

**INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION**

**FOURTH PROGRESS REPORT TO THE
BOARD OF EXECUTIVE DIRECTORS ON THE
IMPLEMENTATION OF MANAGEMENT'S ACTION PLAN**

**IN
RESPONSE TO THE INSPECTION PANEL INVESTIGATION REPORT
No. 42644-GH
ON THE**

**WEST AFRICAN GAS PIPELINE (WAGP) PROJECT
(IDA GUARANTEE No. B-006-0-GH)**

MARCH 29, 2012

Abbreviations and Acronyms

AIS	Automatic Identification System
CDP	Community Development Projects
CEB	Communaute Electrique du Benin
CRR	Community Relation Representatives
CY	Calendar Year
DPP	Disaster Preparedness Plan
DPR	Department of Petroleum Resources (Nigeria)
EMP	Environment Management Plan
ERP	Emergency Response Plans
ESAP	Environment and Social Advisory Panel
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization
FME _{env}	Federal Ministry of Environment (Nigeria)
FoE-Ghana	Friends of the Earth Ghana
GEPA	Ghana Environmental Protection Agency
IDA	International Development Association
IFC	International Finance Corporation
IITA	International Institute of Tropical Agriculture
MAP	Management Action Plan
MIGA	Multilateral Investment and Guarantee Agency
Mmcf/d	Million Cubic Feet per Day
MOU	Memorandum of Understanding
NGO	Nongovernment Organization
NNNGO	Nigeria Network of NGOs
NNPC	Nigerian National Petroleum Corporation
PAP	Project Affected Persons
PRG	Partial Risk Guarantee
RAP	Resettlement Action Plan
ROW	Right of Way
TGSA	Takoradi Gas Sales Agreement
UEMOA	West African Economic and Monetary Union
VRA	Volta River Authority
VTMS	Vessel Traffic Management System
WAGP	West African Gas Pipeline
WAPCo	West African Gas Pipeline Co.

Fourth Progress Report
West African Gas Pipeline (WAGP) Project
Executive Summary

Background

1. The West African Gas Pipeline (WAGP) Project consists of a 678 kilometer onshore and offshore pipeline that transports gas from Nigeria to Benin, Togo, and Ghana, providing gas to power generating units. Under WAGP, risk mitigation is provided through an International Development Association (IDA) Partial Risk Guarantee (PRG) of US\$50 million, with respect to gas purchases of Ghana's Volta River Authority (VRA), a Guarantee from the Multilateral Investment and Guarantee Agency (MIGA) of US\$75 million, and commercial insurance to back the credit risk of VRA. The Project was approved by the Board on November 23, 2004,¹ and the physical work commenced in early 2005. The availability and use of a cheaper and more environmentally-friendly energy source is envisaged to provide cost savings to users, and develop the economy through competitiveness and regional trade.

2. On April 27, 2006, the Inspection Panel received a Request for Inspection from Ifesowapo Host Communities Forum of the WAGP (Nigeria) and Friends of the Earth Ghana (FoE-Ghana). The main complaints related to the Bank's non-compliance with its own safeguard policies and procedures, low compensation rates for the land taken, damage to land and livelihoods, gas flaring reduction in the Niger Delta, the safety of an associated pipeline, impact of construction activity on fishing, and inadequate consultation on coastal fisheries in Ghana. The Panel submitted its report on April 25, 2008. The Management Response to the Panel Report explained how the Bank had made significant efforts to apply its policies and procedures but recognized that further work was needed to strengthen the supervision of the Project and in particular to ensure compliance with Bank Policies.

3. The Board approved a detailed Management Action Plan (MAP) on August 5, 2008, which sought to address inadequacies in four key areas: (a) Social Impact Assessment and Mitigation Measures; (b) Environmental Assessment and Mitigation Measures; (c) Project Implementation and Supervision; and (d) Systemic issues.

4. The Board asked Management to report on progress in implementing the MAP every six months. The first Progress Report, covering the period August 2008 - January 2009 was submitted in February 2009, and the second, covering the period February 2009 - August 2009 was submitted in October 2009. The Board subsequently agreed to reporting on a yearly basis. The third Progress Report covering the period up to January 2011 was submitted to the Board in March 2011. This fourth progress report covering January-December 2011 is being submitted in March 2012.

