البنك الإسلامي للتنمية

ISLAMIC DEVELOPMENT BANK

RISK MANAGEMENT GUIDELINES FOR PROJECT FINANCE

GROUP RISK MANAGEMENT DEPARTMENT

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Section-1: Introduction

1.1. Background

As per its mission and mandate, IDB Group finances projects/enterprises, which on the basis of a detailed due diligence and rigorous appraisal and evaluation have been found technically sound and economically and financially viable. In this connection, the Bank also pays due regard to the prospect that the beneficiary and its guarantor, if any, are in a position to meet their obligations under the financing agreements and contracts. It is the fiduciary responsibility of IDB to ensure that projects are financially viable and sustainable, that funds are used for their intended purpose and that the Beneficiary has the capacity to fulfill its obligations under the financing agreements.

Since its inception and till 1419H (June 1998G) the Bank has sought to obtain either a government/ central bank guarantee or guarantees from institutions acceptable to it such as commercial banks with the purpose view to safeguard its interests relating to the financing. Starting from 1419H, the Bank introduced significant flexibility in its guarantee requirements and in its 178th meeting held on Safar 1419H (June 1998G), the BED approved the acceptance of corporate guarantees, assignment of receivables, insurance companies, mortgages and personal surety as securities for IDB financing operations.

The need for the Project Finance guidelines arose as part of other guidelines required to address providing financing against alternatives to sovereign/bank guarantees. GRMD has therefore, prepared the Project Finance guidelines to introduce guiding principles for this type of financing. Since its approval by the Risk Management Committee in its meeting held on 06.06.1426H (12.07.2005G), the Operations Complex has been implementing these guidelines for projects that fall under its definition with the purpose of addressing the risk issues related to project finance along with the existing IDB operational guidelines and policies.

As per the discussion of the IDB Group Management Committee meeting held on 19.12.1430H (06.12.2009G), the GRMD has performed a detailed review and updated the existing these guidelines as presented hereunder in light of feedback and discussions concerned departments and affiliates, experience gained and lessons learned from implementation, rating agencies methodologies and sound banking practices.

1.2 Objective of the Proposed Guidelines

These guidelines have been designed to provide a detailed risk management framework for identifying, assessing, and mitigating all risks related to project finance as defined below, which normally are not secured by sovereign guarantee.

These guidelines are also being prepared to ensure throughout the project cycle that projects financed by the Bank will have reasonable and continuing prospects of financial and economic viability. It should be noted that the guidelines will be regularly updated based on the experience gained from implementation.

1.3 Definition of Sovereign Finance and Non-Sovereign Finance

1.3.1 A financing, which is extended directly to any Government of the IDB Group Member Countries (MC), or where repayment of IDB financing is a direct obligation of the Government of the concerned MC and it is also reflected in the relevant project financing agreements, shall be treated as Sovereign Financing. Besides, any financing which is extended to an entity, but repayment of which is explicitly and irrevocably guaranteed by the Government of any MC shall also be considered as a Sovereign Financing.

1.3.2 Any financing extended to a government related entity (GRE) or a public sector project or any other entity, repayment of which is not explicitly and irrevocably guaranteed by the concerned Government, shall not be considered as a sovereign exposure.

1.3.3 Any financing extended to a provincial/regional government, where repayment is not guaranteed by the Central Government, shall not be considered as sovereign financing for the purpose of these guidelines.

1.4 Definition of Project Finance

For the purpose of these guidelines, Project Finance defined as "a funding structure that relies on future cash flow from a specific project as the primary source of repayment with that project's assets, rights, and interests legally held as collateral security".

Financing operations that fall under the above definition may include many modes of financing like leasing, istisna', structured finance etc., as well as equity financing ; and can be performed under various financing structures such as BOT, BOO, BOOT, BLT, etc. In all of these cases, IDB's related operational guidelines should be adhered to.

However, in case of participation in equity financing, IDB should not provide additional form financing to the same project except in special cases; and it should be in compliance with Article 17(6) of the Articles of Agreement of the Bank.

1.5 Project finance structures, although are different from one sector industry to another or from deal to deal, they commonly reveal the following features:

- The existence of a special purpose vehicle (SPV) or a Special Purpose Entity (SPE) whose only business is the project, i.e. the Project Company.
- The funding structure of the project is highly leveraged with a debt-to-equity ratio well above other types of funding structures.
- The financing is extended on a non-recourse basis with no or limited guarantees offered to the lenders as the future cash flows of the project being the primary

source of repayment.

Moreover, in many of the project finance operations especially in the public-private partnership projects generally have the following features:

- Availability of concession agreement from the government or its related entities
- Availability of off-take agreement from the government or its related entities
- Long-term supply contracts
- EPC contract(s)
- Operations and maintenance contract(s)
- Long-term financing agreements
- Services of specialized consultants (for technical, financial, insurance aspects)

In addition to the cash flow, the main security to the lenders is the project company's contracts, assets, licenses, ownership of rights to natural resources, etc.

1.6 Distinction between Project Finance and Corporate Finance

As mentioned above, project finance is mainly a non-recourse financing based on projections especially the cash-flows of the project, whereas corporate financing is extended on the basis of the creditworthiness of the company which is the ultimate obligor for repayment of the financing facility.

