Examination Report on Objection to Panama Canal Expansion Project

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(Note) Should any discrepancies be found between this translation into English and the Japanese version, the Japanese version will prevail.

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Section 1. Purpose of this Report

JBIC's Examiners for Environmental Guidelines (hereinafter "the Examiners"), issue this report on the basis of Paragraph 1, V. 5 of the "Summary of Procedures to Submit Objections concerning JBIC Guidelines for Confirmation of Environmental and Social Considerations" (hereinafter "the Summary"), which the Japan Bank for International Cooperation (JBIC) introduced in accordance with Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations (April 2002). The report describes the results of the investigation on whether the environmental and social considerations over the Panama Canal expansion project were made in accordance with Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations (hereinafter "JBIC Environmental Guidelines"), along with the progress of a dialogue between parties concerned.

Section 2. Project Overview

The Panama Canal expansion project (hereinafter "the Project") refers to the following engineering works of the Panama Canal Authority (Autoridad del Canal de Panamá (ACP)) in order to achieve a more efficient operation of the Canal and enable post-Panamax vessels to pass through the Canal in response to a recent increasing demand for a business expansion from the shipping industry.

- 1) Dredging of the inlet waterway on the Atlantic side
- 2) Construction of a new waterway on the Atlantic side
- 3) Construction of new locks on the Atlantic side
- 4) Engineering works as countermeasures against a level rise in Gatun Lake
- 5) Waterway expansion of the existing route (Culebra Cut)
- 6) Construction of a new waterway on the Pacific side
- 7) Construction of new locks on the Pacific side
- 8) Dredging of the inlet waterway on the Pacific side

The Project required a total cost of 5.25 billion U.S. dollars, out of which JBIC provided 800 million U.S. dollars under a co-financing arrangement with private banks while the International Finance Corporation (IFC), the Inter-American Development Bank (IDB), the European Investment Bank (EIB), and Andean Development Corporation (Corporación Andina de Fomento (CAF)) provided a parallel loan. The Project is scheduled to complete in the second half of 2015. The operation of the Panama Canal is a major industry of the Republic of

Panama and it accounts for approximately 10% of the gross domestic product (GDP) of the country, and Panama's further development is expected from the expansion and development of the Canal.

Section 3. Background and Details of Objection

JBIC received a written objection dated August 4, 2011 from Ms. Leila Shelton-Louhi and members of Alianza ProPanamá (hereinafter "the Requesters"). In their dispute settlement procedures, however, JBIC confirmed points of dispute to be the same as those in the dispute settlement procedures of multilateral financial institutions (see the note below), and reserved JBIC's decision to commence the procedures on October 7 of the same year in accordance with Paragraph 3, V. 3 of the Summary. The dispute settlement procedures of the International Finance Corporation (IFC) completed in June 2013, and the dispute settlement procedures of Inter-American Development Bank (IDB) and the European Investment Bank (EIB) were expected to complete early in 2014. Therefore, JBIC lifted the reservation, and started the dispute settlement procedures for the above written objection on December 27, 2013. The contents of the subject objection are shown below.

- 1) Consideration of alternative plans and mitigation measures
- 2) Explanations to local residents (information disclosure)
- 3) Salt intrusion and impact on the ecology
- 4) Water shortages in the future
- 5) Seismic risks (Dams to be built on active faults)
- 6) Land loss and resettlement owing to a water level rise

Note: International Finance Corporation (IFC), Inter-American Development Bank (IDB), and European Investment Bank (EIB)

Section 4. Results of Preliminary Investigation

Attachment 1 shows the results of the preliminary investigation specified in V. 2 of the Summary.

Section 5. Interviews with JBIC's Operational Department

On February 3 and 25, 2014, the Examiners conducted interviews with JBIC's individual departments responsible for the lending or investment project, environmental analysis (hereinafter "Operational Department") and confirmed their recognition and the opinion on the items 1) through 6) in Section 3 above.

<u>Section 6. Investigation Results of Compliance with JBIC Environmental Guidelines</u>

(1) Procedures

As shown below, the Examiners confirmed that JBIC's entire confirmation procedures for environmental and social considerations were free of defects.

