even after GCF has exited. JS Bank aims to continue working in the RE space once GCF exits. JS Bank is optimistic that over the period of 10 years the market will be sufficiently established to continue in. The funding amount being asked from GCF is to take the project further internally and share the lessons learnt with stakeholders for future projects.</i></p>		

E. ANNEXES

E.1. Mandatory annexes

- Annex 1 NDA No-objection Letter(s) ([Template](#))
- Annex 2 Pre-feasibility (or feasibility) study ([Guidance](#))
- Annex 2a Logical Framework ([Template](#))
- Annex 2b Timetable ([Template](#))
- Annex 3 Budget plan that provides breakdown by type of expense ([Template](#))
- Annex 4 Gender assessment and action plan ([Template](#))
- Annex 5 Co-financing commitment letter
- Annex 6 Term sheet and evidence of internal approval
- Annex 7 Risk assessment and management ([Template](#))
- Annex 8 Procurement plan model ([Template](#))
- Annex 9a Legal Due Diligence (regulation, taxation and insurance) ([Template](#))
- Annex 9b Legal Opinion/Certificate of Internal Approvals ([Template](#))

E.2. Other annexes to be submitted when applicable/requested

- Annex 10 Economic and/or financial analysis ([Guidance](#))
(mandatory for private-sector proposals)
- Annex 11 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- Annex 12 Environmental and Social Action Plan (ESAP) ([Template](#))
- Annex 22 Assessment of GHG emission reductions and their monitoring and reporting (for mitigation and cross cutting-projects)⁵
- Annex xx Other references

***** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents. *****

⁵ Annex 22 is mandatory for mitigation and cross-cutting projects.

F.No 1(1)/2021/JS-GCF Solar)
Government of Pakistan
Ministry of Climate Change
LG & RD Complex, Sector G-5/2, Islamabad

To: The Green Climate Fund ("GCF")

Islamabad, 18 April 2022

Re: Funding proposal for the GCF by JS Bank Limited regarding Pakistan Distributed Solar Project

Dear Madam, Sir,

We refer to the project titled Pakistan Distributed Solar Project in the Islamic Republic of Pakistan as included in the funding proposal submitted by JS Bank Limited to us on 3 March 2022.

The undersigned is the duly authorized representative of the Ministry of Climate Change, the NDA of the Islamic Republic of Pakistan.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the project as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of the Islamic Republic of Pakistan has no-objection to the project as included in the funding proposal;
- (b) The project as included in the funding proposal is in conformity with the national priorities, strategies and plans of the Islamic Republic of Pakistan;
- (c) In accordance with the GCF's environmental and social safeguards, the project as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the project as included in the funding proposal has been duly followed.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



Syed Mujtaba Hussain
Sr. JS (IC)/ GCF FP
051-9245585
Ministry of Climate Change
Islamic Republic of Pakistan

Independent Technical Advisory Panel's assessment of SAP024

Proposal name:	Pakistan Distributed Solar Project
Accredited entity:	JS Bank Limited
Project/programme size:	Medium

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential

Scale: Medium to high

1. This is a medium-sized funding proposal requesting USD 10 million of GCF funding and therefore eligible under the simplified approval process. The project is submitted by JS Bank Limited, which is a direct access entity (DAE) from Pakistan representing the national commercial banking sector. The same entity is also the executing entity of the project.
2. The project scope is a 100 per cent mitigation activity through accelerating the deployment of the distributed rooftop solar power systems in Pakistan and increasing the share of renewable energy in power consumption. The primary purpose of the Pakistan Distributed Solar Project is to strengthen the secondary market (service providers) for distributed rooftop solar power systems and make net-metered renewable energy solutions a self-sustainable and growing market within the country.
3. The baseline situation is that the State Bank of Pakistan (SBP) has been providing refinance at a cheap rate to all commercial banks for renewable energy finance since 2016. As it ameliorates liquidity requirements and the cost of funding for the bank, the Pakistan Distributed Solar Project will catalyse the maximum and effective implementation of this scheme. According to the accredited entity (AE), there is no comparative advantage over any bank in the industry with this scheme and if it were to be discontinued the customer end price could rise (with the Karachi Interbank Offered Rate) throughout the banking industry and the banks' profit margin in solar financing will decrease (at least for JS Bank), with demand expected to be slow. Since electricity tariffs are increasing and are expected to sustain this trend for the coming years (owing to the recent International Monetary Fund programme signed up to by the Government of Pakistan), the opportunity cost of not installing solar photovoltaic (PV) systems will continue to increase. Thus, a market for solar solutions will remain.
4. Pakistan has considerable potential for solar solutions, with solar irradiation potential for generating 6–7 kWh/m²/day in the areas identified for solar rooftop PV system development. Overall, the average solar irradiation in Pakistan is 4.45 kWh/m²/day, which is 1.23 times higher than the world average of 3.61 kWh/m²/day. The Punjab and Sindh provinces are considered the target areas for both kW- and MW-scale PV development in the country, owing to their high population density and the high level of infrastructure and industry.
5. The total cost of the project is USD 54 million, comprising a GCF share of USD 10 million (18.5 per cent) and a senior loan of USD 44 million (81.5 per cent) from JS Bank. The funding proposal has two components: a **grant component** of USD 1 million from GCF for increasing the capacity of the local secondary market of service suppliers (vendors) to ensure the sustainability and quality of the solar PV deployment process; and a **loan component** consisting of the above-mentioned USD 44 million senior loan from JS Bank and a USD 9 million GCF guarantee for 10 years for increasing the deployment of solar PVs within the residential, agriculture, and small and medium-sized enterprises sectors.

6. In order to ensure the high level of effectiveness and sustainability of the deployment process, activities are planned under the component 1 (loan component) to strengthen JS Bank's internal capacity and prepare its institutional and regulatory systems for low-emission product planning and development. Funded a first loss guarantee structure will be formed so as to limit default risk for the bank, the energy financing product portfolio will be redesigned to be better tailored for the solar PV sector, the solar financial portfolio for the three sectors referred to in paragraph 5 above will be increased and will be designed to promote easier access to the financing for women.

7. Component 2 (grant component) aims to increase the number and quality of certified small, medium-sized and large rooftop solar power suppliers and thus contribute to increasing the attractiveness of distributed solar PVs. This component also focuses on capacity-building of process stakeholders such as JS Bank staff, solar PV vendors, existing customers, banking regulators (Securities and Exchange Commission of Pakistan, SBP, Federal Board of Revenue of Pakistan), power generation regulators (National Electric Power Regulatory Authority, AEDB, National Transmission & Dispatch Company) and the relevant bodies for environmental protection (Pakistan Environmental Protection Agency, Ministry of Climate Change). Courses and training will be provided nationwide in regions suitable for solar PV systems and, wherever feasible in terms of demand and cost awareness, the level of activities regarding renewable energy solutions will be increased. Approximately USD 750,000 of grant proceeds will be used to market solar PV solutions via traditional and digital mediums, with the emphasis on the use of digital tools.

8. Another output of the grant component concerns the establishment one of the largest primary sales channels for solar vendors certified by the Alternative Energy Development Board (AEDB)¹ and of a system to monitor the efficiency of installed modules and track the performance of the entire project, including challenges and issues faced by customers and the reliability of maintenance services provided to customers by solar vendors.

9. Under the funding proposal about 43.15 MW distributed rooftop solar power systems should be installed over the course of 10 years and about 3,920–4,000 loans provided.

10. According to the AE, one of the reasons to opt for a guarantee by the funding proposal is the possibility of leveraging the existing refinance facility issued by SBP. SBP has developed a promotional refinancing scheme in Pakistan which offers concessional loans to customers at a fixed rate of 6 per cent in the local currency (Pakistani rupee). Despite the reasonable offer, not many customers from the small and medium-sized enterprises or residential sector have been able to qualify for the scheme owing to the high collateral from customers requested by banks. The funding proposal aims to use the guarantee for maximum reduction of collateral.

11. As it mentioned above, the financial instrument chosen for the operation is a guarantee provided by GCF to the AE for the purpose of providing first loss cover. According to the term sheet (funding proposal package, 5 November 2021), as the guaranteed loan is repaid, this amount of guarantee is unwound, protecting the GCF capital from the risk of recurrent loans provided against the same guarantee volume. The lifetime of the GCF guarantee is 10 years, while that of the guaranteed loans from the AE to sub-borrowers is considerably shorter with a minimum 1 year and maximum 3–5 years. While the guarantee is modelled on a 20 per cent loss across the solar portfolio, the independent Technical Advisory Panel (TAP) notes that at present the ratio of non-performing loans in the JS Bank solar portfolio is 0 per cent, which can be taken to reflect both the current stringent requirements for collateral and robust ability with regard to risk assessment within JS Bank's operations.

12. The above-mentioned issue was raised during a discussion between the iTAP, AE and Secretariat staff; the TAP notes that the AE would have welcomed the ability to roll over the

¹ The main objective of AEDB is to facilitate, promote and encourage the development of renewable energy in Pakistan. It validates solar installation service providers and reviews net-metering applications submitted by customers.

guarantee to provide new loans against guarantee capital freed up by repayment. While agreeing that this could enhance the impact potential, the TAP recognizes that allowing multiple loans to be issued would expose the GCF capital to considerably higher risk, and could theoretically lead to the complete loss of the guarantee capital provided by GCF through the accumulation of losses over the lifetime of the guarantee, which would be unlikely to be covered by the guarantee fees or addressed through recovery action. However, the TAP notes that this scenario is entirely theoretical, given the current loan performance in the solar portfolio of JS Bank. Nevertheless, given the relatively small volume of the guarantee that is at risk, and the nascent state of the market for rooftop solar PV in Pakistan, the TAP considers that the impact of the project could be substantially enhanced by allowing the AE to issue repeated loans against the guaranteed capital, and to only unwind it at the end of the life of the operation.

13. As the project is relatively small, it would have been worth considering providing the guaranteed capital in this form in order to enhance its impact. This enhanced risk could have been handled flexibly, for example by linking the ability to reuse the guarantee for follow-on loans to a non-performing loan ceiling within the solar portfolio. While this would have increased the administrative burden, it is a path worth considering in such projects.

14. According to the funding proposal the project has the potential to install solar PV systems for about 4,000 customers (actual demand is described in para. 33 below). The AE estimates that the impact of the programme is an average of 24,962 tonnes of carbon dioxide equivalent (t CO₂ eq) annually and a total of 848,700 t CO₂ eq for 34 years of the programme lifetime taking into consideration the annual amortization of installations. The programme implementation period is 10 years.

15. The TAP believes that the funding proposal could have a high impact if correctly managed, noting that key barriers to the technology transfer process have been correctly identified and the measures planned have real potential to close the existing gaps in local technical capacities to ensure the systems' performance parameters. In addition, it is important that increase of renewable energy share in total energy consumption is a priority for the government and the banking sector is already involved in this process. In order to promote the distributed renewable systems, Pakistan introduced net-metering scheme regulations in 2015, which provide that any customer of the national grid (having a three-phase connection) can access the net-metering facility for small-scale (1kW to 1MW) renewable energy installations. The Government of Pakistan has also encouraged large-scale grid-connected PV projects through the introduction of a feed-in tariff, increasing the interest of investors. The impact could become even greater if guarantee application schemes are optimized.

1.2 Paradigm shift potential

Scale: High

16. This funding activity does not initiate any new process in Pakistan related to climate change and sustainable development but contributes to the acceleration of already initiated greenhouse gas (GHG) emission mitigation activities by supporting the technology transfer process through strengthening local technical capacity-building for successful transfer and deployment of distributed solar technologies and net-metering systems, and strengthening green products in the banking sector. This programme should accelerate the successful implementation of the government and SBP financial initiative for the promotion of distributed solar PVs. Financial support for increasing the renewable energy share in the power sector initiated by SBP in 2016 should contribute to accelerating the use of the net-metering scheme and ensure the quality of the secondary market service, thereby increasing the acceptance levels of renewable energy technologies.

17. According to the funding proposal, there are 28 active commercial banks in Pakistan, of which only 6 have deployed renewable financing. Collectively, these banks have on average

deployed only 0.4 per cent of their advances towards the SBP renewable energy scheme because net-metering is a relatively new concept in Pakistan and financial schemes are not yet well developed. The first distributed solar energy with net-metering system was launched in 2015 by AEDB.

18. The TAP considers that the role of this funding proposal in accelerating the paradigm shift process initiated by the government and SBP could be transformative but emphasizes the importance of ensuring that the interests and rights of all key players are equally protected (see condition and covenant from independent TAP).

19. Noting the discussion on impact potential in section 1.1 above, the TAP notes that the paradigm shift potential could have been enhanced in line with the impact potential by allowing the AE to utilize GCF guarantee capital for multiple sub-loans. This would have provided more certainty in terms of the availability of more attractive loan terms which can provide for higher demand for rooftop solar over a longer period of time. This would in turn be more likely to encourage installer companies to add capacity and market solar home and commercial solutions more aggressively, providing for an overall underpinning of the market.

1.3 Sustainable development potential

Scale: Medium

20. The funding proposal contributes to Sustainable Development Goal 7 targeting access to affordable, reliable, sustainable, and modern energy for all, focusing on target 7.2 (increase substantially the share of renewable energy in the global energy mix by 2030) and related indicator 13.3.2 (strengthen institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions).

21. The funding proposal could significantly strengthen the local banking sector in green product financing and strengthen the local capacity of the secondary market (vendors) in the transfer and maintenance of rooftop-based solar net-metering PV systems, ensuring the high-performance indicators of transferred technology. Small and medium-sized enterprises and the residential sector will be provided with the opportunity and capacities to benefit from equal access to natural resources (solar energy) and thus additional income.

22. A value chain analysis of the solar PV market in Pakistan, conducted by the Pakistan-German Renewable Energy Forum with the support of German Agency for International Cooperation (GIZ), concluded that apart from the many residential users of solar systems who are planning to obtain a net-metering licence, a significant number of commercial entities such as hospitals, educational facilities and public and private sector office buildings and premises are planning to install up to 1 MW rooftop solar PV systems to benefit from the cost savings expected through the net-metering scheme. If other types of industry can be convinced, based on the potential of additional income through net-metering, to switch to solar PV as an electricity source, this could lead to a significant pipeline of PV projects. It is expected that in the next three to four years, between 3,000 and 4,000 MW of solar PV will be installed across the country through net-metering.

23. Increased growth in loans will lead to an increase in green jobs with more solar vendors entering the market and increasing the business size of existing solar vendors. The funding proposal has significant potential to increase the share of renewables in the power consumption mix and the deployment of green products in the banking sector.

1.4 Needs of the recipient

Scale: High

24. In the period 1994–2015, the overall increase in Pakistan’s GHG emissions was approximately 123 per cent, with a 116 per cent increase in the energy sector. The estimated increase in the country’s GHG emissions by 2030 compared with 2015 is about 300 per cent,

with a 380 per cent increase in the energy sector. The energy sector is the largest source of GHG emissions in Pakistan, with 238.1 million t CO₂ eq in 2018.

25. According to its updated nationally determined contribution (NDC), Pakistan's top priority remains social development and poverty eradication. Pakistan recognizes that large-scale investments in clean, low-emission technologies in high-emission sectors is an opportunity for mitigation potential, although the constraints existing in technology transfer and climate financing mechanisms have remained serious barriers for the country. Despite these technological and climate finance barriers, in 2016–2018 the country reduced its energy sector GHG emissions by 8.7 per cent.

26. According to World Bank research, achieving the least cost electricity mix in Pakistan requires a rapid expansion of renewables, reaching at least 20 per cent of installed capacity by 2025 and at least 30 per cent by 2030, which means that at least 6,700 MW of wind and 17,500 MW of solar PV need to be added by 2030. Furthermore, the optimum electricity mix would require even greater additions, reaching a total of 27,400 MW of renewables by 2030. If this is achieved, the share of renewables would represent 31–32 per cent of a total installed capacity of 85,000–88,000 MW by 2030.

27. During the last four years the country's total generation capacity has increased by 52 per cent from 25,421 MW to 38,719 MW, although despite the significant increase in generation capacity, there has been limited change in the energy generation mix and in 2020 the share of renewables (wind and solar) made up only 5.5 per cent of the total.

28. According to the Pakistan Economic Survey, annual survey from the Government of Pakistan², the country's power deficit in the 2019–2020 supply was 3,000 MW installed capacity. To meet the demand the Government of Pakistan has developed the Indicative Generation Capacity Expansion Plan 2021–2030, the National Electricity Policy 2021 and the Alternative and Renewable Energy Policy 2019, including hydropower, to prioritize the transition to demand-side management.

29. There is a strong business case for meeting targets set in the Alternative and Renewable Energy Policy 2019 for growth of renewable energy. This policy document mandates 30 per cent solar, bagasse and wind by 2030, although the most recent Indicative Generation Capacity Expansion Plan stipulates that the energy mix should have 65 per cent renewables (hydropower, solar, wind and bagasse) by 2030, reversing the large dependence on imported fossil fuel.