In this respect, a corporate finance is generally extended to an established company with a track record and the financing is provided for general business purposes, mostly working capital purposes. Cash flow generated by the corporate can not be generally segregated and practically controlled for the benefit of the financiers except in very limited cases whereby a strongly structured assignment of receivables is worked out.

On the other hand, project finance is generally extended to a special purpose entity that has been created exclusively for implementing a specific new project (generally termed as green-field project). Cash flow generated by the project company can be legally and practically identified and controlled for the benefit of the financiers through relevant project financing agreements.

An ambiguity may arise regarding the distinction between corporate finance and project finance, when the proposed financing concerns a new project undertaken by an established corporate. The decisive criteria for defining the type of financing corporate vs. project is the ability to segregate and control the cash flow specifically related to the financed project. If this ability is legally and practically implementable, then the proposed financing operation may be considered as a project finance operation which will be subject to these guidelines. Otherwise, it should be considered as corporate finance operation and accordingly should be subject to the Risk Management Guidelines for Corporate Finance and Guarantee.

With regard to an expansion project (sometimes termed as brown-field project), that relates to capacity enhancement to an existing project- which was eligible under project finance (whether IDB has previously financed or not) - and will be subject to the same contractual framework, then it will be considered under Risk Management Guidelines for Project Finance. However, proposal for financing any balancing and modernization of existing project/plant without adding any substantial new capacity, should be considered under the purview of Risk Management Guidelines for Corporate Finance and Guarantee.

1.7 Scope of Application

These guidelines have been designed to provide a credit risk management framework for identifying, assessing, and mitigating major risks related to Project Finance undertaken by IDB or any of its affiliates. These guidelines are divided into four parts as follows:

- **Identification and analysis of project finance risks:** This part describes the main risks that should be addressed as part of the due diligence and appraisal of the financing proposals.

- **Project risk mitigations:** This part provides an overview on the risk mitigation tools, which should be adopted in order to reduce or transfer such risks.

- **Project risk categorization:** This part provides a framework for categorizing projects based on their risk profiles as determined by a set of criteria.

- **Project maximum exposure limits**. This part proposes exposure limits structure on the basis of the risk category of the project as determined under the previous part.

While assessing any project, the business departments should carry out the required due diligence, in compliance with IDB Group's "Best Practices and Customer Due Diligence Standards" and ensure that the financing made available by IDB Group is used strictly for the purpose for which it is provided. The operational and monitoring aspects of project finance should be performed in accordance with the approved operational policies and related guidelines.

While implementing these guidelines, it is worthy to highlight the need to have an effective administration and monitoring process by IDB business departments and affiliates, which constitute a critical element in maintaining and protecting the interest of IDB Group at various stages of the financing process. For this purpose, the concerned business departments or affiliates should maintain an up to date file, obtain current financial and operational information, sending out renewal notices and monitor the condition of their financing portfolio. Such a monitoring process will enable business departments or affiliates to identify and report new development, potential problems as well as possible corrective action, classification and/or provisioning etc.

1.8 Appraisal Checklists

In order to facilitate and monitor implementation of these Guidelines, a check list covering the requirements that should be undertaken by the concerned departments or affiliates while processing project finance operations. The check list should be applied for each Project Finance operation and be considered as part of the required due diligence throughout the project cycle. The check list will help determining the requirements of the Guidelines that have been met and those that still need additional actions to be met.

Section-2: Identification and Analysis of Project Finance Risks

2.1 The primary focus of project risk management is to identify and assess all risks directly associated with the project also all counterparties/entities involved with the view to determine how well the project can be completed in timely manner, sustain ongoing commercial operations and service its obligations on time and in full. These risks could be divided into Project Specific Risks and Project External Risks. The following is a summary of project finance most common risks:

Project Specific Risks

- Technology, construction, and operations
- Counterparty risk
- Legal risk
- Competition and Market Risk
- Transaction structure
- Project Financial strength

Project External Risks

- Regulatory risk
- Business and legal institutional development
- Force Majeure risk

2.2 Analysis of Project Specific Risks:

2.2.1 Technology, Construction, and Operations Risk. This is the risk that the project will not be completed and operated in accordance to the required performance standards. The risk analysis should cover the engineering and design, site plans and permits, construction contracts, and testing and commissioning, and operating the project. These factors are often the major causes of a project failure. The following issues should be addressed:

- The cost of the project based on its nature and in comparison with similar projects.
- The terms of the construction contracts especially concerning the cost overrun issue
- The process of awarding the project contract
- The unique features of the project
- Guarantees and conditions to cover incompleteness of the project or delays in implementation (performance bond, penalty covenants etc.)

2.2.1.1 The Contractor: The assessment should cover each of the contractors involved in the construction process of the project with special consideration on the following aspects:

- Financial health and credit quality.
- Track record of successfully completing projects on time within budget and up to the required standards.
- Significant positive international experience.
- Experience with the technology and the nature of the project.
- Experience in the country where the project is located is desirable, as it will aid the contractors in understanding the work environment and the likely obstacles they may face.
- Technical capacity and sufficient base of skilled and unskilled labor.
- And any other factors affecting the ability and willingness of the contractor to perform its obligations.