The Panamanian government approved an environmental impact study (EIS) on the Project in November 2007, and the ACP requested a loan from JBIC in April 2008. JBIC implemented screening and confirmed that the Project fell under category A (as posted on JBIC's website on October 14 of the same year), and implemented the confirmation procedures for environmental and social considerations. At that time, JBIC's Environmental Assessment Office conducted a fieldwork survey on site in May 2008, and confirmed the existence of the reference documents and records specified in (2) below. JBIC's environmental and Project assessment completed between August and September 2008, and JBIC decided on the loan based on the results of the assessment. JBIC signed a loan agreement with ACP on December 9, 2008, and posted JBIC's environmental examination report on its website on January 7, 2009. Thereafter, JBIC confirmed specific monitoring results (on June 23, 2009, February 4, June 11, December 27, 2010, June 15, 2011, January 23 and July 20, 2012, and January 17 and August 16, 2013). Furthermore, JBIC conducted lender's annual site surveys (in November 2009, December 2010, February 2012, January 2013, and February 2014).

- (2) Environmental review (Period of implementation: March to August 2008)

 With regard to items of objection 1) through 6) in Section 3 above, JBIC confirmed the following facts with a number of reference documents and records.
 - 1) Consideration of alternative plans and mitigation measures

 JBIC confirmed the contents specified below with the following documents:

ACP/Proposal/2006 (see note), a Project plan of the ACP for a national referendum, ERM/E&S Due Diligence/2008, a research report of a consultant commissioned by the ACP on the compliance of the Project with domestic and international standards with regard to the environmental and social considerations of the Project, and LBG/Technical Consulting/2008, a research report on technical considerations.

- Note: Abbreviation of authors/Abbreviation of reference documents and records/Years of creation (see attachment 2); the same shall apply in this document hereafter.
- (i) The construction of a new canal (at sea level) with new locks was rejected because it would significantly increase the investment and environmental impact mitigation costs compared with the construction of new locks for the existing facilities of the Panama Canal. Therefore, the idea to construct new locks was adopted.
- (ii) Regarding the number of lanes and lock chamber volume and stages, a single-lane system with lock chambers larger in capacity than the existing ones was adopted due to the following reason:
 - (a) The Canal must respond to the required cargo volume and maximum ship size of the market, (b) The Canal must provide the most efficient cost-benefit ratio, and (c) The Canal must be at a manageable level with less environmental impact. Furthermore, three stages were selected for each lock chamber with consideration of the initial investment, operational efficiency, maintenance ease, environmental impact, and water resource usage.
- (iii) A tugboat-assisted positioning system was selected as a result of the comparison of various methods to guide vessels passing the Canal, such as a single lift system, ship elevator system, conveyor belt system, water-saving system with air bags employed, and electromagnetic guiding system, because it was a system demonstrated and widely used. Furthermore, a large number of manufacturers of the system existed, which was superior in terms of maintenance and procurement of service parts.
- (iv) The ACP required an environment-friendly system to secure necessary water resources for local residents and human activities, attached importance to the most efficient technology for the use of water resources, and evaluated approximately 30 options with regard to an increase of water supply from the basin and the securement of fresh water. As a result, the options were narrowed down to 19. They were further narrowed down to 9 options with the following evaluation weights applied:

Water supply (26%), technical feasibility (9%), operational prerequisites (8%), economic feasibility (7%), environmental impact (25%), and social impacts (25%).

Then, evaluation parameters, including those of technical practicality, construction and operating costs, water production, environmental and social impacts, and possible indirect benefits, were applied, and the options were further narrowed down to 3. That is, an option to construct a reservoir along the Rio Indio River (located to the west of the Canal), an option to construct two water saving basins each for the new three-stage locks, and an option to construct three water saving basins each for the new three-stage locks. Finally, the following evaluation weights were applied:

Environmental and social impact (40%), water supply (40%), and investment (20%).

Then the option to construct three water saving basins each for the new-three-stage locks was determined to ensure the water capacity of Gatun Lake and the waterway expansion of Culebra Cut.

2) Explanation to local residents (information disclosure)

JBIC confirmed the following contents with *URS/EIS/2007*, an environmental impact assessment that a consultant commissioned by the ACP made in accordance with laws and regulations specifying an environmental impact assessment process, JBIC's on-site survey (in May 2008), and the ACP's response to the first questionnaire.

