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# STRENGTHENING THE ROLE OF INTERNATIONAL FINANCIAL INSTITUTIONS IN HYDROPOWER DEVELOPMENT IN UZBEKISTAN

Xusanov Shaxbozbek Shuxratjon o‘g‘li
Independent Researcher, Tashkent State University of Economics,
shakhbozbekkhusanov@gmail.com

## Abstract

This paper examines the role of concessional financing, technical assistance, and private capital mobilization by international financial institutions in expanding small-scale hydropower in Uzbekistan. Drawing on the World Bank’s 2025–2030 project and the targets of the 2026 national programme, it assesses financing opportunities and institutional constraints. The paper proposes an integrated project preparation–financing–monitoring mechanism that brings together international resources, domestic banks, and private investors. The proposed framework is designed to facilitate coordinated management of water resources, power purchase arrangements, and project-related risks.

**Keywords:** hydropower, international financial institutions, World Bank, private investment, small hydropower plants, blended finance, credit guarantees, power purchase agreements (PPAs), risk management.

## Introduction

The expansion of renewable energy sources in the global energy system is closely linked to the reliability of electricity supply, energy security, and investment requirements. Hydropower is particularly important as a dispatchable source of electricity that complements variable wind and solar generation. According to the

International Hydropower Association's 2026 report, global hydropower capacity increased by 28 GW in 2025, including 11.7 GW of pumped storage hydropower [1]. These developments underscore the importance of long-term capital, rigorous technical project preparation, and risk-sharing mechanisms for modernizing the sector and constructing new facilities.

The construction of small hydropower plants (HPPs) along Uzbekistan's existing irrigation canals offers opportunities to locate electricity generation closer to consumers, reduce network losses, and broaden entrepreneurial participation. Nevertheless, seasonal fluctuations in water flows, electricity offtake conditions, grid-connection requirements, and relatively long payback periods prevent certain projects from attaining a sufficiently bankable profile for commercial lenders. In this context, international financial institutions (IFIs) serve not merely as providers of debt financing but also as partners capable of accelerating project preparation and the mobilization of private capital.

The study employed a comparative analysis of project documentation issued by international institutions, Uzbekistan's regulatory and legal framework, and official programme data. On 25 June 2025, the World Bank approved a USD 150 million concessional loan to support small hydropower development in Uzbekistan. Under the project envisaged for implementation during 2025–2030, funding is to be channelled to domestic developers through national banks, approximately USD 38 million in additional commercial financing is expected to be mobilized, and hydropower projects with an aggregate capacity of up to 150 MW are to be supported. Their estimated annual generation potential exceeds 520 GWh [2]. These figures represent programme targets and should not be interpreted as outcomes already achieved by commissioned facilities.

The World Bank's 2025 implementation report indicates that, of the USD 150 million financing package, USD 147 million was allocated to a credit line for

small hydropower investments, while USD 3 million was earmarked for market development, technical assistance, and capacity building [3]. This allocation illustrates the dual role of IFI participation: first, improving the affordability of long-term debt; and second, enhancing the quality of project documentation, thereby reducing information asymmetries faced by private lenders.

According to official information released on 20 August 2026, 64 of the approximately 3,000 small and micro hydropower projects envisaged with private-sector participation had been commissioned, with a combined installed capacity of 41.6 MW. Relative to the initial capacity target of 164 MW, this represents a capacity implementation rate of 25.4%. Project sponsors had been identified for 932 of the approximately 3,000 initiatives, corresponding to sponsor coverage of around 31.1% [4]. These values refer to distinct indicators: the capacity implementation rate must not be equated with the share of projects completed by number.

Presidential Resolution No. PQ-298 of 19 August 2026 establishes a target for the aggregate capacity of small and micro hydropower plants to exceed 204 MW during 2026–2030, alongside annual electricity generation of 620 million kWh. The resolution provides for initial and minimum tariff price thresholds in electronic auctions for facilities of up to 5 MW, a digital project platform, and environmental and social requirements [5]. The nationwide programme target of 204 MW and the World Bank project's target of up to 150 MW have different scopes; consequently, they should neither be aggregated nor presented as an identical target.

The analysis indicates that the provision of concessional credit alone does not guarantee the timely commissioning of small hydropower plants. Effective utilization of IFI financing requires prior hydrological measurements, agreements governing land and water use, grid-connection terms, predictable cash flows from

electricity offtake, and completed environmental and social due diligence. In the absence of this information, banks tend to assess project risks as elevated, impose more stringent collateral requirements, and postpone financing decisions. Accordingly, an IFI-supported financing mechanism should be explicitly linked to a pipeline of investment-ready projects.