2.2.1.2 The Operator. The Operator is one of the principal counterparties involved in the achievement and successful operation of the project. The following issues relating to the operator of the project should be addressed:

- Ability and motivation to carry out its obligations.
- Ability to operate the facility efficiently and effectively.
- The operator should have operated similar facilities in the same country or region.
- Availability and qualifications of expatriate and local staff.

2.2.2 The Counterparty Risk. Assessment of counterparty risk is based on the analysis of the financial strength and credit quality of the major parties involved in the construction, maintenance and operation of the project. The key and traditional parties to project finance include but not limiting, the supplier of the raw material, the offtaker, the EPC contractors, the sponsors, the operator etc.... The ultimate objective of the analysis of the counterparty risks is to ensure that all concerned parties will be able to meet any future obligations they may have.

2.2.2.1 The risk analysis should focus on the quality, the financial strength, the credit quality, the experience, reputation and track record of the following major counterparties:

(a) The Sponsor. The quality of the sponsor should have a significant consideration when assessing the potential success of any project. The analysis should focus on the following issues:

- The sponsors past experience in successfully performing similar projects should be assessed and analyzed.
- The sponsors' commitment to the project measured by resources and time invested in the project.
- The levels of equity investments on the part of the sponsors, higher levels are considered a positive factor when evaluating a project.
- The strategic importance of the project to the sponsor.
- The financial strength and the credit quality of the sponsors. This factor is an important indication on the ability of the sponsor to meet any future obligations they may have such as contingent equity requirements.

(b) **The Offtaker.** The Offtake risk is the risk that the demand for the output or service does not exist at the price at which it is provided or the offtaker is unable or refuses to honor his commitment to purchase the output or service. Once a project is fully implemented and become operational, offtake risk is considered the most important risk that affects the long term creditworthiness of a project. In analyzing off taker risk, we should assess the creditworthiness and credit quality of the offtaker. This analysis should take into account the following factors:

- The credit risk of the offtaker i.e. its ability and willingness to honor his contractual obligations during the financing period as well as its ability to market the project products/services if he is not the ultimate consumer of these products/services.
- The terms of the offtake agreement.
- The presence of incentives.
- The likelihood of privatization.

2.2.3 **Legal Risk.** While assessing any project finance, it is essential to verify and ascertain that all contracts related to the project address the project's operational, commercial and financial risks. The contracts analysis should focus on the terms and conditions of each agreement and their consistency with other contracts. The analysis should also consider the adequacy and strength of each contract in the context of a project's technology, counterparty credit risk, and the market, among other project characteristics.

2.2.3.1 The primary objective of the analysis of risks inherent in the project various contracts consists to determine the level of protection provided to the stakeholders. This analysis should be undertaken through a detailed review of the commercial contracts as well as the collateral agreements. The ultimate objective of the analysis is to ensure that the interests of all parties involved in the project are well protected and that all contracts are designed in such a way that all parties are strongly motivated to complete the project satisfactory and to operate it.

2.2.3.2 While reviewing the various contracts, it should be ensured that the IDB has security over the project's total assets. This includes not only the project's physical assets but also assignments of the project contracts, security over the projects' assets, enforceability of contracts assignment of insurance proceeds, any cash accounts etc.

2.2.4 **The Competition and Market Risk.** When assessing the project, a great deal of emphasis has to be placed on the project's competitive position against the market in which it will operate particularly the importance of the project to the industry within the economy as well as its position within its peer group. For additional comfort, it is also recommended to obtain independent confirmation for the assumptions accepted with special focus on the demand analysis and factors that could affect it adversely.

2.2.4.1 The Market risk is the risk that there is no sufficient demand for the project's output at the prices necessary to generate sufficient cash flows to meet its financial obligations including the debt service and make the project economically profitable. Therefore, special attention should be paid to the following issues:

- Industry fundamentals and the industry outlook,
- Pricing & tariff risk ,
- Supply and cost risk ,
- Foreign exchange exposure,
- The Project's source of competitive advantage,
- Potential for new entrants or disruptive technologies,
- Historic or market data, including composite operating ratios, used to support the projections,
- The pricing mechanism for the output,
- The quality of the output,
- The quantity of output (market risk)

2.2.4.2 Supply Risk (input of resources): Some projects require that a resource or product exist or be available in order for the project to operate as planned. These resources or products can take many different forms (raw materials, oil, labor, etc...). The supply risk is the risk that these resources or products are not available in sufficient quantities and/or at prices that allow the project to operate as projected. In projects where this type of supply risk is high, long-term supply contracts are required. These contracts may fix the volume and/or price at which the resource or product is supplied. The credit quality of any party involved in supplying the resources or products is assessed. If they are not strong credits, the availability of back-up suppliers may be required.

2.2.5 **Transaction Structure Risk.** Many different legal issues arise in the context of project finance. The business department and the legal department should assess and analyze structural features to assess their potential to manage cash flow and prevent a change in the project's risk profile. These may include choice of legal jurisdiction , documentation risk, trustee arrangements, etc...

