

CONVERTING LIVES INTO KILOWATTS

Analytical Note, Comments and Recommendations on the Rogun HPP Resettlement Documentation: RAP-2 and LRP-2

Prepared by the Rogun Alert Coalition

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SUMMARY

The Rogun Alert Coalition commissioned review of the draft Resettlement Action Plan – Phase 2 (RAP-2, disclosed on August 15, 2025)¹ and Livelihood Restoration Plan – Phase 2 (LRP-2, disclosed on August 29, 2025)² of the Sustainable Financing for Rogun Hydropower Project (P181029).

The objective of this review is to identify strengths, highlight significant gaps, and provide actionable recommendations to the project developers to ensure that the resettlement and livelihood restoration process aligns with international best practices and safeguards the rights and well-being of all Project-Affected Persons (PAPs).

Key deficiencies are identified in the following areas:

- 1. Maximization of Resettlement Numbers: The project currently maximizes resettlement numbers, primarily due to an incoherent analysis of alternatives and the use of outdated information and concepts. The resulting resettlement of 60,000 people is the highest figure in the modern history of hydropower development, which cannot be justified by general economic benefits or development plans established decades ago. Given the restrictive and worsening human rights situation in Tajikistan, with low levels of transparency, high risk of corruption, and widespread human rights violations, it is hardly realistic to undertake resettlement at such scale without causing severe harm to local communities.
- 2. Unreliable Resettlement Statistics: The resettlement statistics for RAP-2 and the project as a whole lack adequate explanation, and the data presented are highly distorted and insufficient. Information on the numbers and needs of migrant laborers is missing from RAP-2. The plans do not sufficiently differentiate between the specific needs of physically displaced and economically displaced populations at each resettlement site. The analysis and support measures appear to be generalized rather than tailored to the distinct challenges each group faces.
- 3. **Unsuitability of Resettlement Sites:** The suitability of resettlement sites is highly questionable due to a lack of water supply, arable land, and pastures, which indicates deficiencies in site selection and preparation procedures. RAP-2 does not present a credible set of measures to mitigate harm already caused in a timely manner or prevent the perpetuation of substandard site preparation practices.
- 4. Compensation Methodology and Standards: The historical application of depreciation in asset valuation until July 2024 for a significant number of already resettled households is a major deviation from the ESS5 requirement of "full replacement cost." While this practice has reportedly ceased, a clear and proactive mechanism for redressing past shortfalls and preventing future shortfalls in compensation valuation is not sufficiently developed. More

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¹ http://documents.worldbank.org/curated/en/099081525151020212

² http://documents.worldbank.org/curated/en/099082925091536277

importantly, the compensation is still grossly inadequate and cannot ensure restoration of basic living conditions for all project affected people even according to minimal norms prescribed by the Tajikistan Government. In fact, compensations paid to households in RAP-2 are significantly lower than figures reported in the audit of the RAP-1.

- 5. Lack of Budgetary Clarity and Integration: The RAP-2 budget lacks transparent justification and is insufficient to meet the needs for compensation and preparation of resettlement sites and flooded areas. LRP-2 lacks an integrated, detailed, and justified budget, relying heavily on external programs (e.g., SERSP) and a general stipend allocation. This makes it difficult to assess whether funding is adequate, secure, and sufficient to cover all necessary livelihood restoration activities for all affected persons, contrasting sharply with the integrated and fully-costed plans of peer projects.
- 6. **Unrealistic Timetable:** The plan to resettle the remaining approximately 9,000 people by the end of 2026 appears highly ambitious given the pace of resettlement to date and problems that have already arisen at resettlement sites. The plans lack a robust justification to demonstrate that this accelerated timeline is feasible without compromising the quality and safety of the resettlement process.
- 7. Lack of Specific Consultation Plan: The absence of a specific consultation plan for the disclosed RAP-2 and LRP-2 is further complicated by attempts from project proponents to truncate any further consultations on the draft E&S documentation.
- 8. Faulty project grievance mechanism: The RAP 2 and LRP 2 lack grievance procedural details, aggregated data related to complaints and information about its escalation possibilities, like second tier and/or World Bank GRS. DFZ serves as the primary actor in both registration and resolution, leaving the mechanism without external oversight or independent verification of outcomes. The fact that up to 50% of PAPs said that compensation is insufficient, but only 3% filed complaints to the GRM to increase those payments shows dangerous lack of efficiency, trust and potential human rights violations.
- 9. The Project requires cost benefit analysis: The increase in the resettlement numbers by at least 25% and need to increase compensation rates, along with delays in the resettlement process, project technical and funder inclusion delays, inflation, and currency depreciation, constitutes a significant change that necessitates a new cost-benefit analysis. The discrepancies in resettlement budget exemplify the wider problem that the overall project budget does not accommodate some important items and disregards likely reasons for and scale of cost overruns.

In comparison, the Resettlement Action Plans (RAPs) for the recent Upper Arun and Ruzizi III projects are more comprehensive and better aligned with international best practices. They feature integrated livelihood and resettlement planning, highly detailed and justified

budgets, clear entitlement matrices, and more robust frameworks for addressing the needs of vulnerable groups from the outset.

This report concludes with a series of specific recommendations for the developers of the Rogun HHP Project's RAP-2 and LRP-2 to address these identified gaps and bring the project into compliance with ESS5 standards. In current form, the Rogun HPP project already maltreated the project affected people and, unless adjusted, may cause significant harm to huge numbers of resettled people.

DETAILED ANALYSIS

This report presents our analysis of the Rogun Hydropower Project's Livelihood Restoration Plan – Phase 2 (LRP-2, disclosed on August 29, 2025) and Resettlement Action Plan – Phase 2 (RAP-2, disclosed on August 15, 2025). These documents are intrinsically connected and are analyzed together.

The analysis assesses the plans' compliance with the World Bank's Environmental and Social Standard 5 (ESS5) and provides a comparative review against the resettlement plans for the Upper Arun Hydroelectric Project and the Ruzizi III Hydroelectric Power Project.

The Rogun RAP-2 and LRP-2 make a considerable effort to structure a highly complex, multi-decade resettlement process and show a clear intent to align with international standards, including ESS5. The establishment of the Directorate of the Flooding Zone (DFZ) as a dedicated implementation agency (RAP-2, p. 64), the phased approach linked to reservoir filling (RAP-2, p. 13), and the provision of an Entitlement Matrix (RAP-2, p. 93) are positive steps.

However, the Rogun RAP-2 and LRP-2 are significantly less detailed and comprehensive when compared to the recent RAPs for the <u>Ruzizi III Hydropower Project</u>(P178685) and Upper Arun <u>Hydroelectric Project (P178722)</u> ³. The latter two documents represent a higher standard of international best practice in resettlement planning. Furthermore, both the Upper Arun RAP and the Ruzizi III RAP are single, integrated documents that cover all aspects of resettlement, including detailed livelihood restoration programs. This provides a clearer and more holistic overview. The Rogun project's separation of the RAP and LRP weakens the link between physical resettlement and economic rehabilitation.