30. Pakistan's updated NDC states that given the system constraints, solar and wind will begin to accelerate only after 2030 in the country. The National Electricity Policy 2021 includes the principles of competitive bidding, environmentally responsible expanded generation through renewable energy and increased energy efficiency at the consumption level. The NDC plans at least 20 per cent renewable generation by 2025 and at least 30 per cent by 2030 (Alternative and Renewable Energy Policy, 2019).

31. The Government of Pakistan actively supports the engagement of the private sector in energy supply. For this purpose, a results-based financing pilot project was initiated in 2019 in the Sindh and Punjab provinces to encourage private sector investment for off-grid solutions, and a four-year campaign has been launched to encourage private sector investment towards the lighting needs of consumers in remote areas, including the addition of 1200 MW of wind. In the off-grid sector, approximately 40,000 villages across Pakistan presently have no access to electricity. Microfinancing for small-scale solar has considerable potential if it is implemented successfully.

32. According to the updated NDC five solar projects are operational in Pakistan with installed capacity of 330 MW. Four new projects by independent power producers with 41.80 MW capacity are expecting financial closure. More than 2,300 new licences were issued by the

² | [Ministry of Finance | Government of Pakistan](#) |

National Electric Power Regulatory Authority between July 2019 and March 2020 under its Net Metering Regulations (2015). As at March 2020, more than 4,125 solar installations with cumulative capacity exceeding 75 MW had been approved. As at May 2021, there were 11,121 commissioned systems.

33. The independent TAP considers that the needs and potential of the recipient country in accelerating the deployment of distributed solar power systems are high and that this GCF programme could provide a significant contribution to narrowing the gaps related to the technical capacities of local service suppliers and introducing a more flexible financial mechanism.

1.5 Country ownership

Scale: Medium

34. Considering that the AE is a direct access entity, and is also the executing entity, the TAP concludes that country representation in this funding proposal and relevant ownership is high. Soon after SBP launched the Renewable Energy Scheme in 2016, EE of the project started the roll-out of renewable financing products in 2016–2017 and now has four to five years' experience in this product. JS Bank has more than 70 authorized vendors, all playing an active role in contributing to clean energy access and power generation.

35. As it is mentioned in para. 15 the Government of Pakistan promotes the distributed renewable systems through introducing all necessary regulations for net-metering systems, introducing a feed-in tariff and re-financing schemes from SBP.

36. The GCF country programme particularly highlights the country's need for technical expertise for developing, installing and maintaining solar and wind power sources. This gap is considered as the key barrier in the technology transfer process, which is recognized by the government as the highest priority in the achievement of the Paris Agreement goals. Pakistan's climate change policy gives priority to establishing global and regional partnerships for technology transfer and development. A technology needs assessment project prepared with the support of the United Nations Environment Programme has identified priority mitigation technologies, including solar energy technologies, with high abatement potential but the GCF country programme highlights that these priority mitigation technologies remain unrealized owing to financial and technical challenges. The proposed project could significantly contribute to closing the technical capacity gaps in the solar technologies secondary market in Pakistan.

37. The TAP considers that country ownership is high from the point of view that the funding proposal has national implementation, is in compliance with the country's priorities in energy sector development and commitments under the United Nations Framework Convention on Climate Change and the Paris Agreement. Because the funding proposal package received by the independent TAP lacked a no-objection letter from the recipient country this criterion of country ownership was rated as medium.

1.6 Efficiency and effectiveness

Scale: Medium

38. The co-financing share from the AE is quite high at 4.4:1 but a co-financing letter was not provided to the TAP within the funding proposal package.

39. According to JS Bank's assumption, a maximum of 20 per cent of the loans disbursed will be loss-making, although at present there are 0 per cent non-performing loans in the Solar Financing Portfolio of the bank. Based on this assumption the cost for the abatement per t CO₂eq emissions should be no more than USD 4.1 for GCF, taking into consideration 20 per cent losses of guarantee money and a relevantly smaller amount of reduced emissions. Considering that only 1.85 per cent of the programme total cost is a grant the efficiency of abatement is high.

40. The measures planned by the AE for the improvement of technology performance indicators and financial schemes (e.g. reducing collateral) could increase the efficiency and effectiveness of the ongoing distributed solar PV deployment process. The TAP also expects that optimizing guarantee application schemes could significantly improve the efficiency of the programme in total.

41. As a technology transfer and deployment programme this funding proposal correctly focuses on strengthening the secondary (vendors') market through technical capacity-building of technology service suppliers, certification of vendors and standardization of technologies eligible for this programme. However, the proposal still has high risks in technology performance due to the lack of local experience and expertise among service supplier staff, which might not be immediately successfully mitigated. The AE recognizes such risks, which are well formulated in annex 7 (risk assessment). In particular, risk factors 4 and 5 are also of concern to the TAP:

- a) "Since the vendors in Pakistan lack technical expertise to assess performance of the Solar PV systems, the bank faces the risk of reputational loss due to low efficiency of system. Although the bank does not have any role in terms of performance, in several cases the customer brings vendor-related issues which also affects the bank's reputation. Additionally, system quality, maintenance issues or any dispute between vendor and customer may also cause reputational damage to the bank." The probability of this risk is considered as low and impact as high. Based on the experience of the TAP, in most developing countries both parameters are high; and
- b) "Since the Solar PVs are hypothecated, in case of any default the bank faces the risk of legal issues to recover the assets from customer premises. Similarly, any legal dispute between customer and vendor or any tax related matter may drag the bank into legal matters." The probability of this risk is considered as medium and impact also as medium. In the opinion of the TAP, impact could be high.

42. The TAP considers that negative reputational impact in the case of both risk factors could be high not only for the bank but also for the donor (GCF). As far as the bank directly pays loan money to vendors while the loan proceeds should be repaid to the bank by the customer who is a key beneficiary for GCF projects, it is important that the AE ensure that all potential losses borne by the customer due to the low competency of the vendor are compensated by the vendor or by the bank. In the opinion of the TAP mitigation measures provided in the funding proposal do not sufficiently consider the role of beneficiary customers in the GCF process (see condition and covenant from independent TAP).

43. National grid capacity to dispatch the intermittent renewable energy is not considered by the funding proposal as a potential risk for deployment of this technology. During the review process the TAP raised this issue and references were provided by the AE demonstrating that in general, for large-scale installations of renewables of 9 GW and above, the existing grid capacity should be improved; however, this funding proposal considers a maximum capacity of 43 MW, for which licences have already been issued by the government, which leads the TAP to believe that the grid dispatching amounts for the licensed cases have been confirmed by the National Electric Power Regulatory Authority.

44. Because of above-mentioned risks considered and the conclusion in the NDC regarding the acceleration potential of renewables in Pakistan, which will most likely not start before 2030, the TAP assessed the efficiency and effectiveness of the funding proposal as medium.

II. Overall remarks from the independent Technical Advisory Panel

45. This assessment is based on funding proposal version v.6 (package of documents received on 5 November 2021). The no-objection letter and co-financing letter were not provided to the independent TAP as the part of the submitted package. Clarification was provided from the AE that the signing of these two documents was subject to final agreement from the Secretariat side on loan conditions, which was not concluded when the independent TAP received this funding proposal package. In case, the funding proposal's full package has been finalized and submitted to the Board (including the same version of the term sheet which was the part of the package received by the independent TAP).

46. The independent TAP recommends this funding proposal for approval by the GCF subject to:

- (a) The following condition being met prior to the execution of the FAA:
 - (i) Delivery by the AE to the GCF, in a form and substance satisfactory to the GCF Secretariat, of a plan containing enhanced risk mitigation measures to address risk factors 4 and 5 set out in annex 7 to the funding proposal, and referred to in paragraphs 18 and 42 above, to ensure that any losses incurred by a borrower under the programme which are directly caused by a vendor's lack of competence in supplying, installing or servicing the relevant equipment, poor performance of the equipment supplied by such vendor, or as a result of any damage to the borrower's property following any enforcement of security by the AE, are compensated to the borrower by the relevant vendor or the AE ("**Enhanced Risk Mitigation Plan**");
- (b) The inclusion of the following covenant in the FAA:
 - (i) The Accredited Entity shall maintain and implement, at all times during the implementation of the programme, the Enhanced Risk Mitigation Plan.



Reply to the Independent Technical Advisory Panel assessment findings (SAP024)

Proposal name: Pakistan Distributed Solar Project

Accredited entity: JS Bank

Impact potential

JS Bank would like to thank ITAP for the positive review of Pakistan Distributed Solar Panel Project.

JS Bank concurs with ITAP assessment on impact potential this PDSP has on developing countries like Pakistan. ITAP is correct on pointing out that Pakistan has considerable potential for solar solutions with solar irradiation potential for generating 6-7 kWh/m²/day in the areas identified for solar rooftop PV system development.

JS Bank agrees with ITAP that PDSP Funding proposal could have a high impact if correctly managed, identifying and managing key barriers to the technology transfer process. With the Grant proceeds JS Bank can enhance Capacity building and awareness for Renewable Energy.

Paradigm shift potential

JS Bank appreciates ITAP for the positive assessment that the PDSP programme's Paradigm shift potential. ITAP has rightly pointed out that this funded activity contributes to the acceleration of already initiated greenhouse gas (GHG) emission mitigation activities by supporting the technology transfer process through strengthening local technical capacity-building for successful transfer and deployment of distributed solar technologies and net-metering systems and strengthening green products in the banking sector. PDSP will also accelerate implementation of the State bank of Pakistan Solar Scheme which provides concessional loans to end borrowers.

JS Bank concurs with ITAP that impact potential could be enhanced If the Guarantee could be used for multiple sub loans which could provide more certainty in terms of the availability of more attractive loan terms which can provide for higher demand for rooftop solar over a longer period of time.

Sustainable development potential

JS Bank thanks ITAP for the positive assessment for the project Sustainable development potential.

ITAP rightly highlights and JS Bank concurs that the funding proposal could significantly strengthen the local banking sector in green product financing and strengthen the local capacity of the secondary market (vendors) in the transfer and maintenance of rooftop-based solar net-metering PV systems, ensuring the high-performance indicators of transferred technology. Project like these will increase growth in loans and increase in green jobs with more solar vendors entering the market.

JS Bank concurs with ITAP that the funding proposal has significant potential to increase the share of renewables in the power consumption mix and the deployment of green products in the banking sector. JS Bank is of the view and ITAP also concurs that it is expected that in the next three to four years, between 3,000 and 4,000 MW of solar PV will be installed across the country through net-metering.

Needs of the recipient

JS Bank appreciates ITAP for the positive response of the Needs of the Recipient as high, as Pakistan's estimated increase in the country's GHG emissions by 2030 compared with 2015 is about 300% per cent, with a 380 % increase in the energy sector. The energy sector is the largest source of GHG emissions in Pakistan, with 238.1 million t CO₂ eq in 2018 therefore there is an immediate need for Renewable energy



sources for electricity needs.

According to the Pakistan Economic Survey, annual survey from the Government of Pakistan¹, the country's power deficit in the 2019–2020 supply was 3,000 MW installed capacity. To meet the demand the Government of Pakistan has developed the Indicative Generation Capacity Expansion Plan 2021–2030, the National Electricity Policy 2021 and the Alternative and Renewable Energy Policy 2019, including hydropower, to prioritize the transition to demand-side management. JS Bank believes that this project will impact the energy mix by providing solar loans on a large scale to the consumer.

JS Bank believes that this project will help meeting the targets set in the Alternative and Renewable Energy Policy 2019 for growth of renewable energy which is by 2030 the energy mix should have 65 per cent renewables and reversing the large dependence on imported fossil fuels.

JS Bank concurs with ITAP that this GCF programme could provide a significant contribution to narrowing the gaps related to the technical capacities of local service suppliers and introducing a more flexible financial mechanism.

Country ownership

JS Bank appreciate the high rating for country-ownership by ITAP based on the information available.

Since SBP scheme initiated in 2016, the scheme has matured, and this product now is experienced in the Pakistani market. JS Bank has 70 solar vendors authorized to enhance contribution of Renewable energy in the energy mix and fully utilized the SBP scheme through PDSP.

JS Bank concurs with ITAP that Government of Pakistan promotes the distributed renewable systems through introducing all necessary regulations for net-metering systems, introducing a feed-in tariff and re-financing schemes from SBP.

Pakistan climate change policy gives priority to achieving goals of Paris agreement and establishing global and regional partnerships for technology transfer and development.

ITAP rightly highlighting that the proposed project significantly contributes to closing technical capacity gaps in the solar technologies secondary market in Pakistan, and help in reaching Paris Agreement goals.

Since we have finalized the financial terms of this project, we have requested the NDA to provide us with no objection letter, the delay was only because the financial structure was not finalized, NDA always have been supportive of this project but wanted to do it's due diligence on the project because of the nature of the financial term (i.e. guarantee structure).

Efficiency and effectiveness

JS Bank appreciated ITAP's assessment on Efficiency and effectiveness of the project as medium.

ITAP rightly pointed out that the Guarantee structure under PDSP enhances the bank's capability and mitigates risk on deployment of loans, the benefit of this structure is that JS Bank can cater to customers with immediate need for the solar panels but possess no collateral because these customers poses a higher risk for the bank.

ITAP rightly pointed out that this funding proposal correctly focuses on strengthening the secondary (vendors') market through technical capacity-building of technology service suppliers, certification of vendors and standardization of technologies eligible for this programme. However, the proposal still has high risks in technology performance due to the lack of local experience and expertise among service supplier staff, which might not be fully mitigated but the project will provide support on it.

¹ [| Ministry of Finance | Government of Pakistan |](#)



Overall remarks from the independent Technical Advisory Panel:

JS Bank welcomes the overall positive remarks from iTAP. JS Bank takes good note of the recommendation on the overall project and the potential of this project to meet the Paris Agreement goals. As per the guidance of iTAP, the AE will enhance its risk mitigation measures to limit any issues due to lack of competency of the vendors.

The AE and GCF have finalized the terms of the project and already contacted NDA for no objection letter. The AE has a dedicated team to mitigate risk related to this project.

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Acronyms

PDSP	Pakistan Distributed Solar Project
AE	Accredited Entity – JS Bank
EE	Executing Entity – JS Bank
SBP	State Bank of Pakistan
GDP	Gross Domestic Product
WEF	World Economic Forum
CEDAW	Convention on Elimination of All Forms of Discrimination against Women
FMCG	Fast Moving Consumer Goods
SDG's	Sustainable Development Goal's

Introduction

This Study is initiated by the Sustainable Finance Department of JS Bank as a prerequisite to analyze gender issues in Pakistan with particular emphasis towards the energy and financial services sector that will assist the team in designing a gender action plan for the project, Pakistan distributed Solar Project.

The Gender Assessment Report has been structured as: This report has been prepared in 2021 by a team representative of the Accredited Entity with the aid of specialist consultants. We acknowledge the support of different regulators specially the State Bank of Pakistan to provide relevant sectoral data and consultation for the study. This report is the sum of the efforts and expertise of multiple individuals and institutions, and particularly of the insights of locals who face inequalities in their daily lives.

The report initiates by introducing a statistical overview of the challenges faced by women and assess their engagement in the labor force from several nationally representative datasets. We then combine these challenges with qualitative and descriptive socio-economic challenges and its role on society. The report uses both empirical quantitative and qualitative to present gender-based challenges faced in the overall corporate sector in the country and then focuses the findings in the financial & the energy sector. The report then addresses and highlights qualitative changes adapted by multiple private sector entities to address some of these challenges.

Gender impact assessment has been defined as an ex-ante evaluation, analysis or assessment of a law, policy or program that makes it possible to identify, in a preventative way, the likelihood of a given decision having negative consequences for the state of equality between women and men. The central question of gender impact assessment is: does a law, policy or program reduce, maintain, or increase the gender inequalities between women and men?

The assessment involves a dual-pronged approach: the current gender-related position in relation to the policy under consideration, and the projected impacts on women and men once the policy has been implemented. It is important that the assessment is structured – it should be systematic, analytical and documented.

The final aim of gender impact assessment is to improve the design and the planning of the policy under consideration, to prevent a negative impact on gender equality and to strengthen gender equality through better designed, transformative legislation and policies. A primary objective is to adapt the policy to make sure that any discriminatory effects are either removed or mitigated. Beyond avoiding negative effects, a gender impact assessment can also be used in a more transformative way as a tool for defining gender equality objectives and formulating the policy to proactively promote gender equality.

Executive Summary

In Pakistan, Women participation in formal employment is generally low in comparison to available workforce. The reasons for low participation stem from social & religious reasons. Participation of women is affected at various socio-economic classes. Cultural values affect participation of workforce even in high skilled labor.

Recent cultural activism primarily due to a generally young population and high social medial activity has led to changes in existing barriers. Recent initiatives adopted by enterprises is initiated changes in various sectors.

The State Bank of Pakistan only recently started the initiative to enforce a minimum participation of women in the workforce. Prior to regulatory initiative, many local banks initiated their own programs to address gender challenges within their respective work force. The initiative started with of 14% participation of women in the banking sector which has now increased by 7% in only 10 years. Furthermore, some organizations have focused towards addressing gender gaps different levels of hierarchy.