2.2.6 **Financial Strength.** The purpose of the analysis of the project financial strength is to ensure that the project will be able to generate enough revenues to cover the operating and maintenance expenses, non-recurring items, capital replacement expenditure, taxes, and annual fixed charges of principal and interests. To achieve this end, the analysis should cover the stability, adequacy and periodicity of the cash-flows. The outcome of the analysis should give the required comfort and certitude that the project will be able to generate enough cash on a continuous basis with a view to pay its financial obligations to the Bank as they become due. The main aspects that should be analyzed in order to evaluate the financial strength of the project finance include cash flow analysis, financial projections, economic feasibility and debt service coverage ratios, sensitivity analysis, etc. (more details are provided at ***Annex-1***)

2.3 Analysis of Project's External Risks

2.3.1 **Country Risk.** As a general rule, the country risk rating or classification as well as the market participant's perception of the country risk in which the project is located will affect in different way the successful implementation of the project. For instance, the sovereign foreign currency ratings indicate among other things, the sovereign government's ability to service its foreign currency denominated debt on time and in full.

The ultimate outcome of the analysis is to ensure that the governing law of the project agreements and contracts respect the validity of contracts, the rights of property owners. Such a well developed system and regulatory environment will enable IDB to take security over the project assets and the ability to enforce judgments from other jurisdictions.

2.3.1.1 The country risk analysis should be made in accordance with the approved guidelines on country risk assessment with special focus on the (a) the economic environment, (b) the political and regulatory environment, and (c) the transfer risk.

2.3.2 **The Institutional Risk.** Three key issues should be assessed as follows:

Enforceability of Contracts: Because a project finance is largely defined by the terms of its contracts, a key issue is obviously whether the contracts are clear and comprehensive. The legal department should study the legal systems of member countries and ensure that IDB contracts are enforceable.

Compliance with Approvals: The business department and the legal department should ensure that the project complies in full with the laws and applicable regulations of the relevant country.

Effectiveness of Regulatory Regime: The legal department should examine the regulatory limitation on the project's ability to price its products.

2.3.3 **Force Majeure Risk:** Project finance is vulnerable to potential force nature risks (floods and earthquakes, civil disturbances, strikes, or changes of law can disrupt a project's operations and devastate its cash flow). The force majeure may lead to a default depending on the severity of the accident. An analysis of force majeure events that can be critical to project finance should be addressed. In this respect, it should ensure that insurance coverage is obtained and that all the insurance proceeds are assigned to IDB as a loss payee for all types of risks. In assessing the use of insurance, the quality of the payer and the likelihood of receiving the insurance on a timely basis should also be evaluated in accordance with the approved guidelines for accepting and fixing exposure limits for insurance companies.

2.4 **The level of each of the identified risks has to be determined according to the following criteria:**

Very Low: Denotes the lowest risk level; i.e. most likely the identified risk will not take place, and/or the impact of the risk factor is insignificant. This risk level does not need additional mitigation.

Low: Denotes that there is a very small probability that the identified risk may materialize, and the impact of the risk factor is not insignificant. This risk level generally does not need additional mitigation.

Below Average: Denotes that there is a small probability that the identified risk may materialize and the impact of the risk factor is not insignificant. It should be ascertained that this risk level is well mitigated.

Average: Denotes that the probability that the identified risk will materialize is the same as similar projects, and the impact of the risk factor could be significant. The risk level generally needs additional mitigation

Above Average: Denotes that the probability that the identified risk will materialize is higher than similar projects and the impact of the risk factor is significant. This risk level should be mitigated with additional measures.

High: Denotes that the identified risk is likely to materialize and the impact of the risk factor is significant. This risk level should be avoided unless a strong mitigation is provided.

Very High: Denotes that the identified risk is very likely to materialize and the Impact of the risk factor is very significant. This risk level should be avoided.

Section-3: Project Finance Risk Mitigations

3.1 As mentioned above, the lenders and the financiers of a non recourse project finance depend solely on the performance of the project and look only to the project's ability to generate cash flows as the sole source of full and timely payment of principal and interests. Once all the risks mentioned above have been duly identified and analyzed, a risk mitigation exercise should be undertaken in order to ensure that all potential risks are well mitigated.

3.2 The risk mitigation tools will vary according to the risks identified and the probability of their occurrence. In this respect, a number of factors should be considered while selecting a particular risk mitigation technique. These factors include legal enforceability, price, liquidity, credit quality of the counterparties and regulatory treatment. These tools should be appropriately and adequately developed with a view to protect IDB against events that could cause the credit risk to deteriorate to unacceptable levels or to protect the preferred creditor status of the Bank as a financier of the project.

3.3 Moreover, it is important to identify the Party Accepting the Risk in the risk mitigation matrix in order to show how risks are shared amongst all stakeholders of the project. In this regard, it is worthy to mention that sometimes although the level of a certain risk is high, the bank may still opt to take part in financing the project because the said risks are taken by other parties. The following table-1 shows major risk mitigation tools and techniques common to project finance.