The Rogun HPP plans are less comprehensive and detailed than the RAPs for both Ruzizi III and Upper Arun. The Ruzizi III and Upper Arun RAPs serve as examples of comprehensive, integrated, and transparently budgeted resettlement planning. All three projects have dedicated sections for vulnerable groups; however, Upper Arun (Chapter

³ Disclaimer: Two projects for comparison were chosen randomly from the current World Bank's hydropower project pipeline. This analysis does not imply by any means that Upper Arun or Ruzizi are "model" RAPS whose superior qualities were proven during implementation of resettlement programs. We assume those are ordinary draft RAPs recently disclosed to solicit comments, similarly to the RAP-2 for Rogun HPP Project.

8) and Ruzizi III (Section 12.5) provide more structured programs and link them directly to specific allowances and monitoring indicators in a clearer way than the Rogun plans.

The Rogun HPP resettlement plans exhibit significant gaps and fail to meet the requirements of ESS5. The following aspects of the Rogun resettlement plans require major revision:

1. Maximization of Resettlement - A Major Contradiction with ESS5 Requirements Chapter 2.3 is titled "Alternatives Considered to Minimize Resettlement." but judging fro

Chapter 2.3 is titled "Alternatives Considered to Minimize Resettlement," but judging from its contents, it should be called "Alternatives Considered to Maximize Resettlement."

Here, the project demonstrates a significant failure by the borrower and the World Bank to prioritize the prevention of harm. The objectives of ESS5 are to: "Prevent involuntary resettlement or, if unavoidable, minimize it by considering project alternatives."

In the ESIA, the selection of the largest reservoir, with the largest resettlement toll (50,000-60,000 people), is justified by the economic benefits of selling electricity for export, which directly contradicts the objectives of ESS5. Many other alternatives that would fulfill the project's main objective of supplying electricity to Tajikistan while requiring less resettlement have been rejected or not considered by RAP-2 or the ESIA. For example, the next-highest alternative, with a reservoir level of 1255 meters above sea level, would spare 32,000 people (over 60% of the planned resettlement) while producing only 18% less electricity. Presenting the highest option as the most cost-efficient is not only illegitimate in light of maximizing resettlement numbers but also highly questionable economically, as the incremental gains in electricity production are very modest, and the economic profitability of Rogun-produced electricity has not been proven in publicly available documentation.

The RAP-2 section on the analysis of alternatives refers to project studies from 2014 as the main source of information for project justification. The economic, social, climatic, and hydrological reasoning used in 2014 is largely outdated in 2025. The discussion of solar and wind options concludes: "Extensive regional modelling work carried out by the World Bank during the project appraisal demonstrated that the Rogun HPP was the leastcost solution for providing clean and affordable baseload electricity to Central Asia." None of this modeling is presented in RAP-2 or the draft ESIA, making the statement unsupported by data or objective analysis. Moreover, this is hardly possible given the global LCoE comparison between hydro, solar, and wind (see IRENA 2025 RE Cost Report) and the enormous full costs of the Rogun HPP construction (approaching USD 12 billion as of August 2025). A simple analysis presented by CSOs to the World Bank in December 2024 shows that completing the dam with a lower crest and building complementary solar (and wind) farms would be a better option in terms of electricity production, energy supply security, and mitigation of negative impacts. (See Report on Analysis of Alternatives: What is more efficient than "the tallest dam in the world?" sent to all WB Executive Directors on December 6, 2024). The analysis of alternatives does not assess this sound approach.

Finally, the continuous praise for the Rogun HPP reservoir's capability to confront a probable maximum flood (PMF) and prevent the silting of the Nurek reservoir is not credible, as RAP-2 and the ESIA do not rely on up-to-date analysis of hydrology and

sedimentation, nor do they consider other credible options to control PMF and prevent siltation. Meanwhile, the Government of Tajikistan regularly announces long-term plans to continue building cascades of hydropower plants upstream of Rogun on both main tributaries. This planned measure must be analyzed when addressing sedimentation and flood control issues. Therefore, the prioritization of the 335-meter-high dam option is not supported by a credible analysis of feasible alternatives.

In October 2025 60 CSOs from around the world addressed the World Bank and other financiers with a clear <u>proposal</u>⁴ how to minimize forced displacement and optimize public good in large development projects supporting climate goals which may inform planning of necessary adjustments in the Rogun HPP Project.

2. Unreliable Resettlement Figures

During the 2023-24 "ESIA-update" process, the total resettlement estimates have steadily increased from 42,000 to "up to 60,000" and are likely to increase further due to currently omitted categories of affected people.

The RAP-2 document is full of outdated, inconsistent, and inaccurate information. For example, the number of censused people to be resettled (50,267 PAPs) does not change over a two-year period despite reports of intensive fieldwork undertaken to clarify the situation; that figure is presented as the "current number" with a footnote: **This is the current number as of June 2025.** However, the same estimate was used in the <u>Draft Resettlement Policy from April 2024</u>. This means that no real census (or clarifying inventories) took place after that date during the period of "intensive preparation and refinement of the RAP-2."

Meanwhile, project documents mention that the final count of PAPs could be up to 60,000 to account for population growth. This figure is not supported by any further justification. Finally, texts of RAP-2 and other project documentation show only numbers of people to be resettled and never count other project affected people (e.g. economically displaced but not to be resettled).

2.1. Census Data

Section 4.1.1 ("Census," p. 32) contains "evidence" of a 27% increase in the population to be resettled in just a two-year period: "The household census for RAP 2 was completed in 2021, with a total of 13,280 PAPs. It was then updated in August 2023, where it was found that there were 16,919 PAPs, an increase of 3,639 people. This reflected a natural population increase, along with households receiving family members and the return of some migrants who had permanently resettled outside of Tajikistan. No new houses were built, but rather more people were accommodated in the houses."

A more than 25% growth in the number of PAPs yet-to-be-resettled in the remaining seven years implies an improbable annual population increase rate of at least 3.5% (the

⁴ Just Alternative to Development-forced Displacement. https://www.inclusivedevelopment.net/wp-content/uploads/2025/10/A-Just-Alternative-to-DFDR-Policy-Proposal-Online-Version.pdf

World Bank website suggests that population growth rate in Tajikistan decreased from 2.6% in 2015 to 1.9% in 2024).

However, lumping together newborn babies, returning migrant laborers, and "family members" being received by already overcrowded households makes the information completely unintelligible. Disaggregating these figures would likely help to shed light on the actual population birth rate in the area, as well as the other two processes.

2.1.1 Lack of Gender disaggregated data

The census data provides only partial gender-disaggregated data on the male/female ratio and does not include complete gender-disaggregated census or income data. However, the RAP identifies that "a total of 1,710 households were surveyed, comprising 16,919 persons. Among these, 49 percent are female, and 51 percent are male." According to RAP, "Female-headed households represent about 14 percent of the surveyed population. These households are generally smaller, have limited access to productive land, and rely more on remittances and social assistance. Women in such households often face constraints in accessing wage employment and decision-making related to compensation or livelihood activities. Special attention will therefore be given to these households during livelihood restoration and capacity-building programs."

Meanwhile, the LRP2 states that 36% of households are female-headed. Many of these households resulted from male migration, widowhood, or divorce. They tend to have lower incomes and fewer earning members compared to male-headed households. Their livelihoods depend mainly on remittances, petty trade, or seasonal employment. As such, these households are considered vulnerable and will receive targeted support through livelihood grants, vocational training, and social assistance measures."(LRP 2, Chapter 4 – Livelihoods and Income Outcomes, p. 29, Table 4-5 and accompanying text.)