Country Profile: Pakistan

Pakistan, officially the Islamic Republic of Pakistan, is a country in South Asia. It is the world's fifth-most populous country, with a population exceeding 218 million, and has the world's second-largest Muslim population.

Modern state of Pakistan was the realm of multiple empires and dynasties, including the Achaemenid; briefly that of Alexander the Great; the Seleucid, the Maurya, the Kushan, the Gupta; the Umayyad Caliphate in its southern regions, the Hindu Shahi, the Ghaznavids, the Delhi Sultanate, the Mughals, the Durrani's, & the Sikh Empire. Gained independence in 1947 after the Partition of the British Indian Empire, which awarded separate statehood to its Muslim-majority regions and was accompanied by an unparalleled mass migration. More than half of Pakistan's population lives in rural areas; however, the proportion living in urban areas is increasing. Both settings face challenges in providing access to quality public services. High population densities in the northeast and along the Indus River are coincident with natural disasters, which cause population displacement and reduce livelihoods, and in which harassment and/or violence decrease the security of women and children.

As of 2020, Pakistan is the fifth most populous country in the world and accounts for about 2.8% of the world population. 2017 Census of Pakistan provisionally estimated the population to be 207.8 million (excludes data from Gilgit-Baltistan) with annual growth rate of 2.4% from 1998-2017. Women formulate 48% of this population.

Pakistan's Gross Domestic Product (GDP) increased by 60% in real terms between 2001 and 2012, without a change in the structure of the economy. Growth in the second half of the period was low because of armed conflict, costs of major natural disasters and the global financial crisis. Pakistan's GDP growth was reflected in reductions in poverty headcount and the poverty gap from 35% to 12% between 2000 and 2011.

After experiencing economic growth with a compound annual growth rate (CAGR) of 5.1% during 2001–2007, Pakistan witnessed much weaker growth of 3.8% CAGR during 2008–2015 that was characterized by a challenging investment climate, political instability, weak (but recently improving) fiscal discipline, weak public sector governance, and an unresolved energy crisis. Despite a modern banking system, Pakistan's financial intermediation is low and deteriorating compared to its regional peers. The ratio of domestic credit to the private sector to gross domestic product (GDP) stood at only 15% of GDP in 2015, declining from 28% in 2007. The massive surge of public sector borrowing undermines private access to affordable credit. From 2016, the Pakistan GDP growth has been: 5.55% in 2017 (0.03% increase from 2016), 5.84% in 2018 (0.28% increase from 2017), 0.99% in 2019 (4.85% decline from 2018) and 0.53% in 2020 (0.46% decline from 2019)¹.

¹ <https://www.adb.org/sites/default/files/linked-documents/46538-002-efa.pdf>

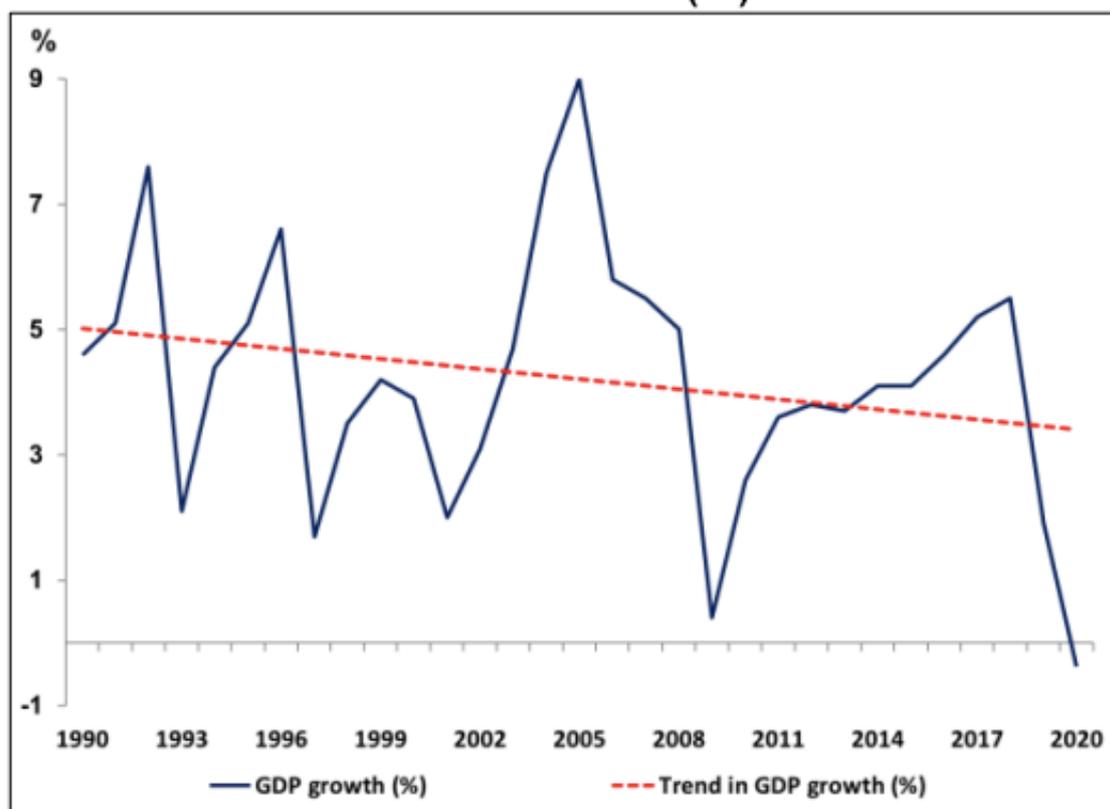
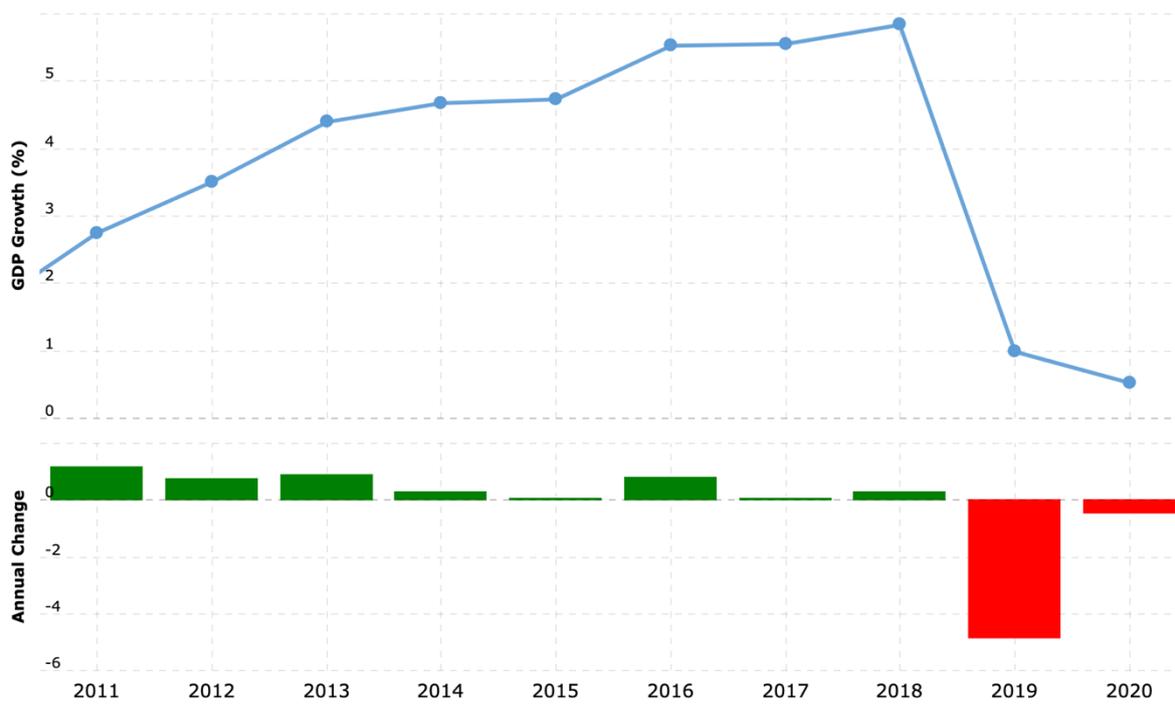


Figure: GDP Growth of Pakistan (%)

Pakistan Sectors of Economy	Annual Percentage Growth Rate						
	Period of 1960	Period of 1970	Period of 1980	Period of 1990	Period of 2000	Period of 2010	Period of 2020
GDP	6.77	4.84	6.45	4.6	4.32	2.4	-0.38
Agriculture	5.07	2.37	5.44	4.4	3.76	1.2	2.67
Manufacturing	9.93	5.5	8.21	4.8	4.83	3.0	-5.4
Service sector	6.74	6.26	6.65	4.6	4.54	4.1	-0.59

Source: Economic Survey of Pakistan (2019-20)

Figure. Growth rates in GDP and important sectors (%)

Pakistan had to face the energy crises and debt crises in 2013. Growth rate was increased up to 4.3 percent in 2014-15 because of declining oil prices, higher remittances, better security conditions and high consumer spending. Inflation was reduced and foreign reserves were sustained. It brought back the macroeconomic stability in 2016 and imports increased with decrease in exports.

After the exchange rate depreciation in 2017, average inflation jumped up from 4.7% in 2018 to 6.8% in 2019. In addition to the exchange rate, significant government borrowing from the State Bank of Pakistan (SBP), a considerable increase in domestic fuel prices, and a further increase in regulatory duties on imports contributed to steepening price increases. Inflation again jumped to 10.7% in 2020, from 6.8% in 2019, mainly led by food inflation, which averaged 13.6% in urban and 15.9% in rural areas. This led to food supply shocks, an increase in utility prices, the second-round effect of exchange rate depreciation, and transport strikes during nine months of 2020. During the last quarter of the financial year 2020, average inflation began to dip when overall domestic demand weakened in the face of the COVID19-imposed quarantine restrictions; and domestic petrol prices also fell after a huge dip in international oil prices caused by dwindling global demand and the recessionary conditions imposed by the pandemic.

Pakistan has proven to have implemented policies that have led to a substantial decline in its poverty headcount, from 64.3% in 2001 to 24.3% in 2015. The rural poverty headcount ratio (30.7%) was more than twice the urban at 12.5%, with rural areas still accounting for four out of five poor individuals. Furthermore, there is no evenness in this improvement across the different provinces, which leads to uneven development in the same country. 71% of people in Balochistan live in multidimensional poverty (MDP)13 while Punjab has the lowest MDP index at 31%. In addition to the 24.3% of the population under the poverty line, a further 20 million are near-poor and highly vulnerable to shocks and stresses that can pull them below the poverty line. The poverty headcounts are presented below.

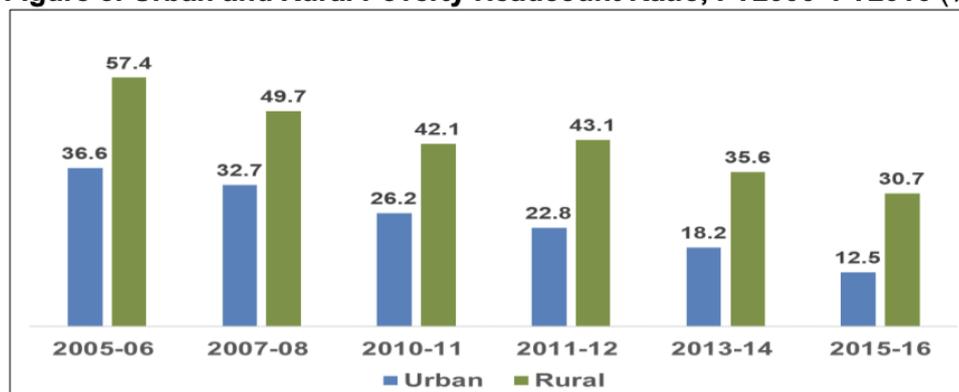
Poverty Estimates – Headcount Poverty Ratio (%)

Poverty Line	2012	2013	2015	2018	Without COVID-19	With COVID-19-related declines in mean per capita consumption		
					2020	(5)%	(10)%	(20)%
\$1.90/day	6.9	7.0	5.3	1.6	1.6	2.2	2.9	5.5
\$3.20/day	43.5	42.8	38.5	24.4	22.8	26.8	31.1	40.9
\$5.50/day	82.0	81.4	78.2	67.1	66.1	69.5	72.8	79.2

(-) = negative, COVID-19 = coronavirus disease.

Source: Asian Development Bank (Economic Research and Regional Cooperation Department). 2020. Updated Poverty Estimates. Memorandum. 29 April (internal).

Figure 5: Urban and Rural Poverty Headcount Ratio, FY2006–FY2016 (%)



Source: Government of Pakistan. 2018. *National Poverty Report, 2015-16*. Islamabad.

Pakistan is considered a lower-middle income country, as the gross national income per capita in 2019 was \$1,383. This would have looked very different if the COVID-19 pandemic had not taken place, especially in terms of poverty incidence (below the poverty line of \$3.20 a day) which was estimated to be at 22.8% in 2020. Furthermore, the GDP of the country contracted by 0.38% in the fiscal year 2020, which is the first negative growth that the country has faced in 68 years.

Gender Gap Overview: Pakistan

According to a World Economic Forum (WEF) Pakistan has been ranked among the worst four countries in the world in gender parity with only Iraq, Yemen and Afghanistan faring worse as the country slipped to 153rd position out of 156 countries. The gender gap in the country has widened by 0.7 percentage points to 55.6%.

According to the WEF Global Gender Gap Report 2021, Pakistan features among the bottom 10 countries in two of the four subindexes: Economic Participation and Opportunity (152nd) and Health and Survival (153rd). Pakistan has closed just 31.6% of its Economic Participation and Opportunity gap. Few women participate in the labour force (22.6%) and even fewer are in managerial positions (4.9%). This means that only 26.7% and 5.2%, respectively, of these gaps have been closed so far, translating into very large income disparities between women and men: on average, a Pakistani woman's income is 16.3% of a man's.

Studies indicate Women do not have equal access to justice, ownership of land and non-financial assets or inheritance rights. In Pakistan, women are much less likely to own a house (3%) or land (2%) than men (72% and 27%, respectively)². The country has been ranked 93rd out of 115 in property rights protection and 86th in gender equality in the International Property Rights Index (IPRI) 2008. The South Asian regional average share of professional and technical roles taken by women is 32.6%; Pakistan is below the average and stands at 25.3%. <https://www.justice.gov/eoir/page/file/1250691/download>

² <https://dhsprogram.com/pubs/pdf/SR257/SR257.pdf>

Pakistan is placed among the countries where women's literacy is significantly lower than that of men; less than 67% of literacy gender gap has been bridged to date. Clearly implying women are still denied access to the same education levels as men.

The WEF report also indicated that Pakistan needs 136 years to close the gender gap, with the existing performance rate. However, mainstreaming gender needs in all the relevant sectors of cross cutting nature like climate change can help speed up the performance rate.

Social & Cultural Context

Gender is one of the organizing principles of Pakistani society. Pakistani society is predominantly patriarchal. Patriarchal values embedded in local traditions and culture predetermine the social value of gender. Men and women are conceptually divided into two separate worlds by religion and social construct. An artificial divide between production and reproduction, created by the ideology of sexual division of labor, has placed women in reproductive roles as mothers and wives in the private arena of home and men in a productive role as breadwinners in the public arena. This has led to a low level of resource investment in women by the family and the State. Predominantly and regardless of socio-economic class, male members of the family are given better education and are equipped with skills to compete for resources in the public arena, while female members are taught domestic skills to be good mothers and wives.

The status of women in Pakistan is not homogenous because of the interconnection of gender with other forms of exclusion in the society. There is considerable diversity in the status of women across classes, regions, and the rural/urban divide due to uneven socioeconomic development and the impact of tribal, feudal, and capitalist social formations on women's lives. However, women's situation vis-à-vis men is one of systemic subordination, determined by the forces of patriarchy across classes, regions, and the rural/urban divide.

Patriarchal structures are relatively stronger in the rural and tribal setting where local customs establish male authority and power over women's lives. They are given limited opportunities to create choices for themselves to change the realities of their lives³. On the other hand, women belonging to the upper and middle classes have increasingly greater access to education and employment opportunities and can assume greater control over their lives⁴. The false ideological demarcation between public and private, inside and outside worlds is maintained through the notion of honor and institution of purdah in Pakistan. The cultural notion of male honor, in Pakistan, is linked with women's sexual behavior, hence their sexuality is considered a potential threat to the honor of the family. Therefore, women's mobility is strictly restricted and controlled through the system of purdah, sex segregation, and violence against them.

Economic Situation of Women in Pakistan

Although Pakistan's female labour force participation rate of 24% has recently begun to converge towards the South Asian average of 32%, it still ranks tenth lowest out of 189 countries⁵. Less than one third of the 31 million working aged women in Pakistan are deemed economically active. Less constrained choices for male workers yield better employment and livelihood opportunities. Men monopolize lucrative sectors like trade, construction and transport and receive wages on average 18% higher than women (WEF, 2014). According to the Labour Force Survey (LFS) in 2014-15, Pakistani women account for 11.5% of employees in the informal sector but only 3% in the formal sector. Nearly two thirds of the labour force are either unpaid family helpers or low-skilled (USAID, 2013). Women are overrepresented in subsistence agriculture and garment manufacturing. Although agriculture employs 44% of the total labour force, it accounts for 75% of jobs for women (usually in crop production, livestock management, forestry, and fisheries) but only 34.9% of men (ILO, 2013; FAO, 2015). These jobs are subject to poor working conditions, low productivity, lower pay and greater occupational and personal insecurity.