Table-1: Project Finance Risk Mitigation Matrix

Project Risks	Risk Leve l*	Party Accepting the Risk	Risk Mitigation Tools
Technology Risk			i. Receipt of Performance Warranties from the contractor. ii. Independent engineer's confirmation compliance with standards. iii. Insurance Performance Policy. iv. Retention Guarantees.
Counterparty Risk **The Sponsor**			i. Financial health and creditworthiness. ii. ii. Commitment of the sponsor by putting higher level of equity. iii. Commitment for contingent equity requirements. iv. Strategic importance of the project to the country and the sponsor. v. Experience with the technology. vi. Involvement of important local counterparties.
The Contractor			i. Financial health and creditworthiness. ii. Previous experience with the technology. iii. Experience of the contractor in the country of the project. iv. Local counterparties exposures.
Construction Risk			i. Cost overrun and price escalation clauses and transfer the risk to the contractor. ii. Fixed-price turnkey contract. iii. Comparison with similar project cost: Reasonable, achievable and budgeted cost. iv. Awarding of the construction contract: Opinion of Independent Expert. v. Incentives, bonus and penalties related to the construction schedules. vi. vi. Completion guarantee from the contractor or the sponsor.
The Construction Delay Risk.			i. Detailed agreed construction schedules. ii. Incentives, bonus and penalties related to the Construction Schedules. iii. Ability to receive materials and supplies on time. iv. Availability of required workers. v. Proven technology against/new technology.

			vi. Availability, approval and monitoring of the permits, licenses. vii. Independent Engineer assessment of the implementation of the project. viii. Appropriate Dispute Mechanism and Governing Law. ix. Retention guarantees.
The Operator			Financial health, Creditworthiness, ability and motivation to carry out its obligations.
Operating Cost			i. Bonus and Penalties clauses in the operating and maintenance contract. ii. Appropriate mechanism for dispute resolution so that there is no interruption in the cash flows. iii. Pass through mechanism of the increaser the unanticipated cost of the operating cost. iv. Strong long term O & M v. contacts. vi. O & M reserve accounts.
Operating Supply Risk			i. Long-term supply contracts for 0perating the project. ii. Back-up supply contracts.
The Offtaker and Market Risk.			i. Strong financial health, creditworthiness. ii. Low-cost producer structure in the industry. iii. Price mechanism to achieve sustainability and predictability of the cash flows. iv. Quality standards. v. Long term product sale contracts. vi. Off take contracts longer than the financing. vii. Strong termination clauses. viii. Bonuses and Penalties Clauses. x. Guarantee from ICIEC, MIGA or an acceptable international export guarantee agency.
Financial strength of the project Cash Flows Mechanics and Covenants:			i. Strong debt service coverage ratios (DSCR). ii. Appropriate Tariff Structure: Pass-through cost mechanism. iii. Debt service reserve accounts. iv. Operating reserve account. v. Restrictions on payments such as equity, subordinated debt. i. Sponsor minimum equity commitment.

Capital Structure:			ii. Assignment back-up commitment. iii. Debt to equity covenant. iv. Subordinated debt. v. Availability of additional funding sources.
Legal Risk			i. Security on the project's physical assets. ii. Assignment of contracts. iii. Assignment of the project's cash accounts. iv. Country strong enforceability system. vi. Guarantee from ICIEC, MIGA or an acceptable international export guarantee agency.
Contractual Foundation			i. Effective control and first perfect security interest in all project assets, contract, permits, licenses and accounts necessary to run the project. ii. Effective control on cash flows of the project. iii. Enforceability of contracts, collateral and security.

* Risk Levels: Very Low, Low, Below Average, Average, Above Average, High, Very High

3.4 Based on the foregoing analysis of the project's risks and taking into account the various mitigation tools used to reduce or transfer these risks, the final step in the appraisal of the project finance consist of structuring the main terms and conditions of IDB financing and developing the appropriate combination which best meets the IDB's requirements and interests. This can be achieved through (a) Term (b) Pricing (c) Collateral and (d) Covenants and Undertakings.

Section-4 Project Risk Categorization

4.1 The proposed project finance risk rating framework is intended to determine and evaluate the level of the project specific and external risks and has to be considered as a major tool for an efficient credit decision and granting process. At the same time, the IDB Group exposure to any project should be based on the risk categorization of the project. Under this risk categorization framework, the strongest Project, with the highest possibility of repayment would be ranked in "A" category, while the weakest, with a strong likelihood of default, would be classified in "G" category. This is a two step exercise which involves the ranking of the project within a seven tier grade risk categories and fixing of the maximum exposure limits.

The seven-tier risk categorization structure reflecting the projects' repayment ability is delineated below:

Table-2: Risk Categorization of Projects

Risk Category	Description
A	Excellent
B	Very Good
C	Good
D	Above Average
E	Average
F	Bellow Average
G	Weak

Projects categorized from "A" to "F" will be acceptable for financing by IDB Group upto the maximum limit outlined in the following sections.

4.2 Table-3 below summarizes the proposed levels of risk categorization of projects for the fixation of exposure limits. Moreover, the stakeholders bearing each risk referred to in this document should be identified and clearly highlighted in the risk mitigation matrix in order to show how the risk is shared. It should be noted that the overall risk ranking of the project is based on the general assessment of the risk profile of the project rather than the average of the individual identified risks.

Table-3: Project Finance Risk Categorization

Risk Category	Description	Explanation
A	**Excellent**	**The highest degree of safety and repayment ability** Financial Strength - Project of high strategic importance for the country and/or is export oriented. - Excellent financial position & economic assumptions - The project can comfortably meet its financial obligations under sustained, severely stressed economic or sectoral conditions - The project life is very much longer than the financing. - A very high DSCR compared to industry average Market Exposure and Technology. - Excellent market conditions: No or few competing suppliers, substantial and durable advantage in location, cost, proven technology and know-how. - Availability of off take agreement with government or very strong, creditworthy, and reliable entities. - Excellent long term market outlook External risks - Very low exposure to political, legal and force majeure risks; - Very strong support from Government/Sponsor.

