

WORLD BANK COMMENTS – DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED LOM PANGAR DAM

SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
ENVIRONMENTAL ASSESSMENT	OP/BP 4.01		
Objectives	Help ensure the environmental and social soundness of projects; support integration of environmental and social aspects of projects into the decision making process		
Scope	All investment projects		
Screening	Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of environmental assessment (EA) so that appropriate studies are undertaken proportional to potential risks...WB uses A, B, C, FI classifications	The EIA states that the project will have significant environmental impact, particularly on natural habitats and physical cultural heritage, as well as health impacts (spread of malaria and other diseases). There could be short-term adverse economic impact on local activities (agriculture, fishing, tourism, forestry and artisanal commerce). The project will also inundate a portion of the Chad-Cameroon pipeline and there is a low risk to downstream populations resulting from dam failure.	None. As a Category A project, a full EIA is required.
Indirect, cumulative and associated impacts	As relevant, include indirect, cumulative, and associated impacts.	<p>The project will affect (a) the Chad-Cameroon Pipeline and (b) other existing infrastructure (roads and bridges)</p> <p>(a) Impact on Chad-Cameroon Pipeline:</p> <p>The report notes that the proposed construction of the dam and reservoir were noted during technical studies of alternative routes for the Chad-Cameroon Pipeline (CCP) undertaken in 1998-99 and that one of the routes considered (Option H) would have avoided the reservoir site altogether. However, the route that was selected and used for the pipeline (Option F) lies within the reservoir site, to a greater or lesser extent, depending on the ultimate size of the reservoir, by as much as 5.5 kilometers.</p> <p>It should be noted that no provisions were made in the specifications of the pipeline - such as enhanced concrete coatings or valve placements - to account for the eventual construction of the reservoir. Enhanced concrete coating was envisaged but for some reason was not adapted by CCP. Nor was the eventual reservoir cited in the CCP General Response Plan for Accidental Oil Spills (PGIDAH) It is noted that there are already 18 water crossings of the pipeline within the projected reservoir area, the largest of which are the Pangar and Mbitel rivers. The affected area is described as savanna with scrub vegetation.</p>	<p>Impact on Chad-Cameroon Pipeline:</p> <p>This section of the EIA is not, strictly speaking, a cumulative impact assessment. A cumulative impact assessment examines the degree of change in the environment resulting from a particular project, plus the incremental impacts created by other closely related past, present and reasonably foreseeable future projects.</p> <p>The scope of this element of the EIA would need to be significantly expanded to have an adequate assessment of cumulative impacts. This expanded study would need to examine, in a comprehensive manner, the impact of the proposed project (direct and indirect impacts) on the greater area of influence of this and other anticipated</p>

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		<p>The existing CCP is constructed of steel pipes with a diameter of 760 mm and a thickness varying according to internal oil pressure. The pipeline is buried to a depth of one meter in terrestrial and 1.5 meters under river beds with concrete ballast which also serves as protection against erosion. Corrosion is limited by solar powered cathodic protection augmented by a triple lining of polyethylene. Section valves are in place to isolate portions of the line. Twenty-four hour monitoring of pipeline flows and leakages is conducted by fiber optics as well as visual inspections and inventory management.</p> <p><i>(i) Impact of the Reservoir on the pipeline:</i></p> <p>The study proposed to evaluate the risks to the pipeline from its inundation in the reservoir, and in particular on the risk of an oil spill and the impacts of such a spill on natural and human environment.</p> <p>During construction of the dam the study asserts that the risks of damage to the pipeline are easily managed by the current location of the construction zone on the right bank of the Lom, about one kilometer from the pipeline. Ensuring that the pipeline location is well marked would be sufficient to prevent accidental damage to the pipeline during construction.</p> <p>The major impact of the reservoir on the pipeline would be to submerge 18 sections of pipe, including three sections (Nos. 6, 14 and 15) that would be continuously submerged under up to 22 meters of water -- an incremental increase of approximately 10 meters over current levels in the deepest areas of the Pangar River. Three types of risks to the integrity of the pipeline were explored as a result of its submergence in the reservoir:</p> <p>(1) Hydraulic pressures on the pipeline could compromise cathodic protection which is not designed for a lake environment; (2) An incremental risk of compression induced buckling; and (3) lakebed erosion due to a combination of hydraulic pressure. All three are regarded as unlikely occurrences due to the construction standards of</p>	<p>investments over the short, medium and long term.</p> <p>The analysis is more of a study of <i>reciprocal</i> impacts of the of the existing Chad-Cameroon pipeline (CCP) on the projected reservoir to be constructed as part of the Lom Pangar dam and the impacts of the reservoir on the pipeline and the recommendation of mitigative measures.</p> <p><i>The following Supplemental Studies are recommended to address issues related to potential submergence of the pipeline:</i></p> <ul style="list-style-type: none"> • Oil spill modeling for reservoir • Detailed study of pipeline resistance to reservoir pressures • Detailed study of technical, financial and legal consequences of the temporary halt to pipeline operations, displacement or conforming the pipe to new standards • Precise definition of technical modifications required and their costs for the pipeline to continued to operate in the reservoir and/or the eventual determination of other pipeline routes • Analysis of the impacts from construction activities to modify the pipeline to allow for submergence <p>In addition, formal input is</p>

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		<p>the pipeline.</p> <p>None of the alternative scenarios for reservoir size or height that are under consideration in connection with the dam appear to make much of a difference in so far as these risks to the pipeline are concerned. However, several impacts are undeniable: access to the pipeline for maintenance and ultimate dismantlement of the pipeline at the end of its useful life would both be compromised. Access to the pipeline would be completely impeded at six current rivers crossings where the pipeline would be continuously inundated. Access would be intermittent at eleven of the remaining twelve river crossings. Likewise, dismantlement would be either totally impeded or partially impeded at these river crossings.</p> <p>Two section valves (currently located on either side of the Pangar River) and seven cathodic protection installations would be submerged resulting in reduced monitoring and control over oil flow within the reservoir area. Likewise, seven areas of cathodic protection and the portion of fiber optic cable running through the submerged portion of the pipeline would be rendered inoperable.</p> <p>Of the 800 meters of pipeline that would be submerged, approximately 580 meters are covered in concrete of which 214 meters of Pangar crossing contain steel pipe of extra thickness (13.78 mm, compared to 9.68 mm for the rest of the Pangar crossing and 7.87 mm for the Mbitel crossing) .The ultimate impact of the project on the pipeline could occur in the event of a dam failure. This issue is treated separately under theme 13 (dam safety).</p> <p><i>(ii) Impact of the Pipeline on the Reservoir:</i></p> <p>The major impact of the pipeline on the reservoir is the potentially greater risk of an oil spill with consequences different from an oil spill into the existing riverine ecosystem. According to the PGIDAH and specifically that section dealing with the portion of the pipeline in the project's area of influence (PISDAH MA3), the current oil spill trajectory would move downstream (and into downstream tributaries of) the Pangar River and its immediate banks. In contrast, the reservoir area susceptible to an oil spills is essentially</p>	<p>required from COTCO concerning their views on the technical requirements for proper operation and maintenance of the pipeline should it be submerged,</p> <p>Without more detailed studies the data in this section do not support the conclusion that no mitigation is necessary to respond to the submergence of the Chad-Cameroon pipeline by the Lom Pangar reservoir. Although qualified, the analysis appears designed to support the least cost alternative so as to avoid controversy between COTCO (the Chad-Cameroon pipeline consortium) and the Lom Pangar proponents. However, cost-avoidance is not an effective strategy for the management of technical or environment risks, nor does it resolve the issues of responsibility for costs associated with technical changes to the pipeline to allow for submergence, or liability for either a dam failure or an oil spill.</p> <p>Impact on other infrastructure:</p> <ul style="list-style-type: none"> • The consultants should make recommendations on whether or not to undertake a comprehensive Social Assessment (in addition to dealing with the social safeguard on involuntary resettlement). Given the complexity of local societies (e.g. nomadic peoples who frequent the project impact

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		<p>contiguous with the larger Pangar River basin plus an area up to 15 kilometers upstream of the Lom River where the downstream currents are the weakest.</p> <p>According to the study the affected area is characterized by minimal human presence but includes the village of Moutel, on the Mbitel River, which is likely to be displaced by the dam in any case. However, it is noted that the construction of the dam could attract additional populations to the border of the reservoir. Immigrant populations attracted the left bank of the Pangar upstream of the pipeline along the future Doyo-Mbitom road would reside upstream of any potential oil spill. However, those locating at the foot of the dam during the construction period or around the perimeter of the reservoir where up to 380 fishermen are expected to settle as well as agriculturalists could be at risk. Aquatic and riverine fauna and flora (with species dependent on adaptability to the reservoir) would also be affected.</p> <p>Unlike an oil spill into the River system that would likely spread downstream, an oil spill in the reservoir would likely be contained behind the dam and would affected a larger areas in and around the reservoir basin.</p> <p><i>Mitigative measures:</i></p> <p>Three alternative mitigative measures are considered:</p> <p>(1) Adaptation of the pipeline to its current site with installation of supplemental shut off valves at accessible river crossings (Nos 1, 9 and 10), movement of power source for cathodic protection and fiber optics above surface of reservoir</p> <p>(2) Repositioning the pipeline (4,700 meters) above reservoir surface)</p> <p>(3) Construction of an alternative route involving 90 kms of pipeline reroute following option H of the CCP routing study</p> <p>The study concludes that option (1) is the most “sensible” solution given the limited cumulative attributed to the two projects.</p>	<p>area) and the future major impact of the dam, a social assessment is warranted.</p>

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		<p>In cases (1) and (2) a revision of the Oil Spill Contingency Plan is required, particularly PIADAH section MA3 through a simulation exercise (Terms of Reference appended at Annex 9, estimated at a cost of EU 47 700 for option 1). In addition, the dam would need to be equipped with an oil filtering system.</p> <p>(b) Impact on other infrastructure:</p> <p>The EIA studies the potential impact of the project on roads and bridges that run the risk of being inundated and lost after the dam has been built and the reservoir filled out. The EIA is generally adequate and some of the sections have relevance to other important themes. The presentation of the study makes it hard to read and integrate within the overall framework.</p>	
Use of SEA	Use sectoral or regional environmental assessment when appropriate	The EIA does not include an SEA.	The Bank has noted in an earlier communication with the Government of Cameroon that such a study would be required to complete the EIA.
Scope of impacts assessed in EA	Assess potential impacts of the proposed project to physical, biological, socioeconomic and physical cultural resources, including trans-boundary and global concerns, and potential impacts on human health and safety.	The scope of the EA appears to be satisfactory, except for potential sequestration of carbon.	Climate changes relating to potential carbon sequestration need to be included in scope of EIA.
Legal and institutional framework/international agreements	Assess the adequacy of the applicable legal and institutional framework, including applicable international environmental agreements, and confirm that they provide that the cooperating `government does not finance project activities that would contravene such international obligations.	<p>Cite the Ramsar Convention if it has been ratified by Cameroon. The legal framework should mention the Convention on Desertification for the sake of comprehensiveness.</p> <p>The document mentions that the "règlement d'eau" (water rights allocation) has not been finalized, let alone drafted. If this is true, it is extremely urgent to finalize this règlement, since both the environmental impacts and the profitability/productivity of the future project hinge on the final water rights.</p>	If applicable, water rights should be finalized.
Alternatives assessment	Provide for assessment of feasible investment, technical, and siting alternatives, including the	The analysis examines alternative supply options to meet a projected electric power deficit of 550 MW for the period	No Action Alternative needs to be fully addressed.

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	<p>“no action” alternative, potential impacts, feasibility of mitigating these impacts, their capital and recurrent costs, their suitability under local conditions, and their institutional, training and monitoring requirements associated with them.</p>	<p>2010-2014 and concludes that a regulating dam at Lom Pangar (LP) facilitating the downstream development of a 280 MW dam at Nachtigal is the most appropriate option from an energy supply, economic and environmental perspective. However, the alternatives analysis suffers from some serious methodological weaknesses and, though it uses some sophisticated analytical techniques, it appears to justify the project rather than comprehensively examine a full range of alternatives including the no action alternative, the proposed project and other alternatives.</p> <p>Cameroon has 115 TWh/year technically feasible hydro potential. 2.8% of that has been developed to date. Per capita electricity consumption is 151 kWh/year. Over 90% of electricity is generated by hydropower plants. Although the benefits of dams and hydro plants are evident, the need to have a mixed generation system with thermal fuels, mainly gas, has become clear with increasing drought conditions.</p> <p>The needs assessment carried out in the study only concerns electricity supply to the main grid (Southern Interconnected Network -RIS) and to the aluminum industry. Off-grid demand, mainly in rural areas, is not taken into consideration.</p> <p>In addition to the Lom Pangar-Nachtigal (LP-N) scheme, the options assessment includes a thermal alternative (gas turbines) and another hydro development in the same Sanaga basin. The potential energy efficiency gain from rehabilitation and uprating of existing plants, as well as rehabilitation of transmission lines are not considered. The advanced status of studies for Lom Pangar (LP), compared with less advanced knowledge of the other options, is repeatedly brought forward as a reason for preferring LP.</p> <p>Economic justification of the LP-N development is robust if the incremental energy is to be supplied to the aluminum industry. In the absence, or limitation, of such demand, the economics are not so attractive.</p> <p>Comparison among alternatives is heavily based on green house gas emission. There is a large difference between</p>	<p>EIA needs to include an assessment of demand management, considering that transmission losses from existing electricity supply are relatively high.</p> <p>A realistic evaluation of the demands for energy by Alucam using market prices for electricity should be included in the analysis of alternatives. The provision of below market cost energy may be a major factor in decision making for the expansion of the Alucam operation and the need for the proposed project. This relationship should be subject to evaluation in the analysis of alternatives.</p> <p>It is clear that the analysis is predisposed toward a hydro option, and among hydro options, the LP site, based on the assumption that favorable development impacts will result for local populations and that negative impacts can be avoided or thoroughly mitigated. Inadequate attention has been given to the analysis of potential impacts and risks from the proposed project and more attention should be given to review of natural gas power plant alternatives.</p> <p>The EIA does not address issues raised in a large body of literature, including World Bank studies (World Bank/UNDP, Energy Sector Management Assistance</p>