³

<http://documents1.worldbank.org/curated/en/263071468057350769/pdf/RP15580V70P12100Box385163B00PUBLIC0.pdf>

⁴ Annex: 4.

⁵ <https://vc.bridgew.edu/cgi/viewcontent.cgi?article=2099&context=jiws>

The labor participation rate for women (share of female inhabitants aged 15 or older) stood at 18.9% in 2020, while the labor participation rate for men was 62.8%, according to International Labour Organization estimates. The participation of women in the labor force has declined from 20.7% in 2015 to 18.6% in 2019. Women's work as contributing family workers has fallen from 41% in 2015 to 36.2% in 2018 but remained much higher than the 6.1% for men. However, women's participation increased in manufacturing, from 14.1% in 2015 to 16.0% in 2018, indicating a shift from agriculture, where their participation declined from 72.7% in 2015 to 67.2% in 2018.

Total informal employment in Pakistan stands at 82.4 per cent and total non-agricultural informal employment at 70.8 per cent. Out of the total employed women in the non-agriculture sector, 71.8 per cent are working in the informal sector and only 28.2 per cent work in the formal sector. In the informal sector, 61.5 per cent work in the manufacturing industry, 35.1 per cent are own account workers (or self-employed), 49.5 per cent are employees and 15.1 per cent are contributing family workers. Agriculture employs 76.4 per cent of female workers, industry 18.1 per cent and services only 5.5 per cent. Out of the total amount of employed women, 0.1 per cent are employers, 19.5 per cent are own account workers, 28.5 per cent are employees and 51.9 per cent are unpaid family helpers/contributing family workers.

Women have been disproportionately affected by the pandemic. Since women workers dominate the informal labor market, they have been the first to be laid off when the economic closures happened across the countries. Many health care professionals are women, and they were in higher risk of contracting COVID-19. And girls are at higher risk of being pulled out of schools during crises.

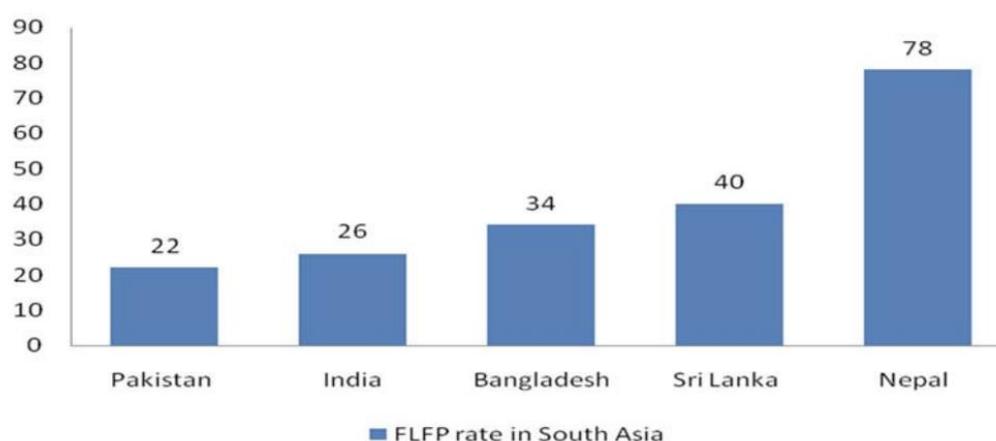


Figure. Female labor force participation, 2017

Provinces/Areas	2012-13		2013-14		2014-15		2015-16	
	Female	Male	Female	Male	Female	Male	Female	Male
PAKISTAN	9.3	90.7	10.5	89.5	8.9	91.1	10.7	89.3
Urban	8.4	91.6	9.0	91.0	7.6	92.4	8.5	91.5
Rural	9.8	90.2	11.3	88.7	9.7	90.3	11.9	88.1
PUNJAB	10.9	89.1	12.1	87.9	10.7	89.3	13.1	86.9
Urban	10.5	89.5	10.9	89.1	10.0	90.0	10.7	89.3
Rural	11.0	89.0	12.7	87.3	11.1	88.9	14.3	85.7
SINDH	3.3	96.7	4.2	95.8	3.1	96.9	3.7	96.3
Urban	5.2	94.8	6.6	93.4	4.5	95.5	5.4	94.6
Rural	1.3	98.7	1.5	98.5	1.4	98.6	1.8	98.2
KP	16.3	83.7	19.4	80.6	16.3	83.7	16.9	83.1
Urban	12.3	87.7	11.9	88.1	10.9	89.1	11.8	88.2
Rural	17.2	82.8	21.1	78.9	17.6	82.4	18.1	81.9
BALUCHISTAN	0.8	99.2	1.8	98.2	0.8	99.2	0.8	99.2
Urban	1.0	99.0	1.6	98.4	1.2	98.8	1.2	98.8
Rural	0.8	99.2	1.9	98.1	0.7	99.3	0.7	99.3

Figure. Percentage Distribution of Households by Gender Headship, Pakistan and Provinces

Major Occupational Groups	2014-15			2017-18		
	Total	Male	Female	Total	Male	Female
Total	100.0	100.0	100.0	100.0	100.0	100.0
Managers	2.2	2.8	0.3	2.3	2.8	0.5
Professionals	4.7	4.2	6.4	5.1	4.4	7.7
Technicians & associate professionals	3.1	3.8	0.9	3.9	4.4	1.8
Clerical support workers	1.5	1.9	0.2	1.4	1.8	0.1
Service and sales workers	15.7	19.8	2.1	16.3	20.1	2.7
Skilled agricultural, forestry & fishery workers	37.1	29.7	61.7	31.6	25.2	54.6
Craft & related trades workers	13.6	13.8	12.6	14.6	14.6	14.4
Plant/ machine operators & assemblers	6.3	8.1	0.3	6.9	8.7	0.3
Elementary occupations	15.8	15.9	15.5	18.0	18.0	17.9

Lack of skills, limited opportunities in the job market, and social and cultural restrictions limit women's chances to compete for resources in the public arena. This situation has led to the social and economic dependency of women that becomes the basis for male power over women in all social relationships. This has also led to a low level of resource investment in women by the family and the State.

Women in Pakistan participate fully in economic activities in the productive and reproductive sphere. The economic value of women's activities in the reproductive sphere and unpaid work as a family laborer in the productive sphere has not been recognized as productive and is not accounted for in the national statistics.

Health & Survival of Women

Health system is one of the many ignored sectors in Pakistan, as no government has majorly focused on developing it. The situation for women health is even dire as it stands at 153rd in health and survival global index, only better than Afghanistan in South Asia. One of the major reasons behind this is the role of women in family system, as they have rather low say in matter related to their health, like childbearing, exposing an inability to imagine their role beyond that of motherhood. As per Pakistan Demographic and Health Survey 2006-07, the maternal mortality rate was 276 deaths per 100,000 live births. Although it has improved to 186, but still, it is too high. Furthermore, in many households, the women get insufficient nutrition in the family system and are often last to eat. In Pakistan, women are less likely to receive vital information on health safety, have lower levels of education, and are less likely to own a mobile phone or have internet access.

Inequality Index

Inequality is based on disparities in terms of assets, income, status, education, health, and other opportunities. Pakistan stands at Gini coefficient of 33.5⁶ lowest in the region [*The Gini coefficient, also called the Gini Index or Gini ratio, is a statistical measure of distribution intended to represent the income or wealth distribution and is common measure used to assess gender inequality status of a country*]. Overall, income inequality in Pakistan decreased in the 1990s, rose until the mid-2000s, and decreased again until the mid-2010s. Between 2016 and 2019, Pakistan saw a particular reduction in income difference between the richest and poorest 20 percent of the population, and generally lower rate of income inequality across all income quintiles.

Property right for women

It is common in Pakistan for women to inherit property where Pakistan Demographic and Health Survey 2017 reports that only 1% of the women each inherited agricultural land and a house and 97% of women did not inherit land or a house. When coupled with unequal access to resources, exclusion from

⁶ <https://worldpopulationreview.com/country-rankings/gini-coefficient-by-country>

decision-making processes and limited mobility, women in both urban and rural areas are placed in a position where they have limited role to play in economy.

Gender based discrimination against other groups (Transgender Community)

Pakistan has a large and undocumented transgender community which faces a lot of discrimination. Their families, friends and the public ostracize them due to social stigma. The marginalization is relentless and can impact education and employment opportunities too. Human rights violations and discrimination based on gender identity are still prevalent, creating a big challenge for the Pakistani government and legislative bodies.

In Pakistan, transgender people are often disowned by their families. Transgender women live in groups for protection and survival. Due to widespread stigma and discrimination, many transgender women engage in sex work in extremely unsafe environments and circumstances. Their clients or sex partners feel that sexual abuse of a transgender woman is permissible. Rape is common and is rarely ever reported or caught. These abuses cause severe emotional distress and mental agony for the transgender women. To cope with these realities, many survivors start indulging in drugs and alcohol or resort to self-harm.

Also, transgender individuals are often responsible for financially supporting their biological families, families who tend to resort to abuse, violence and torture to maintain their control over them. Forced marriage, physical and emotional torture are common forms by their household members, recorded in studies done by various organizations. Furthermore, if police arrest perpetrators of violence, the biological family tends to forgive them in return for money (known as "blood money" in native culture). The only support for transgender people in Pakistan is provided by their peers. In the absence of medical care that is sensitive to their needs, relief usually comes from community members looking after them using traditional methods of care and general wisdom.

Legal, Institutional & Policy framework to address Gender inequality

Legal & Institutional Framework

The Constitution of Pakistan (1973) declares that all citizens are equal before the law and are entitled to equal protection. It prohibits discrimination on the basis of sex and commits the State to take steps to ensure the full participation of women in all spheres of life.

The first section of the Constitution which explicitly recognizes the equality of citizens

Article 25 - “All citizens are equal before law and are entitled to equal protection of law”

There are several other articles in the constitution that affirm the need to reduce inequality by upholding social justice, eradicating social ills, and promoting people’s social and economic well-being. Some of the relevant articles are quoted below

Article 38A - “secure the well-being of the people, irrespective of sex, cast, creed or race, by raising their standard of living by preventing the concentration of wealth and means of production and distribution in the hands of a few to the detriment of general interest and by ensuring equitable adjustment of rights between employer and employees, and landlords and tenants”

Article 38D – “provide basic necessities of life, such as food, clothing, housing, education and medical relief, for all such citizens, irrespective of sex, cast, creed or race, as are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment”

Pakistan’s constitution presents a strong commitment to reducing all forms of inequality. However, the existing gender gaps show that there is high prevalence of gender disparity. Although the constitution guarantees equality, freedom, rights and dignity to all of its citizens, in actual, women are subjected to marginalization in most of the social, cultural and economic fields.

Legislative Branch

Currently 60 seats reserved for women in the national assembly, which is less than 18% of total seats and they remain understaffed at the local level. Indeed, the separation of powers in Pakistan gives little power to local governments which leads to a few positions for women at this level. Though the number of women involved in politics is constantly increasing, some quotas are still unfilled because there are unfortunately few female candidates willing to apply.

In 2002, Pakistan established quotas of seats reserved for women in national (17%), provincial (17%–19%), and local government (33%) legislatures. These reserved seats are allocated to parties proportionately according to how many general seats they have won. Women are elected to these seats by their party legislators rather than directly. The new the Election Law 2017 mandates parties to issue 5 per cent of their tickets for general seats to women. Since devolution, provincial governments have had the responsibility of setting the quotas for reserved seats, and they have remained at the same level or been reduced.

House/assembly	Total	2002–2007 ^b			2008–2012 ^b			2013–2018 ^c				2018–present ^d					
		Women		% of Total	Women		% of Total	Women				% of Total	Women				% of Total
		G	R		G	R		G	M	T	R		G	M	T	R	
Senate	104	1	17	17.3	0	17	16.0	2	0	1	17	19.8	2	0	1	17	19.2
National	342	13	60	21.3	16	60	22.2	10	0	0	60	20.5	8	1	0	59	19.9
Punjab	371	7	66	19.7	10	66	20.5	10	0	0	66	20.5	6	1	0	64	19.1
Sindh	168	4	29	19.6	1	29	17.9	2	0	0	29	18.5	2	0	0	29	18.5
NWFP/KP	124	1	22	18.5	0	22	17.7	0	0	0	22	17.7	1	0	0	20	16.9
Balochistan	65	1	11	18.5	1	11	18.5	1	0	0	11	18.5	0	0	0	10	15.4
Gilgit-Baltistan	33							0	0	0	6	18.2				6	18.2
Total	1207 ^a	27	205	19.8	28	205	19.9	25	0	1	211	19.5	19	2	1	205	18.8

Notes: G/M= General/Minority R= Reserved Seats.

^a Until 2013, the total number was 1,174 and then the Gilgit Baltistan 33-member legislative assembly was added.

^b Source: Naz (2010: 12–13).

^c Source: Lari (2013).

^d Number calculated from the websites of each house/assembly.

Women's caucuses have been formed within national and provincial legislatures. The caucuses have been successful at passing several laws, such as those related to child marriage, harassment of women at the workplace, and gender-based violence. Over the past 15 years, several pieces of legislation have been passed at federal and provincial government levels to address issues such as early marriage, harassment of women at the workplace, and development of commissions on the status of women.

Judicial Branch

There is considerable scope to close the gaps between legal rights elaborated for women in Pakistan and the degree to which public and private sector institutions guarantee those rights. Pakistanis face challenges in accessing the formal legal system to receive a fair judgment in a timely manner. Women are disadvantaged in accessing the formal justice system because they are unable to leave their house, lack access to money and transport, lack access to female judges and police, and lack access to female-friendly facilities at courts and police stations. Many Pakistanis resort to traditional and sometimes illegal systems of justice to settle disputes. Women are disadvantaged in these systems, as women are not among the elders and often cannot voice their complaints or provide evidence.

Gender Disparity in family law

It is extremely difficult for a Pakistani woman to leave her spouse: indeed, whereas men can easily ask for a divorce, women do not enjoy such an option. If they want to obtain a divorce, the procedure is incredibly intricate and challenging and often even impossible. Some of the other issues are the legal age of 16 for marriage for girls, the non-recognition of marital rape as a crime and the property of women in case of separation.⁷

Independent and Quasi-Independent Institutions:

The National Commission on the Status of Women and provincial commissions on the Status of Women provide inputs to the Ministry of Law, Justice and Human Rights for Pakistan's reports concerning gender in international commitments (e.g., the Convention on Elimination of All Forms of Discrimination against Women [CEDAW]), and may also file an independent report to CEDAW on Pakistan's compliance with international conventions concerning gender, facilitate the development of federal and provincial policy, plans concerning women, support the development of legislation related to women and consult with gender-related organizations.

The Federal Ombudsman Secretariat for the Protection of Harassment of Women at the Workplace and its provincial equivalents receive, review, and adjudicate complaints of sexual harassment alleged to have occurred at either public or private sector workplaces. Programs of provincial Women Development departments continue to be dominated by short-term initiatives supported by development partner funds, lacking coherence with longer-term plans for gender equality and economic empowerment in the province

⁷ <https://www.wilpf.org/pakistans-cedaw-session-a-step-further-in-the-integrated-human-rights-approach-for-women/>

CEDAW Initiatives: Women's trafficking was also of great concern for the Committee. Pakistan has no comprehensive legislation dealing with all forms of trafficking, while it is both a transit and destination country. The committee agreed on the failure of the Pakistani government to tackle the roots of trafficking, as well as the lack of compensation for rehabilitation and protection of victims.

Women's participation in general elections

A recent study in 7 villages across Pakistan reveals that the proportion of women voters was half that of men. It identifies social structural constraints (physical and social mobility) as curtailing factors in women's participation in politics. In two sites the distance to the polling booth was cited by women as the reason for not voting. The study also underscores the role of social structures whereby poorer households are less likely to vote than those belonging to the dominant caste/biraderi groups and women within them even less. Literacy was found to be positively correlated to women's voting with literate women more likely to vote but still 20% less than illiterate men.

Under these circumstances' chances of the voices of the poor to be heard, including those of women, in planning and development seem remote. A companion study on livelihoods in the same sites found that in the village where women owned land there was a correlation between land ownership and demographic ratio and voting patterns. In the village in Chakwal district where about 4% women were landowners, the male-female ratio was 100 men to 104 women. Here women were also more mobile. Elsewhere the ratio was worse for women. Hence participation would improve if women had better access to capital or wealth. Data indicates women with more economic independence are more likely to vote in Pakistan.

Gender Equality in the Corporate Sector:

Baseline Assessment of the corporate sector of Pakistan⁸: A qualitative survey using a small sample size conducted by the Pakistan Business Council (PBC) in 2017 revealed that more than 50% of its respondents confirmed that they have only 20% of women in their entire workforce. The survey revealed that women representation is fragmented across various sectors.