¹ Its total estimated cost at the time was US\$ 590 million.

Current Status of the Project and Gas Supplies

5. While the Project encountered construction delays, and the original Project completion date of June 2009 could not be kept, free-flow gas was supplied to the VRA in Ghana on a “best-endeavor” basis starting in early 2010. All outstanding construction was completed by March 2011. Compressed gas has been supplied both to VRA at Tema and Takoradi, and to the Communauté Electrique du Benin (CEB) at Lomé, and delivered at an average volume of 90 million cubic feet per day (mmcf/d) during the last several months, compared to the 133 mmcf/d envisioned in the gas purchase agreements. The take-or-pay commercial framework was made effective as of November 1, 2011, and the contracting parties have agreed on ramped-up gas supplies, starting from at least 65 mmcf/d in November 2011 and reaching the target level of 133 mmcf/d by May 2012.

Implementation of Management Action Plan

6. ***Social Impact Assessment and Mitigation Measures.*** The following activities outlined in the MAP have been completed: (a) consultations and sensitization of communities; (b) implementation of a new round of compensation for crops and trees based on fair market value and adjusted prices; (c) updates of the socio-economic survey of Project affected persons; (d) assignment of a Project staff for targeted vulnerable groups during the compensation period; (e) provision of the livelihood restoration program; (f) full disclosure of compensation process; (g) engagement of an independent monitor to witness the payment process; (h) establishment of an adequate grievance mechanism that incorporates the use of alternative and Project level dispute resolution methods; and (i) training of safeguards staff, including staff participation in the IFC- and MIGA-sponsored capacity building training programs.

7. Due to the participatory approach adopted, some social safeguard activities are still ongoing, including the following: (a) implementation of Community Development Projects (CDP) focusing on enhancing income earning and livelihood based activities; (b) progress of modifications to the CDP activities to better address needs of vulnerable groups; (c) periodic discussion with communities, and implementation of Resettlement Action Plan (RAP) monitoring, evaluation and consultation updates; and (d) continued participation of affected communities on the grievance and dispute resolution mechanism. It is expected that the CDPs for the third year, focusing on livelihood activities, would be completed by the end of FY2013.

8. ***Environmental Assessment and Mitigation Measures.*** All environment-related actions contained in the MAP have been completed. The independent Environment and Social Advisory Panel (ESAP) has continued to provide advice during the last three years. The Environmental Management Plan (EMP) for the construction phase was translated into the local language, and the EMP for operations is being translated. Initial Safety and Emergency Response Plan (ERP) training has been completed, and the training series are continuing on a periodic basis.

9. ***Project Implementation and Supervision.*** Intensive Project supervision has been ensured during the past four years, and at least two missions a year have been undertaken.

Multi-disciplinary teams including technical, financial, economic, environmental and social safeguards specialists have been constituted with adequate field presence.

10. **Systemic Issues.** Adequate supervision budget has been allocated, and the WAGP experience has been documented and widely disseminated within the Bank for lessons learned. The Project features prominently in the country portfolio, and both client and Bank Regional Management pay special attention to the progress on this Project.

Environmental & Social Advisory Panel

11. The Bank team has greatly benefited from the independent advice provided by the ESAP over the past three years. Their advice goes beyond the MAP and includes emerging environmental and social issues related to implementation not foreseen in June 2008 when the MAP was submitted to the Board. On social safeguards, the ESAP has supported the actions on the sustainability of CDPs, focused livelihood programs, appropriate program for vulnerable groups, and training and monitoring of CDPs. On environmental measures, the ESAP has emphasized the importance of close interaction with environmental agencies, continued shoreline monitoring, solid waste management at Tema (Ghana), monitoring of beach erosion, installation of range markers to show the pipeline location in near-shore areas, monitoring of the Right of Way (ROW), monitoring of erosion caused by storm run-off water at one shore installation, and enforcement of a no-anchor zone along the pipeline. The West African Gas Pipeline Company (WAPCo) has been addressing all the identified issues on an ongoing basis.