- (i) Intensive briefings with information disclosure on the contents of the Project were held between April 2006, when the ACP announced the master plan of the Project, and October 2006, when the referendum took place. As part of a research of the environmental impact assessment, URS Holdings, Inc. (URS) was commissioned by the ACP to conduct the following surveys:
 - (a) A resident awareness survey on 670 households sampled in the target research area, (b) An interview survey on 38 organizations concerned (i.e., seven organizations in the labor field, three organizations in the religious field, three government agencies, ten NGOs, six commercial organizations, five industry associations, and two specialized agencies), (c) A hearing survey from key people in the region.

URS summarized the results of the surveys in its Citizen Participation

- Plan. Furthermore, at the evaluation phase of an environmental impact research, a public forum was held in Panama City and Colon City.
- (ii) According to the results of the resident awareness survey, most of them replied that the influence of the Project on the residents of the area would be very little in both positive and negative aspects. With regard to the influence of the Project on their work, in particular, 60% of them responded that the Project would not substantially affect their work. From this, it was found that many of them agreed that the Project will have a positive effect on the economy of the whole country, but they did not grasp what influence the Project would have on the personal life of individuals. As for the environmental impact of the Project, many people were concerned about a decrease in the forest area associated with a long-term effect on the flora and fauna. This trend was significant in the residents on the Atlantic coast side, in particular, such as Colon City.
- (iii) As a result of the interview survey on the 38 organizations concerned, most of them replied that the Project would have a good influence on the creation of job opportunities and an increase in the income of the people of Panama. On the other hand, there were voices expressing concern that some local residents would have to abandon their houses and that new jobs created might be taken by foreigners. Furthermore, most of them were concerned about an adverse effect on the environment. To be specific, they were concerned about the destruction of the ecology, the salinization of Gatun Lake, and deforestation, for example.
- (iv) The result of the hearing survey from the key people in the region generally showed a trend similar to that of the residents in the area, but their expectations for resident education and technical training were great.
- (v) Presidential Decree No. 209 requires the opening of a public forum at least once. After the environmental impact assessment URS/EIS/2007 was drafted, the ACP held a public forum in Colon City in August 2007 and in Panama City in September 2007, in which a total of 149 people participated.

3) Salt intrusion and impact on the ecology JBIC checked the following reports:

URS/Tropical Lake Ecology/2005, a research report on salinity concentration standards that a consultant by the ACP made, WLDH/SW Intrusion E/2004 and WLDH/SW Intrusion F/2005, research reports on the prediction of salinity concentration change with the implementation of the Project, URS/EIS/2007, an environmental impact assessment, and MERI/Review WQ Effect/2004, a research report that Japan's Marine Ecology Research Institute prepared on its findings about the resistance of temperature, salinity concentration, etc. of 25 kinds of fish, 4 kinds of crustaceans (shrimps and crabs), 11 kinds of mollusks (shellfish), 4 kinds of echinoderms (sea urchins and sea cucumbers), 4 kinds of polychaetes (sandworms), and 11 kinds of seaweed, and confirmed the following contents and that the ACP would properly control the environment while implementing monitoring.

- (i) The definition of freshwater varies with each source, but in many cases, the upper salinity concentration limit of freshwater is within a range of 0.5 to 1.5 ppt. The Environmental Protection Agency (EPA) of the United States sets a salinity concentration limit of 0.5 ppt for drinking water, and it is proper to adopt this value for Gatun Lake.
- (ii) According to surveys conducted by WL Delft Hydraulics (WLDH) of the Netherlands as well as the ACP and URS, the water quality of Gatun Lake is very good though every survey point varies in physical and chemical composition. According to WLDH's survey, the salinity concentration around the locks, which are areas with the highest accumulation of chloride, is less than 0.1 ppt throughout the year while the salinity concentration in areas adjacent to Gatun Lake is 0.2 ppt during the dry season. Both of them are far below the drinking water standard and aquatic life standard of the World Health Organization (WHO). The increase in the quantity of chloride around the new locks needed attention. The results of a number of surveys conducted by the ACP, however, revealed that the operation of new locks would not significantly increase the quantity of chloride in the lake water. The operation of the current locks has not affected the water quality of Gatun Lake. Therefore, the potential impact of the new three-stage locks similar to the current three-stage locks in operation will have a low environmental impact. The monitoring of the accumulation of

chloride, at the time of the operation of the new locks and water saving basins, however, will be essential.