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		<p>carbon emission by thermal combustion and emission associated with artificial water body activities, including multipurpose reservoirs. These are quite different processes. Multi-purpose reservoirs constitute aquatic ecosystems, like any other artificial or natural lake, with carbon exchanges and a proper carbon balance. Recognizing and understanding this difference is vital when discussing GHG emissions.</p> <p>Approximately 40% of the projected energy deficit is attributed to residential and public infrastructure consumption with the majority of the demand attributed to a projected doubling of aluminum production on the part of Alucan, the country's largest industrial consumer. Two demand scenarios are retained, in the comparative analysis of supply alternatives one with and one without an increase in Alucan production. However, this results in a somewhat skewed argument as a reliable and reliable energy supply by 2010 is considered as both a precondition (and an inducement) for Alucan's proposed expansion, if not its competitive viability. The analysis also fails to include any demand side analysis other than tariff structures or calculate the impact of transmission losses. In other words, it is a purely supply side analysis.</p> <p>The primary criteria for the alternatives analysis are (1) volume and reliability of electrical output during the 2010-2014 time frame; (2) economic cost; and (3) environmental impact. With respect to criteria (1) and (2) the study acknowledges the limiting factor that feasibility studies for some alternatives have not been undertaken, meaning that even if one such alternative was determined to be preferred option, it could not be designed and constructed in time to meet the 2010-2014 demand curve.</p> <p>The range of energy supply alternatives examined includes a hypothetical gas-fired thermal plant to Kribi and several alternative dam sites downstream of the preferred site on the Sanaga River system. The only renewable alternative to hydro (i.e. solar) is e discarded as unable to provide sufficient supply. (Although the elimination solar is undoubtedly justified given the supply deficit, it is curious that there is no discussion of wind or more significantly,</p>	<p>Programme, Africa Gas Initiative: Cameroon, 2001) indicating that large, undeveloped gas resources (both associated and non-associated) could more than meet Cameroon's medium term energy supply deficit.</p> <p>Although alternative hydro options are somewhat constrained by the nature of the project (a regulating dam with some clear benefits from downstream hydrology) the existence of an EIA for the LP project confers on it a biased advantage over its competitor sites.</p>

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		<p>biomass). Among fossil fuel sources, coal, diesel and heavy fuel oil were eliminated due to cost and logistics (combined these latter two sources currently provide 170 MW of power to the major urban centers). In an economic comparison between gas and hydro, gas from offshore sources is discarded due to the fact that it is associated gas with its economics dependent on the uncertainties of oil pricing and the absence of a government commitment to eliminate the flaring of associated gas.</p> <p>Other hydroelectric alternatives include a dam and reservoir at Bankim- Nyanzom (BN option) and an increase in the reservoir height at the existing Mbakaou-Litala complex with an additional reservoir to be constructed at Litala) (M-L option). However, for all practical purposes the comparative analysis is conducted for only two options (L-P and B-N).</p> <p>The environmental analysis compared LP with up to two alternative hydro sites and a hypothetical natural gas plant at Kribi using criteria that included project impacts on greenhouse gas (GHG) emissions, the natural environment (degradation and biodiversity of aquatic and terrestrial habitats, ecologically fragile zones), socio-economic aspects (population displacement, expropriation, impacts on non-displaced populations, economic sectors, health), regional development (rural electrification, industrial development, improved access), water quality and the Chad-Cameroon pipeline. However, as the study acknowledges, the analysis is somewhat skewed by the fact that an EIA has been prepared for only the LP alternative and that environmental data on the other alternatives can only be inferred.</p> <p>With respect to GHG emissions the authors are to be commended for acknowledging that dams can contribute to GHG emissions. Projected data from other dam sites including Nam Theun 2 (Lao PDR) and Petit Saut (Guyana) are used for analytical purposes. The analysis concludes that over a 100 year life cycle, the LP dam would generate fewer GHG emissions than a gas fired power plant of comparable output. The projected GHG emissions from LP are not compared to those of any other hydro sites.</p> <p>With respect to impacts on the natural environment, the</p>	

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		<p>impacts of a gas fired power plant are rated superior to all hydro options. Among the hydro projects all three are rated as negative resulting from inundation of savanna and forest. The impacts of the B-N and M-L options are considered to be somewhat less severe than LP due to the high concentration of endangered species at the LP site. It should be noted that in reviewing the biological impact of the project the alternatives analysis references data from an earlier EIA issued in 1998 and not from the current draft EIA (volumes 2, 3 and 24) which deal with flora, fauna and biodiversity, respectively. This suggests that the alternatives assessment may have been prepared prior to the completion of these portions of the EIA and that its biological component relies of secondary data that may not be current or robust.</p> <p>With respect to socio-economic impacts both B-N and M-L would be expected to result in more severe physical displacement and land expropriation than LP. A natural gas option need not result in any or minimal displacement or expropriation. With respect to the impacts on local inhabitants that are not displaced by the project the analysis makes the curious observation that this is entirely a matter of "perception" adding that during scoping missions undertaken in connection with the EIA in 2004 the favorable attitudes of the resident population was "confirmed." Again, data generated in consultation missions in mid-2005 that indicated some significant concerns on the part of local inhabitants was not available or was not used for purposes of this analysis.</p> <p>Economic impacts (agriculture, livestock, fishing, tourism, forestry, and artisanal commerce) are considered favorable for all hydro options but marginally better for LP as the area is less developed economically. This conclusion presupposes highly proactive and effective management of resource-related economic impacts resulting form the development of the hydro facilities, which is a questionable assumption without well developed, adequately funded and effectively implemented regional and local development programs. Without such mitigation measures it can be anticipated that significant adverse impacts could occur in the area directly and indirectly impacted by the proposed</p>	

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		<p>project.</p> <p>Health impacts (spread of malaria, parasitic and other diseases) is considered problematic for all three hydro projects and less so for a natural gas option. The risk of sexually transmitted diseases such as HIV/AIDS is not mentioned in this analysis, although the risk in the LP project may be greater as these populations appear to be more remote than the populations at the other sites.</p> <p>Water quality is considered in inverse proportion to reservoir residence time which is greater for LP (averaging 10 months) than for the other hydro options. Only the LP option has potentially negative consequences for the Chad-Cameroon pipeline; however these risks are considered “manageable.”</p> <p><i>Additional comments:</i></p> <ul style="list-style-type: none"> - the stated objective of the thematic study (page 12) "confirm in the medium and long term that this project is indeed one of the best options to respond, in investment terms, to the energy and environmental needs for Cameroon and for the Interconnected Southern Network" (our translation) would not be an acceptable approach for an Analysis of Alternatives in application of OP/BP 4.0.1. - the comparison table in page 51 is interesting and its application to decision-making should be further refined and made more explicit. The mixture of least cost and risks is likely to be the best approach and could be used more broadly for a genuine and more compact analysis of alternatives. - is there any impact on the elements of comparison among the various alternatives if likely flow changes corresponding to future climate changes are factored into the analysis? It would be useful to have such an analysis since this may alter the relative ranking of hydro vs thermal, - the total investment cost (even without "usine de pied") for Lom Pangar varies from 55 to 72 billions FCFA. It would be important to have the EIA use only one reference cost. <p>Overall, the alternatives analysis concludes that although a natural gas plant would have no significant negative</p>	

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		<p>impacts, it would produce significantly fewer favorable impacts with respect to non-displaced residents (through enhanced economic activities, potential for electrification of local villages and improved access routes) than either of the two main hydro alternatives. Among the hydro alternatives LP is considered the preferred option for reasons of its having more favorable economic impacts for non-displaced populations (due to lower baseline level of economic development, and greater access improvements) and fewer adverse impacts in the form of physical displacement and expropriation.</p>	
<p>Technical guidelines</p>	<p>Where applicable to the type of project being supported, normally apply the <i>Pollution Prevention and Abatement Handbook (PPAH)</i>. Justify deviations when alternatives to measures set forth in the PPAH are selected.</p>	<p>The PPAH does not contain pollution prevention and abatement measures for the hydroelectric industry. To the extent that the General Environmental Guidelines and Summary of Air Emissions and General Effluent Discharge Requirements of the PPAH are relevant to the project, they are not referenced in the EIA. The Water Quality assessment (theme 15) references national norms as well as methodologies endorsed by the OECD, FAO and the World Commission on Dams.</p>	<p>None.</p>
<p>Impact prevention, and mitigation and compensation (EMP)</p>	<p>Prevent and, where not possible to prevent, at least minimize, or compensate for adverse project impacts and enhance positive impacts through environmental planning and management that includes the proposed mitigation measures, monitoring, institutional capacity development and training measures, an implementation schedule, and cost estimates. An EMP is an integral part of Category A EAs. EAs for Category B projects may also result in an EMP. The components of an EMP are specified in a separate annex to OP 4.01. The Bank expects that EMPs be integrated into the project's overall planning, design, budget and implementation.</p>	<p>This document serves as a useful summary of the direct impacts of the project on the natural and human environment. It includes a project description; a summary of applicable national legislation and international conventions; a description of baseline conditions; anticipated unmitigated impacts; and proposed avoidance, mitigation and compensation measures. The following summary is indicative of some of the strengths and weaknesses of the overall EIA.</p> <p>The principal sensitivities associated with the site are described as:</p> <ul style="list-style-type: none"> • Water quality : Impacts on the Lom and downstream on the Sanaga river system • Natural Environment : mature, dense, semi-deciduous forest, gallery forest and savanna; highly rich and diverse flora and fauna including gorillas and chimpanzees in the Deng Deng forest region • Human Environment: permanent villages and temporary encampments are located in the 	<p>The section on post-mitigation (residual) impacts is quite weak consisting of selective notations in a matrix summarizing mitigation and compensatory measures. Taken literally, the project would have virtually no residual impacts other than visual landscape changes and new access roads.</p> <p>This is not a credible outcome from the construction of a 45 meter dam and 590 square kilometer reservoir which will result in significant environmental, social and economic changes in the direct and indirect area of influence. This is especially unrealistic given the established history of encroachment on land, forest and natural habitats along access roads by both authorized</p>

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		<p>affected areas with nearly 1,000 inhabitants directly affected</p> <p>Major impacts of the project are identified as:</p> <ul style="list-style-type: none"> • Employment opportunities (the short tenure of this employment is not noted here) • Large population influx into the Deng Deng area • The risks to the large primate population in the Deng Deng forest <p>With regard to fisheries, the data analysis in the EIA suggests that, while the numbers of some species of fish could decline as a result of the reservoir and dam construction, overall fisheries stocks will increase.</p> <p>Mitigation and Compensation Measures:</p> <ul style="list-style-type: none"> • Alternative quarry site (Kaya Ngoum) outside of Deng Deng • “Wildlife Sanctuary” status for the Deng Deng forest, patrolled by “Ecoguards” • Commercial exploitation of the bed of the Lom river • Placement of the workers camp in Ouami, 20 kilometers from the construction site with controlled access to and from the site and away from the wildlife sanctuary, and the eventual transformation of the camp into a commercial fish products facility • Preferred access route to site via Belalo-Goyoum-Deng Deng-Left bank of the Lom and over a temporary bridge • Establishment of a Environmental Specifications (<i>Cahiers de Prescriptions Environnementales</i> for all contractors) <p><i>Monitoring Indicators and Schedule:</i></p> <p>A list of 16 variables and the frequency of monitoring is appended to the document. This appears to be a reasonable starting point for the development of a monitoring program.</p>	<p>and unauthorized parties in Cameroon.</p> <p>The assessment does not adequately address downstream impacts on aquatic ecosystems and fisheries. This analysis also does not reflect the issues related to the impacts on migratory herders who currently use the north side of the reservoir on a seasonal basis.</p> <p>The accompanying narrative outlines issues related to the project’s impact on the Deng Deng forest, and other proposals regarding the placement of the workers’ camp.</p> <p>It is necessary to ensure that costs for mitigation and monitoring measures are accurate and that assignments of responsibilities for their implementation are realistic. Institutional strengthening and capacity building measures also need to be identified and included in the estimated costs.</p>