Industry	Industry Entry Level	Manager Level	Departmental Head/Leadership
Automotive	35%	40%	-
Pharmaceutical	20%	4-9%	-
Banking & Finance	50-80%	40%	10%
Textile	2-30%	1-10%	3-5%
Power Gen. & Distribution	30%	10%	10%
Cement	4%	0%	0%
Chemicals	5%	0%	0%
Engineering Products	3%	0%	0%
FMCG	30-50%	18%	7%
Logistics	5%	0%	0%

Banking & Finance along with FMCG are the only 2 sectors where there is representation at leadership levels and relatively higher representation at all levels of the organization. Some companies have even formed an Equality & Diversity Management Committee (EDC), which is responsible to facilitate and monitor this objective at all levels and attains annual objective of EDC as assigned by Board of Directors.

More than 50% of the companies in the sample highlighted gender diversity as one of their top five core business goals. Many of the respondent companies shared their text related to gender diversity which clearly states that these companies encourage female employees. However, in linking the goals to the targets for gender in their workforce, 50% of the respondents set targets for gender at less than 10% of the workforce in their policy and prefer reporting once in two years. Only 50% of the companies explore

⁸ <https://www.pbc.org.pk/wp-content/uploads/Baseline-Survey-on-Gender-Diversity-in-Business-Sector-of-Pakistan.pdf>

trainings and have mentoring schemes for female employees – Banking, Pharmaceuticals and FMCGs provide training related to leadership.

More than 50% of companies surveyed have no women on their boards, which seems to indicate that things haven't improved much since an ACCA study in 2010 found that 78% of KSE 100 companies have no women on their boards.

While the Survey was concentrated to a small sample size, the findings can be extrapolated on the overall corporate sector of the country. The corporate sector recognizes the lack of gender representation in its overall workforce and is taking initiatives to address the gender gap. These initiatives are either enforced by the regulator or by a change witnessed in the company's organizational culture.

Gender Sensitive Development in Pakistan

While there are numerous prevalent gender gaps in the country, there have been some signs of improvement. The share of women who are in professional & technical roles is at 25.3%, up from 23.4% in the previous edition of the index-2020. The proportion of female-headed households nationally increased from 7% to 11% between 1996 and 2013. The percentages of female-headed households were higher in rural areas, and highest in Khyber Pakhtunkhwa.

Government Initiatives to address Gender Gaps

Pakistan welcomes a stand-alone goal on gender equality and women's empowerment in the 2030 Agenda for Sustainable Development and calls for investing sufficient resources and adopting appropriate policies to ensure its realization. Pakistan's initiatives have included the establishment of national and provincial commissions on the status of women that are led by women and contribute to legislation and policies for women's empowerment and gender equality.

Legislation to empower women

The Government of Pakistan has committed to promote gender justice and equality, yet women are highly vulnerable in all contexts and subject to various forms of widespread discrimination and violence.

The First Women's Caucus was formed in the National Assembly in 2003 and became particularly active after 2008 as evidenced by passing of several important pro-women's rights legislations at the national level since that year. In December 2013, the National Women's Caucus passed a resolution calling for the establishment of women's caucuses in each of the provincial assemblies. To date, women's caucuses have been formed in Balochistan, Punjab, and Sindh, with one pending in Khyber Pakhtunkhwa. National and provincial women's caucuses meet together or one-on-one to develop strategies and to share experiences. As a result, the National Legal Framework has been developed over the last 2 decades, some of the salient pro-women laws and amendments are listed as follows:

- The Acid Control and Acid Crime Prevention Act, 2011
- Prevention of Anti-Women Practices Act, 2011
- Criminal Law (Amendment) (Offense of Rape) Act 2016
- Criminal Law (Amendment) (Offences in the name or pretext of Honour) Act, 2016
- Prevention of Electronic Crimes Act, 2016
- Hindu Marriage Act, 2017

The courts in Pakistan have begun taking serious notice and action against the continuation of the practice. Similarly, honor killing, although a crime, is still an ongoing practice especially in the tribal areas despite the legislation and legal action being actively taken against such practices.

No doubt at one level, women are rising to high public offices, participating in legislature, heading ministries and having opportunities for higher education, but at the same time the overall situation of gender gaps and disparities is becoming more pronounced with such low ranking. In the Planning Commission of Pakistan, female employees account for less than 10% in its workforce. Other ministries and departments present a similar situation⁹.

Legislation for Non-binary/Transgender Community

In 2012, the Supreme Court of Pakistan passed a landmark judgment concerning the rights of the transgender community. This judgment was highly significant as it acknowledged the plight of the community and addressed negative discrimination towards them. It did so by defining the lives of transgender persons and assisting in addressing their national identity documentation. One of the primary causes for concern was that transgender persons were being deprived of national identification documents and, consequently, were unable to enjoy any of their fundamental rights in their capacity as

⁹ <http://documents1.worldbank.org/curated/en/263071468057350769/pdf/RP15580V70P12100Box385163B00PUBLIC0.pdf>

a Pakistani 'citizen'. The root cause of this discriminatory treatment were the inherent biases prevalent in the society. Initially the National Database and Registration Authority (NADRA) adopted the official stance that since many transgender persons had unknown parentage, they could not be issued national identity cards. However, the Supreme Court explicitly declared that the transgendered persons fell into the category of the third gender and were 'equal' citizens of Pakistan. Hence, they were entitled to enjoy all the fundamental rights. The Court further instructed NADRA to ensure that the transgender community was issued national identity cards, so others could be cognizant of their status as well.

Pakistan passed the Transgender Persons law in 2018

The Transgender Persons (Protection of Rights) Act, 2018 is law in Pakistan which was enacted by the parliament in 2018 to legally provide equality to transgender people and to safeguard their rights.[1] The law aims to legally recognize transgender people in the country. It also allows them to legally have the same rights as cisgender people. The law offers trans-people's formal equality, but non substantive equality and although the law has taken a large leap towards the equality of trans peoples in Pakistan, major cultural and infrastructural changes need to occur before this is genuinely the case

The Act further lays down the 'right to education' for transgender persons. Yet there are multiple issues with how these provisions are phrased and once again only formal equality is offered to the community. The Act states there shall be no discrimination against transgender persons in acquiring admission in any public or private institutions, 'subject to the fulfilment of the prescribed requirements.

Despite some positive development, a large proportion of the transgender community still does not have identity cards, let alone bank accounts etc. They continue to face significant barriers in obtaining basic rights such as access to education which inevitably reduces their income potential.

Initiatives by State Bank of Pakistan (SBP) to improve Gender Equality in the Financial Sector¹⁰

Currently only 13% of the staff of banks and 1% of branchless banking agents are women. More women working in leadership positions at financial institutions can also aid the development of policies and practices for improving gender balance across the financial sector as well as developing women friendly products and services. Presence of women champions and specialized resources at all customer touch points, such as bank branches, branchless banking agents, call centers and alternate delivery channels can aid women's adoption of conventional and digital financial services.

Financial Institutions (FIs) are being asked develop policies to improve gender diversity and ensure a minimum of 20% female participation in the work force by 2023. The policy recommendations will be applicable on SBP's regulated entities, including commercial banks, Islamic banks, microfinance banks, development finance institutions and electronic money institutions. Furthermore, Securities and Exchange Commission of Pakistan is expected to adopt a similar gender policy for the non-banking financial sector. Furthermore, the SBP announced that "*Financial institutions shall be asked to develop policies to improve gender diversity and ensure a minimum of 20 percent female participation in the work force by 2023,*" said the SBP Chief.

The SBP ordered financial institutions to create a department focused entirely on catering to the needs of women customers within 6 months of issuance of this policy. They may also collaborate with the incubation centers in providing awareness and marketing about their digital financial products and services.

Financial Inclusion & Gender Diversity Policy by SBP

financial inclusion levels are progressing, albeit with a glaring gender gap, leaving women largely excluded from the formal financial system. SBP's internal gender disaggregated data shows that unique accounts held by adult women comprise of 25% of total unique bank accounts. Moreover, 29% of adult

¹⁰ <https://www.sbp.org.pk/events/2020/BankingonEquality/Draft-Policy.pdf>

female population has a bank account. However, only 18% of adult female population are active users of bank accounts. Only a few banks have initiated focus on women with targeted campaigns & little work is done in terms of development of demand-based product development.

	Jun-2017	Jun-2020	Growth
Total Accounts* (in Millions)	50.4	73.1	45%
Male Accounts (in Millions)	37.3	54.5	46%
Female Accounts (in Millions)	13.1	18.6	42%
Female Accounts in Total Number of Accounts	26%	25%	-1%
Female Accounts in Adult Female Population*	22%	29%	7%
Active Female Accounts in Adult Population**	14%	18%	4%

SBP Framework to address the gender gap in the financial sector

Recently SBP has developed a framework to address the gender gap in the financial services sector. The framework is holistic in nature as it addresses the issues within the organizations as well its customers and other stakeholders. The framework is developed on 5 pillars stated as follows:

- 1) Gender Diversity in Financial Institutions and their Access Points
- 2) Women Centric Products and Services
- 3) Women's champions at all customer touch points
- 4) Robust collection of gender-disaggregated data and target setting
- 5) Policy Forum on Gender and Finance

Increased lending to Women by Microfinance Institutions

Fortunately, Pakistan has a growing microfinance sector. It currently offers microcredit in 139 of the country's districts, with 7.2 million active borrowers and a gross loan portfolio of more than PKR 308 billion. In the first quarter of 2020, 50 percent of microcredit borrowers were women. The microfinance sector also offers saving services, with 49.3 million active savers and a savings portfolio of more than PKR 263 billion. Women accounted for 23% of these savers in the first quarter of 2020. This influx and increase in lending present an opportunity to reduce the gender based economic disparity in the country.

Women, Energy, and Economic Empowerment¹¹

There are two well-accepted narratives related to economic growth. First, vast gender inequalities remain throughout the world and are closely linked to poverty and instability. Second, access to modern energy enables economic advancement¹².

Energy access is inextricably linked to gender equity, a theme that cuts across the United Nation's 17 Sustainable Development Goals (SDGs) and is imperative to achieve sustainability targets. Yet, energy policies in Pakistan remain 'gender-blind', focusing on improving energy access without considering the differential impacts of how men and women access, consume, are affected by, or benefit from energy practices and policies. About 26% of Pakistan's population (56 million people) lacks access to electricity and 51% (110 million) lacks access to clean cooking facilities. The energy sector faces critical challenges of centralized governance, intermittency of supply and limited share of renewables (5%). Lack of an integrated energy policy results in a disconnect between top-down regulation of (on-grid)

¹¹ i) https://www.energia.org/assets/2021/08/PAKISTAN_Gender-equity-and-energy-access_DEF.pdf

ii) <https://www.usaid.gov/pakistan/cross-cutting-themes-good-governance-and-gender-equity>

iii) <https://documents1-worldbank-org.eur.idm.oclc.org/curated/en/585231536778611429/pdf/WPS8582.pdf>

¹²<https://www.theatlantic.com/sponsored/deloitte-shifts/women-energy-and-economic-empowerment/261/>

urban electrification and bottom-up (off-grid) rural initiatives that remain limited and unregulated. Hence, issues of affordability, reliability and sustainability persist. Further, Pakistan ranked 151 out of 153 countries on the Global Gender Gap Index Report 2020, with its Human Development Index 25% lower for women compared to men. Although gender is prioritised in the National Policy for Development and Empowerment of Women (2002), Gender Reform Action Plan (2005), and Vision 2025, significant gaps persist in Pakistan's SDG National Framework, including lack of baseline data, clear intervention targets, and attention to intersections between SDG5 (gender equality) and SDG7 (energy access).

Challenges in Policy:

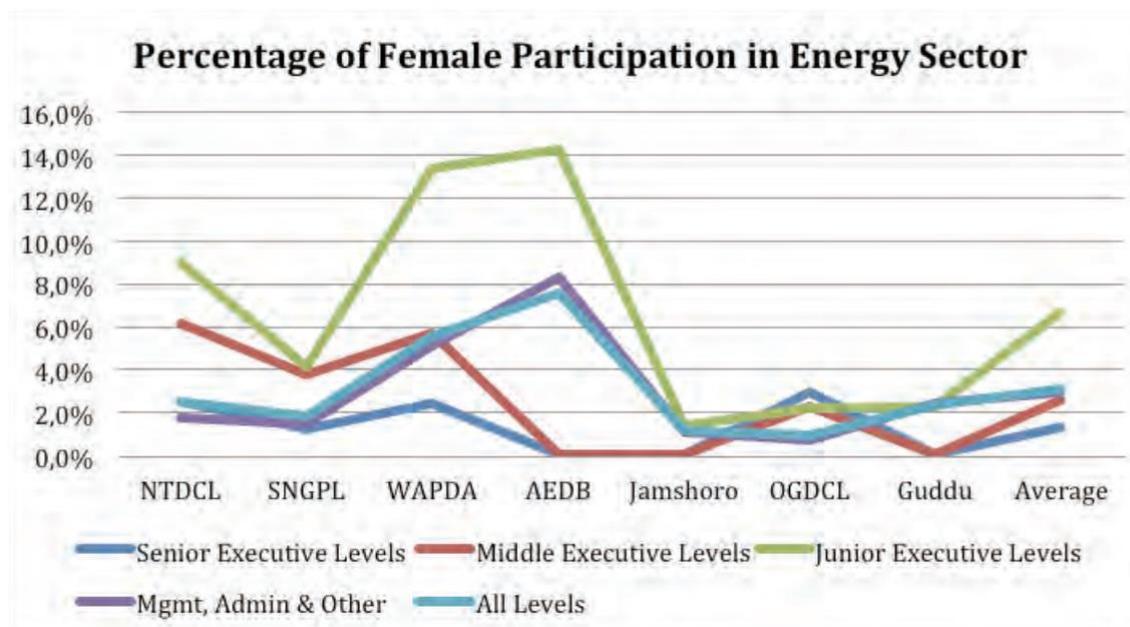
- 1) **Gender-blind energy policies:** policy bodies and electric utilities focus exclusively on energy provision, neglecting energy use and its differential impacts (in terms of quality and equity). Gender differences are perceived only in terms of the use of energy services, and not in access to energy, which is presumed to benefit all household members equally. This results in a disconnect between 'gender-neutral' policy objectives and gender-biased energy outcomes at local level, in which women's differential energy access (e.g. in urban/rural divides and income/class differences) and needs (e.g. in home-based economic activities) remain marginalized.
- 2) **Lack of gender disaggregated data:** Policy/regulatory bodies and energy utilities/suppliers lack sufficient fieldworkers and rely on national surveys for monitoring and evaluation (M&E) of energy consumption that lack gender disaggregated data to inform gender-sensitive energy policy.
- 3) **Women's underrepresentation in energy sector:** women's participation in energy decision-making, planning and policy remains limited due to patriarchal norms, cultural barriers, safety concerns (especially around site-visits) and inadequate facilities. Absence of women employees in fieldwork consequently limits engagement with women end-users and further inhibits gender-sensitive data collection and interventions.

Pakistan has made remarkable progress in connecting its towns and villages to the electric grid over the past few decades. The Global Tracking Framework report issued jointly by the World Bank and the International Energy Agency ranked Pakistan fourth in the world in terms of the number of people who gained access to electricity between 1990 and 2010 (after India, China, and Indonesia). Over this period, roughly 91 million people in Pakistan received electrical services for the first time.

The Aga Khan Rural Support Program has been implementing many micro-hydel programmes in the remote, hilly villages of Pakistan. The project communities are scattered, isolated, and far removed from conventional electricity supplies. These villages have traditionally used smoky and unreliable pinewood torches and, more recently, costly kerosene lamps for lighting. In the northern province of Chitral, Aga Khan Rural Support Program has established 172 micro-hydel power units, benefiting more than 20,000 households. The projects are implemented, maintained, and managed by village management committees in which women play an active role. The villagers have been linked to various Aga Khan Development Network programs and government institutions, which has enabled many of them to start small businesses. The program has a strong emphasis on women's capacity building. Availability of hydel power has improved women's economic productivity in many ways, directly by increasing incomes and by improving the quality of life and reducing the drudgery of labor-intensive tasks.

Little is being done for women and their access to energy. However, USAID helped place female university graduates in public and private sector organizations that offered them on-the-job experience and opportunities for advancement in a traditionally male-dominated field. Some of these young graduates secured full-time jobs in these organizations, including in power plants, which makes them the first women to ever work there.

ACTED Pakistan launched a pilot project to promote sustainable solutions for women's empowerment, through trainings in a not so traditional sector for Pakistani women: solar energy. With support from the Asian Development Bank (ADB), ACTED thus trained 54 women in Multan, Punjab, as solar technicians, for the first time in Pakistan. 18 of the recent graduates have secured employment in the solar energy sector thus far.