Therefore, it's essential to present complete gender-disaggregated data (age, income, employment, asset ownership), integrate gender variables into DFZ's PAP database (land title, compensation recipient, livelihood training), and ensure an ongoing system for gender-sensitive data collection.

2.2. Number of Resettled Households

The number of households after resettlement is not accurately presented (if at all) and is likely underestimated. The text indicates that for many decades local people were prohibited from establishing new households in the "flood zone, where no construction has been allowed since the commencement of the Project in the 1980s" (RAP, p. 10). This has led to the overcrowding of existing households and, likely, caused suffering to several generations of locals. Recently the overcrowding was getting worse very rapidly from 8.7 PAPs/household registered in RAP-1 (Audit Report.2018) to 9.9 PAPs/household registered in RAP-2 census. As they resettle, affected people have a natural right to split into several households (as guaranteed in the RAP-2 text)⁵. However, RAP-2 fails to

⁵ At the information meeting with CSOs on October 7th, 2025 WB Social Expert informed us that only heads of pre-resettlement households will get compensation, while married children may be allotted a plot of governmental land to build new houses using their own resources. As people were forced for

provide a figure representing the number of households to be formed in new resettled areas, only the old figure of "households to be resettled." The difference could be substantial and should have serious implications for resettlement logistics and budget. We recommend presenting clear figures for the number of Project-Affected Households (PAHs) before and after the resettlement, with an explanation of how it was calculated. New households not taken into account in project documents get compensation inadequate to restore living conditions and risk not to be covered by other livelihood restoration measures.

2.3. Omitted Categories of PAPs

Certain categories of PAPs have not been properly counted. The numbers of people "spared from resettlement" are unclear. There are general statements, such as "*The government also committed to avoid resettlement, where possible, particularly amongst the communities which are further away from the inundation zone*" (RAP-2, p. 10). The Resettlement Policy does not report how many PAPs were spared from resettlement as a result of careful surveys of geological hazards or the development of replacement roads financed by the AIIB. RAP-2 does not include a clear budget for such studies or its results. Limited evidence (from consultations with residents of the Bediho settlement) shows that due to erosion-related safety considerations and logistical reasons the number of people to be resettled tends to increase further with time, rather than decrease as detailed project planning and development progresses, which is common for reservoir-building projects.

2.4. Needs of Economically Displaced Persons

The documentation lacks a clear and systematic differentiation between those who are *only* economically displaced (loss of agricultural land or income source) and those who are *also* physically displaced (loss of home). The plans do not sufficiently differentiate the needs of these groups. While livelihood shifts are noted (LRP-2, pp. 19-20), there is no tailored needs assessment or specific support program for those who lose agricultural land but remain in their homes, a key requirement for restoring livelihoods (ESS5, para 33). The socio-economic analysis (LRP-2, pp. 19-20; RAP-2, p. 54) discusses general trends, such as the shift from agriculture to wage labor, but it does not present a disaggregated needs assessment. Without this, it is difficult to determine if the livelihood restoration measures are appropriately tailored to the distinct challenges faced by each group, as required by ESS5 (paras 33-35).

In addition, the document says that there are "a number of families refusing" to accept agricultural land, mainly due to the lack of irrigation water, poor soil fertility, and expressing preference for alternative income sources such as trade or construction work. However, this indication does not fully describe the problem's significance, which is necessary to understand how RAP 2 and LRP are addressing the consequences. There is no indicator for how many households refused the land due to quality concerns (water, poor soil), and the % that refused because they wanted to change their lifestyle.

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several decades not to establish new households in flooding zone, this raises a question whether this constitutes a fair and sufficient compensation for a new generation which was deprived of opportunities to split from parents before resettlement.

In the first case, it's essential to ensure that those households receive equivalent livelihood restoration or alternative treatment, as this poses a potential ESS 5 non-compliance risk.

There is no evidence of a systematic process for verifying land and water quality, availability of other essential resources, and/or for formally recording refusals — the plans only mention them descriptively.

In case of refusal due to a desire to change lifestyle and become more urban, LRP2 offers some ideas for training, including IT training and economic empowerment initiatives, benefit sharing, etc., as mentioned. However, LRP2 lacks a clear understanding of how it will be done.

While it sounds progressive, those activities require clear preparation and seeding alignment with national and regional job markets. E.g. the so-called IT Training program should begin with a baseline assessment of digital literacy and labor-market demand to identify realistic employment pathways for resettled youth and women, while accounting for internet penetration, access, and capabilities.

To ensure inclusivity, training must provide stipends, child-care support, safe transport, and access to computers and internet facilities in new settlements. Graduates should be linked to internships, job placements, or micro-enterprise opportunities through mentoring and business-incubation services. Embedding these elements would define the ability of IT training (or any other training) facility to diversify local economies and to empower resettled communities.

The Rogun Hydropower Project lacks a transparent mechanism for benefit-sharing with affected communities beyond compensation and temporary employment. While RAP 2 and LRP 2 address relocation and short-term livelihood restoration, they don't specify revenue distribution or community development funding. To meet World Bank ESS 5 standards, the project should establish a Benefit-Sharing Framework that allocates project revenues to local development priorities, such as compensation, education, healthcare, and women's initiatives. This framework, co-designed with communities and monitored through oversight committees, should design the real compensatory mechanisms that promote equitable growth and community ownership. So far, the draft benefit sharing program of the Rogun HPP has not been disclosed, there is no clear explanation of its contribution to the resettlement process in RAP-2 and LRP-2.

2.5. Needs of Migrant Laborers Neglected

Equally worrying is the situation with the census of migrant laborers who were not present at the time of the census but have full rights to compensation and other benefits according to ESS5. The data presented in RAP-2 is highly inconsistent. Figure 4-7 on page 60 shows that only 3% of censused households include "Labor migrants." Yet, the text on the same page states: "Among the 1,038 households surveyed that had not yet been resettled, labor migration is the main source of income for 54% of households." Page 61 provides further evidence (albeit hardly intelligible): "On average, migrant labor, public sector and private sector employment represented significant percentages of total household income – 78%, 65% and 63%, respectively." This all means that more than half of PAHs heavily depend on remittances sent by their numerous members who are

presently working elsewhere (e.g., in Russia). The rest of the RAP-2 text does not clarify whether migrant laborers absent from the area were included in the census figures or through what process. It does not provide an estimate of the number of such PAPs potentially affected by the project, nor does it describe measures to secure funds for migrants who have not claimed compensation at the time of RAP-2 implementation as prescribed by the ESS5. This may mean that many thousands of PAPs have not been fully considered and will not be served by RAP-2 as currently drafted. To avoid this, RAP-2 should present explicit numbers of absent migrant laborers and additional measures to ensure they are compensated in the future.

There is also no credible information how many people chose to become migrant laborers due to prospects of their involuntary eviction by the Rogun HPP Project during the RAP-1 and RAP-2 periods, what aspects of resettlement project contributed to such choice. Without this, it would be difficult to design further resettlement and livelihood restoration measures to prevent further deterioration of traditional culture of resettled communities through migrant labor.

2.6. Lack of Gender Safeguarding

The current Resettlement Action Plan (RAP 2) and Livelihood Restoration Plan (LRP 2) for the Rogun Hydropower Project acknowledge women as a vulnerable group but do not yet meet the gender-related requirements of the World Bank's ESS 1, ESS 2, ESS 5, and ESS 10, or the project's Gender Action Plan (GAP).