- (iii) The average salinity concentration of Gatun Lake is expected to be 0.5 ppt or below if a proper mitigation plan is implemented, on the condition that five types of vessels (with displacement capacities of 120,000, 145,000, 200,000, 260,000, and 285,000 tons) and that a maximum of 15 vessels pass through the new locks per day.
- (iv) Except for species that live in the sea but swim up rivers to lay their eggs or live in rivers and swim down rivers to the sea to lay their eggs (e.g., salmon or eels), there are no marine organisms that can live in an environment with a salinity concentration of 0.5 ppt.

 (Flounder fry as one of the research target marine fish has the highest resistance to salinity, and there was a report that it lived 30 days in water with a salinity concentration of 4.2 ppt.)

4) Water shortages in the future

JBIC confirmed that following contents with the ACP's Project plan *ACP/Proposal/2006* and the research report *LBG/Technical Consulting/2008* on technical considerations that the consultant commissioned by the ACP prepared.

- (i) As described in (b) and (d) in 1) above, the ACP analyzed the options under the following three principles:
 - (a) Guaranteeing the supply of domestic and commercial water, (b) Deploying the most efficient technology for water use, (c) Using water supplied from a dam located in the east of the Canal in order not to construct new reservoirs.

Then the ACP decided on the option to construct the new three-stage locks provided with three water saving basins for each of the locks, which would involve a water level rise of Gatun Lake and the widening of the waterway of Culebra Cut. The new locks would save approximately 7% of water used with consideration of the adoption of the water saving basins, which would save approximately 60% of the quantity of water used without water saving basins while the new locks would be approximately 2.3 times as large as the current-existing locks, and would save approximately 7% of water used.

- (ii)The widening of the waterway of Culebra Cut would make it possible to increase a water storage rate of 385 million gallons (or 1,540 million liters) per day and the securement of the capacity of Gatun Lake would increase a water storage rate of 165 million gallons (or 660 million liters) per day. As a result, the Canal would be able to supply 2,670 million gallons (or 10,680 million liters) of water on average per day, which would amount to 48.5 times of lockage per day (provided that 55 million gallons of water would be consumed each time). This would sufficiently cover a total of 2,491.5 million gallons of water (or 9,966 million liters of water, which would amount to 45.3 times of lockage) on average used as domestic and commercial water and for the operation of the existing and new locks in 2025, when the new locks will come into full operation. Meanwhile, the required quantity of domestic and commercial water would reach increase from 2005 per day levels of approximately 250 million gallons to 340 million gallons (or 1,000 to 1,360 million liters of water, which would amount to 4.5 to 6.0 times of lockage).
- 5) Seismic risks (Dams to be built on active faults)

 JBIC confirmed the following contents with the environmental impact assessment *URS/EIS/2007*.
 - (i) There are a large number of faults in the Project area, but not all of them will cause earthquakes. According to a survey conducted in 2006, the earthquake occurrence probability in the central part of Panama is not high in general. The Gatun fault is considered the most influential active fault in the area, where seismic activities, however, are not significant, and it is considered that the maximum earthquake that will occur in the active fault will have a magnitude of 6.8 (at an occurrence frequency of once every 10,000 to 20,000 years).
 - (ii) The earthquake of 1621 (referred to as a seismic activity early in the 17th century in the written objection) brought the greatest damage in history, and its estimated scale was VII on the modified Mercalli scale (see note).

Note: The modified Mercalli intensity scale is a seismic scale composed of 12 increasing levels of intensity. VII on the modified Mercalli scale is equivalent to an intensity of 4-plus on the Japanese scale of 0-7.

- 6) Land loss and resettlement owing to a water level rise JBIC confirmed the following contents with the environmental impact assessment *URS/EIS/2007*.
 - (i) A water level rise of Gatun Lake would adversely affect nine households close to the Lake. A resettlement program is based on a social management plan. Currently, terms of reference (TOR) for bidding have been announced in preparation of a social management plan, and the program will be accomplished approximately nine months after the most highly evaluated bidder starts working according to the program.
 - (ii) Eight households existed in the place where the construction of Gatun locks is expected. All of them agreed and moved from the place (owned by the entity which carries out the Project) by the end of May 2008.

(3) Conclusion

From (1) and (2) above, the Examiners consider that JBIC's confirmation procedures for environmental and social considerations were taken in accordance with JBIC Environmental Guidelines.