		– Excellent and fully comprehensive Security Package & Covenants. Contractual foundation – Contracts, collateral and security are enforceable – Existence of a bankruptcy-remote SPV – Strict control on cash flows and distribution Counterparties risks – Sponsor has Excellent track record and high financial standing – Sponsors' excellent track record of implementing and operating such projects – Existence of superior corporate governance – Key sponsors and the management have clearly indentified succession plan – Strong completion guarantee from sponsors with excellent financial standing – Independent and credible engineer oversight – Excellent creditworthiness of off taker with excellent rating – Excellent track record and financial strength of contractor in constructing similar projects. – Excellent creditworthiness and reputation of the operator with Strong long term O & M contract
B	**Very Good**	**Very high degree of safety and repayment ability.** Financial strength – Project of strategic importance for the country and/or export oriented project – Strong financial position & economic assumptions – The project can meet its financial obligations under sustained, stressed economic or sectoral conditions – A high DSCR compared to industry average – The project life is longer than the financing Market Exposure and Technology – Strong market conditions: Few competing suppliers, substantial and durable advantage in location, cost, proven technology and know-how. – Availability of off take agreements with reputed and established parties – Positive long term market outlook External Risks – Very low exposure to political, legal and force majeure risks; – Strong support from Government/Sponsor Contractual Foundation – Contracts, collateral and security are enforceable

		- The project is a bankruptcy-remote SPV - Strict control on cash flows and distribution - Strong Security Package & Covenant. Counterparties Risks - Sponsors has a very good track record and high financial standing - Strong completion guarantee from sponsors with healthy financial standing - Existence of proper corporate governance - Key sponsors and the management have clearly indentified succession plan - Independent and credible engineer oversight - High creditworthiness of off taker - Very good track record and financial strength of contractor in constructing similar projects. - High creditworthiness and reputation of the operator with strong long term O & M contract.
C	**Good**	**High degree of safety and repayment ability repayment ability** Financial Strength - Project of strategic importance for the country and/or export oriented project - Good financial position & economic assumptions. - The project can meet its financial obligations under stressed economic or sectoral conditions - Above average DSCR - The project life is longer than the financing Market Exposure and Technology - Strong market conditions: Adequate demand-supply gap with limited competing suppliers, substantial and durable advantage in location, cost, proven technology and know-how. - Stable long term market outlook External Risks - Low exposure to political , legal and force majeure risks with good mitigation instruments, - Good level of support from Government - Good and stable regulatory environment over the long term medium term. Contractual foundation - Contracts, collateral and security are enforceable. - The project is a bankruptcy-remote SPV - Proper control on cash flows and distribution

		– Adequate Security Package & Covenant Counterparties Risks – Sponsors has an established track record and good financial standing – completion guarantee from sponsors – Existence of corporate governance – Key sponsors and the management have proper succession plan – Independent and credible engineer oversight – Good track record and financial strength of contractor in constructing similar projects. – Good creditworthiness and reputation of the operator with strong long term O & M contract.
D	**Above Average**	**Good degree of safety and repayment ability** Financial Strength – Project of importance for the country and/or export oriented project – Sound financial position & economic assumptions. – The project can meet its financial obligations under tough economic or sectoral conditions – DSCR is adequate – The project life is longer than the financing Market Exposure and Technology – Strong market conditions: Sufficient demand-supply gap with limited competing suppliers, substantial and durable advantage in location, cost, proven technology and know-how. – Stable long term market outlook
		External Risks – Low exposure to political , legal and force majeure risks with good mitigation instruments, – Reasonable level of support from Government – Good and stable regulatory environment over the long term medium term. Contractual foundation – Contracts, collateral and security are enforceable. – Proper control on cash flows and distribution – Adequate Security Package & Covenant Counterparties Risks – Sponsors has a track record and sound financial standing – Existence of corporate governance – Key sponsors and the management have proper succession plan

		– Independent and credible engineer oversight – Good track record and financial strength of contractor in constructing similar projects. – Good creditworthiness and reputation of the operator with strong long term O & M contract.
E	**Average**	**Adequate safety and repayment ability** Financial Strength – Key ratios and factors are at the average industry standards – The project can meet its financial obligations BUT vulnerable under distressed scenarios – DSCR at the level of industry average Market Exposure – Demand is adequate and stable External Risks – Moderate exposure to political, force majeure and legal environment with fair mitigation instruments, – Some permits are still outstanding and the permitting process is adequately defined. Contractual Foundation – Contracts, collateral and security are adequately enforceable - Adequate Security & Covenant Package - Reasonable control on cash flows Counterparties Risks – Sponsor has proper financial standing – Existence of corporate governance is not very apparent – Key sponsors and the management do not have clearly identified succession plan – Independent and credible engineer oversight is not apparent – Financial strength of contractor is just adequate with limited experience in constructing similar projects.
F	**Bellow Average**	**Fair degree of safety and repayment ability** Financial Strength – Key ratios and factors are near or below average industry standards – The project can barely meet its financial obligations and vulnerable under distressed scenarios – DSCR is barely adequate and below the industry average Market Exposure – Demand supply gap is apparent but not clearly established – Long term market outlook is not very clear