Outstanding Issues, Way Forward and Conclusion

12. Almost all actions under the MAP have now been completed, with some social mitigation and other activities that are ongoing (e.g., livelihood restoration; addressing the needs of vulnerable groups; consultations on the grievance redress system; monitoring and evaluation, in particular of the resettlement/compensation process; and supervision). Effective livelihood restoration and CDPs are in place and operating, but by nature will be ongoing through the life of the Project. This entails continuing discussion and consultation by WAPCo staff with the affected communities, in keeping with the training imparted by the World Bank Group in the past four years. For the Bank, the Project Guarantee closes in January 2028. The Project will continue to operate several years after the closing of the Guarantee, as these types of assets are long-term.²

13. While gas is currently being provided to the customers, the full Project benefits will be realized only if supplies from Nigeria can be assured at the contracted volume of 133 mmcf/d. This is expected by May 2012 when the domestic gas infrastructure in Nigeria is likely to be augmented. WAGP infrastructure could be utilized to transport volumes up to 170 mmcf/d, if Nigeria could make additional gas available for export. The

² The Bank's involvement in this project is through an IDA Partial Risk Guarantee (and MIGA guarantee), and no investment is involved. The Guarantee Agreement is effective but the Guarantee has not yet been called.

Bank is facilitating discussions on the development of a gas market, and is co-hosting a high-level sub-regional Forum in March 2012.

14. Since the Project has become fully operational and the vast majority of the activities in the MAP are completed, Management proposes to report on the implementation of the remaining Action Plan items upon their completion by the end of CY 2013. Management will continue to oversee the ongoing implementation of outstanding social mitigation measures by WAPCo as per regular, diligent Project supervision in the course of Project supervision over the next eighteen months, until the CDPs for the third year are completed, by June 2013.

West African Gas Pipeline (WAGP) Project

Progress Report on the Implementation of Management Action Plan

I. Project Description

1. **The Project.** The West African Gas Pipeline Project (WAGP or the Project) consists of: (i) a 678 kilometer onshore and offshore that transports gas from Nigeria to Benin, Togo and Ghana; (ii) lateral spurs from the main pipeline that move gas to power generating units in Benin, Togo and Ghana; (iii) conversion of existing power generating units to gas (financed by their owners); and (iv) as needed, additional investments in compression. This infrastructure, together with the additional compression, is designed to meet the expected market potential of 450 million cubic feet per day (Mmcf/d). The main trunk of the 20-inch diameter offshore pipeline was laid on the seabed, between 26 and 70 meters below the ocean surface, and at an approximate distance of 15 to 20 kilometers from the shore. The gas is transferred through the lateral spurs, and the terminal of the pipeline is at the Takoradi Power Station in Ghana. The total area of land used for the Project is approximately 200 hectares, 70 percent of which lies in Nigeria. There are over 3,000 households within the Right of Way (ROW).

2. In terms of regional development, the Project notably decreases input costs and diversifies fuel supply for the power sector, and this in turn is expected to expand investments in local industries and enterprises in the four participating countries. The use of a cheaper and more environmentally friendly energy source is expected to provide cost savings to users, and develop the economy through competitiveness and regional trade. Physical work on the Project commenced in early 2005.

3. The Project is one of the Bank's major efforts to support a public-private partnership involving multiple countries (Nigeria, Benin, Togo, and Ghana) with limited risk coverage. It combines an International Development Association (IDA) Partial Risk Guarantee (PRG) of US\$50 million with respect to gas purchases of Ghana's Volta River Authority (VRA); a Guarantee from the Multilateral Investment and Guarantee Agency (MIGA) of US\$75 million; and commercial insurance to back the credit risk of the VRA. The Project was approved by the Bank's Board on November 23, 2004.³ As part of the Project's risk mitigation strategy, the IDA PRG insures a portion of the VRA obligations to the West African Gas Pipeline Company (WAPCo) under the Takoradi Gas Sales Agreement (TGSA) in the event of a failure by the VRA to pay the Nigerian gas purchaser, N-Gas Limited, and subsequent termination by N-Gas of the TGSA. However, the IDA PRG does not cover breach of other obligations undertaken by VRA or the Government of Ghana under the Project agreements.