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<p>Stakeholder engagement/consultation during EIA preparation</p>	<p>Involve stakeholders, including project-affected groups and local Non-governmental organizations, as early as possible, in the preparation process and ensure that their views and concerns are made known to decision makers and taken into account. Continue consultations throughout project implementation as necessary to address EA-related issues that affect them.</p> <p>For all Category A and B projects during the EA process the borrower consults project-affected groups and local NGOs about the project's environmental aspects and takes their views into account. For Category A projects, the borrower consults these groups at least twice: (a) shortly after an environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared.</p>	<p>During the preparation of the EIA public meetings were held at the national, regional and local level between 2003 and 2004. Approximately 1500 persons from 98 villages, hamlets and encampments participated in these meetings about of an affected population of about 5000. A register for recording comments from the population was left at town centers. The EIA acknowledges that “at this stage the information provided was highly incomplete” (for example, it was not then possible to delineate the precise area to be inundated by the dam). (Themes 4-5, p. 29-30)</p> <p>The results of the EIA were presented to the affected populations between April 28 and May 17, 2005. Separate consultations with women were held during this time in four villages, with 162 women participating. Views were solicited and taken into account regarding the absence of electrification in the affected areas, loss of traditional fishery, employment opportunities during construction and operation of the dam. Issues also included the weakness of the legal system regarding compensation, and the absence of access to documentation to all of the population and not just the heads of the villages. It is stated in the EIA that further information disclosure and consultations are anticipated during construction and operations and will be maintained in a continuous manner so as to reduce the risk of misinformation from unauthorized sources. (p. 29)</p> <p>Meetings included detailed explanations of the project (schedule, construction, various impacts), followed by a question and answer period, a discussion of concerns (with a summary approved by all present). A summary of the results of the all meetings is included as a section of the report (theme 23). The consultants reported that they were not able to identify a local NGO with sufficient presence in the project area. (p 45).</p> <p>The consultation process revealed concerns from the affected communities. The information provided was sufficient for a social and economic development component for the affected localities (east province). The information was insufficient, however, for a targeted development plan using local investments.</p>	<p>While the authorities may have made maps available to the public explaining where the project would be built and how different sites would be affected, the draft EIA was not made publicly available for review and comment both within and outside the country. Proper disclosure, and wide dissemination and additional discussion of the findings and recommendations of the draft EIA is critical at this point of project preparation.</p> <p>The EIA should also show how inputs from consultations have been factored into the analysis of alternatives, assessment of impacts and design of the EMP. A more thorough process of meaningful consultation would be required for a project of this complexity that would have significant and irreversible impacts.</p> <p>The EIA should include a plan and/or timetable of consultations – with a critical path to ensure project-affected people are notified and/or consulted about the project. Consultations should also be timely and interactive in their nature.</p> <p>It will also be important to operationalize the social and economic information and analysis undertaken to date to prepare an action plan for the affected localities.</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
		<p>Communications concerning the project have been provided at international (IUCN), national (national media) regional (media, town meetings) and local (villages - with and without presence of government authorities, organized by consultants with limited intervention by project sponsor). Information has been translated into local languages (Gbaya, Képère and Fulfulde) at village meetings and local radio stations. Limitations in the communications infrastructure noted in the EIA included poor radio coverage of the affected populations, incomplete information provided on websites (including IUCN), low proportion of female participants, limited population density and widespread poverty and lack of education.</p>	<p>Recommendations should be given on a transparent and effective consultation process to be undertaken during project implementation.</p>
Use of independent expertise	<p>The borrower retains independent EA experts not affiliated with the project company to carry out the EA. For Category A projects that are highly risky or contentious or that involve serious and multidimensional environmental concerns, the borrower should normally also engage an advisory panel of independent, internationally recognized environmental specialists to advise on all aspect of the project relevant to the EA.</p>	<p>An independent panel of experts was established under a contract between the Government of Cameroon and the IUCN, This panel was demobilized before the EIA was completed and they did not participate in the most recent consultations nor review the current draft of the EIA.</p>	<p>The independent panel of experts should be reinstated and its reports should be made available to the public.</p>
Linkage to other decision-making analyses	<p>Provide measures to link the environmental assessment process and findings with studies of economic, financial, institutional, social and technical analyses of a proposed project.</p>	<p>Various energy sector studies are underway. A Regional Development Plan is needed for the greater area of influence.</p>	<p>Incorporate relevant studies when they are completed. Prepare a Regional Development Plan for the greater area of influence.</p>
Application to financial intermediaries/subprojects	<p>Each FI must screen proposed subprojects and ensure that sub-borrowers carry out appropriate EA for each subproject. FI is responsible for verifying that each subproject meets borrower country environmental requirements as well as applicable WB environmental policies, including OP 4.01. WB reviews adequacy of FI EA procedures and includes components to strengthen such procedures as necessary. If WB is not satisfied with FI capacity to carry out EA, WB subjects Category A and, as necessary, Category B subprojects to prior review and approval.</p>	<p>Not applicable.</p>	<p>Not applicabl.</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
NATURAL HABITATS	OP/BP 4.04 Natural Habitats		
Objectives	<p>Support the protection, maintenance, and rehabilitation of natural habitats and their functions</p> <p>Promote and support natural habitat conservation and improved land use by financing projects designed to integrate into national and regional development the conservation of natural habitats and the maintenance of ecological functions</p>		
Precautionary approach	Apply a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.	It is not clear from the documentation that a precautionary approach is being taken.	Documentation should clarify whether project will take a precautionary approach and if not, why not.
Screening	If, as part of the environmental assessment process, environmental screening indicates the potential for significant conversion or degradation of critical or other natural habitats, the project is classified as Category A; projects otherwise involving natural habitats are classified as Category A or B, depending on the degree of their ecological impacts	The EIA states that the project will have significant environmental impact, particularly on natural habitats.	None. As a Category A project, a full EIA is required, and is being prepared.
Critical habitats	<p>The Bank does not support projects that, in the Bank's opinion, involve the significant conversion or degradation of critical natural habitats</p> <p><i>Critical natural habitats</i> are: (i) existing protected areas and areas officially proposed by governments as protected areas (e.g., reserves that meet the criteria of the World Conservation Union [IUCN] classifications), areas initially recognized as protected by traditional local communities (e.g., sacred groves), and sites that maintain conditions vital for the viability of these protected areas (as determined by the environ-</p>	According to the current documents, the project will not affect any critical habitat in the Deng Deng Forest or Reserve. The Project, however, has the potential to result in the significant conversion of relatively intact forest and critical habitat, particularly with respect to the placement of the workers' camps. For example, certain access routes and/or roads that are being lengthened or widened as a result of construction could go through areas occupied by endangered gorillas, or they could damage critical biodiversity.	The EIA should provide further analysis of the types of impacts, both direct and indirect, the types of habitats and species concerned including both terrestrial and aquatic ecosystems. This needs to include an assessment of alternative locations for key project elements, construction camps, access roads and quarries. It should also include a field based analysis of impacts both upstream and downstream of the dam and in the areas in which project-related access roads,

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
	<p>mental assessment process); or</p> <p>(ii) sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit (RESU). Such sites may include areas recognized by traditional local communities (e.g., sacred groves); areas with known high suitability for bio-diversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species.⁴ Listings are based on systematic evaluations of such factors as species richness; the degree of endemism, rarity, and vulnerability of component species; representativeness; and integrity of ecosystem processes.</p>		<p>quarries and construction camps would be located. A plan to protect and conserve critical biological resources affected by the Project needs to be developed. This plan should include information on actions to be taken, their estimated cost and identify the parties responsible for implementation of these actions.</p>
Non-critical natural habitats	<p>The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the environmental assessment indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank. Such mitigation measures include, as appropriate, minimizing habitat loss (e.g., strategic habitat retention and post-development restoration) and establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified.</p>	<p>While the Project may not affect critical habitats in the Deng Deng forest or elsewhere, there is potential for damage to the ecosystem, depending on the placement of the workers' camps.</p>	<p>The EIA should provide a more detailed analysis of the impacts both upstream and downstream of the dam and the areas in which project-related access roads, quarries and construction camps would be located. A detailed review of alternative locations for workers camps, access roads and quarries should be prepared.</p>
Preference for already converted lands	<p>Wherever feasible, Bank-financed projects are sited on lands already converted (excluding any lands that in the Bank's opinion were converted in anticipation of the project).</p>	<p>The land affected by the project is partially converted savanna and semi-deciduous forest.</p>	<p>Not applicable.</p>
Stakeholder consultation	<p>The Bank expects the borrower to take into account the views, roles, and rights of groups, including local nongovernmental organizations and local communities, 6 affected by Bank-</p>	<p>See Section on OP/BP 4.01.</p> <p>The EIA takes into account the views of the locally affected population and other stakeholders, but does not appear to</p>	<p>See Section on OP/BP 4.01, The EIA needs to provide information on consultations with national experts and international and</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
	<p>financed projects involving natural habitats, and to involve such people in planning, designing, implementing, monitoring, and evaluating such projects. Involvement may include identifying appropriate conservation measures, managing protected areas and other natural habitats, and monitoring and evaluating specific projects. The Bank encourages governments to provide such people with appropriate information and incentives to protect natural habitats</p>	<p>incorporate the views of NGOs.</p>	<p>national nature conservation NGOs based in Cameroon.</p>
Borrower capacity	<p>In deciding whether to support a project with potential adverse impacts on a natural habitat, the Bank takes into account the borrower's ability to implement the appropriate conservation and mitigation measures. If there are potential institutional capacity problems, the project includes components that develop the capacity of national and local institutions for effective environmental planning and management. The mitigation measures specified for the project may be used to enhance the practical field capacity of national and local institutions.</p>	<p>Mitigation measures are appropriate but the borrower's will and capacity to implement them remains to be demonstrated and will in any case require extensive capacity enhancement and third-party monitoring and control.</p>	<p>The EIA does not provide a critical analysis of the borrower's institutional capacity.</p>
Appropriate expertise	<p>In projects with natural habitat components, project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures</p>	<p>The EIA is unclear about the borrower's expertise.</p>	<p>The EIA does not provide sufficient information on the borrower's expertise, but support in this area is strongly recommended.</p>
Integration into project design	<p>Natural habitat components of a project are linked as appropriate to the schedule of implementation for the project. The costs of conservation of any compensatory natural habitats are included in the project's financing. Mechanisms to ensure adequate recurrent cost financing are incorporated into project design.</p>	<p>The measures currently envisaged, mainly engagement of "ecoguards" are insufficient to ensure the protection of the Deng-Deng.</p>	<p>There should be a comprehensive management program for Deng-Deng, either as a component of Lom Pangar or a companion project.</p>
Application to subprojects	<p>This policy applies to subprojects under sectoral loans or loans to financial intermediaries</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
Appraisal at completion	The Implementation Completion Report assesses the extent to which the project achieved its environmental objectives, including natural habitat conservation	Not applicable.	Not applicable.

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
INVOLUNTARY RESETTLEMENT (IR)	OP/BP 4.12 , Involuntary Resettlement		
Objectives	<ul style="list-style-type: none"> • Involuntary resettlement should be avoided where feasible; • Involuntary resettlement should be...minimized, exploring all viable alternative project designs. • Livelihood Restoration: Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher (4.12). • Facilitate project implementation by minimizing controversy and costly delay. • Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits 	Displacement of people cannot be avoided. Willingness to restore livelihood is clearly stated in the EIA. Bank procedures and standards are also satisfactorily acknowledged.	<p>The number of people to be displaced appears to be under estimated. A. Resettlement Action Plan (RAP) should be prepared, including a census and a complementary social assessment. A cut-off date must for eligibility of individuals and for compensation for losses for property needs to be agreed on and made public.</p> <p>The RAP, including the conduct of a census and Social Assessment, should be prepared in parallel with the revision of the EIA. The RAP should serve as a source of detailed information on the number and location of project affected persons, the timing for resettlement measures and for more accurate estimation of the costs for resettlement, land acquisition and property losses. An element of the RAP should be location specific community development programs to restore or improve the livelihood of project affected persons,</p>
Definition of IR	For purposes of this policy, "involuntary" means actions that may be taken without the displaced person's informed consent or power of choice. (4.12)		
Scope of Application Project Components	This policy applies to all components of the project that result in involuntary resettlement, regardless of the source of financing. (4.12) The Bank may finance either a component of	The EIA acknowledges that OP/BP 4.12 applies to all components as needed and regardless to source of financing.	This should be clearly reflected in the RAP and in any other legal documents.

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	<p>the main investment causing displacement and requiring resettlement, or a free-standing resettlement project with appropriate cross-conditionalities, processed and implemented in parallel with the investment that causes the displacement. The Bank may finance resettlement even though it is not financing the main investment that makes resettlement necessary.</p>		
<p>Identification of Project Affected Persons (PAPs)</p>			
<p>Definition of PAPs for eligibility purposes</p>	<p>This policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by:</p> <ul style="list-style-type: none"> (a) the involuntary taking of land resulting in: <ul style="list-style-type: none"> (i) relocation or loss of shelter; (ii) lost of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons 	<p>The EIA identified and defined project-affected communities. However, because no decision on a cut-off date was taken and made public, people hoping to obtain compensation continue to pour in the project site. Hence the number of project-affected people is no longer accurate.</p>	<p>A new census must be conducted and a cut-off date agreed on and made public.</p>
<p>Land-based eligibility requirements</p>	<p>Criteria for Eligibility. Displaced persons may be classified in one of the following three groups:</p> <ul style="list-style-type: none"> (a) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country); (b) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets--provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement. Such claims could be derived from adverse possession, from continued possession of public lands without government action for 	<p>The land-based eligibility has not yet been done.</p>	<p>Should be done as part of the census and the complementary Social Assessment and reflected in the RAP.</p>

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	<p>eviction (that is, with the implicit leave of the government), or from customary and traditional law and usage, and so on and c) those who have no recognizable legal right or claim to the land they are occupying</p>		
Documentation requirements	<p>The borrower carries out a census to identify the persons who will be affected by the project to determine who will be eligible for assistance, and to discourage inflow of people ineligible for assistance</p>	<p>The inventory of villages and hamlets is satisfactory, with a clear idea of the number of project-affected communities.</p>	
Temporal eligibility requirements	<p>Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. All persons included in para. 15(a), (b), or (c) are provided compensation for loss of assets other than land. The borrower also develops a procedure, satisfactory to the Bank, for establishing the criteria by which displaced persons will be deemed eligible for compensation and other resettlement assistance. Normally, this cut-off date is the date the census begins. The cut-off date could also be the date the project area was delineated, prior to the census, provided that there has been an effective public dissemination of information on the area delineated, and systematic and continuous dissemination subsequent to the delineation to prevent further population influx.</p>	<p>The socio-economic analysis does not provide a date after which persons encroaching the project area will not be eligible for compensation.</p>	<p>The EIA and RAP should provide a publicly disclosed cut-off date for the designation of the project area.</p>
Public Participation in Eligibility Determinations	<p>The procedure includes provisions for meaningful consultations with affected persons and communities, local authorities, and, as appropriate, nongovernmental organizations (NGOs)</p>	<p>See OP 4.01 on public consultations. The public consultation that took place is not satisfactorily documented. No information on the methodology, procedures, themes and lessons learned is provided.</p>	<p>See OP 4.01 on public consultations. Information sharing workshops should be conducted, and more information on the previously conducted consultation should be provided. Additional consultations will be required for preparation of the RAP and Social Assessment.</p>
Grievance mechanisms	<p>The procedure [for eligibility determination] specifies grievance mechanisms. (4.12)</p>	<p>Acknowledged in the EIA.</p>	<p>Needs to be further identified in the RAP, in particular a good description of the mechanisms</p>

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			and their composition, showing how the affected people will be adequately represented.
Screening	No screening requirements specific to Involuntary Resettlement		
Impact assessments			
Direct impacts	This policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by: (4.12) the involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) lost of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons	The demographic analysis is general, but is adequate in describing the project's direct impact on local communities.	More detailed analysis on adverse impact to livelihoods resulting from the appropriation of land and/or involuntary restriction of access to designated parks and protected areas. The EIA also needs to provide more coverage of the issue of seasonal use of areas by nomadic herders and possible restrictions on their access to grazing lands in the future.
Categorization of Impacts	It also applies to other activities resulting in involuntary resettlement, that in the judgment of the Bank, are (a) directly and significantly related to the Bank-assisted project, (b) necessary to achieve its objectives as set forth in the project documents; and (c) carried out, or planned to be carried out, contemporaneously with the project.	No impact analysis was done on host communities and sites and how they will be affected by the flow of new population.	Host areas and communities should be identified and analyzed through a detailed Social Assessment.
Disclosure to, consultation with and participation of PAPs in IR process			
Timing	Disclose draft resettlement plans, including documentation of the consultation process, in a timely manner, before appraisal formally begins,	No resettlement plans have prepared at this time; however, the EIA acknowledges the need to disclosure such documents in due time.	When completed, the RAP will need to be disclosed in French and local languages. All concerned parties should be informed on the places of disclosure, the language and the timing.