		- A very competitive market environment with low profit margin External Risks - Moderate exposure to political, force majeure and legal environment with fair mitigation instruments, - Some permits are still outstanding and the permitting process is adequately defined. Contractual Foundation - Enforceability of contracts, collateral and security is not adequately tested - Average Security & Covenant Package - Inadequate control on cash flows Counterparties Risks - Sponsor's financial standing is not very strong - Existence of corporate governance is not apparent - Key sponsors and the management do not have succession plan - Independent and credible engineer oversight is not present - Financial strength of contractor is just adequate with very limited or no experience in constructing similar projects.
G	**Weak**	**The project with significant unmitigated risks and weak repayment ability** Financial Strength - Key ratios and factors are clearly below the average industry standards - The project can not meet its financial obligations smoothly under slight change in revenue assumptions - DSCR is below 1 in some years
		Market Exposure - Demand supply gap is not apparent - Long term market outlook is not very clear or negative - A very competitive market environment with large number of suppliers External Risks - High exposure to political, force majeure and legal environment and with inadequate mitigation instruments, - Key permits are still outstanding and the permitting process is adequately defined. Contractual Foundation - Enforceability of contracts, collateral and security is questionable. - Security & Covenant Package is weak. - No control on cash flows

		Counterparties Risks – Sponsor's financial standing is weak with poor track record. – Corporate governance is not available – Key sponsors and the management do not have any succession plan and dependent on one or two individuals. – Financial strength of contractor is weak with poor track record.

4.3 The risk categorization of the project should be initially undertaken by the business department with close coordination with the concerned Risk Management department of IDB or of its affiliates. The risk categorization of the project, at the financing stage, shall be highlighted in the financing proposal. The concerned Credit Committees of IDB or of its affiliates, as the case may be, shall carefully review the proposed risk classification and clear it for further processing.

4.4 Risk Classification and Follow-up at the Operational Stage

Each project should be closely monitored by the concerned department both at the stage of implementation and also during its commercial operation. The risk categorization of the project should be dealt with as a dynamic process to reflect any changes in the risk profile of the project since IDB's involvement till full repayment. This requires that the risk categorization shall be reviewed annually by the concerned department in close coordination with the Risk Management department of IDB or of its affiliates, as the case may be, in order to facilitate appropriate risk capital calculation and better management of the portfolio. Any downward change in risk classification of the project during the operational phase shall require adoption of a remedial action plan by the concerned department under the knowledge of the Management of the Bank.

Section 5: Maximum Possible Exposure Limits for a Single Project

5.1 Based on the existing exposure Guidelines, which was adopted in Muharram 1424 (March 2003), maximum exposure limit to a single project should not exceed ID 80 million at the level of IDB Group. The same ceiling has been applied to both sovereign and non-sovereign Project Financing. However, an approach of assigning higher ceiling for sovereign single project to reflect the different risk profile compared with non-sovereign has been adopted.

5.2 The current ceiling for sovereign single project is being revised whereby a higher ceiling will be adopted in line the strategic goals of IDB, needs of the Member countries, and also the practices of other MDBs. However, the existing ceiling has been maintained for the non-sovereign single project financing.

Based on the requirement of the Project, the financing amount of IDB Group may be disbursed over a number of years. In this respect, the total amount disbursed, whether in the same year or in multiple years, shall be subject to the assigned limit for a single project. With regard to financing expansion project, where IDB Group has participated in the initial or earlier phase, the financing of the expansion phase shall be considered under the purview of the single project exposure limit, unless the initial or the earlier phase of the project has been in operation for a period of at least three years.

5.3 Based on the project risk categorization as mentioned under Section 4 of these guidelines, exposure limit to any single project finance should not exceed the limits of an absolute amount or a specific fixed percentage of the total cost of the concerned project **whichever is less** as shown in table-4 bellow:

Table-4: Maximum Exposure Limits

Project Risk Categorization	Maximum Exposure in Absolute Amount In Mln ID	Maximum Exposure as a Per cent of Total's Project Cost	Max Exp as a % of IDB-OCR or Affiliates' Equity**	Period of Financing
A	80	35%	5%	20 years
B	70	30%	4%	20 years
C	60	25%	3%	18 years
D	40	20%	2%	16 years
E	30	15%	1%	12 years
F	20	10%	0.5%	10 years
G	*Not Eligible*			

** *Equity is defined as the sum of (a) Paid-up capital, (b) Reserves, and (c) Retained Earnings. IDB affiliates shall use its equity (instead of IDB OCR's equity) to calculate the maximum possible exposure to a project as percentage of equity.*

5.2 Projects categorized under "G" are not eligible for financing by IDB Group because of its substantial unmitigated risk factors. However, if the concerned business department has strong justification that the risk profile of the project has substantially improved and the unmitigated risk issues have been adequately addressed, then the said project may be considered for a higher risk categorization and further processing.

5.3 IDB Group Maximum Exposure Limit to any single project should not exceed the absolute amount corresponding to its risk category or the applicable percentage of project's total cost or the percentage of IDB-OCR (or Affiliates' as the case may be) equity, whichever is lower as shown in the above table.

5.4 Proper consideration should be given to the debt to equity ratio of the project taking consideration its risk profile. The business department should have strong rational for supporting projects with debt-equity ratio in excess of 75:25. For higher risk projects in risky environments, debt equity ratio should not exceed 65:35.