Reduced time burdens leading to higher-earning jobs and increased entrepreneurial opportunities

Women are often disproportionately responsible for household duties. This is particularly acute in rural settings, where women spend considerable time on tasks such as collecting firewood for basic cooking, heating, and lighting needs. Access to energy allows for more efficient products—from those as basic as a solar lantern to those as advanced as a washing machine. These products can reduce the time burdens of domestic responsibilities and create time for more productive, formal engagement in the local economy outside the home. Empirical studies that have examined the impact of electrification on female labor rates in developing country settings reinforce this hypothesis.

Gaps faced by PSDP due to systemic societal gender disparity

Existing gender inequalities will further exacerbate the differential impacts of climate change on gender. Those businesses that are reliant on natural resources as inputs will suffer more than those that do not, thereby impacting the beneficiaries disproportionately too. Case in point: Agri-business will suffer more, impacting female wage-earners and male business owners (more than commercial and residential categories). Lower educational qualifications amongst women lead to lower labour force participation by women¹³. Therefore, the commercial and residential (typically urban customers) categories of Solar Finance will have higher abundance of male consumers – given that urban women are more likely to have intermediate education qualifications.

Inequalities are largely centered around social norms of accepting men into the workforce more readily when compared to women. Furthermore, barriers to entry prevent business activity by marginalized groups e.g. based on language or religion. This is prevalent in the South Asian region¹⁴. The program will not impact these disparities significantly, however, special attention will be given to marketing gender-neutral and socially accepting practices by the bank. The customer demographic is not aimed

¹³ Annex: 9.

¹⁴ Annex: 10.

at any social or gender group in specific, hence adaptation capacity to climate change will be available to all social groups. At present, only 16.32% of total customers of JS Bank are female. PDSP will be an agent of change in this regard.

In the context of the project, women and men will have equitable roles. Time commitments will be flexible, even though work hours for Sales staff do follow timings as per SBP regulation. Need for mobility will be required due to site inspection procedures. This will negatively impact opportunities for female staff and is further exacerbated by intermittent lockdown situations (due to Covid-19). Segregation of tasks, as culturally appropriate, are factored in the hiring process of the bank, to ensure efficient utilization of human resources. Needs and priorities of the customer or consumer are not differentiated by gender since the product offerings depend on income generation and site availability. The priorities for women and men in the workforce are different and are accounted for in the recruitment process of the bank (as mentioned earlier).

Gender Equality in the Energy Sector

Pakistan's energy sector is highly dominated by men. Persistent gender inequality in access to secondary & higher education and gender stereotypes in the labor market contribute to restricting equal opportunities for technical and skills training. These factors coupled with gender discrimination in hiring practices severely restrict gender equity in the energy sector. They constrain development of a skilled, empowered and equal workforce. Currently, women comprise only 10% of the employed workforce in engineering and technology fields in Pakistan. While female participation in the medical and teaching fields continues to increase, their participation in engineering and technology-related fields continues to show low figures of employment, promotion and leadership in comparison to men.

There is a wide gap between household and business demand for and the supply of energy. This is largely due to constraints in expansion and maintenance of energy. Private investment and government subsidies in production are based on value rather than impact. Women are not referred to in the government energy policy or the framework for the energy sector. However, the Alternative Energy Policy encourages investing in facilitation of rural women to reduce the burden of labour and save time; given that most energy needs are met (about 90% of rural and 50% of urban households) through biomass consumption for cooking and lighting.

Biomass collection, transport, fuel processing and storage is conducted by women of their respective households leading to less time available for childcare, health risks due to exposure to the fuel and chances of harassment from males in public. Consequently, households with intermittent electricity supply also have greater likelihood of issues in household tasks, especially those requiring electric appliances.

Females comprise only 0.7%–1.2% of employees and just 3.5% of total officers in energy state-owned enterprises (SOEs), despite a 10% quota by the government. Lending to the sector does not cover for female stakeholders on, both, a policy level and an impact level. Projects have laid emphasis on gender and informal gender component but not holistically.

Assessment findings of similar projects (ADB Pakistan Country Report)

The report studies three major engineering projects in sustainable development. The key findings have been extrapolated from analyses of the results of the projects, with a strong focus on improvement of Gender equality and mainstreaming equal practices via reform. They are as follows:

A. The Effectiveness of Gender Action Plans, Gender Strategies & Provisions for Achieving Results

Gender strategies in projects have been able to challenge notions about working women in Pakistan. Their implementation has demonstrated that through nurturing activities and adequate awareness, increased access to resources for women can be enabled.

B. Summary of Gender Equality Results

1. Participation in Project Activities

A balance of Women's Organizations and Village Organizations in project areas facilitated women's development vis a vis community infrastructure. Making these organizations a requirement in the projects has helped achieve such success. Women's inclusion in decision making, on a community level, was initiated due to these organizations.

2. Access to Resources

Members of Women's Organizations received salaries (many for the first time), albeit marginal, from activities. This was coupled with skill training opportunities which further expanded their financial prospects.

3. Practical Benefits

The Gender strategies allowed for gains from women's participation in the project to replicated outside the project lifetime, with the aim of benefitting their communities.

4. Strategic Changes in Gender Relations

The economic ability of income-generation by women influenced men's perceptions of their importance in society. This change in mindset impacted economic and social lifestyles for the communities.

C. Sustaining Commitment to Gender Equality

Devolution of power across government functions is important in Gender mainstreaming. ADB's recommendations, in this regard, include leveraging Gender Reform Action Plans on a policy level. Realizing the impact on a grass-roots level will be gradual. Through stronger budgetary support, sustained implementation and changes in attitudes may occur.

D. Contributions from Gender Action Plan Implementation to Project Goals

Inculcating income-generating skills and providing entrepreneurial support to women without such opportunities reduces the chances of inducing poverty.

E. Elements in Gender Action Plans that Contributed to Maximizing Gender Equality Results

- Design of the Gender Action Plan
- Sufficient Skills and Resources
- Leadership and Good Management Skills
- Monitoring
- ADB Endorsement

PDSP's Strategic Framework (USAID Energy Policy Program)

Gender Strategy

To address the gender imbalances in the energy sector key policies and programs must be gender responsive. USAID's Energy Policy Program says women should be involved in all planning, management, and policy recommendations, with the aim to:

- 1) Create awareness on gender issues among energy stakeholders;
- 2) Provide opportunity and relevant benchmarks for the empowerment of women in the sector;
- 3) Build capacity of the stakeholders to implement gender mainstreaming activities;
- 4) Strengthen coordination of Ministry of Water and Power, Ministry of Petroleum and Natural Resources and partner organizations in gender mainstreaming; and
- 5) Develop mechanisms for gender sensitive planning, budgeting, and monitoring.

Five strategic goals are proposed for achieving the gender strategy objectives: (1) utilizing existing policy instruments; (2) mainstreaming gender in the existing legal framework; (3) incorporating gender considerations in the energy budget; (4) increasing narratives for gender in the Provincial Energy Departments (PEDs), Ministry of Water and Power, and Ministry of Petroleum and Natural Resources; and (5) ensuring that gender issues are resolved in existing and future energy projects. Details for accomplishing the five strategic goals are listed below.

Strategic Goal 1

The factors for the first goal are:

- Adoption of Gender mainstreaming in cross-cutting themes;
- Adequate representation of women in decision-making positions;
- Review of the National Power Policy 2013;
- Monitoring of developments in gender equality; and
- Capacity building of as many stakeholders as possible.

Strategic Goal 2

The following actions should be executed:

- 1) Carry out gender-based analysis of existing legal frameworks:
 - Power Policy of 1994
 - Policy for Power Generation of 2002
 - Policy for Development of Renewable Energy for Power Generation of 2006;
- 2) Meet all international commitments made by Pakistan to fulfill gender equality standards in the energy sector (based on United Nations Framework Convention on Climate Change)
- 3) Enforce legal obligations that have gender-sensitive effects into activities (regularly)
- 4) Ensure that the Government of Pakistan establishes and monitors the requirement for a 10% Quota for Women's Employment in all energy related projects and enterprises with the goal of advancements in participation of women throughout the hierarchy – till top tier management.
- 5) Enhance women's productivity and involvement in the industry via compliance with legislation that supports women's employment, including:
 - The Protection Against Harassment of Women at the Workplace Act 2010,
 - Posting of Unmarried Females at the Place of Residence of Parents/Family (Establishment Division, Government of Pakistan),
 - Posting of Married Females at Place of Husband (Establishment Division, Government of Pakistan),
 - Posting of Serving Husband and Wife at Same Station (Establishment Division, Government of Pakistan).

Strategic Goal 3

The national energy budget would need:

- gender considerations to be mainstreamed; and
- gender-sensitivity in monitoring of the project and budget.

Strategic Goal 4

The tasks could involve the following:

- Include gender aspects in key activities of Provincial Energy Departments, Ministry of Water and Power and Ministry of Petroleum and Natural Resources; and
- Design a national Gender and Energy Policy and utilize it as an instrument of gender mainstreaming.

Strategic Goal 5

It is advised to:

- Form alliances with non-energy sector projects for high female participation – with the aim to improve energy access for women;
- Designate a gender-specific component in all new and ongoing projects; and
- Increase understanding of gender issues and their relation to energy access among all stakeholders.

Barriers to access Renewable energy including PV products:

- The high cost of connection to the grid may limit underprivileged communities. In Pakistan this means a large part of the country, and especially those where women are responsible for bringing in the income. A case study on gender and Botswana's power corporation highlights the issue of affordability, noting that in off-grid areas, female-headed households are poorer than male headed households, and have less access to modern energy. These households have a high demand for income-generating activities and access to affordable sources of energy, and yet the high cost of connection to the grid was a main barrier to women's improved energy access ¹⁵.
- Discriminatory gender norms inhibit women's rights to own land and other assets, making it challenging for women to access financing for renewable energy technologies that could help

¹⁵ Energia (Ed), 2011. Gender mainstreaming in the Botswana Power Corporation. Botswana Power Corporation. Available online at: <http://www.energia.org/cms/wp-content/uploads/2015/02/06.- Case Study Botswana.pdf>

them start or grow an enterprise, improve their productivity, and improve the well-being of themselves and their families.

- New employment opportunities from renewable energy investments are not evenly distributed among women and men. While new investment in infrastructure provides new employment opportunities, experience shows that men's labor force participation sees increases first, particularly in traditionally male-dominated occupations (e.g., construction, transport)¹⁶¹⁷, compared to employment of women.
- Women are also underrepresented in attainment of the advanced degrees and technical skills needed for energy employment at higher skill levels¹⁸. Specific efforts are needed to address the social and institutional barriers to women's entry into 'non-traditional' employment
- While increased energy efficiency and access through grid connection can provide opportunities for scaling up production by firms, women may have greater difficulty accessing the capital to do so for a number of reasons. In some areas, women's limited literacy, a gendered education gap, and lack of self-confidence can result in women's underrepresentation in decision-making and economic opportunities. In many areas of Pakistan, particularly rural areas, women may be left out of consultations if they do not speak English or Urdu which might be the main or majority of the languages used in the private sector.
- The construction and operation of large-scale renewable energy (e.g., placement of transmission lines) can lead to the displacement of communities, with impacts different for women and men. Inequitable gender norms, inheritance practices, and property laws often limit women's access to land title, e.g., they may access land through men or kinship group. If landowners are compensated for displacement, women may not directly benefit, despite their loss of livelihood.

¹⁶ World Bank. 2011. World Development Report 2012: Gender Equality and Development. Washington, D.C.: World Bank. Available online at: <https://siteresources.worldbank.org/INTWDR2012/Resources/7778105-1299699968583/7786210-1315936222006/Complete-Report.pdf>

¹⁷ ESMAP (Energy Sector Management Assistance Program). 2013a. Gender and Electricity Infrastructure Development (P147443) Economic and Sector Work - Concept Note.

¹⁸ Marcos, Paloma et al. 2014. Gender and Renewable Energy: Wind, Solar, Geothermal and Hydroelectric Energy. Washington, DC: IDB.

Gender mainstreaming in JS Bank & Project Strategy for PDSP

Diversity Initiatives by JS Bank

JS Bank as an organization has taken multiple initiatives to address any & all gender related barriers within the organization. Gender related governance is being addressed throughout the organization along with a change in organizational culture. Starting from adding diversity in board level representation of the company to forming the Diversity & Inclusion team within the Human Resources department.

The main objective of the Diversity & Inclusion is to reform the company & culture by addressing all types of barriers & gender biases. The diversity department has been formed to ensure that there is representation of women in leadership roles; different managerial levels to better the gender parity and improving the gender ratio amongst employees – at present 22 out of 25 leaderships roles are occupied by men, concentration of female employees decreases with senior managerial levels and overall, 14% of total staff are women.

The current HR strategy is attempting to address that concern for a balanced workforce and for including differently abled people in the workforce. The target for a gender balanced workforce is 20% female staff by the end of the current fiscal year and 30% for the next year. To achieve this the Human Resources department has designated female only roles, established a hiring policy to ensure female employees are replaced only by females and a female-referral mechanism in recruitment. Other initiatives include training of Branch staff for the SBP credit guarantee scheme for Women Entrepreneurship and hiring of a Product Head and Product Manager solely for the scheme.

Furthermore, Diversity has also re-aligned its focus to address barriers for “Specially-abled & Non-binary gender” workforce. It recently introduced its “Uraan” campaign to ensure representation & access of “Specially-abled Workforce”. Its aim is to induct, embed and empower people with disabilities in our workforce. So far the project has achieved: induction of 25 interns amid several departments, along with a comprehensive HR policy review, perception surveys, sensitization sessions to train organization, role mapping to identify optimum roles to place interns and getting their internships turned into employment opportunities based on performance. A specific part of URAAN (phase 2) is revamping branches to be more accessible for people with disabilities to ensure more inclusive care for JS Bank’s customers. Furthermore, a product (“Naya aaghaz”) has been introduced for customers with disabilities.

“Khud Mukhtar” is a product tailored to the needs of female entrepreneurs. There are specific campaigns in the making to attract more women customers e.g. giveaways to female clients on Women’s day. Other initiatives in the pipeline are introduction of paternity leaves for male colleagues and introduction of “Reboot” - a virtual returning to work program for females after a career break, in multiple impactful roles.

JS Bank’s Human Resources department has collaborated with International Finance Corporation and World bank to create a family friendly workplace. For such efforts, the bank was included in the overall winners of the Global Diversity and Inclusion Benchmark awards for the year 2020.

PDSP - Opportunities it can create for women

PDSP is aimed at maximizing financing for clients of Solar PV systems. Women owners of property, SME businesses & agricultural land may avail the potential of Renewable Energy generation. The AE will ensure that any gender related barriers pertaining to women availing financing are addressed in the project.

Targeted Communication Channels

Given the AE's learnings from other women designed products such as Khud Mukhtar, the AE will be able center communication & awareness material centered around women. This will benefit their monetary interests and allow for further gains, economically. Successful financing endeavors and repayment can help financial inclusion of women and the third gender. Creation of credit history and a financial footprint gives rise to headway into future banking service adoption.

The AE will ensure reduction of barriers to access rooftop financing for women. The AE will also run awareness campaign costing USD 750k to ensure women participation in the solar financing initiative. The Human Resources department will make sure to develop internal mechanisms to ensure loan participation is gender neutral & accommodates/increasing uptake of women-based loan applications. Loan clients of rooftop solar energy will also be disaggregated by gender specific definitions of women led enterprises.

In addition, Gender specialist along with Monitoring, Evaluation, Accountability and Learning team will develop safe, ethical, accessible and robust accountability mechanisms. This will further ensure internal and external referral mechanisms based on each geographical location.

Enhancing Capacity Building to improve representation of Women in Renewable Energy Sector

The AE partners with multiple solar vendors who install the Solar Rooftop solutions for end consumers. The AE will assign targets for all onboarded vendors to improve gender representation within their respective organizations. Preference will be provided to vendors with higher representation. Furthermore, capacity building proceeds will be utilized to enhance technical capability & specialization of women within the renewable energy space. The Project Management Unit will establish benchmarks and develop an annual reporting mechanism with the Solar Vendors

Employment Strategy Design for PDSP

New hires will include key sales staff. This role will be customer facing and are crucial to the success of the project, PDSP. The plan involves regimented and robust trainings of the sales staff to standardize service – not just for Solar Financing products but others too. Gender parities will be maintained, at the least, or improved to give equal opportunities to both men and women. Merit-based assessments will drive the selection process. The criteria for hiring will be gender-blind, thereby setting a precedent for bank wide recruitment. Training of staff and the organizational development for PDSP will be governed by guidelines set out in the bank's ESG policy.

One of the core activities of the PDSP is capacity building. The aim of the organization, executing entity will be to maximize representation in all project related activities. The project will aim for a minimum 50% of new hires for capacity building to be women. More details of planned activities are laid down in the gender action plan.