4. **Current Status of the Project and Gas Supplies** While the Project encountered construction delays, and the original Project completion date of June 2009 was missed,

³ Its total estimated cost at the time was US\$ 590 million.

free-flow gas was supplied to the VRA in Ghana on a “best-endeavor” basis starting in early 2010. All outstanding construction was completed by March 2011. Compressed gas has been supplied both to VRA at Tema and Takoradi, and to the Communauté Electrique du Benin (CEB) at Lomé, and delivered at an average volume of 90 million cubic feet per day (mmcf/d) during the last several months, compared to the 133 mmcf/d envisioned in the gas purchase agreements. The take-or-pay commercial framework was made effective as of November 1, 2011, and the contracting parties have agreed on ramped-up gas supplies, starting from at least 65 mmcf/d in November 2011 and reaching the target level of 133 mmcf/d by May 2012.

II. Inspection Panel Process

5. On April 27, 2006, the Inspection Panel received a Request for Inspection on the Project. The Request was submitted by the Ifesowapo Host Communities Forum of the WAGP Project through their representatives from Olorunda Local Government Area of Lagos State, Nigeria. Additionally, the Panel received a letter from Friends of the Earth Ghana (FoE-Ghana), expressing their support for the Request and asking to be included among the Requesters. The Host Communities Forum and FoE-Ghana represented local people living in Nigeria and Ghana, and were recognized as the Requesters.

6. **Claims of the Requesters.** The Requesters from Nigeria’s Delta Region were mainly concerned with the Project’s impact on gas flaring reduction and with the safety of an existing pipeline to which WAGP was to be linked. The Requesters and affected communities living near the gas pipeline in Nigeria complained mainly about the low compensation rates received for their land. Those living in southwestern Nigeria, where the pipeline goes under the sea, claimed that the construction process would hurt their fishing enterprise. The Requesters from Ghana were concerned about inadequate consultation regarding the Project’s economic viability, the pipeline’s safety, and its impacts on coastal fisheries.

7. **Management Response.** In its Response of June 2006, Management stated that the Bank made significant efforts to apply its policies and procedures but recognized that further work was needed to supervise the Project and ensure compliance with the Bank’s Policies and proposed various actions in this regard.

8. In its Report to the Board on July 7, 2006, the Panel refrained from recommending an investigation. The Panel stated that it expected to be able to make a determination by end 2006 and noted that this would also allow Management more time to demonstrate that it was taking “adequate steps to follow the Bank’s policies and procedures” as required by the Resolution that established the Panel. The Board approved the Panel recommendation on July 27, 2006, on a non-objection basis. In its final Report and Recommendation, dated March 1, 2007, the Panel recommended an investigation to the Board of Executive Directors, which was approved on March 13, 2007.

9. **Panel Report and Management Response.** On April 25, 2008, the Inspection Panel submitted its Investigation Report No. 42644-GH on WAGP Project to the Board

of Executive Directors. On June 30, 2008, Bank Management submitted its Report along with a detailed Management Action Plan (MAP), in response to the Inspection Panel’s Investigation Report. The MAP acknowledged implementation challenges in four key areas: (a) Social Impact Assessment and Mitigation Measures, (b) Environmental Assessment and Mitigation Measures, (c) Project Implementation and Supervision, and (d) Systemic issues.

10. On August 5, 2008, the Executive Directors discussed the above reports and approved the MAP proposed by Management. The Board also asked that Management report on progress in implementing this action plan every six months. The first Progress Report, covering the period August 2008 – January 2009 was submitted in February 2009, and the second, covering the period February 2009 – August 2009, was submitted in October 2009. The Board subsequently agreed to reporting on a yearly basis. The third Progress Report covered the period up to January 2011 and was submitted to the Board in March 2011. All these reports are available online.⁴

11. This fourth progress report covering January-December 2011 is being submitted in March 2012.

III. Implementation of Management Action Plan

12. The MAP, approved by the Board on August 5, 2008, is divided into sections referring to social safeguards compliance; environment safeguards compliance; Project implementation and supervision; and systemic issues. This section describes the specific actions undertaken and the status of implementation (**Table -1**).