Section 7. Environmental and Social Damage

From objection item 1) to item 6) of Section 3 above, no specific environmental and social damage has occurred according to the scenario claimed by the Requesters, and it is considered that the probability of the occurrence of the alleged damage will be considerably low.

1) Consideration of alternative plans and mitigation measures

The objection is not related to the occurrence of specific environmental and social damage, and the Requesters did not point out such specific environmental or social damage. The claim of the Requesters that specific damage already occurred due to negligence on the part of ACP or the probability of such damage in the future would be significantly high is not considered proper.

2) Explanations to local residents (information disclosure)

The objection is not related to the occurrence of specific environmental and social damage, and the Requesters did not point out such specific environmental or social damage. The claim of the Requesters that specific

damage already occurred due to negligence on the part of ACP or the probability of such damage in the future would be significantly high is not considered proper.

3) Salt intrusion and impact on the ecology

JBIC confirmed the items specified below with the following documents: WLDH/WQ Model II/2009, a survey report of a consultant commissioned by the ACP on the prediction of a process of saltwater intrusion and diffusion and salinity concentration change based on a lock operation pattern and simulation of presumed countermeasures against possible salinity concentration change prepared by the consultant, ACP/Answers to EIB/2011, a written reply of the ACP to a questionnaire of the European Investment Bank (EIB), ACP/E&S Impacts/2011, a written explanation of the ACP to the EIB, ACP/Gatun Lake WQ/2013 and ACP/E&S Matters/2013, written explanations of the ACP to the lenders.

- (i) The average salinity concentration of Gatun Lake (currently 0.06 to 0.07 ppt) is presumed to be 0.13 ppt or below without particular salinity prevention measures taken, on the condition that three types of vessels (with displacement capacities of 90,000, 120,000, and 145,000 tons) and that a maximum of 12 vessels passing through the Canal per day. The local salinity concentration in the bottom of the Lake close to the locks, however, is expected to rise above the limit of freshwater. A similar phenomenon will occur to an area close to the Paraiso water intake in a region directly influenced by the new locks on the Pacific side.
- (ii) The salinity concentration is not expected to rise in excess of 0.5 ppt according to the results of the WLDH's simulation. Therefore, no additional salinity prevention measures, in particular, will be taken. Continuous monitoring, however, will be implemented, and specified measures will be taken if a sign of salinization is observed.
- (iii) The water quality monitoring (including the salinity concentration measurement) of Gatun Lake has been continuously conducted. In addition, the continuous remote water temperature and salinity concentration measurement of Gatun Lake at fixed points started in 2012. Equipment was already installed in two points each in 2012 and 2013. Furthermore, equipment will be installed in four places in 2014. In and after October 2014, the measurement of Gatun Lake will be made in a total of eight points.

4) Water shortages in the future

Refer to 6. (2) 4). (No other documents or references are available in addition to those specified in Section 6. (2) 4)).

5) Seismic risks (Dams to be built on active faults)

JBIC confirmed the following items with ACP/Characterization Seismic Risk/2011, ACP/Seismic Design Locks/2011 and URS/Seismic Design Borinquen/2011 as the ACP's explanatory materials.

(i) The ACP established the Geotechnical Advisory Board (composed of five experts since 1987), the Seismic Advisory Board (composed of five experts since 2003), and the Structural Advisory Board (composed of six experts since 2007) and has made a risk analysis of 13 faults and fault zones including the Pedro Miguel fault with consideration of the historic behaviors of the faults. The lock facilities were designed with consideration of the following two earthquake levels (level 1 and level 2) based on the results of the risk analysis. The design is strong enough to withstand level-1 earthquakes without obstructing the operation of the Canal. In the case of level-2 earthquakes, the lock and pertinent facilities will need repairs, but no water will run off (the structures may be distorted but they will permanently hold water in a distorted state).

Level	Event probability	Presumed peak ground acceleration (PGA)	
		Atlantic side	Pacific side
1	Once every 475	0.33G	0.52G
	years		
2	Once every 1,000	0.42G	0.72G
	years		

^{*} A presumed level of 0.45G was set for the Fukushima Daiichi Nuclear Power Plant (while the actual PGA on March 11, 2011 was 0.56G).

(ii) On the other hand, the waterway passing the fault close to Miraflores Lake was designed to withstand level-1 earthquakes without obstructing the operation of the Canal. Even in the case of level-2 earthquakes, the water of Gatun Lake will not run off.