Impacts on gender equality and women's empowerment

- Reduced labor and time poverty facilitates women's and girls' gains in education, social capital and well-being. As consumers, women may benefit from renewable energy in different ways, including reduced labor and time spent on activities such as wood fuel and water collection, as

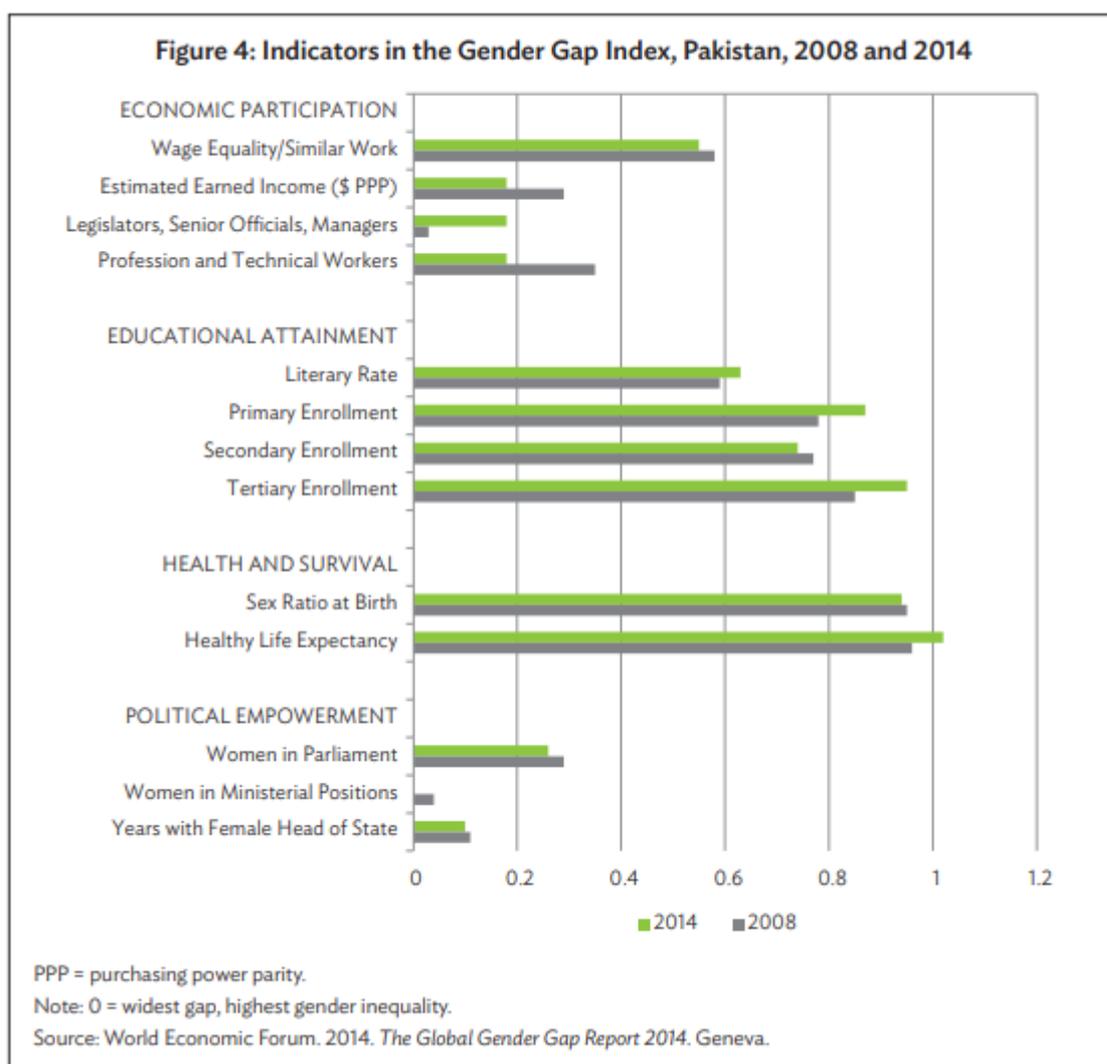
well as in food preparation and processing for which they are often responsible due to the gender division of labor. Access to energy can provide women and girls with more time to participate in educational activities or build social capital through greater interaction in the community and politics.

- Renewable energy can provide a broader set of livelihood options.
 - Connecting to large-scale renewable energy infrastructure can increase livelihood options for women and men. Women may develop or strengthen agricultural production or informal home-based enterprises, which may typically involve food production, processing and catering, or sewing and clothing repairs. Improved access to light and energy may also help them start or scale up enterprises related to computers or mobile technologies, or larger-scale food processing¹⁹.
 - Women can develop enterprises that require reliable sources of energy. A reliable source of electricity has a significant impact on rural women's time use by making chores, especially cooking, more efficient; this in turn has been shown to increase women's employment by 9 percentage points (compared to no change for men)²⁰. Improved livelihood leads to enough money to run the house, control early child marriages, control child labour etc.
- Large-scale renewable energy infrastructure can provide women, as well as men, with employment opportunities. In many areas, women are finding work in the construction, operation or maintenance of large-scale renewable energy utilities in energy generation, transmission, or distribution. Women may also find formal or informal (intermittent or contract) employment along the energy value chain (e.g., installation; billing; meter reading; and collection).

¹⁹ ESMAP (Energy Sector Management Assistance Program). 2013a. Integrating Gender Considerations into Energy Operations. World Bank. Washington, DC.

²⁰ Köhlin, S. and Pattanayak, W. 2011. Energy, Gender and Development. What Are the linkages? Where Is the Evidence? Washington, DC: World Bank. Available online at: <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5800>

ANNEXURES

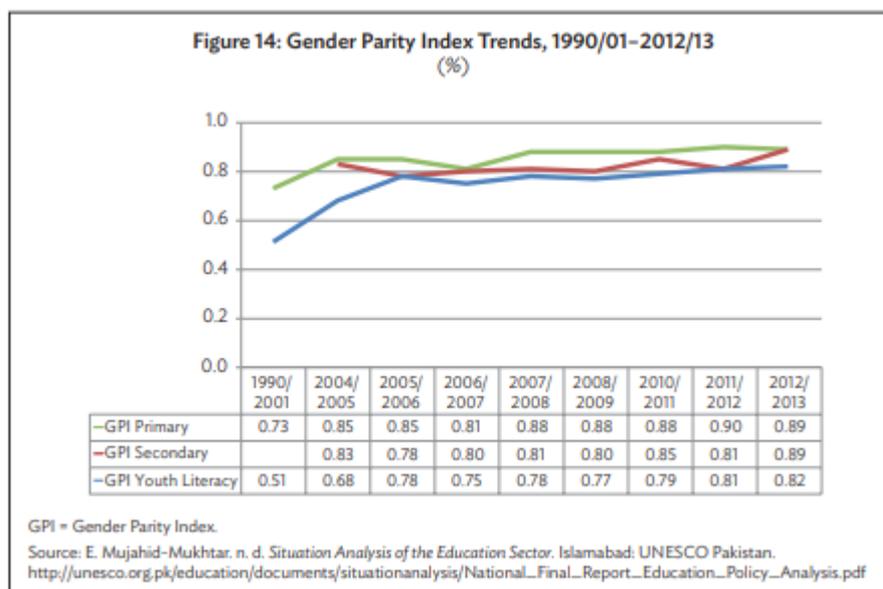


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Figure 1 Pakistan Gender Gap Index Indicators score vs average global score 2020

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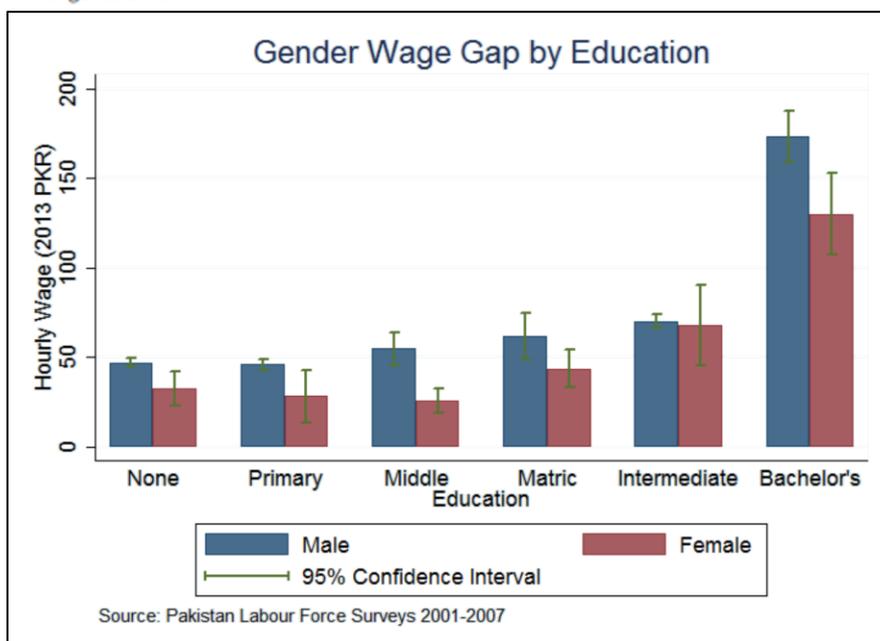
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Table 2: Women's Economic Opportunity Index Score, Rank, and Subindex Rankings, Pakistan and Select Countries, 2010

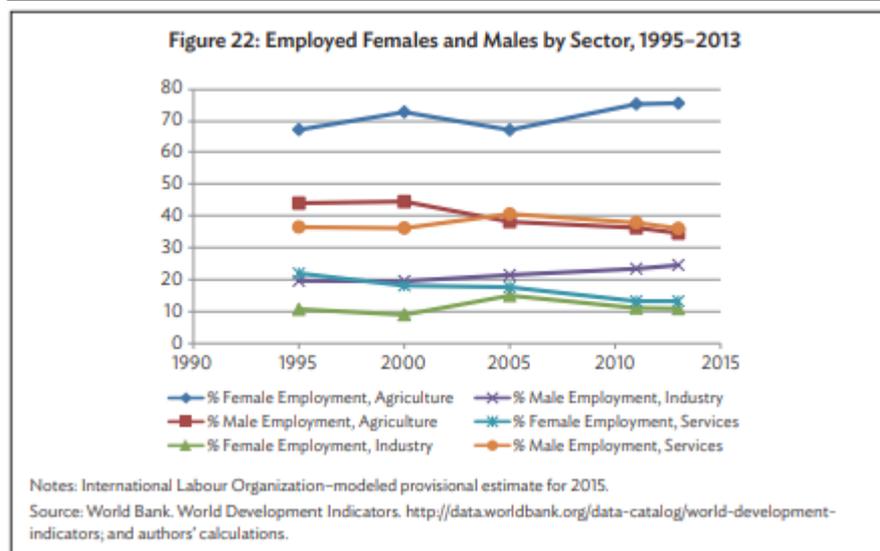
Country	Overall Index		Subindex Rankings				
	Score	Rank	Labor Policy Practice	Access to Finance	Education and Training	Legal and Social Status	General Business and Environment
Bangladesh	32.6	104	93	79	103	108	106
India	42.7	84	57	49	98	89	95
Pakistan	29.9	108	108	77	111	104	80

Source: L. Butt, et al. June 2010. *Women's Economic Opportunity: A New Global Index and Ranking*. London: Economist Intelligence Unit.

5.

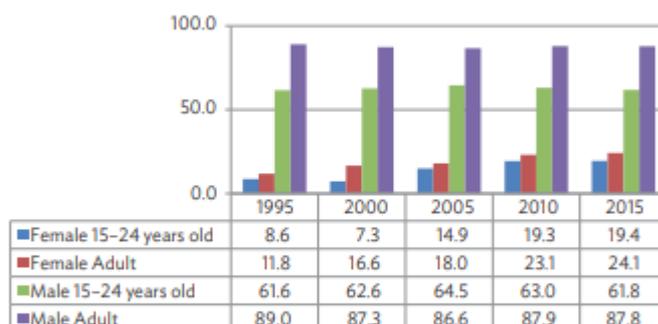


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Figure 20: Youth and Adult Employment–Population Ratios, by Sex, 1995–2015 (%)

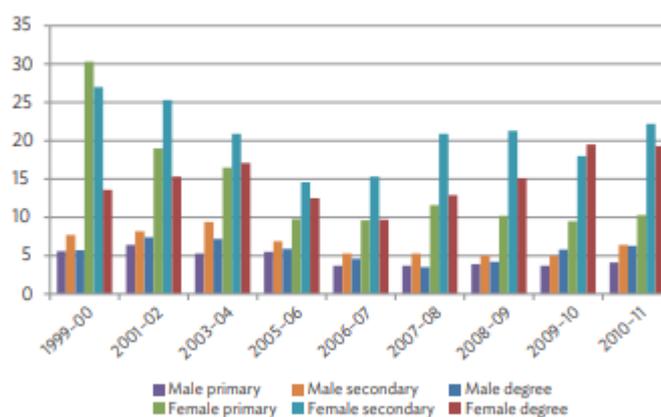


Note: International Labour Organization–modeled provisional estimate for 2015.

Source: World Bank, World Development Indicators. <http://data.worldbank.org/data-catalog/world-development-indicators> and authors' calculations.

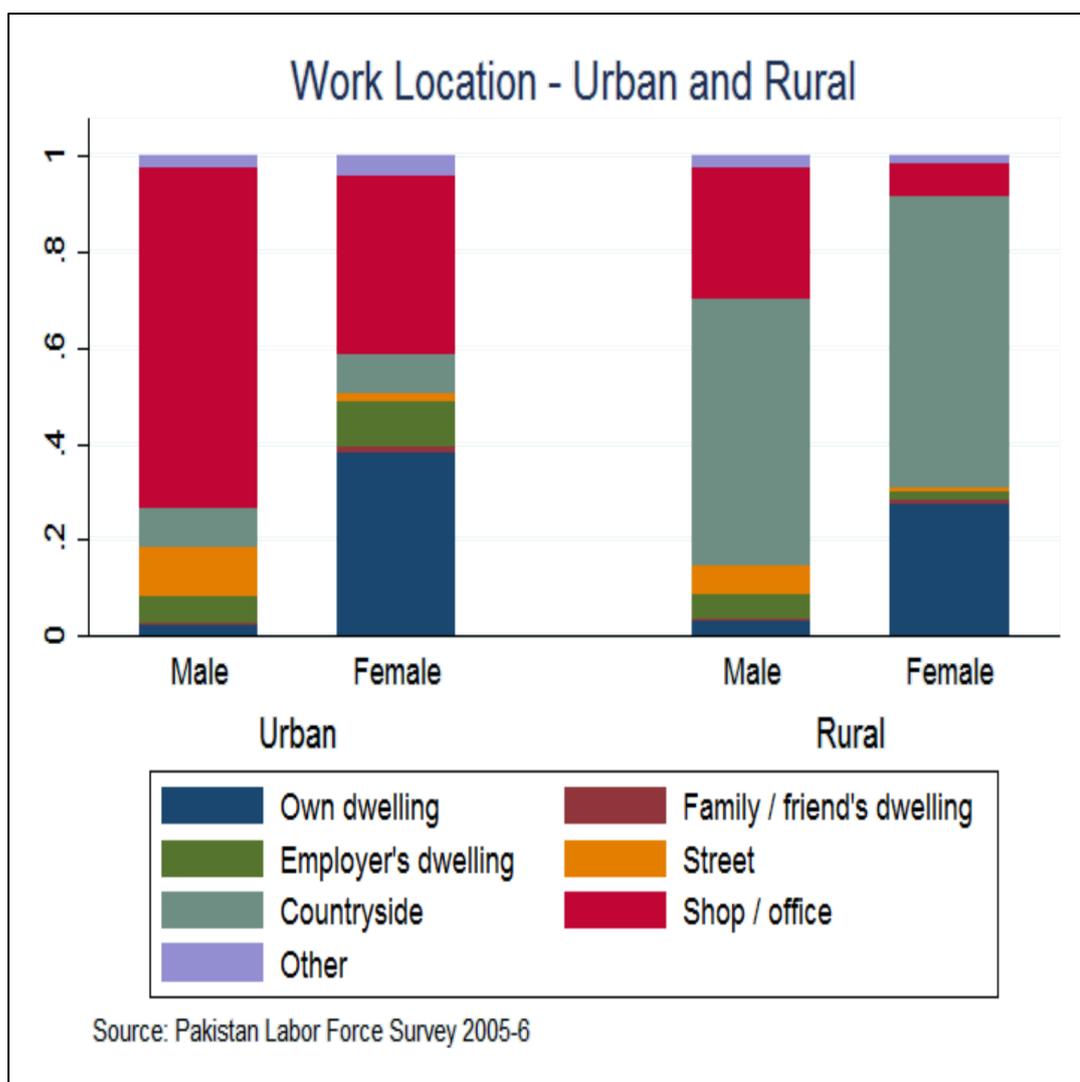
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Figure 18: Unemployment Rate, by Sex, by Educational Level Achievement, 1999–2010 (%)