Table 1: Implementation of Management Action Plan

ACTION	STATUS
Social Impact Assessment and Mitigation Measures	
<p>1. WAPCo to undertake consultations and sensitization of communities on the method for livelihood restoration compensation; and community development programs (15 completed by June 2008; consultations with affected communities to be an ongoing process). The field-based social specialist has observed some of the consultations. Management will undertake monthly follow-up, starting in July 2008 until completion of the compensation process.</p>	<p>Completed. The consultation and sensitization of communities was completed prior to start of additional cash compensation in September 2008, and continues on a regular basis with the assistance of WAPCo’s field staff. Bank supervision, which included monthly visits to the Project site until February 2009, is currently being undertaken in semi-annual missions. A visit by the Inspection Panel (in 2008) to the Project sites and interaction with the PAPs validated the effectiveness of the above process.</p>

4

<http://web.worldbank.org/WBSITE/EXTERNAL/EXTINSPECTIONPANEL/0,,contentMDK:22513059~pagePK:64129751~piPK:64128378~theSitePK:380794,00.html>

ACTION	STATUS
<p>2. WAPCo prepared a program on livelihood restoration, including the methodology for additional compensation for livelihood restoration for Project Affected Persons (PAPs) using four zones; verification of PAPs and intra- and inter-household access and claims completed in May 2008; payments to be distributed to PAPs by October 2008. Management will carefully monitor this program, including through monthly field visits and the supervision mission (in Dec 2008).</p>	<p>Completed. WAPCo conducted a satisfactory payment process in Nigeria for additional compensation; over 90 percent are now fully compensated, with some litigation cases remaining. The payment process was observed by the Bank team as well as an independent Witness nongovernmental organization (NGO) and monthly field visits were undertaken to receive feedback from the PAPs. Additional compensation payment in Benin has also been completed.</p>
<p>3. An update of the socio-economic survey to be completed by December 2008; with a follow-up survey update in 2010 (at the end of Resettlement Action Plan (RAP) monitoring period to assess income and livelihood impacts). The Bank will review survey methodology and results, which will be validated by an independent consultant.</p>	<p>Completed. The socio-economic survey in Nigeria, where the vast majority of PAPs are located, was used to develop the profile of eligible claimants; it also included a section on vulnerable groups as originally defined in the Community Development Projects (CDP), and WAPCo is currently updating its database and its work programs on vulnerable populations. Due to the smaller number of PAPs in Benin, Togo and Ghana WAPCo conducted and completed Needs Assessments to complete the socio-economic (baseline) database of Project affected households. WAPCo also monitored the status of the CDP activities in Nigeria. These assessments will inform the benefit sharing interventions.</p>
<p>4. WAPCo hired International Institute of Tropical Agriculture (IITA) Agricultural Economist who has submitted a report on adjusted crop and tree prices, which has been reviewed and found acceptable to the Bank.</p>	<p>Completed. This activity was completed prior to start of actual payment, and consultants from IITA provided inputs to the valuation of crops and trees (in September 2008).</p>
<p>5. WAPCo to undertake compensation of crops and trees (based on updated market rates), adjusted for inflation to 2008 prices, and applying 4 differentiated land use zones and the most current IITA/Food and Agriculture Organization (FAO) agricultural prices in Nigeria, by October 2008. Management will review the prices before compensation payments are made.</p>	<p>Completed. The adjusted crop and tree compensation and land valuation was calculated based on IITA/FAO and market prices; the process of actual payments was completed in September 2008. Management reviewed the prices before the compensation payments were made.</p>
<p>6. WAPCo to intensify CDP implementation strategy, focusing on livelihood restoration; skills development; and activities targeted for vulnerable groups. (August 2008). The CDP will be further modified, based on the findings of the updated socio-economic surveys in 2008 and 2010. Management will carefully monitor the CDP implementation strategy, through ongoing field visits and the December 2008 supervision mission.</p>	<p>Ongoing. WAPCo has provided livelihood interventions to fisherfolk in Nigeria and women fish sellers in Ghana; CDP projects focusing on social infrastructure for Years 1 and 2 are largely completed and are being audited. Year 3 sub-projects focused on livelihood and income generating activities, ensuring the functionality and sustainability of the different CDPs, and renegotiating Memoranda of Understanding (MOUs) with communities and Local Government partners, are currently underway.</p>