As we already mentioned, both documents provide limited gender-disaggregated data that impacts the whole project documentation and raises major controversies and falls in compliance

RAP 2 addresses women's compensation only indirectly, through reference to female-headed households as "vulnerable," but provides no legal, procedural, or monitoring mechanisms to ensure that women share equitably in land or cash compensation. Payments are made to the household head—typically male—without joint ownership or oversight. This approach is not compliant with ESS 5 § 20 and Annex 1 § 29. To address the shortfalls, relevant procedures should be established, including joint titling, the mandatory presence of both spouses during valuation and contract signing, and gender-sensitive payment procedures.

LRP 2 recognizes that women face structural barriers to economic participation—limited access to land, credit, and wage employment. While the plan expresses a general commitment to "prioritize women and youth" in livelihood activities, it lacks the operational clarity and resources required to translate this intent into tangible results. LRP 2 lists possible measures—vocational training in tailoring and food processing, microenterprise grants, and pilot programs in IT and tourism—but provides no specific targets, budgets, implementing partners, or performance indicators. However, the plan does not meet the World Bank's Gender Action Plan (2024) or ESS 5 and ESS 10 standards on gender inclusion.

To ensure compliance and meaningful inclusion, LRP 2 should establish measurable participation targets for women, allocate a dedicated budget for women's enterprise and skills programs, integrate gender clauses in contractor and partner agreements, and report outcomes by sex and income. Strengthening these elements would transform

gender commitments from statements of intent into practical tools for sustainable economic empowerment.

In addition, GBV/SEA/SH prevention and response systems must be integrated across resettlement and work sites, including confidential grievance channels with female officers and referral pathways.

All monitoring and reporting under RAP and LRP should be sex-disaggregated and regularly reviewed to track outcomes, ensuring that gender safeguards move beyond vulnerability recognition toward equitable access, safety, and sustainable empowerment for women in resettled communities.

2.7. Comparison with Other RAPs

In comparison with the Rogun documentation, the Upper Arun RAP is explicit in its differentiation of physically and economically displaced households from the very beginning (Executive Summary, p. 7; Table 2-2, p. 11). Its Entitlement Matrix (Table 6-2, p. 92) is highly detailed and specific. The Ruzizi III RAP also provides a clear Entitlement Matrix (Table 6-2, p. 115) and a detailed analysis of impacts on different groups. The Rogun RAP-2 is less granular in its analysis of different affected groups and their specific needs, and its Entitlement Matrix (p. 93), while functional, is less detailed than those of the peer projects.

3. Compensation at Full Replacement Cost Not Guaranteed in a Timely Manner

The practice of deducting depreciation from the value of household assets until July 1, 2024 (RAP-2, pp. 15, 24) is a direct contravention of the ESS5 requirement for compensation at full replacement cost (ESS5, para 12, footnote 6). While the plan states this has been corrected for future valuations, it fails to adequately address the compensation shortfall for the 778 households already resettled under this deficient methodology (RAP-2, pp. 14, 25).

The plan's remedy for any shortfall in compensation — inviting PAPs to use the Grievance Redress Mechanism (GRM) (RAP-2, p. 25)—is a passive approach and may not be sufficient to ensure all affected households receive their full entitlement. ESS5 requires timely compensation, and this retroactive issue remains a significant gap.

Moreover, there is an indication that the project is planning to continue using the GRM as a means to determine whether to increase compensation to those PAHs who "can prove" that it is insufficient. RAP-2 mentions on page 113: "27% of (already resettled) PAH surveyed stated that they needed additional support, as materials and labor costs were higher than expected. To date, some 20 households (or up to 3% out of 778) have asked for additional compensation and most of the complainants have received additional compensation or in-kind support... As for the households in the process of resettling, the survey indicates that 50% of the PAHs who are in the process of resettling have expressed concerns that their compensation may not be sufficient...".

Thus, although 25-50% of resettled people lack funds for rehabilitation in their new place, only 3% have benefited from GRM. Thus, the project de facto shifts the problem of insufficient compensation to the resettled people themselves. This data also indicates

that the problem is massive, and relying only on the GRM to resolve it may lead to prolonged delays and insufficient outreach to affected people, which is contrary to ESS5 requirements.

4. Suitability of Resettlement Sites and Processes

The plan outlines the institutional responsibilities for site selection/preparation (RAP-2, p. 74). It mentions that site selection committees conduct environmental and geological studies and that infrastructure (schools, clinics) is meant to be in place before relocation (RAP-2, p. 98). Transitional arrangements include transportation of assets and allowances (RAP-2, pp. 94, 100).

However, the plan is weak on the assessment of the suitability of resettlement sites from a livelihood perspective. The documents acknowledge that essential infrastructure often is not fully operational before households are moved. This contradicts the ESS5 principle that new resettlement sites must offer living conditions at least equivalent to the old ones and that transitional support should be provided until services are functional (ESS5, para 27; Annex 1, para 18). Neither RAP-2, not any other part of the ESIA documentation, contains results of the systemic environmental and social impacts assessments for each resettlement site, while data unevenly scattered across various chapters do not present clear site-specific data.

Many selected sites appear to be unfit for purpose. While land plots are larger, there are acknowledged issues with water access for irrigation and availability of grazing land (RAP-2, pp. 15-16). Some resettled communities face challenges with water supply and incomplete secondary schools, indicating that transition arrangements are not always adequate and sites are not fully prepared before relocation, as required by ESS5 (para 27). At some locations, resettled people testified at consultations that they get 30 minutes of running water per day (RAP-2, p. 213). Diverse ecosystem services available to resettled people at their traditional mountain villages have been described only theoretically without actually conducting surveys and consulting locals (ESIA Volume 1 Chapter 16). Consequently, neither RAP-2 nor LRP-2 contain any coherent assessment of ecosystem services lost (apart from provision of arable land) as people are moved into a more densely populated and urbanized environment, nor suggest any adequate mitigation measures. Changes in health conditions of people relocated from the mountain valley to remote locations in completely new environments are also not reflected systemically in available reports.

More than a decade ago an independent assessment report by Human Rights Watch has shown very poor performance of the Directorate of Flooded Zone(DFZ) - the key resettlement agency for the Rogun HPP project⁶. The current RAP-2 testifies that this poor performance persists, despite the World Bank's tight oversight: PAPs are losing their traditional livelihoods at mass scale and often suffer as they are moved to new sites with poor living conditions and inadequate compensations.

⁶ Human Rights Watch 2014 "We Suffered When We Came Here: Rights Violations Linked to Resettlements for Tajikistan's Rogun Dam https://www.hrw.org/sites/default/files/reports/tajikistan0614_ForUpload_0_0.pdf

RAP-2 demonstrates that after resettlement, "The share of households engaged in irrigated agriculture has fallen from 44% to 6%. ...In terms of commercial agriculture, the cultivation of crops, in particular potatoes and vegetables, decreased. The number of fruit trees, namely mulberries, walnuts and pears, has significantly decreased. The number of domestic animals such as chickens, cattle, goats and sheep decreased significantly. The proportion of pet-free households increased from 19% to 56%." (RAP-2, p. 56).

The scale of resettling 17,000 people amplifies the risk of these shortcomings becoming systemic failures.