The author proposes a three-stage mechanism linking international financial institutions, domestic commercial banks, and project developers. In the first stage, an IFI-supported project preparation facility would be established to assess hydrological P50/P90 scenarios, feasibility studies, grid-connection costs, and environmental and social requirements for each proposed site in advance. In the second stage, concessional credit lines, domestic bank lending, and private equity would be combined, with risk-mitigation instruments such as credit guarantees or first-loss reserves applied as appropriate to the financing terms. In the third stage, a special purpose vehicle (SPV) would generate revenue under a power purchase agreement (PPA) and strengthen cash-flow resilience through a debt service reserve account (DSRA).

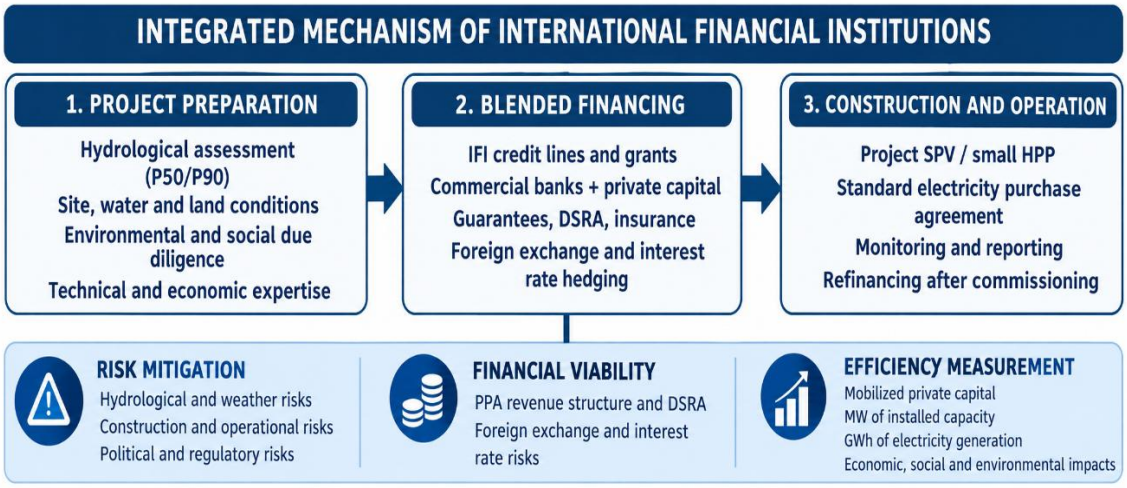



**Figure 1. Proposed mechanism for financing small hydropower projects with the participation of international financial institutions[1]**

[1] Source: Developed by the author.

Within the proposed framework, performance would be assessed not only in terms of IFI lending but also by the additional private financing mobilized. For example, the ratio of the USD 38 million in envisaged commercial financing to the USD 150 million concessional loan under the World Bank programme is 25.3%; this is a planned mobilization ratio, not an actually achieved leverage ratio [2]. In addition, project selection is proposed to incorporate capital expenditure, seasonal generation forecasts, the debt service coverage ratio (DSCR), payment discipline, and environmental and social compliance into a unified evaluation scorecard.

Functional specialization among international institutions would also be beneficial: concessional resources and technical assistance could be directed towards developing a pipeline of bankable projects; guarantee mechanisms could mitigate political and commercial risks; and domestic banks could focus on monitoring project cash flows. A separate European Bank for Reconstruction and Development (EBRD) project to improve the energy efficiency of irrigation pumping stations in Uzbekistan demonstrates the value of integrated planning for water and energy infrastructure [6]. This example should be understood as an illustration of institutional coordination between water and energy policies, rather than as evidence of direct financing for hydropower plants.

Monitoring the effectiveness of IFI resources should extend beyond the nominal amount of credit allocated to include the proportion of projects reaching financial close, construction periods, private capital mobilized per dollar of concessional financing, commissioned capacity in MW, and actual electricity generation in GWh. Some facilities may fail to meet projected outcomes because of reduced water flows or construction cost overruns. An independent monitoring and transparent reporting system is therefore recommended to distinguish anticipated benefits at the lending stage from verified performance after commissioning.






## Conclusion

Strengthening the role of international financial institutions in realizing Uzbekistan's hydropower potential should not be limited to increasing the volume of debt financing. Effective outcomes in this sector depend on preparing projects to meet bankability requirements, mitigating risks faced by private investors, establishing credible long-term PPA arrangements, and transparently monitoring the utilization of funds. By linking IFI resources with domestic banks and private investors, the proposed three-stage mechanism could enhance the investment attractiveness of small hydropower projects and improve the reliability of regional electricity supply. In evaluating outcomes, planned indicators must be clearly distinguished from results actually achieved.

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