ACTION	STATUS
<p>7. WAPCo to document modifications to CDP activities to specifically address needs of vulnerable groups</p>	<p>Ongoing. A more robust program for vulnerable groups is being developed as part of the overall livelihood restoration program. CRR staff is being trained in this regard. Needs Assessment of vulnerable groups was undertaken through the socio-economic survey; The targeting for vulnerable groups was done in the priority-setting for beneficiaries of the livelihood restoration programs, which was decided by communities; It was ensured that the vulnerable people were given preference during compensation payment process (facilitation in arriving at the payment place; no standing in the queue; delivery of documentation at the seat; etc); Market women in Ghana, and women fish sellers in Nigeria, were provided financial assistance to enable them to improve their livelihood; A Community Center has been built in Ghana that is also used as prenatal and postnatal clinic by ALL community members.</p>
<p>8. WAPCo to ensure full disclosure of livelihood restoration compensation (underlying reasons, methodology, calculations, payment process, grievance handling) during community sensitization meetings (Ongoing, fifteen community meetings held in May and June 2008). Management will monitor progress in disclosing relevant information on compensation.</p>	<p>Completed. Full disclosure of additional compensation was done prior to the start of additional payment in September 2008. The Witness NGO oversaw the payment process, and its report is publicly available. WAPCo has also agreed to the public disclosure of the Bank's WAGP Aide Memoire (in keeping with the Bank's Access to Information policy).</p>
<p>9. WAPCo to continue to discuss with communities the results of RAP Audit (conducted in 2007) and submit RAP monitoring and consultation updates as part of its monthly progress report (as provided in the Project's monitoring and evaluation plan) to the Bank.</p>	<p>Ongoing. An appropriate monitoring and evaluation system was set up by WAPCo using a common template. Data entry from the template is saved in an electronic database, and summarized in monthly reports. Feedback from the Community Relation Representatives (CRRs) is also recorded as part of monitoring and evaluation, which is being strengthened through community feedback.</p>
<p>10. WAPCo to hire an independent monitor (witness NGO) by early July 2008 to document and witness the payment process for livelihood restoration additional compensation.</p>	<p>Completed. The Witness NGO – Nigeria Network of NGOs (NNNGO) observed and documented the compensation process and found it satisfactory and transparent.</p>
<p>11. WAPCo to ensure that the grievance mechanism includes information on accessible procedures for third party settlement of disputes arising from compensation and other aspects of the RAP, and improved documentation of dispute resolution (nature of disputes, parties involved, duration/timing) (July 2008). The Bank field visit in August 2008 will assess the effectiveness of the grievance mechanism.</p>	<p>Completed. The grievance mechanism has been functional with complaints resolved within an agreed time period for dispute resolution. During 2011, WAPCo registered 7 complaints in Nigeria, and 5 of these were resolved within a period of 14 days. The remaining two grievances require additional information and are being dealt with.</p>