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
Information disclosure to PAPs	Displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information.... consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement. Appropriate and accessible grievance mechanisms are established for these groups. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs	Although not well documented, consultation with people directly affected took place as part of the EIA process. However, no consultation with possible host communities for populations to be resettled has been conducted to date.	Once the population in the project site and in the host sites has been identified, a well defined and documented public consultation process should take place.
Consultation with PAPs	Displaced persons and their communities, and any host communities receiving them....are consulted on resettlement options. (4.12)	Although not well documented, consultation with people directly affected took place as part of the EIA process. However, no consultation with possible host communities for populations to be resettled has been conducted to date.	Once the population in the project site and in the host sites has been identified, a well defined and documented public consultation should take place to assess acceptance of expected impacts from the dam and reservoir, and identify needs, conditions and concerns of affected parties.
Participation of PAPs in IR planning	Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs. Displaced persons and their communities, and any host communities receiving them, areoffered opportunities to participate in planning, implementing, and monitoring resettlement.... Displaced persons... should have opportunities to participate in planning and implementing resettlement programs (4.12) Provide PAPs with opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in he process of developing and implementing the procedures for determining eligibility or compensation benefits and development assistance	The demographic information is not detailed enough to be used in the preparation of a RAP.	More precise and detailed demographic data should be obtained and analyzed in order to assess impact and prepare and determine the cost of a resettlement plan.
Grievance mechanisms	Provide project-affected persons with opportunities to participate in establishing appropriate and accessible grievance mechanisms.	Acknowledged in the EIA in broad terms.	A transparent and accessible grievance mechanism needs to be detailed in the RAP (composition, role, status). Information on the

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
Documentation of consultation process	RAP requirement	This is not applicable since no RAP has been prepared as yet.	grievance mechanism needs to be made available to project affected communities and persons. The elements of a participatory approach for development of the RAP that directly involves the affected population should be clearly defined and presented.
Vulnerable groups Defined	To achieve the objectives of this policy, particular attention is paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.	No particular analysis of vulnerable groups has been done in the EIA.	Such analysis should be done immediately after the completion of the census, as part of the complementary Social Assessment.
Special measures for the poor and landless	The Bank's mission is sustainable poverty reduction (OP 1.00) Each investment project must contribute to poverty reduction and sustainable economic growth (OP 10.00) Economic analysis examines the project's consistency with the Bank's poverty reduction strategy (OP 10.04)	Not addressed in the EIA.	A community development component should be developed separately from and in addition to the RAP. The complementary Social Assessment should be specific enough to provide information and data on vulnerable groups to support such a component (although the community development component should not be restricted only to vulnerable groups).
Gender Issues	The objective of the Bank's gender and development policy is to assist member countries to reduce poverty and enhance economic growth, human well-being, and development effectiveness by addressing the gender disparities and inequalities that are barriers to development, and by assisting member countries in formulating and implementing their gender and development goals.	Element of gender analysis is scattered in the socioeconomic annex of the EIA.	The complementary Social Assessment, the Census, and the RAP should give specific attention to gender issues. Provisions need to be included in the RAP for women to directly receive compensation and/or benefits that are included in the RAP. Special attention needs to be given in the Social Assessment to identify the special needs of women in dealing

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	<p>To this end, the Bank periodically assesses the gender dimensions of development within and across sectors in the countries in which it has an active assistance program. For purposes of this policy "Bank" includes IDA; "loans" includes IDA credits and IDA Grants; "project" includes any project financed under a Bank loan, IDA credit or IDA grant (OP 4.20)</p>		<p>with impacts, both positive and negative, from the proposed project.</p>
<p>Indigenous Peoples as PAPs</p>	<p>The Bank satisfies itself that the borrower has explored all viable alternative project designs to avoid physical displacement of Indigenous Peoples. When it is not feasible to avoid such displacement, preference is given to land-based resettlement strategies for these groups (see para. 11) that are compatible with their cultural preferences and are prepared in consultation with them</p>	<p>Not applicable.</p>	<p>Not applicable.</p>
<p>Participation of vulnerable groups in resettlement planning</p>		<p>Not addressed in the EIA.</p>	<p>Should be addressed in the complementary Social Assessment and identified participation mechanisms for vulnerable groups incorporated in the RAP</p>
<p>Relations with Host Populations</p>			
<p>Informing PAPs of their rights of</p>	<p>Inform displaced persons of their rights, consult them on options, and provide them with technically and economically feasible resettlement alternatives and needed assistance, including (a) prompt compensation at full replacement cost for loss of assets attributable to the project; (b) if there is relocation, assistance during relocation, and residential housing, or housing sites, or agricultural sites of equivalent productive potential, as required; (c) transitional support and development assistance, such as land preparation, credit facilities, training or job opportunities as required, in addition to compensation measures; (d) cash</p>	<p>As stated earlier, consultation is among the weakest elements of the EIA. There is not indication if and whether potentially affected communities and persons have been informed of their rights and entitlements.</p>	<p>Given that more people will be potentially affected, due to the influx of new comers to the area of the proposed project and issues that have been identified with the quality of the consultations, an additional consultation process should be conducted and properly documented (methodology, themes, results, lessons learned and recommendations). This process should be used to advise project affected communities and persons of their rights and entitlements.</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
	compensation for land when the impact of land acquisition on livelihoods is minor; and (e) provision of civic infrastructure and community services as required.		
Compensation			
Eligible Assets and income	All displaced persons are provided compensation for loss of assets other than land.	Too early to comment on this point since no RAP has yet been prepared.	To address during monitoring implementation of the RAP.
Preference for land-based compensation	Give preference to land-based resettlement strategies for displaced persons whose livelihoods are land-based Resettlement assistance may consist of land, other assets, cash, employment, and so on, as appropriate (4.12, ff 20). Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. These strategies may include resettlement on public land (see footnote 1 above), or on private land acquired or purchased for resettlement (4.12)	Compensation for goods that have monetary value has been discussed in the EIA. Market value for these goods will be used to determine the level of compensation. It has been clearly stated that this approach will prevail on local procedures if they are less advantageous.	This approach should be further discussed with the affected communities and persons during the proposed addition consultations. Provisions would need to be made to determine market replacement costs where cash compensation is proposed.
Valuation at replacement cost	"Replacement cost" is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account for losses that cannot easily be valued or compensated for in monetary terms (e.g., access to public services, customers, and suppliers; or to fishing, grazing, or forest areas); attempts are made to establish access to equivalent and culturally acceptable resources and earning opportunities. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard. Such additional assistance is distinct from resettlement assistance to be provided under other clauses of para. 6.	Not applicable at this stage.	The issue of the method of valuation for determination of "replacement cost" needs to be addressed in the RAP.

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	<p>Replacement cost" is defined as follows: For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes. For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes. For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes. In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures so as to meet the replacement cost standard.</p>		
Valuation: land-based compensation	Whenever replacement land is offered, resettlers are provided with land for which a combination of productive potential, locational advantages and other factors is at least equivalent to the advantages of the land taken.	Not applicable at this stage.	Needs to be addressed in the RAP.
Other forms of compensation	If land is not the preferred option of the displaced persons, the provision of land would adversely affect the sustainability of a park or protected area, or sufficient land is not	Not applicable at this stage.	Needs to be addressed in the RAP.

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	<p>available at a reasonable price, non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost. The lack of adequate land must be demonstrated and documented to the satisfaction of the Bank. PAPs without formal or informal land rights] are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives set out in this policy, if they occupy the project area prior to a cut-off date established by the borrower and acceptable to the Bank</p>		
Cash compensation	<p>Payment of cash compensation for lost assets may be appropriate where (a) livelihoods are land-based but the land taken for the project is a small fraction (as a general principle if the land taken constitutes less than 20% of the total productive area) of the affected asset and the residual is economically viable; (b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or (c) livelihoods are not land-based. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets</p>	Not applicable at this stage.	Needs to be addressed in the RAP.
Compensation for community and public resources	<p>In new resettlement sites or host communities, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host communities. Alternative or similar resources are provided to compensate for the loss of access to community resources (such as fishing areas, grazing areas, fuel, or fodder).</p>	Discussed in the EIA.	Should be thoroughly discussed with the concerned communities and affected persons during the additional consultations that have been recommended above. This is crucial for the preparation of an adequate RAP and Community Development Component.
Residual assets	<p>If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken.</p>	Not applicable at this stage.	Needs to be addressed in the RAP.

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Livelihood restoration			
Access restoration		Not addressed in the EIA.	Since people will be subject to involuntary resettlement, this issue should be discussed during the additional consultations and clearly addressed in the RAP and in the proposed Community Development Component.
Consultation with affected communities		Consultation process that took place is not sufficient and not well documented.	Additional consultation needed at this stage of EIA preparation and for the preparation of the RAP and Social Assessment.
Incomes of living standards		This has not yet been completed.	Needs to be completed during Census and complementary Social Assessment.
Customary land use	For those without formal legal rights to lands or claim to such land that could be recognized under the laws of the country, provide resettlement assistance in lieu of compensation for land to help improve or at least restore their livelihoods.	Discussed in the EIA.	Must be refined in the RAP.
Resettlement Plans			
Scope of Application	A resettlement plan or abbreviated resettlement plan is required for all operations that entail involuntary resettlement unless otherwise specified.	Not applicable at this stage.	To be addressed in the RAP.
Timing	Resettlement planning includes early screening, scoping of key issues, the choice of resettlement instrument, and the information required to prepare the resettlement component or subcomponent. Appraisal may be authorized before the plan is completed in highly unusual circumstances (such as emergency recovery operations) with the approval of the Managing Director in consultation with the Resettlement Committee.	Not applicable at this stage.	To be addressed in the RAP.
Scope of Detail	The scope and level of detail of the resettlement instruments vary with the magnitude and complexity of resettlement. In preparing the resettlement component, the	At this stage the demographic information is not detailed enough to be used in the preparation of a Resettlement Action Plan.	More demographic analysis has to be undertaken in order to assess impact and prepare a resettlement plan. The census and the Social

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	<p>borrower draws on appropriate social, technical, and legal expertise and on relevant community-based organizations and NGOs.</p>		<p>Assessment should provide such information.</p>
<p>Content of RAPs (General)</p>	<p>To address the impacts covered under para. 3 (a) of this policy, the borrower prepares a resettlement plan or a resettlement policy framework that covers the following:</p> <p>(a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are:</p> <ul style="list-style-type: none"> (i) informed about their options and rights pertaining to resettlement; (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and (iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project. <p>(b) If the impacts include physical relocation, the resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are:</p> <ul style="list-style-type: none"> (i) provided assistance (such as moving allowances) during relocation; and (ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site. (The alternative assets are provided with adequate tenure arrangements. The cost of alternative residential housing, housing sites, business premises, and agricultural sites to be provided can be set off against all or part of the compensation payable for the corresponding asset lost.) <p>(c) Where necessary to achieve the objectives of the policy, the resettlement plan or resettlement policy framework also include</p>	<p>Not applicable at this stage.</p>	<p>Detailed Terms of Reference should be prepared for the RAP.</p>

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	<p>measures to ensure that displaced persons are:</p> <p>(i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living. (Such support could take the form of short-term jobs, subsistence support, salary maintenance or similar arrangements.)</p> <p>(ii) provided with development assistance in addition to compensation measures described in paragraph 6(a)</p>		
Full RP	<p>Specified in OP 4.12 Annex A as follows</p> <p><i>1. Description of the project.</i> General description of the project and identification of the project area.</p> <p><i>2. Potential impacts.</i> Identification of</p> <p>(a) the project component or activities that give rise to resettlement;</p> <p>(b) the zone of impact of such component or activities;</p> <p>(c) the alternatives considered to avoid or minimize resettlement; and</p> <p>(d) the mechanisms established to minimize resettlement, to the extent possible, during project implementation.</p> <p><i>3. Objectives.</i> The main objectives of the resettlement program.</p> <p><i>4. Socioeconomic studies.</i> The findings of socioeconomic studies to be conducted in the early stages of project preparation and with the involvement of potentially displaced people, including</p> <p>(a) the results of a census survey covering</p> <p>(i) current occupants of the affected area to establish a basis for the design of the resettlement program and to exclude subsequent inflows of people from eligibility for compensation and resettlement assistance;</p> <p>(ii) standard characteristics of displaced</p>	Not applicable at this stage.	Detailed Terms of Reference need to be prepared for the RAP.