Level	Event probability	Presumed peak ground acceleration (PGA)
1	Once every 1,000	0.72G
	years	
2	Once every 2,500	0.97G
	years	

- (iii) JBIC confirmed the items specified below with *Okoshi/Opinion Design Borinquen/2013*, a written opinion on the aseismic design of Borinquen Dam that a consultant commissioned by JBIC prepared.
 - (a) After URS made a ground motion analysis, geotechnical engineers and other experts studied the analysis, with consideration of which the ACP decided on the ground motion of the site.
 - (b) A part of Borinquen Dam (Dam 1E) in the western shore of Lake Miraflores will be constructed on bedrock and the top of the embankment will be 32 m high and 30 m wide with a gradient of 3 to 1 and the bottom part will be 190 m wide. Furthermore, there will be a 20-m-deep water retaining wall in the bedrock. The embankment is sufficiently sturdy with consideration of the ground motion of the site.
 - (c) The appropriateness of the design was verified with a static analysis while the physical safety of the dams was verified with a nonlinear time history analysis. Eight ground motion waves used were recorded waves amplified and used for the verification at a maximum expected value of 0.97G that would occur once every 2,500 years. This verification method is used in Japan as well. In the case of Japan, buildings are verified with a maximum speed of 50 cm/s (corresponding to an acceleration of approximately 0.5G) in accordance with the Building Standards Act. Considering the extent of damage caused by the Southern Hyogo prefecture earthquake in 1995 (recorded 1G) and that caused by the 2011 earthquake off the Pacific coast of Tohoku (recorded 2G), the expected value used for the verification was substantially great. A filter was designed with a thickness 1.5 times as large as the expected fault displacement, and it was confirmed with a numerical analysis that the deformation of the filter would withstand the displacement and the function of the filter would be sufficiently maintained.

- (d) From the above (a) to (c), Borinquen Dam has sufficient aseismic performance.
- (iv) JBIC confirmed the following items considering the fact that Borinquen Dam is divided by Cerro La Fabiana (a hill) and in light of *Okoshi/Opinion Seismic Risk/2013*, a written opinion on the activities of the Agua Dulce fault.
 - (a) Boringuen Dam forms a rock-fill dam that can respond to a displacement of 1.5 times the expected fault displacement. The dam will withstand the expected value that will occur once every 1,000 years to maintain the functions of the Canal and withstand the expected value that will occur once every 2,500 years to prevent the water of Gatun Lake from running off. The dams were finally selected on the premise that it would be located on Cerro La Fabiana, a hill primarily made of basalt. The hill serves as sturdy abutment supporting Boringuen Dam (1E and 2E). At the time of selecting this route for the Canal, Cerro La Fabiana, a hill of sturdy basalt, was dug in order to use it as a natural waterway and the support structure of Boringuen Dam. Therefore, Boringuen Dam will be closely connected physically to Cerro La Fabiana, which will reinforce the ends of the dams to design the safe dams. The route was selected with a comparative design with consideration of safety and economical aspects.
 - (b) There is an expert opinion in *ECI/Quantitative Characterization Pedro/2008*, a survey report on the fault under Borinquen Dam prepared by Earth Consultants International of the United States, stating that the Agua Dulce fault is not an active fault. Recent fault maps show it as a large fracture zone or shear zone. The ACP has been working on fault diagnosis as a follow-up of the report by a large-scale excavation. More specific and professional work, such as trenching and the era identification processing of samples will be implemented after the Project. The aseismic design was made with 2,500-year recurrence intervals. Therefore, it is appropriate enough to evaluate the fault with the earthquake recurrence interval set to 10,000 years.
- Land loss and resettlement owing to a water level rise
 JBIC confirmed the following items with the ACP's summary of

LBG/Report of Relocation/2009, a survey report that a consultant commissioned by the ACP prepared on the social and environmental management of Gatun Lake.

- (a) The nine households adversely affected by a water level rise of Gatun Lake included households with minor impact on their houses or households that required minor civil engineering works to avoid the influence. The ACP implemented the civil engineering works, and finally, four households were subject to relocation, and three of them moved to houses that the ACP built.
- (b) One of the households had a house where nobody lived. The land belongs to the ACP. Therefore, the ACP reached an agreement to compensate the households financially for the house.