Table 6-2 lists "Five newest resettlement sites," but there is no clarifying text and its relation to RAP-2 activities is unclear. It is difficult to understand whether currently selected sites can accommodate and provide in a timely manner agricultural land, pastures, and sufficient water resources to all remaining PAPs to be resettled according to RAP-2 by the end of 2026.

At the same time, the RAP-2 summary rather cynically argues that a lack of access to water and land resources in the new resettlement areas could be less of a problem because "About 2/3 of the PAPs have indicated that, while they support some subsistence farming at the new resettlement sites, they prefer doing migrant labour..."

As many already occupied resettlement sites lack plowed farmland, water access, and pastures, the RAP-2 report claims people are choosing en masse to become migrant laborers or local proletariat. This looks like an intended formation of urban slums for displaced peasants, completely ruining community cultures⁷.

5. Non-Transparent and Likely Insufficient Budget

5.1. Cost Estimates

Rogun RAP-2 provides a total budget of USD 87.5 million (RAP-2, p. 18), with a categorized breakdown (Table 13-1 & 13-2, pp.117-118). However, the justification for the figures is minimal. The budget presented in RAP-2 provides high-level categories but lacks detailed justification for the amounts allocated. For instance, "Total infrastructure reconstruction" is listed at \$44 million, but there is no breakdown of what this entails (e.g., cost per school, clinic, km of road). It is difficult to judge whether investments in diverse social infrastructure of already existing settlements and whole districts is sufficient to serve the needs of resettled PAPs and that investment is done in a focused way benefitting specifically those PAPs.

5.2. Comparison with Other RAPs

The Upper Arun RAP presents an exemplary budget (Table 10-2, p. 129), with detailed line items, quantities, rates, and clear notes justifying the assumptions (e.g., "Based on an estimate of 75% of PAHs suffering vulnerability"). It includes a 10% contingency and

⁷ At the information meeting with CSOs on October 7th, 2025 the World Bank officials readily confirmed that these major shortcomings were observed at several resettlement sites, but could not suggest any workable solution to those problems neither at old sites nor for new site selection. We were left with the impression that the World Bank considers forcing people into migrant labor to be an acceptable and even potentially desirable option as it is expected that the Government can diversify destinations for such migrants beyond Russia to Europe and the Gulf countries.

a substantial budget for Livelihood Restoration Activities, with itemized costs for specific activities (e.g., "Skills Training," "Incentives for replacement land"). The Ruzizi III RAP also provides a well-defined budget (Table 15-1, p. 166), itemizing costs for livelihood measures like "Provision of seeds and fertilizers" and "Support to develop or improve sources of income." It clearly allocates funds for implementation, monitoring, and contingencies. The Rogun RAP/LRP-2 budget is far less transparent. The RAP-2 budget (p. 117) lacks detailed justification, while LRP-2 has no standalone budget, making it inferior in terms of financial planning and accountability.

The RAP-2 compensation costs are also inconsistent with those from the RAP-1 of the Rogun HPP Project. According to the 2014 research by the Human Rights Watch, the Rogun HPP compensation payments during the RAP-1 were grossly insufficient to fully restore living conditions of resettled people. However, the present (October 2025) value of RAP-1 compensation is USD 21,870 per PAH and USD 2460 per PAP or 40-60% more than that in RAP-1. If paid today and adjusted to inflation, it still would be insufficient to restore decent living conditions in full. The reasons why compensation standards from RAP-1 to RAP-2 plummeted dramatically are not explained in the project documentation. If PAPs were compensated at RAP-1 rates, then the resettlement compensation budget of the RAP-2 would be USD 42 million, while it is only USD 26 million now⁸.

5.3. Unclear and Likely Insufficient Compensation Rates

RAP-2 describes the valuation process, identifying the responsible state agencies (BTI and Narkhguzor) and the use of Technical Household Passports (THPs) (RAP-2, pp. 86-88). It references the "Standard of Pricing" based on government decrees for structures and Ministry of Agriculture requirements for trees (RAP-2, p. 89). However, the justification for the rates is not transparent. The plan states valuations are based on "current market value" but does not provide the underlying data, market surveys, or methodologies used to demonstrate they meet the "replacement cost" standard. The cessation of depreciation is a positive step, but the lack of transparent justification for the base valuation rates remains a gap (ESS5, footnote 6). During community meetings, local men complained that "Compensation was calculated in 2010 and is not sufficient for current prices" (RAP-2, p. 208). The RAP-2 appendices do not include a single example of a household valuation report completed after July 1, 2024. This makes us wonder whether such new reports with re-evaluated compensation figures have been developed.

Judging from RAP-2 budgetary Table 13-1, the 778 PAHs already fully compensated (7,820 people in total) received, on average, less than \$10,000 each household (meaning less than USD 1,000 per capita). This is based on the assumption that budget line 1 relates ONLY to those 778 PAHs who have already been resettled and fully compensated, and not those described as being "in the process of resettlement" (those also could have received first installments of compensation). In case it relates to a greater number of PAHs, the average compensation per household/person would be even smaller. If the presented budget is fully implemented, the average compensation may reach USD 1580

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⁸ See detail in ANNEX 1. Why is Rogun HPP Project resettlement compensation grossly inadequate? https://rogun.exposed/pdf/2025_Resettlement_Note_Annex.pdf

per capita. RAP-2 documents do not provide any credible justification that such limited amount of compensation is sufficient (and testify that 50% of PAPs believe it is not sufficient even to build a house (see section 3 above)⁹.

To **fill this knowledge gap** we reviewed current costs of house construction and real estate purchase in rural Tajikistan and came to the conclusion that current compensation per PAH and, especially, per PAP is grossly inadequate even to build a house, let alone restore all household amenities (See <u>ANNEX 1</u>)¹⁰.

Project affected households resettled in the first 7 years have received an average USD 9800 could afford to build a house of 40 - 67 square meters (using cost estimates for the beginning of 2025). An average household has 10 people and requires more than 120 square meters according to the housing norms (12 square meters per person).

If we divide full RAP-2 compensation budget (usd 27 million) between all PAHs, then in 2025 a project affected household (theoretically) should be getting an average USD 15700 or less can afford to build a house of 62-104 square meters as of beginning of 2025. A project affected person (PAP) getting a compensation of USD 1570 can afford from 6 to 10 square meters in a newly built large family house. In other words, to allow restoring housing conditions to a minimally acceptable norm in 2025 the compensation should be at least 50% higher.

Besides that, the compensation must allow restoring not only housing, but also other household amenities (other household structures, fences, fruit trees, livestock, etc.). This is clearly not covered by the existing budget or even its 50% increase.

The most important aspect still awaiting recognition and resolution is the fact that for decades, the population in Rogun reservoir flooding zone was prohibited from building new houses. This led to gradual overcrowding of existing households¹¹. Such injustice caused by the Rogun HPP Project must be resolved by sufficient compensation that allows large households to split and recover without having financial hardships and long delays. Giving younger families additional land plots is a good but insufficient measure from the ESS-5 perspective of full livelihood restoration.

If the Rogun HPP Project will persist with compensating only the "head of household" then the amount of compensation per PAP will continue decreasing with time due to gradual increase in the number of household members. This is absurd, but we can vividly observe such a trend comparing RAP-1 and RAP-2 figures. Therefore, we strongly argue that project affected people and newly formed households should focus on compensation policies, rather than old PAHs overcrowded due to the Rogun-related policies.