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	<p>households, including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status) of the displaced population;</p> <p>(iii) the magnitude of the expected loss--total or partial--of assets, and the extent of displacement, physical or economic;</p> <p>(iv) information on vulnerable groups or persons as provided for in OP 4.12, para. 8, for whom special provisions may have to be made; and</p> <p>(v) provisions to update information on the displaced people's livelihoods and standards of living at regular intervals so that the latest information is available at the time of their displacement.</p> <p>(b) Other studies describing the following</p> <p>(i) land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, and any issues raised by different tenure systems in the project area;</p> <p>(ii) the patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project;</p> <p>(iii) public infrastructure and social services that will be affected; and</p> <p>(iv) social and cultural characteristics of displaced communities, including a description of formal and informal institutions (e.g., community organizations, ritual groups, nongovernmental organizations (NGOs)) that may be relevant to the consultation strategy and to designing and implementing the</p>		

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	<p>resettlement activities.</p> <p>5. <i>Legal framework.</i> The findings of an analysis of the legal framework, covering (a) the scope of the power of eminent domain and the nature of compensation associated with it, in terms of both the valuation methodology and the timing of payment; (b) the applicable legal and administrative procedures, including a description of the remedies available to displaced persons in the judicial process and the normal timeframe for such procedures, and any available alternative dispute resolution mechanisms that may be relevant to resettlement under the project; (c) relevant law (including customary and traditional law) governing land tenure, valuation of assets and losses, compensation, and natural resource usage rights; customary personal law related to displacement; and environmental laws and social welfare legislation; (d) laws and regulations relating to the agencies responsible for implementing resettlement activities; (e) gaps, if any, between local laws covering eminent domain and resettlement and the Bank's resettlement policy, and the mechanisms to bridge such gaps; and (f) any legal steps necessary to ensure the effective implementation of resettlement activities under the project, including, as appropriate, a process for recognizing claims to legal rights to land--including claims that derive from customary law and traditional usage (see OP 4.12, para.15 b).</p> <p>6. <i>Institutional Framework.</i> The findings of an analysis of the institutional framework covering (a) the identification of agencies responsible for resettlement activities and NGOs that may have a role in project implementation; (b) an assessment of the institutional capacity</p>		

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	<p>of such agencies and NGOs; and (c) any steps that are proposed to enhance the institutional capacity of agencies and NGOs responsible for resettlement implementation.</p> <p><i>7. Eligibility.</i> Definition of displaced persons and criteria for determining their eligibility for compensation and other resettlement assistance, including relevant cut-off dates.</p> <p><i>8. Valuation of and compensation for losses.</i> The methodology to be used in valuing losses to determine their replacement cost; and a description of the proposed types and levels of compensation under local law and such supplementary measures as are necessary to achieve replacement cost for lost assets.</p> <p><i>9. Resettlement measures.</i> A description of the packages of compensation and other resettlement measures that will assist each category of eligible displaced persons to achieve the objectives of the policy (see OP 4.12, para. 6). In addition to being technically and economically feasible, the resettlement packages should be compatible with the cultural preferences of the displaced persons, and prepared in consultation with them.</p> <p><i>10. Site selection, site preparation, and relocation.</i> Alternative relocation sites considered and explanation of those selected, covering (a) institutional and technical arrangements for identifying and preparing relocation sites, whether rural or urban, for which a combination of productive potential, locational advantages, and other factors is at least comparable to the advantages of the old sites, with an estimate of the time needed to acquire and transfer land and ancillary resources; (b) any measures necessary to prevent land speculation or influx of ineligible persons at the</p>		

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	<p>selected sites; (c) procedures for physical relocation under the project, including timetables for site preparation and transfer; and (d) legal arrangements for regularizing tenure and transferring titles to resettlers.</p> <p>11. <i>Housing, infrastructure, and social services.</i> Plans to provide (or to finance resettlers' provision of) housing, infrastructure (e.g., water supply, feeder roads), and social services (e.g., schools, health services); plans to ensure comparable services to host populations; any necessary site development, engineering, and architectural designs for these facilities.</p> <p>12. <i>Environmental protection and management.</i> A description of the boundaries of the relocation area; and an assessment of the environmental impacts of the proposed resettlement and measures to mitigate and manage these impacts (coordinated as appropriate with the environmental assessment of the main investment requiring the resettlement).</p> <p>13. <i>Community participation.</i> Involvement of resettlers and host communities, including (a) a description of the strategy for consultation with and participation of resettlers and hosts in the design and implementation of the resettlement activities; (b) a summary of the views expressed and how these views were taken into account in preparing the resettlement plan; (c) a review of the resettlement alternatives presented and the choices made by displaced persons regarding options available to them, including choices related to forms of compensation and resettlement assistance, to relocating as individuals families or as parts of preexisting communities or kinship groups, to</p>		

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	<p>sustaining existing patterns of group organization, and to retaining access to cultural property (e.g. places of worship, pilgrimage centers, cemeteries) and</p> <p>(d) institutionalized arrangements by which displaced people can communicate their concerns to project authorities throughout planning and implementation, and measures to ensure that such vulnerable groups as indigenous people, ethnic minorities, the landless, and women are adequately represented.</p> <p>14. <i>Integration with host populations.</i> Measures to mitigate the impact of resettlement on any host communities, including</p> <p>(a) consultations with host communities and local governments;</p> <p>(b) arrangements for prompt tendering of any payment due the hosts for land or other assets provided to resettlers;</p> <p>(c) arrangements for addressing any conflict that may arise between resettlers and host communities; and</p> <p>(d) any measures necessary to augment services (e.g., education, water, health, and production services) in host communities to make them at least comparable to services available to resettlers.</p> <p>15. <i>Grievance procedures.</i> Affordable and accessible procedures for third-party settlement of disputes arising from resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms.</p> <p>16. <i>Organizational responsibilities.</i> The organizational framework for implementing resettlement, including identification of agencies responsible for delivery of</p>		

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	<p>resettlement measures and provision of services; arrangements to ensure appropriate coordination between agencies and jurisdictions involved in implementation; and any measures (including technical assistance) needed to strengthen the implementing agencies' capacity to design and carry out resettlement activities; provisions for the transfer to local authorities or resettlers themselves of responsibility for managing facilities and services provided under the project and for transferring other such responsibilities from the resettlement implementing agencies, when appropriate.</p> <p>17. <i>Implementation schedule.</i> An implementation schedule covering all resettlement activities from preparation through implementation, including target dates for the achievement of expected benefits to resettlers and hosts and terminating the various forms of assistance. The schedule should indicate how the resettlement activities are linked to the implementation of the overall project.</p> <p>18. <i>Costs and budget.</i> Tables showing itemized cost estimates for all resettlement activities, including allowances for inflation, population growth, and other contingencies; timetables for expenditures; sources of funds; and arrangements for timely flow of funds, and funding for resettlement, if any, in areas outside the jurisdiction of the implementing agencies.</p> <p>19. <i>Monitoring and evaluation.</i> Arrangements for monitoring of resettlement activities by the implementing agency, supplemented by independent monitors as considered appropriate by the Bank, to ensure complete and objective information; performance monitoring indicators to measure inputs, outputs, and outcomes for resettlement activities; involvement of the displaced persons</p>		

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	<p>in the monitoring process; evaluation of the impact of resettlement for a reasonable period after all resettlement and related development activities have been completed; using the results of resettlement monitoring to guide subsequent implementation.</p>		
Abbreviated RP	<p>Where impacts are considered "minor", or fewer than 200 people are displaced, an abbreviated resettlement plan may be agreed with the borrower (see Annex A, para. 22). The information disclosure procedures set forth in para. 22 apply. Impacts are considered "minor" if the affected people are not physically displaced and less than 10% of their productive assets are lost (4.12 ff 25] Contents specified in OP 4.12 Annex A</p> <p>An abbreviated plan covers the following minimum elements</p> <ul style="list-style-type: none"> (a) a census survey of displaced persons and valuation of assets; (b) description of compensation and other resettlement assistance to be provided; (c) consultations with displaced people about acceptable alternatives; (d) institutional responsibility for implementation and procedures for grievance redress; (e) arrangements for monitoring and implementation; and (f) a timetable and budget 	<p><u>Not applicable, as more than 200 people will be displaced.</u></p>	<p>A full RAP is required.</p>
Implementation timetable	<p>Implement all relevant resettlement plans before project completion and provide resettlement entitlements before displacement or restriction of access. For projects involving restrictions of access, impose the restrictions in accordance with the timetable in the plan of actions</p>	<p>Not applicable at this stage.</p>	<p>Should be clearly indicated in the RAP.</p>
Integration into Project Design and Budget	<p>The full costs of resettlement activities necessary to achieve the objectives of the project are included in the total costs of the project. The costs of resettlement, like the costs of other project activities, are treated as a charge against the economic benefits of the</p>	<p>Not applicable at this stage.</p>	<p>Should be clearly indicated in the RAP.</p>

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	<p>project; and any net benefits to resettlers (as compared to the "without-project" circumstances) are added to the benefits stream of the project. Resettlement components or free-standing resettlement projects need not be economically viable on their own, but they should be cost-effective. The borrower ensures that the Project Implementation Plan is fully consistent with the resettlement instrument.</p> <p>The implementation of resettlement activities is linked to the implementation of the investment component of the project to ensure that displacement or restriction of access does not occur before necessary measures for resettlement are in place. For impacts covered in para. 3(a) of this policy, these measures include provision of compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons. For impacts covered in para. 3(b) of this policy, the measures to assist the displaced persons are implemented in accordance with the plan of action as part of the project</p>		
<p>RP Disclosure and Stakeholder participation</p>	<p>The borrower informs potentially displaced persons at an early stage about the resettlement aspects of the project and takes their views into account in project design. As a condition of appraisal of projects involving resettlement, the borrower provides the Bank with the relevant draft resettlement instrument which conforms to this policy, and makes it available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to</p>	<p>This has been discussed in the EIA, but there is no evidence whether this has been disclosed, and where.</p>	<p>Since more people than planned will be affected by the Project, further discussions and consultations should take place. During this process, people will have to be informed about the resettlement aspects. Proof of participation and of disclosure should be provided.</p>

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	<p>them. Once the Bank accepts this instrument as providing an adequate basis for project appraisal, the Bank makes it available to the public through its InfoShop. After the Bank has approved the final resettlement instrument, the Bank and the borrower disclose it again in the same manner)</p>		
Reporting and evaluation	<p>The borrower is responsible for adequate monitoring and evaluation of the activities set forth in the resettlement instrument. The Bank regularly supervises resettlement implementation to determine compliance with the resettlement instrument. Upon completion of the project, the borrower undertakes an assessment to determine whether the objectives of the resettlement instrument have been achieved. The assessment takes into account the baseline conditions and the results of resettlement monitoring. If the assessment reveals that these objectives may not be realized, the borrower should propose follow-up measures that may serve as the basis for continued Bank supervision, as the Bank deems appropriate. The borrower's ...to keep the Bank informed of implementation progress are provided for in the legal agreements for the project.</p>	Not at this stage yet.	Should be covered in the RAP.
Resettlement (Policy) Framework	<p>A resettlement policy framework is required for operations referred to in paras. 26-30 that may entail involuntary resettlement, unless otherwise specified</p> <p>Resettlement Policy Framework (OP 4.12, Annex A): The purpose of the policy framework is to clarify resettlement principles, organizational arrangements, and design criteria to be applied to subprojects to be prepared during project implementation. Subproject resettlement plans consistent with the policy framework subsequently are submitted to the Bank for approval after specific planning information</p>	Not applicable and not needed.	A RAP is required.

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	<p>becomes available (see OP 4.12, para. 29). The resettlement policy framework covers the following elements, consistent with the provisions described in OP 4.12, paras. 2 and 4:</p> <ul style="list-style-type: none"> (a) a brief description of the project and components for which land acquisition and resettlement are required, and an explanation of why a resettlement plan as described in paras. 2-21 or an abbreviated plan as described in para. 22 cannot be prepared by project appraisal; (b) principles and objectives governing resettlement preparation and implementation; (c) a description of the process for preparing and approving resettlement plans; (d) estimated population displacement and likely categories of displaced persons, to the extent feasible; (e) eligibility criteria for defining various categories of displaced persons; (f) a legal framework reviewing the fit between borrower laws and regulations and Bank policy requirements and measures proposed to bridge any gaps between them; (g) methods of valuing affected assets; (h) organizational procedures for delivery of entitlements, including, for projects involving private sector intermediaries, the responsibilities of the financial intermediary, the government, and the private developer; (i) a description of the implementation process, linking resettlement implementation to civil works; (j) a description of grievance redress mechanisms; (k) a description of the arrangements for funding resettlement, including the preparation and review of cost estimates, the flow of funds, and contingency arrangements; (l) a description of mechanisms for consultations with, and participation of, displaced persons in planning, implementation, 		

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	<p>and monitoring; and (m) arrangements for monitoring by the implementing agency and, if required, by independent monitors.</p> <p>When a resettlement policy framework is the only document that needs to be submitted as a condition of the loan, the resettlement plan to be submitted as a condition of subproject financing need not include the policy principles, entitlements, and eligibility criteria, organizational arrangements, arrangements for monitoring and evaluation, the framework for participation, and mechanisms for grievance redress set forth in the resettlement policy framework. The subproject-specific resettlement plan needs to include baseline census and socioeconomic survey information; specific compensation rates and standards; policy entitlements related to any additional impacts identified through the census or survey; description of resettlement sites and programs for improvement or restoration of livelihoods and standards of living; implementation schedule for resettlement activities; and detailed cost estimate.</p>		
<p>Process Framework for loss of access to parks and protected areas</p>	<p>A process framework acceptable to the Bank is prepared by the borrower for projects involving restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. For the purposes of this policy, involuntary restriction of access covers restrictions on the use of resources imposed on people living outside the park or protected area, or on those who continue living inside the park or protected area during and after project implementation. In cases where new parks and protected areas are created as part of the project, persons who lose shelter, land, or other assets are covered.</p> <p>The process framework, describes the</p>	<p>May be needed if the Environmental Management Plan includes the development of parks and/or protected areas as a mitigation measure to address adverse impacts on forests and/or natural habitats.</p>	<p>If a framework is needed it should be an element of the overall RAP that would be required for the proposed project.</p>