Section 8. Results of Dialogue Promotion

A mediation dialogue proposed by each independent accountability mechanism of the multilateral financial institutions (see note below) did not take place for approximately two years, when both parties did not contact each other. Through the intermediacy of the Examiners, a dialogue was held between four members on the Requesters side and nine members of the ACP at the ACP's conference room in Panama City on December 27, 2013. The Requesters frankly stated their opinions on each issue, and the ACP's personnel in charge used PowerPoint and other reference materials and explained in detail. The dialogue made progress in a peaceful atmosphere. In the summary of each objection item, the Examiners proposed the further deepening of both parties' communication and information sharing, to which they agreed. The Examiners consider that the dialogue succeeded in building a communication channel and trustworthy relationship between both parties. Two observers each from the Inter-American Development Bank (IDB) and the European Investment Bank (EIB) participated in the dialogue.

Note: The International Finance Corporation (IFC), the Inter-American Development Bank (IDB), the European Investment Bank (EIB)

Section 9. Supporting Documents

See attachment 2.

Results of Examination

1.	Formality	requirements	of the	request

All items are written in Japanese, English or the official language of the country in	1
which the Requester resides.	
There are items the descriptions of which are insufficient.	

(Items the descriptions of which are insufficient:

2. Requirements to commence the procedures

(A) Requirements regarding the Requester

The request has been submitted by two or more residents in the country in which the	✓
project is implemented.	
The request does not satisfy the above requirement.	
The fact that the request has been submitted by the Requester cannot be confirmed.	

(B) Project with respect to which the objections are submitted

As a result of identifying the project based on the request, it has been confirmed that it	✓
is a project for which JBIC provides funding.	
As a result of identifying the project based on the request, it has been confirmed that it	
is not a project for which JBIC provides funding.	
The project cannot be identified based on the request.	

(C) Period

The request was submitted during the period between the time when a loan agreement	✓
was executed and the time when drawdown was completed.	
The request was submitted on or before the time when a loan agreement was executed	
and, therefore, it is appropriate to transfer the request to the Operational Department	
for examination.	
The request was submitted after the completion of disbursement and JBIC's	
non-compliance with the Guidelines concerning JBIC's monitoring was pointed out.	
The request was submitted after the completion of disbursement but JBIC's	
non-compliance with the Guidelines concerning JBIC's monitoring was not pointed	
out.	

(D) Substantial damage actually incurred by the Requester or substantial damage likely to be incurred by the Requester in the future as a result of JBIC's non-compliance with the Guidelines with regard to the project which JBIC provides funding

Substantial damage actually incurred or substantial damage likely to be incurred in the	√
future is described.	
Substantial damage actually incurred or substantial damage likely to be incurred in the	
future is not described.	
(E) Relevant provisions of the Guidelines considered by the Requester to have be	
violated by JBIC and the facts constituting JBIC's non-compliance alleged by	the
Requester	
Provisions not complied with and the facts of non-compliance are fairly and	√

Provisions not complied with and the facts of non-compliance are fairly and	✓
reasonably described.	
Provisions not complied with and the facts of non-compliance are not fairly and	1
reasonably described.	

(F) Causal nexus between JBIC's non-compliance with the Guidelines and the substantial damage

Description of causal nexus is fairly reasonable.	✓
Description of causal nexus is not considered to be fairly reasonable.	

(G) Facts concerning the Requester's consultation with the Project Proponent

The Requester has endeavored to have dialogues with the Project Proponent.	✓
There is an unavoidable reason for the Requester that prevents the Requester from	
endeavoring to have dialogues with the Project Proponent.	
As the Requester has not fully endeavored to have dialogues with the Project	
Proponent, the Requester should first propose to have dialogues.	ļ

(H) Facts concerning the Requester's consultation with JBIC

The Requester has had communication with JBIC's Operational Department.	✓
As the Requester has not fully endeavored to have communication with JBIC's	
Operational Department, the Requester should first propose to have dialogues.	

(I) Prevention of abuse

There is no concern that the request was submitted for abusive purposes.	✓
There is a concern that the request was submitted for abusive purposes and, therefore,	
it is inappropriate to commence the procedures.	
There is a serious false description in the request.	

(Describe the reasons why the request is considered to have been submitted for abusive purposes or the matters that are considered to be false.)