5.4 The following aspects should be taken into consideration regarding the security of IDB financing:

- The main security to the bank is the cash flow generated by the project, however it should be ascertained that the project's assets, rights, and interests are legally held as collateral security.

- Additional security should be obtained during the pre-operating stage.

- The security position of IDB should not be less than the security position of any other financier. A pari-pasu security position amongst all financiers is acceptable as far as it is feasible.

5.5 The pricing approach for any project finance should reflect (i) the cost of IDB financial resources, (ii) administrative expenses, (iii) expected losses, (iv) the sovereign rating of the country where the project is located as well as (v) the project risk rating category. Among other objectives, the implementation of this proposed risk-based pricing would enable IDB to improve its risk-return profile and to maintain and enhance its credit ratings and operational risk management. In this respect and given that IDB pricing policy is being revised taking into consideration IDB's strategic goal, market competitiveness, resource mobilization, Shariah issues, and other relevant factors, business department is required to adhere to the prevailing pricing policy at the time of processing the financing arrangement.

Section 6: Compliance with the Guidelines

6.1 The concerned business departments of IDB and of its affiliates shall adhere to these guidelines. However, IDB affiliates can have their own exposure guidelines in line these guidelines and provided that exposure to a single project at the level of IDB group is not exceeded.

6.2 Users of these guidelines should consult with IDB Group Risk Management Department in case any clarification is required on issues related to the guidelines.

6.3 Any exception to these guidelines should be clearly highlighted in the financing proposal with proper justification including the views of the concerned risk management department on it for the consideration of the approving authority.

6.4 Group Risk Management Department (GRMD) shall be the custodian of these guidelines.

List of Attachments:

Annex 1: Notes on Financial Analysis of Project Finance

Annexure 1

Notes on the Financial Analysis of Project Finance

1. **Cash Flow Analysis:** The cash flow analysis is a key determinant of a project's success or failure. In this respect the debt service coverage ratios (DSCRs) are considered as the primary quantitative measures of a project's financial viability. The DSCR is the ratio of cash flow from operations (CFO) to principal and markup obligations. The CFO is calculated by taking cash revenues and subtracting expenses and taxes, but excluding markup and principal, needed to maintain ongoing operations. Factors such as the priority of payments, servicing fee, reserve fund and the legal final payment date of the financing should all be considered in the analysis. In this respect a liquidity reserve funded at the beginning of the production and the commercialization phases of the project can be utilized to ensure timely repayment of the project's debt obligations in a distressed liquidity. The legal final payment date should not also be underestimated as it is always expected that defaults will occur over the life of the financing period.

2 **Financial Projections:** Every project would have a unique financial model that is designed to cope with its specific features. Moreover, even similar projects may have different financial models, being prepared by different consultants. In this regard, it may be suggested to adopt a standardized format for presenting the financial projections of all projects regardless of their forecasting model. The standardized format should be simple and informative in such a way that it captures the important financial highlights and ratios. A standardized format for presenting the financial projections is provided at the table below.

3. **Economic Feasibility and Debt Service Cover Ratios**: Since the cash flow generated by the project is a crucial factor for its success, and it is the main source of repayment of its debt, it may be suggested to emphasize the importance of the economic feasibility and debt service ratios of the project. In this regard, the main feasibility ratios to be considered may include IRR, NPV, and Payback Period. As far as debt service cover ratios are concerned, different versions/calculations could be considered, however, the following three ratios are commonly used:

Annual Debt Service Cover Ratio (ADSCR):

$$\frac{\text{Net Cash Flow after Taxes \& before Markup (for the year)}}{\text{Markup + Installments (for the year)}}$$

Loan Life Cover Ratio (LLCR):

$$\frac{\text{PV of Net Cash Flow after Taxes \& before Markup (for the Loan Life)}}{\text{Total Debt (at the time of computation)}}$$

Project Life Cover Ratio (PLCR):

$$\frac{\text{PV of Net Cash Flow after Taxes \& before Markup (for the Project Life)}}{\text{Total Debt (at the time of computation)}}$$

(Net Cash Flow is defined as Revenues – Cash 0perating Costs – Change in Working Capital – Replacement Capital Expenditure – Change in Money Reserves)

3.1 It is worthy to mention that LLCR and PLCR are considered more appropriate for financial projections because these ratios take into consideration the time value of money as compared to ADSCR (also known as the accounting debt service cover ratio as it was originally applied on the historical financial statements). Moreover, LLCR is more commonly used by the financiers for its emphasis on the life of the loan. It is also worth mentioning that the values accepted for this ratio vary from one sector to the other, however, it should not, generally, be less than 1.4 – 2.

4. **Sensitivity Analysis**: In order to evaluate and quantify the impact of the risk factors on the financial position of the project, it is essential to undertake a sensitivity/scenario analysis, whereby a number of changes are introduced on some basic assumptions such as quantities sold, sale prices, raw material costs, expenses, inflation, exchange rates, etc. The analysis should concentrate on those factors of highest risk and highest impact, and should include the worst case scenario, whereby more than one risk factor is tested simultaneously. The resulting feasibility and debt cover ratios pertaining to the most relevant scenarios should be highlighted and analyzed. This should include the base case scenario as well as the worst case scenario.