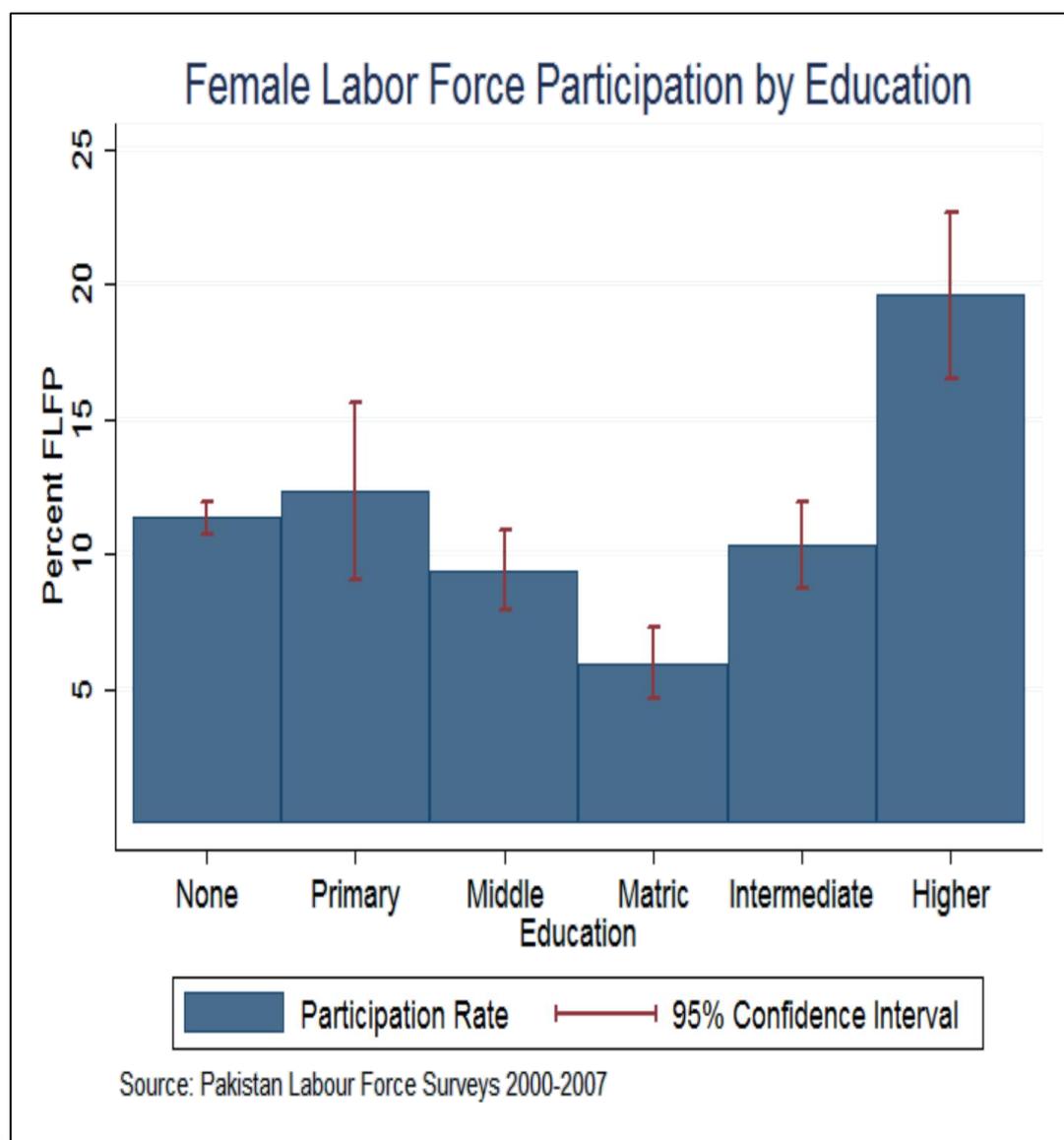


Source: Government of Pakistan, Pakistan Bureau of Statistics. 2012. *Pakistan Employment Trends 2011*. Islamabad.

9.

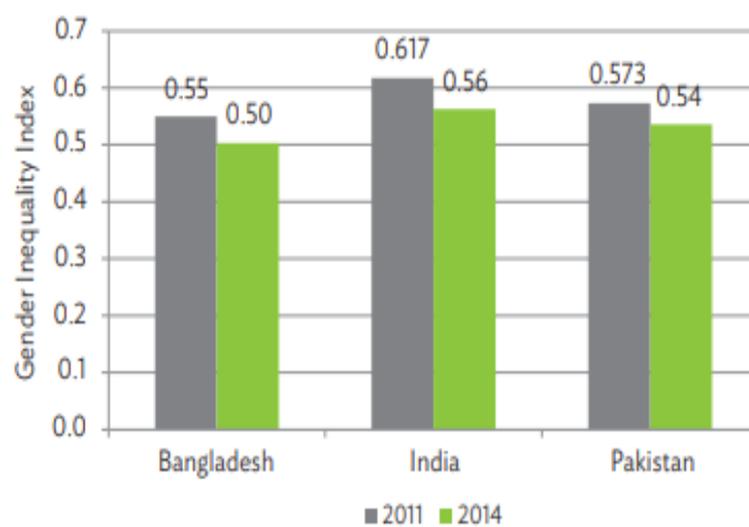


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Figure 5: Gender Inequality Index, Pakistan and Select Countries, 2011 and 2014



Note: 0 = least gap, lowest gender inequality.

Sources: United Nations Development Programme (UNDP). 2011. *Human Development Report 2011*. New York; and UNDP. 2015. *Human Development Report 2015*. New York.

Gender Action Plan

FP: Pakistan Distributed Solar Project

Pakistan | JS Bank | GCF

December 2021



Activities	Indicator & Targets	Timeline	Responsibilities	Costs
<p>Impact statement: The main aim of the Pakistan Distributed Solar Project is to develop a self-sustaining renewable energy sub-sector by achieving reduced emissions by instigating easy access of low-emission energy solutions. To achieve Improved resilience of communities/customers/vendors on climate change by providing local vendors/customer with access to climate finance for priority adaptation tailored to the unique needs and priorities of women and men in the communities. The project aims to and will create improved access to affordable, year – round clean energy services for all households, including female – headed households). Furthermore, the project will enable hiring of either a full-time gender specialist or external specialist consultation for the implementation of the Gender Action Plan.</p>				
<p>Output Statement:</p> <ul style="list-style-type: none"> • Promoting low-emission power generation & enhancing capacity for distributed grid by strengthening institutional framework. • Improving management capacity on low-emission energy generation solutions & awareness of climate threats. • Awareness of climate change threats & renewable energy solutions by the community. • Developing and strengthening the AE's capacity to implement/improve the gender mainstreaming initiatives of the AE by developing an in-house team partially financed by the management fee generated by the AE from the Project. 				
<p>Output 1: Establishing a baseline of data from existing & all new vendors on boarded by the Executing Entity. Identification of key gaps and opportunities for gender mainstreaming to support improved gender equality. Deploy measures to promote inclusion of women in their workforce <i>(These vendors will be providing installation & maintenance services to various Solar Rooftop clients/lender of the bank)</i></p>				
<ul style="list-style-type: none"> • Annually gather & measure the data disaggregated gender data of all vendors of the executing entity, JS Bank • Ensure inclusive stakeholder consultations for identifying priorities/challenges to achieving a more gender equitable workforce 	<ul style="list-style-type: none"> • Attain gender disaggregated data from all vendors of the bank. • Gender based data to be segregated by hierarchy, job roles & functions. • Dataset will be used to prepare gender mainstreaming strategies to be adopted by vendors/AE. • Enhance preference of vendors with more equitable gender balance • Number of men and women from local vendors to be engaged in identifying gender gaps • Conduct qualitative surveys to ascertain the applications received by vendor by gender. Identify the challenges faced by women in applying 	<ul style="list-style-type: none"> • Annualized disaggregated data collection by gender • Annual comparative & performance analysis to be prepared & shared with GCF as part of the Annual Performance Report 	<ul style="list-style-type: none"> • Green Banking Team of JS Bank (Execution & Implementation) • Reporting updates to Sustainable Finance Team & Project implementation unit (PIU: Team designated to oversee the entire PDSP project at JS Bank 	<ul style="list-style-type: none"> • No additional cost implementation envisaged • PIU cost is already estimated • Stakeholder consultations would begin within 90 days from the effective of the FAA of this project. Stakeholder consultation sessions to last a period of 30-45 days and its report to be generated 30 days after the conclusion of the sessions. • Learnings from stakeholders perspectives priorities will be incorporated into all aspects of the project.

	<p>for renewable energy solutions</p> <ul style="list-style-type: none"> • consultations to be centered around and will include women and traditionally marginalized groups 			
<ul style="list-style-type: none"> • Capacity support to local vendors to strengthen ability of staff to integrate gender considerations into their operational design and gender-responsive 	<ul style="list-style-type: none"> • Capacity to be established to help mainstream gender considerations into local vendors through training programs 	<ul style="list-style-type: none"> • At least 1 representative from each Vendor is trained on gender-responsiveness • Stakeholder consultation and training to prioritize adaptation priorities/solutions include representative participation from the community including women and other vulnerable groups 	<ul style="list-style-type: none"> • Diversity team (Gender Specialist) • PIU <p>MOV</p> <ul style="list-style-type: none"> • Stakeholder consultation reports • Stakeholders surveys 	<ul style="list-style-type: none"> • Gender Specialist cost assumed at PKR 150k monthly compensation which is included in the AE management fee. • Overall Capacity building costs are a part of the budget amounting to USD 242k. • Training sessions will be held bi-annually for a total of 5 years. Each session is estimated to cost \$1,000 therefore \$20,000 will be allocated to training of vendor staff.
<ul style="list-style-type: none"> • Developing & implementing a vendor preference program to align high volumes of applications to vendors with better inclusivity in their workforce 	<ul style="list-style-type: none"> • Assign specific targets to internal workforce to ensure higher preference is provided to vendors who contribute to better gender equitable workforce 	<ul style="list-style-type: none"> • Year 2 	<ul style="list-style-type: none"> • Assisted by Diversity Team of JS Bank (Preparation of Forms to gather data from vendors) • Product Managers 	<ul style="list-style-type: none"> • No additional cost implementation envisaged
Output 2: Implementation of equitable gender participation of the Executing Entity (EE) at project and organizational level				
<ul style="list-style-type: none"> • Establish gender equity in talent identification & recruitment of resources within the accredited agency 	<ul style="list-style-type: none"> • Statistics on deployment of professional competencies on Credit and Risk analysis on rooftop solar energy financing, to be disaggregated by gender 	<ul style="list-style-type: none"> • Gender Disaggregated data to be collected annually • Annual comparative & performance analysis to be prepared 	<ul style="list-style-type: none"> • Prepared by Diversity Team of JS Bank 	<ul style="list-style-type: none"> • No additional cost implementation envisaged

(Project executing entity)	<ul style="list-style-type: none"> • Aim for 50% gender participation on all project related activities. • Aiming for 50% representation in other functions of the execution entity. Ensuring representation to be involved in various levels of hierarchy • Ensure regulatory compliance of minimum 30% participation of female workforce in the EE by Year 3 of the project 	& shared with GCF as part of the Annual Performance Report		
Output 3: Ensuring that capacity building efforts are equally shared & maintaining equitable participation of genders				
<ul style="list-style-type: none"> • Strengthening capacity & ensuring technical skills are developed on an equitable basis 	<ul style="list-style-type: none"> • Statistics on training and placement of skills required for construction, operation & maintenance of rooftop solar energy generation facilities, to be disaggregated by gender • Aim for 50% of all trainings, certifications to have women participation. Ensuring participation in all categories of training (technical, financial or climate risk related) 	<ul style="list-style-type: none"> • At all points wherein training and placement of professionals at recognized skill centers for rooftop solar energy generation is sponsored by loan clients 	<ul style="list-style-type: none"> • JS Bank • Gender specialist for JS Bank 	<ul style="list-style-type: none"> • Overall Capacity building costs are a part of the budget amounting to USD 242k. First 5 years of the project with 4 sessions in a years costing\$500 each sessions. Total amount will be \$10,000.
<ul style="list-style-type: none"> • Resilience training, includes training on gender-mainstreaming for climate resilience, for local vendors, internal AE's staff and key important government stakeholders 	<ul style="list-style-type: none"> • During capacity building and training JS Bank will initiate a survey based on qualitative scorecard based on level of understanding, where will get feedback on how informative the training is in terms of Renewable energy solutions, Gender neutrality, and inclusion of Women in this sector. • Number of men and women trained on climate resilience planning 	<ul style="list-style-type: none"> • Year 2 • Year 3 	<ul style="list-style-type: none"> • JS Bank • JS Bank's Diversity Team <p>MOV: Survey Reports</p>	<ul style="list-style-type: none"> • Overall Capacity building costs are a part of the budget amounting to USD 242k. • Allocation of USD 25,000 from the capacity building proceeds which will break down to USD 2,500 annually for training AE staff and the stake holders. Initial trainings estimated for USD 2,500, in future, training costs are expected

	<ul style="list-style-type: none"> • Number of workshop participants with increased knowledge of gender mainstreaming for climate adaptation & resilience • Aiming for high women representation in the training sessions. 50% participants to be women. • Focusing on inducting women in leadership positions internally (having at least 1/3 ratio of women to men) to have a more inclusive workforce 			to increase due to higher participation
<ul style="list-style-type: none"> • exchanges and site visits promote gender-sensitive cross-learning between climate change practitioners, local officials and private sector actors 	<ul style="list-style-type: none"> • Number of women-owned businesses invited to participate in the learning exchanges • At least 25% of private sector participants to the learning exchanges will be women / women-owned businesses 	<ul style="list-style-type: none"> • Year 2 • Year 3 	<ul style="list-style-type: none"> • PIU • Diversity Team (Gender Specialist) <p>MOV: Attendance Lists GCF Focal Points</p>	<ul style="list-style-type: none"> • Overall Capacity building costs are a part of the budget amounting to USD 242k.
Output 4: Target Women led Households: Enhancing access to financing to women & women led households is enhanced by EE in dissemination of loans				
<ul style="list-style-type: none"> • Eliminating or removing any barrier to access rooftop financing for women 	<ul style="list-style-type: none"> • Developing internal mechanisms to ensure loan participation is gender neutral & accommodates/increasing uptake of women-based loan applications • Loan clients of rooftop solar energy, to be disaggregated by gender (with specific definitions of women led enterprises) • Gender specialist to advocate policies to 	<ul style="list-style-type: none"> • At all points wherein loans are disbursed and monitored with social terms • Gender Disaggregated data to be prepared showing the mix of end-borrowers, highlighting the current mix of 	<ul style="list-style-type: none"> • JS Bank or EE (Executing Entity) • Project Implementation Unit (PIU) to oversee 	<ul style="list-style-type: none"> • Proceeds to stem from Awareness/Marketing Campaign of USD 750K • Dedicated spending/promotion of testimonial based advertisement of women customers under the PDSP program. Dedicated marketing budget of USD 30K to come awareness grant.

	<p>ease borrowing access for women</p> <ul style="list-style-type: none"> • Aim for a minimum of 30% representation of women or women led households/businesses against overall loan disbursements • Developing communication/promotion to target female led SME businesses 	<p>customer to 30% target.</p> <p>Awareness proceeds will be utilized to create awareness campaign showcasing women as the applicant/recipients of the loan facility. This is aimed to create awareness about acceptance.</p>		
<ul style="list-style-type: none"> • integrate gender considerations into product design and implementation 	<ul style="list-style-type: none"> • Developing remote channel to increase women participation: EE to develop a system by which customer can remotely process their loan applications • Incorporating PDSP in an already developed product “Khud Mukhtar” for women in SME sector, where JS will be providing Subsidized Solar loans to Businesswomen. Our advertisement campaign for this product will be female lead to promote acceptance. 	<ul style="list-style-type: none"> • Year 1 	<ul style="list-style-type: none"> • AE MOV: • Product offerings • Website 	<ul style="list-style-type: none"> • Proceed to be realized against the USD 750k grant taken by the EE from GCF. • Creation of product offering and website for loan application will require funds equal to \$10,000 women operators catering to female consumers
<ul style="list-style-type: none"> • Design and implement a web portal and database to maintain disaggregated customer data 	<ul style="list-style-type: none"> • Inclusion of sex disaggregated data collected and maintained throughout the life of the project • The Portal will be developed to create easier access for all applicants, mainly women, as it will allow for remote participation in the loan program. 	<p>Year 1 Year 2</p>	<ul style="list-style-type: none"> • PIU • Diversity Team (Gender Specialist) 	<ul style="list-style-type: none"> • No additional cost implementation envisaged • Overall Capacity building costs are a part of the budget amounting to USD 242k.
Output 5: Developing Women led Awareness & Advertisement Campaigns				

<ul style="list-style-type: none"> • Developing a woman centric advertisement & awareness marketing campaign 	<ul style="list-style-type: none"> • Multiple awareness campaigns centered around women • Awareness campaigns showcasing successful loans disbursement to women led households or businesses • We intend to promote testimonial based awareness and marketing campaigns to promote accessibility and acceptability. 	<ul style="list-style-type: none"> • Executed as part of grant proceed in Year 2-3 of the project • Updates to be collated within the APR (Annual Performance Reports) 	<p>JS Bank (EE)</p> <ul style="list-style-type: none"> • PIU • Green Banking Team • Diversity Team (Gender Specialist) 	<ul style="list-style-type: none"> • Proceed to be realized against the USD 750k grant taken by the EE from GCF. • Dedicated budget spending mentioned above
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