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	<p>participatory process by which:</p> <ul style="list-style-type: none"> (a) specific components of the project will be prepared and implemented; (b) the criteria for eligibility of displaced persons will be determined [Note: these are not the same as for persons displaced from land to which they have formal or informal title or those without land rights] (4.12 ff 18] (c) measures to assist the displaced persons in their efforts to improve their livelihoods, or at least to restore them, in real terms, while maintaining the sustainability of the park or protected area, will be identified; and (d) potential conflicts involving displaced persons will be resolved. <p>The process framework also includes a description of the arrangements for implementing and monitoring the process. In projects involving involuntary restriction of access to legally designated parks and protected areas (see para. 3(b)), the nature of restrictions, as well as the type of measures necessary to mitigate adverse impacts, is determined with the participation of the displaced persons during the design and implementation of the project</p> <p>For projects involving restriction of access to parks and protected areas,, the borrower provides the Bank with a draft process framework that conforms to the relevant provisions of this policy as a condition of appraisal. In addition, during project implementation and before to enforcing of the restriction, the borrower prepares a plan of action, acceptable to the Bank, describing the specific measures to be undertaken to assist the displaced persons and the arrangements for their implementation. The plan of action could take the form of a natural resources management plan prepared for the project. Displaced persons) should be assisted in their efforts to improve or restore their livelihoods in</p>		

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	<p>a manner that maintains the sustainability of the parks and protected areas. This policy does not apply to restrictions of access to natural resources under community-based projects, i.e. where the community using the resources decides to restrict access to these resources, provided that an assessment satisfactory to the Bank establishes that the community decision-making process is adequate, and that it provides for identification of appropriate measures to mitigate adverse impacts, if any, on the vulnerable members of the community</p> <p>Contents further specified in OP 4.12, Annex A</p>		
<p>Application to FIs and subprojects</p>	<p>For financial intermediary operations that may involve involuntary resettlement, the Bank requires that the financial intermediary (FI) screen subprojects to be financed by the Bank to ensure their consistency with this OP. For these operations, the Bank requires that before appraisal the borrower or the FI submit to the Bank a resettlement policy framework conforming to this policy (see Annex A, paras. 23-25). In addition, the framework includes an assessment of the institutional capacity and procedures of each of the FIs that will be responsible for subproject financing. When, in the assessment of the Bank, no resettlement is envisaged in the subprojects to be financed by the FI, a resettlement policy framework is not required. Instead, the legal agreements specify the obligation of the FIs to obtain from the potential sub borrowers a resettlement plan consistent with this policy if a subproject gives rise to resettlement. For all subprojects involving resettlement, the resettlement plan is provided to the Bank for approval before the subproject is accepted for Bank financing. The Bank may agree, in writing, that subproject resettlement plans may be approved by the</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

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	<p>project implementing agency or a responsible government agency or financial intermediary without prior Bank review, if that agency has demonstrated adequate institutional capacity to review resettlement plans and ensure their consistency with this policy. Any such delegation, and appropriate remedies for the entity's approval of resettlement plans found not to be in compliance with Bank policy, are provided for in the legal agreements for the project. In all such cases, implementation of the resettlement plans is subject to ex post review by the Bank</p>		
Sector Loans	<p>For sector investment operations that may involve involuntary resettlement, the Bank requires that the project implementing agency screen subprojects to be financed by the Bank to ensure their consistency with this OP. For these operations, the borrower submits, prior to appraisal, a resettlement policy framework that conforms to this policy (see Annex A, paras. 23-25). The framework also estimates, to the extent feasible, the total population to be displaced and the overall resettlement costs.</p>	Not applicable.	Not applicable.
Small-scale community-based projects	<p>Patterns of community organization appropriate to the new circumstances are based on choices made by the displaced persons. To the extent possible, the existing social and cultural institutions of resettlers and any host communities are preserved and resettlers' preferences with respect to relocating in preexisting communities and groups are honored goes beyond small scale community based projects.</p> <p>This policy does not apply to restrictions of access to natural resources under community-based projects, i.e. where the community using the resources decides to restrict access to these resources, provided that an assessment satisfactory to the Bank establishes that the community decision-making process is adequate, and that it provides for identification</p>	Not discussed at this stage.	Should be discussed with the affected communities during the additional consultations and Social Assessment. Results obtained should be reflected in the project design (Community Development Component) and in the RAP.

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	of appropriate measures to mitigate adverse impacts, if any, on the vulnerable members of the community		
Other project structures	For other Bank-assisted project with multiple subprojects (including components and subcomponents) that may involve involuntary resettlement, the Bank requires that a draft resettlement plan conforming to this policy be submitted to the Bank before appraisal of the project unless, because of the nature and design of the project or of a specific subproject or subprojects (a) the zone of impact of subprojects cannot be determined, or (b) the zone of impact is known but precise sitting alignments cannot be determined. In such cases, the borrower submits a resettlement policy framework consistent with this policy prior to appraisal (see Annex A , paras. 23-25). For other subprojects that do not fall within the above criteria, a resettlement plan conforming to this policy is required prior to appraisal	Not applicable.	Not applicable.
Exemptions for emergency assistance	This policy also does not cover refugees from natural disasters, war, or civil strife (4.12) An exception to the RP may be made in highly unusual circumstances (such as emergency recovery operations) with the approval of Bank Management (see BP 4.12, para. 8). In such cases, the Management's approval stipulates a timetable and budget for developing the resettlement plan	Not applicable.	Not applicable.
Independent Advisory Panels	For projects that are highly risky or contentious, or that involve significant and complex resettlement activities, the borrower should normally engage an advisory panel of independent, internationally recognized resettlement specialists to advise on all aspects of the project relevant to the resettlement activities. The size, role, and frequency of meeting depend on the complexity of the resettlement. If independent technical advisory panels are established under OP 4.01 ,	An independent panel of experts was established under a contract between the Government of Cameroon and the IUCN, This panel was demobilized before the EIA was completed and they did not participate in the most recent consultations nor review the current draft of the EIA.	The independent panel of experts should be reinstated and its reports should be made available to the public.

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	<p><i>Environmental Assessment</i>, the resettlement panel may form part of the environmental panel of experts</p>		
<p>Compliance</p>	<p>The Bank is required by its Articles of Agreement¹ to ensure that the proceeds of any loan are used only for the purposes for which the loan was granted, with due regard to economy and efficiency. As a development agency, the Bank² also has an interest in assisting member countries to achieve their development objectives on a sustainable basis. To these ends, recognizing that project implementation is the borrower's responsibility, the Bank supervises the borrower's implementation of Bank-financed projects.</p> <p>2. Project supervision covers monitoring, evaluative review, reporting, and technical assistance activities to</p> <p>(a) ascertain whether the borrower is carrying out the project with due diligence to achieve its development objectives in conformity with the legal agreements;</p> <p>(b) identify problems promptly as they arise during implementation and recommend to the borrower ways to resolve them;</p> <p>(c) recommend changes in project concept or design, as appropriate, as the project evolves or circumstances change;</p> <p>(d) identify the key risks to project sustainability and recommend appropriate risk management strategies and actions to the borrower; and</p> <p>(e) prepare the Bank's Implementation Completion Report to account for the use of Bank resources, and to draw lessons to improve the design of future projects, sector and country strategies, and policies (OP 13.05)</p>	<p>Not applicable at this stage since the World Bank is not involved in financing of the proposed project.</p>	<p>Not applicable.</p>

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<p>Assessment of results</p>	<p>Assess whether the objectives of the resettlement instrument have been achieved, upon completion of the project, taking account of the baseline conditions and the results of resettlement monitoring. Upon completion of the project, the Implementation Completion Report (ICR) evaluates the achievement of the objectives of the resettlement instrument and lessons for future operations and summarizes the findings of the borrower's assessment referred to in OP 4.12, para. 24.¹² If the evaluation suggests that the objectives of the resettlement instrument may not be realized, the ICR assesses the appropriateness of the resettlement measures and may propose a future course of action, including, as appropriate, continued supervision by the Bank.</p> <p>At the time of project completion, Bank and borrower staff (in consultation with any co financiers/donors) prepare an Implementation Completion Report (ICR) that measures the project's degree of success in meeting its implementation and development objectives and reviews and records the lessons learned from the experience. The Operations Evaluation Department reviews ICRs and writes evaluative notes on each one; also, it conducts audits of selected operations to evaluate project success and supervision quality. Bank supervision of a project normally ends with the ICR, except that the TT continues to monitor receipt of, and review, audit reports covering the year during which the last disbursement is made from the loan. However, in special cases the country director and sector manager may decide to continue supervision beyond project completion for defined periods. (BP 13.05)</p>	<p>Not applicable at this stage.</p>	<p>It is important to include provisions in the project design and budget for assessment of the outcome from implementation of the RAP.</p>

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FORESTS	OP/BP 4.36 Forests		
Objectives	<p>Assist borrowers¹ to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests</p> <p>Where forest restoration and plantation development are necessary to meet these objectives, the Bank assists borrowers with forest restoration activities that maintain or enhance biodiversity and ecosystem functionality.</p> <p>The Bank also assists borrowers with the establishment and sustainable management of environmentally appropriate, socially beneficial and economically viable forest plantations to help meet growing demands for forest goods and services.</p>	<p>Harvesting of forest resources is envisioned. EIA notes that 3, 884 ha minimum and 15, 580 ha maximum of forests cover may be directly and indirectly impacted by the reservoir (especially in the Deng Deng Area).</p> <p>Overall and while under operation the dam will impact 55,873 ha of forest resources ranging for deciduous, semi-deciduous, gallery and savannah forests. The loss is quantified in a table on page 168.</p> <p>A plan for the use of forest resources will be developed to limit negative impacts of the project on forest resources (Page 263).</p> <p>Compensation for the anticipated impacts is proposed through the establishment of a Fauna Reserve in the Deng-Deng, Mouyal, Goyoum Area for the conservation of Great Apes.</p>	<p>Need to clarify how environmental services of the watershed will reduce sedimentation in the reservoir, protect forest resources and biodiversity.</p> <p>EIA must analyze impact on any community forest activities in all areas that might be affected and/or any resettlement areas.</p> <p>Need to clarify the content of the program for the use of forest resources to be harvested in order to clear the reservoir area (salvage logging).</p> <p>Detailed plan and budget needs to be prepared for proposed Fauna Reserve.</p> <p>Not applicable with respect to forest restoration activities and forest plantations.</p>
Scope of Safeguard Application	<p>This policy applies to the following types of Bank-financed investment projects:</p> <p>(a) projects that have or may have impacts on the health and quality of forests;</p> <p>(b) projects that affect the rights and welfare³ of people and their level of dependence upon or interaction with forests; and</p> <p>(c) projects that aim to bring about changes in the management, protection, or utilization of natural forests or plantations, whether they are publicly, privately, or communally owned</p>	<p>All of the cases apply: (i) management of the proposed Fauna Reserve; (ii) management of the resettlement site and their forest resources if any; and (iii) salvage logging.</p>	<p>See above.</p>

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Screening	A project with the potential for conversion or degradation of natural forests or other natural habitats that is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented is classified as Category A; projects otherwise involving forests or other natural habitats are classified as Category B, C, or FI, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its environmental impacts	Proposed project should be the subject of a full EIA.	Greater level of detail concerning potential impacts to forests and community use of forests should be prepared as part of the EIA.
Land use allocations and forest inventory	Ensure that the borrower provides the Bank with an assessment of the adequacy of land use allocations for the management, conservation, and sustainable development of forests, including any additional allocations needed to protect critical forest areas. This assessment provides an inventory of such critical forest areas, and is undertaken at a spatial scale that is ecologically, socially, and culturally appropriate for the forest area in which the project is located. The assessment involves all affected parties in accordance with OP 4.04, <i>Natural Habitats</i> , and is subject to independent scientific peer review.	This has been partially done.	Need a complete assessment of land use and forest inventory.
Critical forest areas and related critical natural habitats/	The Bank does not finance projects that, in its opinion, would involve significant conversion or degradation of critical forest areas or related critical natural habitats. In determining the significance of any conversion or degradation, the Bank applies a precautionary approach	According to the current documents, the proposed Project will not affect any critical habitat in the Deng Deng Forest or Reserve. The proposed Project, however, has the potential to result in the significant conversion of relatively intact forest and critical habitat, particularly with respect to the placement of the workers' camps and induced development through greater access to these areas. For example, certain access routes and/or roads that are being lengthened or widened as a result of construction could go through areas occupied by endangered gorillas, or they could damage critical biodiversity.	The EIA should provide further analysis of the types of impacts, both direct and indirect, the types of habitats and species concerned including both terrestrial and aquatic ecosystems. This needs to include an assessment of impacts both upstream and downstream of the dam and the areas in which project-related access roads, quarries and construction camps would be located. A plan to protect and conserve critical biological resources affected by the proposed Project needs to be developed.