⁹ According to our estimates the average compensation offered in RAP-2, in 2025 would allow a PAP to secure only 6 to 10 square meters in a newly built large family house, while the minimum housing norm for Tajikistan is 12 square meters.

¹⁰ Full analysis- <u>ANNEX 1 https://rogun.exposed/pdf/2025_Resettlement_Note_Annex.pdf</u>

¹¹ This can be demonstrated by comparing RAP-1 with 8.7 PAPs/household in 2015 with RAP-2 with 9.8 PAPs/household in the 2023 census.

Achieving just compensation, likely, requires a 70-100% increase of the current compensation budget of RAP-2 and necessitates even greater increase in the budgets of future RAPS to catch up with rising costs of house construction market

Change of governmental policy and full restructuring of entitlements and compensation valuation mechanisms are needed to create preconditions for just compensation and swift livelihood restoration. This would require allocation of significant additional financial resources, likely doubling the current compensation budget.

5.4. Lack of Resources for Flood Zone Preparation

Another clearly underestimated item is the reservoir bottom preparation for inundation (demolition of houses, removal of waste, archaeological and ethnographic studies, reclamation of forests, sanitary drainage). Judging from the Table 13-1 budget for this has already been exhausted, while roughly 950 households have not been resettled, meaning their villages could not have been demolished and sanitized 12. RAP-2 does not explain this gap or indicate how much more money is needed and where it will come from.

5.5. Non-Transparent Livelihood Restoration Plan Lacks a Coherent Budget

LRP-2 does not have a single appendix or any conclusive part, let alone an implementation timetable, progress indicators, or monitoring framework. It lacks a dedicated, itemized budget, instead referencing funds from other programs like the Socio-Economic Resilience Support Project (SERSP) and a general stipend fund (LRP-2, pp. 35, 44), making a full assessment of cost adequacy impossible. This fails to meet the ESS5 requirement that "*The full costs of resettlement activities necessary to achieve the objectives of the project are included in the total costs of the project*" (ESS5, para 22). It is impossible to verify if the funding is adequate, secure, and ring-fenced for all 16,919 PAPs covered under LRP-2. This approach fails to meet the ESS5 requirement for a comprehensive budget covering all resettlement-related costs (ESS5, Annex 1, para 13).

In contrast, the LRPs for Upper Arun (Chapter 7, p. 98) and Ruzizi III (Chapter 9, p. 127) are presented as fully-costed, project-specific programs. They include detailed descriptions of programs for agricultural intensification, skills training, and enterprise support. For example, Upper Arun's LRP specifies programs for "Agricultural and Livestock Intensification" and "Micro and Small Enterprise Support" with clear principles (Upper Arun RAP, p. 101).

5.6. Overall Resettlement Budget for Rogun HPP is Highly Uncertain

The overall resettlement budget for RAP/LRP-2 is non-transparent and likely grossly inaccurate. At the June 6, 2024, consultations, the Director of the DFZ responded to such criticism: "We agree. This is primarily because of lack of funding. We are working closely with the lenders to ensure funding can be mobilized as early as possible so that the resettlement work can pick up pace." However, this is a misleading statement, as, according to RAP-2, about 70-80% of the resettlement budget comes from the State

¹² For comparison, the draft ESMP in Table 13-1 "Estimated ESHS Management and Implementation Costs" has a budget line of USD 5 million just for the "Pre-submersion cleanup of Construction Camp 1".

Budget of Tajikistan, making its implementation less dependent on the availability of international finance¹³.

After the RAP-2, budget for subsequent RAPs to complete the resettlement and livelihood restoration of the remaining 4,752 households who are to be evicted after 2026 is estimated at around USD 200 million, which, allegedly, "includes appropriate contingencies, as it is expected that this amount may increase in the future." Together with RAP/LRP-2 costs, this will sum up to USD 287 million. Meanwhile, according to the WB Appraisal document, the overall cost of all RAPs and LRPs is USD 300 million (255) from the State Budget, 45 from IDA), with the AIIB road replacement project costing an additional 30 million. ESMP posted in volume 3 by the World Bank in October 2025 estimates Resettlement cost at 311 million (Table 13-1), but it does not provide any detailed justification and skips some items. Finally, on the Rogun Project Management Group website, a draft ESMP has Table 13-4 "Total Estimated Cost of ESHS and Resettlement Programs" that displays total resettlement program costs of USD 380 million. Thus, different Rogun HPP project documents produced in 2024-25 contain estimates of resettlement costs differing by USD 95 million, or by 33% of the lowest estimate found in RAP-2. There is a complete lack of clarity on how these figures were calculated, why they differ so much, and which one is more accurately reflecting commitments made so far.

As demonstrated earlier, there is also serious doubt that any of those figures are sufficient to serve the needs of PAPs to restore their livelihoods in accordance with ESS-5 and the laws of Tajikistan, while RAP-2 has significantly reduced compensation rate compared with the RAP-1. If the RAP-1 compensation rate per PAP is applied to 57,000 people in all subsequent RAPs, the overall compensation figure would be at least USD 140 million. Assuming that resettlement compensation takes a portion of subsequent RAP budgets similar to the 30% in the RAP-2, we would estimate the overall cost of remaining resettlement starting from RAP-2 as at least USD 450 million (currently estimated at around 300 million). This does not include expected inflation or other contingencies.

To add to the confusion, the Rogun HPP Project periodic progress report (<u>ISR#1 from May 2025</u>) contains a process indicator, according to which only 10,000 PAPs will be compensated by the end of resettlement in 2032, while, as we know, the total number of resettled people will be up to 60,000.

6. Unrealistic Implementation Schedule

The budget's realism is tied to the resettlement timetable. A compressed schedule to resettle \sim 9,000 people by the end of 2026 will likely lead to cost overruns not accounted for, even with contingencies.

The timetable presented in RAP-2 (Table 1-2, p. 13) and subsequent tables (pp. 18-22) shows a target completion date of 2026 for RAP-2. As of July 2025, 1,710 households are covered in RAP-2, with 778 already relocated (RAP-2, p. 14, Table 3-2). This implies approximately 932 households (estimated at over 9,000 people) remain to be resettled

¹³ At an information meeting on October 7th, 2025 WB social expert Ms.Alex Beseredi informed us that out of 87 million for RAP-2 the World Bank is expected to contribute 25 million to be paid as compensation to resettled people.

in less than 1.5 years. (Note: construction of a house for a PAH takes at least 1.5 years or more)

The timetable to resettle the remaining \sim 9,000 PAPs by 2026 is not supported by a credible logistical plan, especially given that the resettlement of the first \sim 7,820 PAPs took seven years (2017-2025) (RAP-2, p. 14).

According to the RAP-2 budget, cost-wise, 45% of necessary physical infrastructure at resettlement sites is yet to receive funding (Table 13-1, line 3). Plan does not explain how such acceleration in construction would be possible without compromising quality and timely delivery of functioning utilities, educational, medical services, while the text testifies that at many resettlement sites those were delayed or delivered in substandard form and insufficient quantity.

This plan represents a massive acceleration of the resettlement process, and it provides no justification for how this will be achieved. It does not detail increases in staffing, logistical capacity, or streamlined procedures that would make this accelerated timeline realistic. Such a rushed process poses a high risk of compromising the quality of consultations, site preparation, and support to affected households, contrary to the principles of ESS5.