ACTION	STATUS
12. WAPCo to engage in participatory consultations with affected communities on the grievance mechanism and revise the procedures, as appropriate, based on feedback	Ongoing. WAPCo has continually consulted the communities on the effectiveness of the grievance redress mechanism. To date, there have been no complaints on the mechanism which is working effectively.
13. WAPCo is ensuring that its social safeguards personnel are being adequately trained in RAP monitoring, as well as in the monitoring and evaluation of safeguards compliance and of the community development program. At the same time, WAPCo is increasing its social safeguards staff through the recruitment of 2 staff in Nigeria and one staff member in Ghana in June 2008. One staff each in Benin and Togo are also being trained to handle the social safeguards issues. Management will assess, on an ongoing basis, the safeguards capacity in WAPCo and other partners (e.g., local groups, witness NGO).	Completed. WAPCo social safeguards staff completed the second phase of MIGA-supported training in June 2009. A post-training report was submitted by the trainer and is available through the Bank and WAPCo. Adequate social safeguards staff exists in all four countries (CRRs). The Bank organized training on livelihood restoration in Accra in November 2011.
14. WAPCo safeguards staff to participate in the International Finance Corporation (IFC) capacity building program organized by IFC.	Completed. WAPCo sent two senior staff to participate in the IFC capacity building program in April 2008. In addition, WAPCo has also participated in training conducted by MIGA (2008 and 2009) and World Bank (2009 and 2011).
15. WAPCo to utilize an institution-building program/grant from MIGA by September 2008.	Completed. MIGA training was done in two phases. There was an analysis of the institutional arrangements for monitoring and evaluation in August 2008. This was followed by a training workshop for livelihood restoration in June 2009. WAPCo has assigned dedicated staff on social safeguards and CDPs, to ensure that the CDPs are sustainable institutionally.
Environmental Assessment and Mitigation Measures	
16. Management to ensure that the Environment and Social Advisory Panel (ESAP) is retained up to July 2009, to encompass remaining construction period and initial operations.	Completed. The ESAP's final visit was made in August 2011.
17. WAPCo to translate the Executive Summary of the Environmental Management Plan (EMP) for operations into Yoruba and disseminate it among the communities by August 2008. Management will monitor the dissemination of the EMPs during its monthly field visits.	Completed/Ongoing. As the Project has only recently entered the operations phase, the summary of the EMP for operations has just been completed. It will be translated into Yoruba and French and disseminated to local communities in Nigeria, Benin, Togo, and Ghana.
18. Management to endeavor to obtain annual data from Department of Petroleum Resources (DPR) and Nigerian National Petroleum Corporation (NNPC) by December 2008, on the respective volumes of associated and non-associated gas to WAGP through the Escravos-Lagos Pipeline System.	Completed. Status is the same as last year. Data on volumes of associated and non-associated gas was obtained from DPR in the past.

ACTION	STATUS
19. WAPCo to conduct Emergency Response Plan (ERP) awareness meetings with stakeholders and communities near WAGP facilities, prior to first gas (To be completed in June 2008).	Completed. WAPCo has conducted the agreed awareness meetings.
20. WAPCo to produce a safety brochure, translate it into local languages, and widely disseminate it (July 2008).	Completed. WAPCo produced the safety brochure, translated and disseminated it.
21. Additional public awareness meetings to be held in the future, and printed information on relevant aspects of the ERPs to be distributed (Ongoing). Management will monitor the ERP awareness activities through regular field visits.	Completed. WAPCo has continued its awareness program. The ESAP found that public awareness was satisfactory in the communities it visited.
Project Supervision and Management Mission Duration, Frequency, and Expertise	
22. Management to ensure a minimum of two Bank supervision missions of 10-14 days' duration during the remaining construction period of the Project, with more frequent/continuous formal and informal supervision. In addition to technical, financial, and economic specialists, Bank supervision missions to include environmental and social safeguards specialists (by December 2008 for the first mission; by April 2009 for the second mission).	Completed/Ongoing. Two supervision missions per year have been taking place since 2007; technical, financial, environmental, and social specialists have participated in the missions; monthly field visits continued until February 2009; three ESAP missions have taken place since 2007; and regular updates on the Project are provided to Africa Region (AFR) Management.
23. Management input and coordination with the Country Office in monitoring the Project to be strengthened with periodic reviews of Project Implementation (ongoing). Management to allocate adequate budgetary resources for the supervision effort – about 3 times the normal supervision budget (FY08 and FY09)	Completed. A Project supervision strategy was approved by Management in August 2008; task management was transferred to the field as of 2008; the supervision budget has been increased to two times the normal budget.
Supervision of Public Private Partnerships, Actions on Early Warning Signs – Resources for Supervision, Handling of Complex Regional Projects	
24. Management to document, based on WAGP experience, the lessons learned on supervision of public private partnerships, and to bring this to the attention of project teams handling similar complex projects.	Completed/Ongoing. A Bank-wide seminar and meeting with Bank staff and Inspection Panel members was organized in Washington DC in June 2009; and WAGP experiences and lessons learned have been shared at other forums.
25. Management to undertake in the future a more comprehensive evaluation of the sector environmental and social issues for projects involving new borrowers/sponsors in a complex sector with many actors/participants.	Completed/Ongoing. Africa Region environmental and social issues analyzed through country portfolio reviews; special review of regional projects has been initiated; lessons of WAGP have been incorporated in the Nigeria Electricity & Gas Improvement Project, Ghana Oil & Gas Technical Assistance, and other operations.