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Non-critical natural forests/habitats	If a project involves the significant conversion or degradation of natural forests or related natural habitats that the Bank determines are not critical, and the Bank determines that there are no feasible alternatives to the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs, the Bank may finance the project provided that it incorporates appropriate mitigation measures	While the proposed Project may not affect critical habitats in the Deng Deng forest or elsewhere, there is potential for damage to the ecosystem, depending on the placement of the workers' camps.	The EIA should provide further analysis of the impacts both upstream and downstream of the dam and the areas in which project-related access roads, quarries and construction camps would be located.
International agreements	The Bank does not finance projects that contravene applicable international environmental agreements	The EIA does not elaborate on the legal basis for the forest resource management, except some very general information provided on international conventions ratified by Cameroon.	Legal due diligence on forest management should be undertaken and included in the EIA.
Commercial logging	The Bank may finance commercial harvesting operations ⁹ only when the Bank has determined, on the basis of the applicable environmental assessment or other relevant information, that the areas affected by the harvesting are not critical forests or related critical natural habitats. However, the Bank may finance community-based harvesting activities that take place within Category VI Protected Areas – Managed Resource Protected Areas – that are established and managed mainly for the sustainable use of natural ecosystems (see Definitions footnote 2). In these areas, Bank financial support is restricted to situations where such activities are permitted under the legislation governing the establishment of the area and where the activities form an integral part of the management plan for the area	A salvage logging plan is yet to be developed	A salvage logging plan with an effective monitoring program should be developed in conjunction with the EIA.
Certification	To be eligible for Bank financing, industrial-scale commercial harvesting operations must also a) be certified under an independent forest certification system acceptable to the Bank ¹¹ as meeting standards of responsible forest	No certification is necessary for salvage logging, as this is understood in the project context to be a conversion activity, with no intention of being sustainable.	Not applicable.

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	<p>management and use; or b) where a pre-assessment under such an independent forest certification system determines that the operation does not yet meet the requirements of subparagraph 9(a), adhere to a time-bound phased action plan acceptable to the Bank¹² for achieving certification to such standards.</p> <p>10. To be acceptable to the Bank, a forest certification system must require:</p> <ul style="list-style-type: none"> a) compliance with relevant laws; b) recognition of and respect for any legally documented or customary land tenure and use rights as well as the rights of indigenous peoples and workers; c) measures to maintain or enhance sound and effective community relations; d) conservation of biological diversity and ecological functions; e) measures to maintain or enhance environmentally sound multiple benefits accruing from the forest; f) prevention or minimization of the adverse environmental impacts from forest use; g) effective forest management planning; h) active monitoring and assessment of relevant forest management areas; and i) the maintenance of critical forest areas and other critical natural habitats affected by the operation. <p>In addition a forest certification system must</p>		

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	<p>be independent, cost-effective, and based on objective and measurable performance standards that are defined at the national level and are compatible with internationally accepted principles and criteria of sustainable forest management. The system must require independent, third-party assessment of forest management performance. In addition, the system's standards must be developed with the meaningful participation of local people and communities; indigenous peoples; non-governmental organizations representing consumer, producer, and conservation interests; and other members of civil society, including the private sector. The decision-making procedures of the certification system must be fair, transparent, independent, and designed to avoid conflicts of interest.</p> <p>A forest certification system puts in place a process where a forest area is inspected by an independent certification body to determine whether its management meets clearly defined criteria and performance standards.</p> <p>If a project involves commercial harvesting of forests, ensure that the borrower makes available to the public the results of all forest management assessments carried out under the independent forest certification system</p>		
Publicly disclosed time-bound action plan	Ensures that the project incorporates the time-bound action plan, as well as the associated performance benchmarks and the timeframe required to achieve appropriate forest management standards and make it available to the public in accordance with the World Bank's disclosure policy	As the program does not yet exist, these standards have not been achieved.	Not applicable.
Afforestation/Reforestation Plantations	Where forest restoration and plantation development are necessary to meet these objectives, the Bank assists borrowers with	Not applicable.	Not applicable.

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	<p>forest restoration activities that maintain or enhance biodiversity and ecosystem functionality. The Bank also assists borrowers with the establishment and sustainable management of environmentally appropriate, socially beneficial, and economically viable forest plantations to help meet growing demands for forest goods and services. The Bank does not finance plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When the Bank finances plantations, it gives preference to siting such projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the project). In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats.</p> <p>If the project involves forest restoration or plantation development, ensure that, as appropriate, the project design incorporates means of addressing the following issues: the potential of forest restoration to improve biodiversity and ecosystem functions; the potential to establish plantations on non-forest lands that do not contain critical natural habitats; the need to avoid conversion or degradation of natural habitats; and the capacities of the government, nongovernmental organizations, and other private entities to cooperate in the forest restoration and plantation development</p>		
<p>Small-scale and community level forest management</p>	<p>Ensure that the borrower assesses the feasibility of giving preference to small-scale, community level harvesting approaches to harness the potential of forests to reduce poverty in a sustainable manner.</p>	<p>It is not clear whether or not this should be undertaken under the resettlement program.</p> <p>References are made to the role of local communities and local government.</p>	<p>Clarification is needed on the content of the compensation program, and whether it would include any community forest management.</p>

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	<p>The Bank may finance harvesting operations conducted by small-scale landholders, by local communities under community forest management, or by such entities under joint forest management arrangements, if these operations</p> <p>(a) have achieved a standard of forest management developed with the meaningful participation of locally affected communities, consistent with the principles and criteria of responsible forest management outlined in paragraph 10; or</p> <p>(b) adhere to a time-bound phased action plan¹⁴ to achieve such a standard. The action plan must be developed with the meaningful participation of locally-affected communities and be acceptable to the Bank.</p> <p>The borrower monitors all such operations with the meaningful participation of locally-affected communities</p> <p>Small-scale" is determined by the national context of a given country and is generally relative to the average size of household forest landholdings. In some situations, small-scale landholders may control less than a hectare of forests; in others they may control 50 hectares or more.</p> <p>If the project is designed to support community-based forest management and development, the TT ensures that, as appropriate, the project's design takes the following into account:</p> <p>(a) the extent to which the livelihoods of local communities depend on and use trees in the project and adjacent area,</p>		<p>“Meaningful participation” is yet to be achieved at the stage of the EIA preparation in terms of consultation and information-sharing. It is recommended that an additional program of consultations be undertaken.</p>

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	<p>(b) the institutional, policy, and conflict management issues involved in improving the participation of indigenous people⁵ and poor people in the management of the trees and forests included in the project area; and</p> <p>(c) forest product and forest service issues relevant to indigenous people and poor people living in or near forests in the project area, as well as opportunities for promoting the involvement of women.</p>		
Protection of forest-dwelling communities	<p>The environmental assessment (EA) for an investment project addresses the potential impact of the project on forests and/or the rights and welfare of local communities. The rights and welfare of people affected by projects should be assessed in relation to the requirements and procedures of OP 4.10, <i>Indigenous Peoples</i>. In accordance with OP 4.10 <i>Indigenous Peoples</i>, and OP 4.12, <i>Involuntary Resettlement</i>, ensure that the borrower assesses the potential impact of the project on local communities, including their legal rights of access to, and use of, designated forest areas</p>	<p>The EIA includes a detailed accounting of areas and types of degraded forest.</p> <p>The RAP is yet to be developed and deal with rights and welfare of resettled communities as part of the forestry livelihood option.</p> <p>A resource access restriction framework is yet to be developed and should be an element of the RAP.</p>	<p>The coverage in the EIA partially covers these issues; however, more work would be required to achieve full coverage.</p> <p>Natural habitats accounting needs to be finalized (see Section on OP/BP 4.04, <i>Natural Habitats</i> above).</p> <p>There is a risk of elite capture in the forestry scheme. Safeguards need to be incorporated into the salvage logging plan and later in the RAP to reduce this possibility.</p>
Borrower Capacity	<p>For projects involving the management of forests proposed for Bank financing, the borrower furnishes the Bank with relevant information on the forest sector concerning the borrower's overall policy framework, national legislation, institutional capabilities, and the poverty, social, economic, or environmental issues related to forests. This information should include information on the country's national forest programs or other relevant country-driven processes. On the basis of this information and the project's EA,¹⁶ the borrower, as appropriate, incorporates</p>	<p>This issue has not been examined in the EIA.</p>	<p>The EIA should review the capacity of the authorities in Cameroon to address forest related mitigation and monitoring activities related to the proposed Project.</p> <p>A mitigation measure need to be included in the Environmental Management Plan and/or RAP that includes an institutional development component that includes: organization of the</p>

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	<p>measures in the project to strengthen the fiscal, legal, and institutional framework to meet the project's economic, environmental, and social objectives. These measures address, among other issues, the respective roles and legal rights of the government, the private sector, and local people</p>		<p>village forestry organization; Technical Assistance for startup and training phases of the program; and provide support for development of capacity of villagers and staff of the village forestry organization for forest management, utilization and marketing operations.</p> <p>Need to assess if there are additional required forest-related activities at the national level.</p> <p>The salvage logging plan needs to address the respective roles and legal rights of the government, private sector, and local communities.</p>
<p>Market Development</p>	<p>As appropriate, the design of projects that use forest resources or provide environmental services includes an evaluation of the prospects for the development of new markets and marketing arrangements for non-timber forest products and related forest goods and services, taking into account the full range of goods and environmental services from well-managed forests</p>	<p>It is recommended that this be addressed as an element of the RAP.</p>	<p>The RAP should address this issue.</p>

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CULTURAL PROPERTY	OPN 11.03 – Management of Cultural Property in Bank-Financed Projects		
Definition	The United Nations term “cultural property” includes sites having archeological (prehistoric), paleontological, historical, religious, and unique natural values. Cultural property, therefore, encompasses both remains left by previous human inhabitants (for example, middens, shrines, and battlegrounds) and unique natural environmental features such as canyons and waterfalls	The EIA uses a broader and more comprehensive definition in the Terms of Reference.	No recommendations.
Objective	The World Bank’s ¹ general policy regarding cultural properties is to assist in their preservation, and to seek to avoid their elimination	Not applicable.	Not applicable.
Scope of Application	This policy pertains to any project in which the Bank is involved, irrespective of whether the Bank is itself financing the part of the project that may affect cultural property	EIA includes a first phase field based review of potential impacts to cultural property.	EIA addresses cultural property issues.
Prohibitions	The Bank normally declines to finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage.	The Environmental Management Plan would include provisions to address impacts to cultural property.	No recommendations.
Due Diligence	The management of cultural property of a country is the responsibility of the government. Before proceeding with a project, however, which prima facie entails the risk of damaging cultural property (e.g., any project that includes large scale excavations, movement of earth, surficial environmental changes or demolition), Bank staff must (1) determine what is known about the cultural property aspects of the proposed project site. The government’s attention should be drawn specifically to that aspect and appropriate agencies, NGOs or university departments should be consulted: (2) If there is any question of cultural property in the area, a brief reconnaissance survey should be undertaken in the field by a specialist	Given the large area of the dam construction and reservoir, estimated at 610 sq. km., the method of investigation in Themes 21 and 22 involved conducting a sample survey, and estimating from the sample the total number of cultural property sites in the project impact area. In accordance with the detailed, separate Terms of Reference for each theme, the EIA also contains guidance and estimates for completion of the investigation and management of the cultural property discovered, including provision of compensation. The Terms of Reference stipulate that these should comprise the cultural heritage and archaeological components of the Environmental Management Plan. However, the text of the Environmental Management Plan provided for review does not contain this essential information, and hence there is no basis for confidence that cultural property will be adequately identified, managed or	A revised Environmental Management Plan would be prepared to provide necessary detail for completion of investigations and management of cultural heritage and archaeology during project implementation in accordance with findings and estimates provided in the EA Themes 21 and 22. In the interest of promoting best practice, a copy of the <i>Physical Cultural Resources Safeguard Policy Handbook</i> should be made available to the project proponents by the World Bank.