All evidence indicates that the timetable for RAP-2 implementation is fully unrealistic and must be revised along with the overall resettlement schedule. Looking from 2025 perspective, the Rogun HPP Project in seven years since 2018 completed resettlement of less than 8000 people, in next seven years till 2032 it seeks to resettle 40,000-52,000 people. It is a completely unrealistic and dangerous plan.

ESS5 requires a realistic and time-bound implementation schedule for the Rogun HPP Project (ESS5, Annex 1, para 12). With at least 2,400 PAPs not yet knowing where they will be moved, it is clearly impossible to expect the RAP-2 process to be completed in 2026. RAP must contain a clear description of a realistic scenario in which the resettlement of specific villages/people will be achieved in a predetermined timeframe that is comfortable for them.

The same should be fulfilled in all subsequent RAPs. Otherwise, as reservoir filling proceeds, those still in old dwelling places could be forcibly evicted to temporary migration camps with no necessary facilities.

7. Stakeholder Engagement and Consultation Timing

The following key guiding principle is stated for RAP-2: "Informed Consent: All affected parties will be informed, consulted, and given the opportunity to participate in decision-making processes regarding their resettlement. Forced eviction will be avoided and community engagement will be promoted."

The context where the project is being implemented raises concerns on how meaningful and participative the consultations can be, especially given that Tajikistan's civic space is "closed", with a worsening human rights situation where <u>freedom of expression</u> and association are curtailed. In this context, project-affected communities do not have safe

and meaningful opportunities to have their say, seek information, or raise concerns around the impacts of the dam. Furthermore, civil society organizations who are meant to serve as third-party monitors are being dissolved by the government - as much as <u>700 CSOs closed down</u>. In such a restrictive context – with <u>low levels of transparency</u>, <u>high risk of corruption</u>, <u>widespread human rights violations</u>, and a climate of fear – no consultations can be considered meaningful, especially when government officials are conducting these.

Misleadingly, the consultation reports attached to RAP-2 as evidence of "consultations", albeit useful for understanding the context, reflect activities pre-dating the RAP-2 disclosure and therefore do not represent consultations held after the draft RAP-2 was disclosed in August 2025. Those old consultations were about resettlement policy framework or other aspects of resettlement but were held in the absence of a draft RAP-2 document to be analyzed and commented on. Attaching reports about those events to RAP-2 without a clear indication of their subject and scope creates the false impression that RAP-2 has already been discussed with affected communities, which could not have happened in the context of the World Bank project (see pp. 108-110).

Neither RAP-2 nor the (Stakeholder Engagement Plan) SEP contains a clear timetable for the future public consultations on the draft RAP-2 disclosed in August 2025. The announcement for "riparian consultations" on September 11, 2025, sent by project proponents to some interested CSOs on September 6, clearly indicated that this is the last round of consultations and that all comments should be submitted by September 12, 2025. In RAP-2 and SEP there is no evidence that any extensive program of consultations with affected communities is envisioned for RAP-2 before it will be finalized.

Such a course of action contradicts the key requirements of both ESS5 and ESS10.

Once the draft RAP-2 has been drafted and disclosed, there should be a clear announcement of a comprehensive consultation program that allows all affected PAPs and other interested stakeholders to participate in the discussion of RAP-2 and LRP-2 activities, budget, and timeline.

8. Project related Grievance mechanisms

The Project Grievance Redress Mechanism is supposed to provide structured support to all stakeholders who raise concerns or complaints, funded by the Bank. The project claims that it established two-tier GRM procedures led by DFZ. However, the independence and efficiency of GRM, as well as awareness-raising around the mechanism, are questionable.

The independence of GRM is in question, given that DFZ remains the primary actor in most resolutions. According to the RAP 2, approximately 50% of Project-Affected Households (PAHs) who are now still in the process of resettling "have expressed concerns that their compensation may not be sufficient". However, there is no exact number of grievances received, resolved, or escalated, nor any detailed information on the types, resolution rates, process duration and number of precedents escalated to tier 2.

It should be noted that, according to the RAP2, only 20 households out of 782 who completed resettlement to date requested additional compensation through GRM, and

some have received compensation, while others are pending. However, it's not clear whether it was escalated to tier 2. The lack of detailed tracking and reporting on GRM performance indicators is a compliance gap with the World Bank's **ESS10**, which requires transparent and systematic grievance monitoring.

In addition, the RAP 2 and LRP2 analysis makes clear that many Project-Affected Persons (PAPs) are unaware of the GRM or how to use it (the same deficiency highlighted in the 2014 HRW Report quoting the opinion of the WB officials). Vulnerable groups (e.g., women-headed households, disabled persons) face barriers due to literacy, mobility, and lack of outreach, while there are no specific channels for them—E.g, a female focal point. The documents do not mention the World Bank's Grievance Redress Service (GRS) or its functions and potential for PAPs. PAPs are not explicitly informed of their right to escalate unresolved grievances to the World Bank and not provided with instructions how to do that safely, in case they fear retaliation.

The Bank should ensure the accessibility of GRM, including verbal intake, mobile grievances, gender-sensitive challenges, and community liaison for vulnerable groups. Information dissemination on GRM and GRS should be guaranteed. The GRM second tier should be more clearly defined, with the workable choices available on the spot. The monitoring and transparency of GRM should be improved through aggregated data on complaints and resolutions, including grievance indicators in RAP monitoring frameworks.

9. Need to update the cost-benefit analysis of the project

The RAP 2, the LRP 2 and the World Bank (2024) have given us the confidence to request an update on the economic and financial feasibility of the Rogun Hydropower Project. The economic justifications are no longer valid when taking into account the new RLRF and RAP 2, which consider the resettlement of 60,000 PAPs, of whom 16,919 have already been affected in Phase 2 alone. This represents a 25–40% increase in the resettled population (estimated at just 42,000 three years ago). Besides, compensation paid so far was grossly insufficient (see sections 5.2 and 5.3), while investment in resettlement sites failed to ensure livable conditions. This requires significantly higher compensation and livelihood restoration costs than were assumed in the cost-benefit analysis.

Besides, the decline in agricultural incomes and non-farm livelihoods has increased dependence on remittances and temporary construction jobs, as highlighted in LRP2. This clearly changes the logic of the original economic justification for the project, which was based on improved rural livelihoods and employment. Therefore, given that the economic internal rate of return and net present value of the World Bank's project of completing Rogun HPP are falling due to significantly higher social and other components' costs, the project's economic justification is no longer valid.

The insufficient resettlement budget exemplifies the wider problem that the overall project budget does not accommodate likely cost overruns.

The ESMP and all mitigation plans have similarly unrealistic minimized budget of 218 million, devoid of any clear justification. It includes 156 million for oversight staff (OHS + EHS+HR), but no funds for training of this staff and only up to 60 million for activities

in all specific mitigation plans (less than 1% of overall project budget). From that, the Reservoir landslide management plan is given 0.5 million, without any justification of such minuscule costs for the item of the highest concern for local population and dam safety. Therefore, the real cost of the ESMP, if brought in compliance with real project needs and ESF requirements, may easily quadruple. And this is without accounting for likely large emergencies, such as a landslide blocking Vakhsh River immediately below the dam, an event which has relatively high probability.