[THE END]

List of References

No.	Created	(Abbreviation)	Reference	(Abbreviation)	D	ate		Remarks
1	WL Delft Hydraulics	WLDH	Salt Water Intrusion Analysis Panama Canal Locks Report A, B, C and D	SW Intrusion A-D	2003	6		
2	WL Delft Hydraulics	WLDH	Salt Water Intrusion Analysis Panama Canal Locks Report E	SW Intrusion E	2004	4	İ	
3	Marine Ecology Research Institute	MERI	Review of the Water Quality Effects on Marine Organisms (Overview)	Review WQ Effect	2004			
4	URS Holdings, Inc.	URS	Tropical Lake Ecology Assessment with Emphasis on Changes in Salinity of Lakes	Tropical Lake Ecology	2005	1		
5	WL Delft Hydraulics	WLDH	Salt Water Intrusion Analysis Panama Canal Locks Report F	SW Intrusion F	2005	4		
6	DHI Water & Environment	DHI	Review of Salt Water Intrusion and Mitigation Studies and Models	Review SW Intrusion	2005	11		
7	Panama Canal Authority	ACP	Proposal for the Expansion of the Panama Canal	Proposal	2006	4	24	1
8	URS Holdings, Inc.	URS	Category III Environmental Impact Study	EIS	2007	7		
9	Earth Consultants International	ECI	IIRecency of Activity on the Miratiores Fault, and Detailed Manning of	Quantitative Characterization Pedro	2008	1	31	
10	Environmetal Resources Manangement	ERM	Environmental and Social Due Diligence	E&S Due Diligence	2008	5	Ś	
11	WL Delft Hydraulics	WLDH	Water Quality Model of Gatun Lake Part III	WQ Model III	2008	10		
12	Louis Berger Goup	LBG	Technical Consulting Services for the Panama Canal Expansion Program	Technical Consulting	2008	11	19	Drafted on June 27, 2008
13	WL Delft Hydraulics	WLDH	Water Quality Model of Gatun Lake Part I	WQ Model I	2008	12		
14	WL Delft Hydraulics	WLDH	Water Quality Model of Gatun Lake Part II	WQ Model II	2009	3		
15	Panama Canal Authority	ACP	Answers to EIB Request	Answers to EIB	2011	8	26	EIB Complaint Mechanism Visit
16	Panama Canal Authority	ACP	Environmental and Social Impacts: possible impacts on populations living around the Gatun Lake and Diversity	E&S Impacts	2011	8		EIB Complaint Mechanism Visit
17	Panama Canal Authority	ACP	Seismic Design Criteria for the New Locks and Water Saving Basins	Seismic Design Locks	2011	9	1	EIB Complaint Mechanism Visit
18	URS Holdings, Inc.	URS	Seismic Design Criteria for the Borinquen Dams	Seismic Design Borinquen	2011	9	1	EIB Complaint Mechanism Visit
19	Panama Canal Authority	ACP	Characterizaiton of Seismic Risk in the Canal Area	Characterization Seismic Risk	2011	9	1	1
20	Okoshi, Toshio Ph. D., SE Professor, Tokyo Polytechnic University	Okoshi	Opinion for The adequate estimation for the seismic design of Borinquen Dam 1E Panama Canal Expansion Project	Opinion Design Borinquen	2013	4	30	
21	Panama Canal Authority	40.P	Report of Relocation and Resettlement Structures, with Compensation Matrix developed after the last Survey	Report of Relocation	2013	6	11	Summary of Louis Berger, Plan for the Social Environmental Management of Lake Gatun (2009) origin originally prepared in Spanish (with Japanese translation available)
22	Okoshi, Toshio Ph. D., SE Professor, Tokyo Polytechnic University)	Okoshi	Opinion for 6.5 The Seismic Risk ACP Response to the Initial Assessment Report Complaint SG/2011/05/Panama Canal Expansion September 2013	Opinion Seismic Risk	2013	11	29	
23	Panama Canal Authority	ACP	Gatun lake water quality surveillance	Gatun Lake WQ	2013	i ! !		IAMs' Joint Site Visit SEP 2013
24	Panama Canal Authority	ACP	Environmental and Social Matters	E&S Matters	2013			Lenders' Site Visit 2013

	: Subject to JBIC's environmenta	I review (from March to	August 2008)
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[:] Received after JBIC's review and referred in the report.