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
		compensated for during the Lom Pangar Dam project.	
<p>Mitigation</p>	<p>The Bank will assist in the protection and enhancement of cultural properties encountered in Bank-financed projects, rather than leaving that protection to chance. In some cases, the project is best relocated in order that sites and structures can be preserved, studied, and restored intact in situ. In other cases, structures can be relocated, preserved, studied, and restored on alternate sites. Often, scientific study, selective salvage, and museum preservation before destruction is all that is necessary. Most such projects should include the training and strengthening of institutions entrusted with safeguarding a nation's cultural patrimony. Such activities should be directly included in the scope of the project, rather than being postponed for some possible future action, and the costs are to be internalized in computing overall project costs.</p>	<p>(a) Cultural Heritage:</p> <p><i>Terms of Reference</i></p> <p>The Terms of Reference are comprehensive and detailed. Cultural heritage is far more broadly defined than in the World Bank's safeguard policy: it includes cultural values and practices relating to food gathering and production, as well as to other uses of the natural environment. The EIA team is to define a method of investigation to be accomplished through consultation and research in order to determine socio-economic-cultural impacts of the project, and mitigation measures, including relocation of inhabitants and cultural property, and compensation.</p> <p><i>Coverage</i></p> <p>Cultural heritage is broadly defined to include not only sites within the impact area (e.g., sacred trees, rocks and water features; as well as burials) but also, in accord with the fundamental meaning of 'culture,' to encompass the mode of the peoples' adaptation to the natural environment, such as the practices, habits and skills associated with livelihood and survival (e.g., hunting, fishing and agriculture).</p> <p>With respect to items covered under the Bank's safeguard policy for cultural property, burials are the main concern in the EIA.</p> <p><i>Method</i></p> <p>Investigation during the EIA preparation process included visits to 98 villages and 15 campsites in the bush. During this process, formal consultation meetings were held in 22 villages to determine the presence of sacred sites, burials (both proximate to and distant from the villages), and practices of agriculture, animal husbandry, hunting, fishing and gold-washing.</p> <p>Due to the vast area of the dam construction and reservoir</p>	<p>Cultural Heritage: A detailed plan is required for continuation of the sampling done during the EIA. This plan, along with findings from the EIA, should be incorporated into the Environmental Management Plan for continuation of work during the remainder of project preparation and during implementation. The plan is to include actions, objectives, tasks, supervision arrangements, estimated costs, sources of financing and constraints.</p> <p>Responsibilities for supervision, accountability and conduct of work, as well as methodology, participants, cost and a time-table for surveying the remainder of the project impact area, should be detailed in the Environmental Management Plan in accordance with findings, procedures, and estimates provided in Theme 21. The Environmental Management Plan should then be reviewed for acceptability by the national government and by financing institutions, in consideration of relevant laws and policies.</p> <p>Identification of sites should continue, through consultation with inhabitants in the project impact area, and including necessary arrangements for transfer of spiritual attributes, for re-burial and compensation in accordance with detailed</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
		<p>(estimated variously in the EIA, as 500 to 600 sq. km.), difficult terrain, and limited time, the Terms of Reference for the EIA recognized the impossibility of identifying and recording the location (by GPS) of all cultural sites in the project impact area. The sample probed during the EIA serves to identify issues and as guidance for completing the investigation in the total area of project impact, presumably in accordance with the Environmental Management Plan.</p> <p><i>Findings</i></p> <p>Burials are the main concern in regard to cultural property. The settlement pattern in the area of project impact is fluid, with numerous recently established villages and hamlets. Inhabitants of settled communities may also depart for long periods of encampment in the bush. Thus burials are scattered throughout the impact area, and not always located in proximity to current settlements. Victims of drowning are buried near the site where the body was recovered. Burials are not always clearly marked. For duly identified burials in the construction or inundation areas, indemnities should be paid to enable requisite ceremonies (including animal sacrifices) or re-burial.</p> <p>Fewer than half the villages consulted during the EIA process revealed sacred sites. Numerous villages largely abandoned traditional beliefs when they embraced Christianity. Sacred trees exist, generally in proximity to settlements; if necessary, the spiritual attributes may be transferred to other trees with the appropriate ceremonies. The sacred attributes of lakes and streams also can be transferred. Sacred rocks tend to be high enough to escape inundation by the reservoir.</p> <p>(b) Archaeology</p> <p><i>Terms of Reference</i></p> <p>The Terms of Reference are comprehensive and detailed, drawing on experience from the Chad-Cameroon Pipeline and Bertoua-Garoua Boulai road projects. The stated objectives are: to identify, record the location, and document archaeological remains and sites in the project impact area;</p>	<p>provisions in the Environmental Management Plan. Relocation of burials should be undertaken in consultation with religious authorities.</p> <p>Experience from the Chad-Cameroon Pipeline project indicates that identification of sites during project preparation is essential in order to avoid compensation claims for additional sites identified by local inhabitants once the project is underway. The EIA recommends that villages establish management groups to identify sacred sites and burials, receive compensation, and arrange necessary ceremonies for loss or relocation of sites.</p> <p>In the interest of strengthening the national system for management of physical cultural resources, facilitate the creation of an information framework to conserve, organize and manage the valuable information on location, characteristics and significance of the physical cultural resources that has been discovered during the EIA and implementation of recent development projects, including the Chad-Cameroon Pipeline, the Bertoua-Garoua Boulai road and the proposed Lom Pangar Dam.</p> <p>Archaeology: Responsibilities for supervision, accountability and conduct of work, as well as</p>

WORLD BANK COMMENTS – DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED LOM PANGAR DAM

SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
		<p>to evaluate their significance and the project's impact on them; to institute a process for surveillance, protection and research (including excavation); to formulate mitigation and compensation measures and procedures; to make provisions for 'chance finds' during project implementation (including reference in procurement documents); and to provide a detailed plan for archaeological resources to be incorporated into the Environmental Management Plan for use during the remainder of the project preparation period and during implementation. Additionally, there should be an assessment of local capacity to manage archaeological resources and taking this into consideration, a viable management plan.</p> <p><i>Coverage</i></p> <p>As the title indicates, Theme 22 covers only archaeological remains. The 23 sites identified in a surface survey of a portion of the project impact area are treated as a sample and are described and evaluated.</p> <p><i>Method</i></p> <p>A sample surface survey conducted during the EIA process along the Lom River identified types of material and probable site locations in this portion of the project impact area. From the sample, an estimate is made of the total number of sites, the scope of work, time and financial resources required to investigate the entire project impact area. This work is to continue during the remainder of the project preparation and construction periods.</p> <p><i>Findings</i></p> <p>The area of project impact is largely unexplored by archaeologists; however, investigations for the Chad-Cameroon Pipeline and the Bertoua-Garoua Boulai road demonstrate that the region is rich in Stone Age and Iron Age sites. The surface survey for the EIA identified 23 sites (21 by surface remains and 2 by stratigraphy). About one-third of the sites in this sample are of scientific interest, and one-fifth (sites) should be priorities for excavation within the project Environmental Management Plan. If the sample</p>	<p>methodology, participants, cost and a time-table for surveying the remainder of the project impact area, should be detailed in the Environmental Management Plan in accordance with findings, procedures, and estimates provided in the EIA. The Environmental Management Plan should then be reviewed for acceptability by the national government and by financing institutions, in consideration of relevant laws and policies. During the remainder of the project preparation period and during implementation, in accordance with detailed plans and provisions in the Environmental Management Plan, work should continue on surveying to identify, document and evaluate sites, including excavation, documentation and publication of the most important sites. During project implementation, construction should be monitored for protection and management of sites, as well as discover and management of 'chance finds.'</p> <p>A local museum should be constructed to house and exhibit archaeological finds.</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
		sites are combined with those identified through Chad-Cameroon pipeline investigations, an estimated 250 to 350 sites may exist in the Lom Pangar reservoir area, of which 40 to 80 (15 - 20 percent) may be scientifically important.	
Exceptions	Deviations from this policy may be justified only where expected project benefits are great, and the loss of or damage to cultural property is judged by competent authorities to be unavoidable, minor, or otherwise acceptable. Specific details of the justification should be discussed in project documents	Further assessment is required on the economic benefits of the project in relationship to adverse impacts on cultural property.	It is unclear whether the economic benefits of the project are significant enough to warrant loss of cultural property. This will have to be assessed in due course.

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
SAFETY OF DAMS	<p style="text-align: center;">OP/BP 4.37 Safety of Dams October 2001</p> <p style="text-align: center;">BP 4.01- Annex B, Application of EA to Dam and Reservoir Projects</p>		
Professional expertise and standards for new dams	<p>When the Bank finances a project that includes the construction of a new dam, it requires that the dam be designed and its construction supervised by experienced and competent professionals. It also requires that the borrower adopt and implement certain dam safety measures for the design, bid tendering, construction, operation, and maintenance of the dam and associated works.</p> <p>New dams may include, for example, a water storage dam for a hydropower, water supply, irrigation, flood control, or multipurpose project; a tailings or a slimes dam for a mine project; or an ash impoundment dam for a thermal power plant.</p>	<p>This provision outlines the approach of the World Bank.</p>	<p>No recommendations.</p>
Engineering Requirements for large dams	<p>The definition of “large dams” is based on the criteria used to compile the list of large dams in the World Register of Dams, published by the International Commission on Large Dams. Large dams are 15 meters or more in height. Dams that are between 10 and 15 meters in height are treated as large dams if they present special design complexities—for example, an unusually large flood-handling requirement, location in a zone of high seismicity, foundations that are complex and difficult to prepare, or retention of toxic materials. Dams under 10 meters in height are treated as large dams if they are expected to become large dams during the operation of the facility.</p> <p>For large dams, the Bank requires</p> <p>a) reviews by an independent panel of experts (the Panel) of the investigation, design, and</p>	<p>The EIA does not address convening of a Panel of Experts (POE) to review technical and other aspects of the project.</p> <p>The report analyses the Lom Pangar reservoir impacts on:</p> <p>a) ecosystem, b) population, c) structures, d) river morphology.</p> <p>For each aspect the report offers a scenario describing how the hydro-system downstream would adapt to the changes that will be created by the proposed reservoir. This is fine in terms of impact analysis, but this is just the beginning of the analytical process for this type of proposed investment. Two key steps are missing:</p> <p>1. Assessing whether the foreseen scenarios are acceptable or not; a task that should be heavily based on</p>	<p>A Panel of Experts (POE) for Dam Safety should be assembled, as soon as possible, to review technical and other aspects of the project. The proposed dam does not present significantly complex features; therefore, a single POE advising the Government of Cameroon on engineering, environmental, and social aspects should be considered.</p> <p><i>Other recommendations:</i></p> <ul style="list-style-type: none"> • Off-grid demand, mainly in rural areas, should also be addressed by the proposed Lom Pangar project to provide local benefits. Energy

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
	<p>construction of the dam and the start of operations;</p> <p>b) preparation and implementation of detailed plans: a plan for construction supervision and quality assurance, an instrumentation plan, an operation and maintenance plan, and an emergency preparedness plan;⁶</p> <p>(c) prequalification of bidders during procurement and bid tendering,⁷ and</p> <p>d) periodic safety inspections of the dam after completion.</p>	<p>stakeholder consultations.</p> <p>2. Identification of indicators that should be monitored during reservoir impounding and operation; this is a key requirement for an effective adaptive management approach.</p> <p>The dam break study is adequate for the preparation of a suitable Emergency Preparedness Plan (EPP) and it contains an outline for an EPP.</p>	<p>sources such as bio fuels (ethanol from sugar cane), biomass, and hydro should also be considered.</p> <ul style="list-style-type: none"> • The thermal-hydro mix should be discussed by the Government of Cameroon. • Potential for storage recovery at existing reservoirs (Bamedjin, Mape', Mbakaou) should be considered; in particular Mbakaou is 30 years old and has a total storage 2.5 bm³. With a mean annual run-off of 12.4 bm³, sediment flushing during the flood period could have the potential for recovering/ conserving storage capacity. This could reduce the needed capacity at Lom Pangar. • 153 MW of operating hydro (out of 719 MW total) are from units more than 40 years old. Potential for rehabilitation and uprating, including transmission lines should be considered. • Basic studies of alternative options should be brought to a level allowing effective comparison with Lom Pangar. • Environmental monitoring indicators should be proposed for use during reservoir operation (adaptive management approach). • The preferred course of action should be to select, through competitive bidding, a reputable a reputable

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
			<p>engineering firm to carry out an independent Engineering Impact Assessment. Such assessment would look into aspects such as: safety, operation reliability, and economics.</p>
Small Dams	<p>For small dams, generic dam safety measures designed by qualified engineers are usually adequate</p>	<p>Not applicable.</p>	<p>Not applicable.</p>
Expert Panel	<p>The expert panel consists of three or more experts, appointed by the borrower and acceptable to the Bank, with expertise in the various technical fields relevant to the safety aspects of the particular dam⁸. The primary purpose of the Panel is to review and advise the borrower on matters relative to dam safety and other critical aspects of the dam, its appurtenant structures, the catchment area, the area surrounding the reservoir, and downstream areas. However, the borrower normally extends the Panel's composition and terms of reference beyond dam safety to cover such areas as project formulation; technical design; construction procedures; and, for water storage dams, associated works such as power facilities, river diversion during construction, shiplifts, and fish ladders.</p> <p>The borrower contracts the services of the Panel and provides administrative support for the Panel's activities. Beginning as early in project preparation as possible, the borrower arranges for periodic Panel meetings and reviews, which continue through the investigation, design, construction, and initial filling and start-up phases of the dam. The borrower informs the Bank in advance of the Panel meetings, and the Bank normally sends an observer to these meetings. After each meeting, the Panel provides the borrower a</p>	<p>The EIA does not address convening of a Panel of Experts (POE) to review technical and other aspects of the project.</p>	<p>The POE for Dam Safety should be composed by three members including the following specializations: RCC technology; geotechnical; and hydrology, flood warning and emergency preparedness.</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
	<p>written report of its conclusions and recommendations, signed by each participating member; the borrower provides a copy of that report to the Bank. Following the filling of the reservoir and start-up of the dam, the Bank reviews the Panel's findings and recommendations. If no significant difficulties are encountered in the filling and start-up of the dam, the borrower may disband the Panel .</p>		
<p>Existing dams</p>	<p>The Bank may finance the following types of projects that do not include a new dam but will rely on the performance of an existing dam or a dam under construction (DUC): power stations or water supply systems that draw directly from a reservoir controlled by an existing dam or a DUC; diversion dams or hydraulic structures downstream from an existing dam or a DUC, where failure of the upstream dam could cause extensive damage to or failure of the new Bank-funded structure; and irrigation or water supply projects that will depend on the storage and operation of an existing dam or a DUC for their supply of water and could not function if the dam failed. Projects in this category also include operations that require increases in the capacity of an existing dam, or changes in the characteristics of the impounded materials, where failure of the existing dam could cause extensive damage to or failure of the Bank-funded facilities.</p> <p>If such a project involves an existing dam or DUC in the borrower's territory, the Bank requires that the borrower arrange for one or more independent dam specialists to (a) inspect and evaluate the safety status of the existing dam or DUC, its appurtenances, and its performance history; (b) review and evaluate the owner's operation and maintenance procedures; and (c) provide a written report of findings and</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

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SAFEGUARD REQUIREMENT	WORLD BANK SAFEGUARD	LOM PANGAR EIA	SIGNIFICANT DIFFERENCES, IF ANY, AND RECOMMENDATIONS
	<p>recommendations for any remedial work or safety-related measures necessary to upgrade the existing dam or DUC to an acceptable standard of safety.</p> <p>The Bank may accept previous assessments of dam safety or recommendations of improvements needed in the existing dam or DUC if the borrower provides evidence that (a) an effective dam safety program is already in operation, and (b) full-level inspections and dam safety assessments of the existing dam or DUC, which are satisfactory to the Bank, have already been conducted and documented.</p> <p>Necessary additional dam safety measures or remedial work may be financed under the proposed project. When substantial remedial work is needed, the Bank requires that (a) the work be designed and supervised by competent professionals, and (b) the same reports and plans as for a new Bank-financed dam (see para. 4(b)) be prepared and implemented. For high-hazard cases involving significant and complex remedial work, the Bank also requires that a panel of independent experts be employed on the same basis as for a new Bank-financed dam (see paras. 4(a) and 5).</p> <p>When the owner of the existing dam or DUC is an entity other than the borrower, the borrower enters into agreements or arrangements providing for the measures set out above. to be undertaken by the owner.</p>		