World Bank's budget estimates for construction works and equipment costs for Rogun HPP Project have very limited space for inevitable future cost increase. Meanwhile, the average global rate of the hydropower installed cost increase during the last decade was at least 5%-10% per annum, as reported by the International Renewable Energy Agency (IRENA). When Tajikistan's government revived the Rogun construction project in 2008, its projected full construction cost was USD 3-4.4 billion. This more than tripled by 2025 and in August 2025 was USD 11 billion (or USD 12.3 billion if USSR expenses are considered). Thus, over the last 17 years the expected full cost increased by an average of 15% per annum. In other words, expected costs of the Rogun HPP Project have been increasing much faster than the average increase in the global hydropower industry.

Project documentation does not contain realistic estimates of final construction costs as it does not have trustworthy contingency analysis. Final costs at the time of completion (if achievable) are quite likely to exceed the current 11 billion by at least 40-80%.

The current project cost calculations were also made without considering the cost of capital, which could add 20-25% to the price tag of the Rogun HPP.

Adjusting the project timeline to account for technical and funding delays, as well as inflation and currency depreciation, may result in a massive increase in real project costs, while the purchasing power of compensation and construction budgets would continue to fall.

The full cost of Rogun HPP construction will greatly depend on the date of dam completion and reservoir filling, which is also highly uncertain. A valid comprehensive analysis of potential causes and financial consequences of delay in dam construction and reservoir filling is also absent from publicly released documentation. Therefore, unrealistic resettlement costs and inevitable delays in resettlement completion is only one of many reasons to conduct a robust cost-benefit and contingency analysis before releasing finance for the "highest dam in the world".

The World Bank's ESS1, "Assessment and Management of Environmental and Social Risks and Impacts" requires that economic and financial analyses be updated where there is a material change to the project design, scope or costs, in order to ensure continued justification and financial sustainability. Rising resettlement and livelihood costs represent a 'material change'. Therefore, it is important to commission a full update of the Cost–Benefit Analysis (CBA) based on the latest PAP numbers, compensation rates, livelihood costs and inflation. It should also incorporate a realistic power-generation timeline (2029–2035) and export price forecasts. Based on experience, it would also be important to include downside scenarios for slower completion, higher social costs, and low tariffs.

Climate-related hydrological risks should also be adjusted. It is important to ensure that the updated cost—benefit analyses are published.

Recommendations

Based on the foregoing analysis, the following comments and recommendations are provided to strengthen the Rogun HPP Resettlement and Livelihood Restoration Plans and align them with World Bank ESS5 requirements.

1.General and Structural Recommendations

- **1.1. Develop a Meaningful Analysis of Alternatives:** Genuinely explore ways to reduce resettlement based on up-to-date information and feasible scenarios for Rogun HPP completion, along with the development of other renewable energy projects. Bring back into consideration designs with lower dam height. Success should be judged by minimizing resettlement numbers, improving energy security in a timely manner, and reducing negative downstream impacts on rural populations and vulnerable ecosystems.
- 1.2. Integrate LRP into RAP: Combine LRP-2 and RAP-2 into a single, cohesive document. This will ensure that livelihood restoration is treated as an integral component of resettlement, not an ancillary activity, and will improve clarity and accountability. Besides fulfilling all requirements of the ESS-5, the updated integrated plan may benefit from following the "Basic Principles And Guidelines On Development-Based Evictions And Displacement" issued by the UN OHCHR.
- **1.3. Address Compensation Gaps:** Instead of relying exclusively on the GRM, develop and implement a proactive outreach program to identify and provide supplementary payments to all households resettled before July 2024 whose compensation was calculated using depreciation. This should be a specific, time-bound "top-up" initiative to ensure full compliance with the replacement cost principle. For all yet to be resettled PAHs develop more practical valuation and compensation procedures that will proactively ensure full compensation, with PAP-driven applications to the GRM being exceptions rather than the core mechanism to identify and reduce shortfalls. Increase household compensation to the level allowing each resettled PAP to restore basic living conditions without donating his/her own money and labor.

2.Budget and Financial Planning

- **2.1. Develop a Consolidated LRP Budget:** Create a detailed, itemized, and fully-costed budget for all activities described in LRP-2. This budget must clearly delineate funds originating from the core project budget versus those from supplementary programs like SERSP. It must cover all 16,919 PAPs and include line items for training, grants, agricultural inputs, administrative costs, and contingencies.
- **2.2. Enhance Budget Justification:** Revise the RAP-2 budget (Table 13-1, p. 117) to include detailed justifications for all cost estimates, which should be based on realistic data on PAHs to be formed in the areas to which they are resettled. This should include unit costs, quantities, and the basis for calculations (e.g., market surveys, government norms).

3. Planning, Timetable, and Needs Assessment

- **3.1. Re-evaluate the Resettlement Timetable:** Immediately conduct a realistic reassessment of the resettlement timetable for the remaining ~9,000 PAPs. Develop a more detailed, phased schedule that is demonstrably achievable without compromising the quality of implementation and allows for all necessary infrastructure and livelihood support to be in place prior to physical relocation. This revised schedule should be publicly disclosed.
- **3.2.** Conduct Disaggregated Needs Assessments: Before finalizing RAPs, conduct a detailed census and needs assessment that explicitly distinguishes between (a) physically displaced households and (b) exclusively economically displaced households. The livelihood support programs must be tailored based on the findings for each group.

4. Valuation and Monitoring

- **4.1. Increase Transparency in Valuation:** Publicly disclose the methodologies and key data (e.g., a summary of market surveys) used to determine compensation rates to demonstrate that they meet the "full replacement cost" standard as defined in ESS5. Provide (as attachments) most recent examples how those methodologies were used in the compensation process.
- **4.2. Strengthen Livelihood Monitoring Indicators:** Enhance the monitoring framework (RAP-2, Table 15-2, p. 124) to include specific outcome indicators for economically displaced persons, tracking their income levels and economic stability post-land acquisition, separate from the physically displaced population.
- **4.3. Strengthen Site Readiness Protocols:** Develop and enforce strict "site readiness" criteria that must be independently verified before any household is moved. These criteria must include, at a minimum, the full operational status of the water supply, electricity, access roads, and functioning schools and health clinics. Demonstrate in RAPS for each site how these criteria were applied.
- **4.4. GRM and GRS** To uphold the World Bank's ESS10 and ensure equitable outcomes, the Rogun Hydropower Project must urgently address gaps in its grievance-redress mechanisms. Strengthening GRM and integrating GRS will enhance accountability, reduce conflict, and build trust among affected communities.

5. For Future Planning (RAP-3 and beyond):

- **5.1. Adopt an Integrated RAP/LRP Structure:** For all future RAPs, integrate the Livelihood Restoration Plan directly into the main Resettlement Action Plan document. This will ensure better coherence between physical relocation and economic recovery, particularly in relation to budgeting and timelines.
- **5.2. Differentiate Affected Populations:** Conduct a more granular analysis in future census activities to explicitly differentiate between physically displaced, economically displaced, and those affected by both. Consider the numbers, compensation rights, and special needs of migrant laborers. This will allow for more tailored and efficient mitigation and livelihood restoration strategies.
- **5.3. Ensure Timely Plan Preparation:** All future RAPs and LRPs must be prepared, consulted upon, disclosed, and fully budgeted *prior to* the commencement of any resettlement activities for that phase, avoiding the challenges of retroactive

compliance that have marked RAP-2. For each RAP a realistic resettlement schedule should be publicly disclosed, and the overall project development schedule should be adjusted accordingly.