ACTION	STATUS
<p>26. Management is developing “best practice” tool kits to assist task teams in the Africa Region to navigate process challenges and to better achieve high standards of implementation monitoring in complex regional programs (to be completed by the end of FY09).</p>	<p>Completed/Ongoing. Africa Region energy, environment, and social websites completed; the Region has started compiling documentation of best practice cases in energy sector and regional projects; good practice workshop on lessons learned in WAGP took place in June 2009; Africa Region safeguards training (mobile clinics) completed in FY08 and FY09.</p>

VI. Detailed Description of MAP Implementation

Social Safeguards

13. **Additional Compensation.** The work has been **completed** as follows: (i) all payments have been made in Nigeria except in two communities (Ajido and Emeke) where there are outstanding court cases; (ii) WAPCo has paid seven out of the 12 land owners in Benin, and has been able to identify four out of the remaining five households for payments; and (iii) in Togo, there is a claim submitted by a vegetable farmer for loss of some crop, which is being investigated by WAPCo regarding eligibility for payment. The compensation amounts are secured in a separate account and would be disbursed to the claimants as and when litigation is resolved, or the necessary formalities are completed.

14. **Socio-economic Baseline Survey and Needs Assessment.** The follow-up socio-economic survey in Nigeria, where the vast majority of PAPs is located, was completed in May 2010 and was used to develop profile of project affected people. This follow-up survey updated the baseline information that was originally collected in 2006, and included households covered in the additional compensation process in 2008. Due to the smaller number of PAPs located in Benin, Togo and Ghana, Needs Assessments were carried out in 2010 by WAPCo to complete the socio-economic (baseline) database of Project affected households and revalidate community needs assessment of 2006. WAPCo also conducted assets inventories of the CDPs to determine the functionality of the CDPs; and the information collected will also be part of the baseline data for the ICR. The World Bank also agreed with WAPCo that the livelihood restoration strategies of these communities will be based on these studies, paying special attention to the vulnerable groups.

15. **Community Development Projects.** The implementation of the CDPs is **ongoing**. The First and Second Year CDP projects were comprised of building school blocks, health clinics, markets and other community infrastructure. Upon completion, these facilities were envisaged to be handed over to community-based management, to be owned and operated by the local government or communities themselves. The Bank team visited a range of CDPs and observed that some are now running effectively. On the other hand, the health clinics in Benin, Togo and Nigeria continue to have no medical

equipment (which is being rectified), and the markets in Ghana, Togo and Benin await commissioning. The current status of CDPs in the participating countries is as follows:

Table 2: Status of Community Development Projects in 2011

	Completed Projects	Work in Progress	Yet to be awarded	Total
Nigeria	3	3	5	11
Benin	10	2	1	13
Togo	3	1	0	4
Ghana	2	0	3	5
Total	18	6	9	33

Source: WAPCo Corporate Affairs Dept.

16. **CDP Sustainability.** Since sustainability will be determined by community ownership and continued Government participation in the implementation of the CDPs, WAPCo has been advised to hand over each CDP using a signed partnership agreement with communities and the relevant Government Ministry. It is in the process of doing so; a draft project transfer agreement has been prepared for each completed CDP and is awaiting stakeholder signature. The agreement specifies the role and responsibilities of the Government, community and WAPCo for provision and maintenance of infrastructure, provision of supplies, hiring of staff, and meeting of recurrent costs. WAPCo has recognized that it cannot replace the role of the Government in managing the facilities if they are to be sustainable. In parallel, communities have been trained to be active participants in the operation of the infrastructure. WAPCo has already discussed the draft agreement with the communities and relevant Government authorities in Togo, Benin and Nigeria, including clarification on the roles and responsibilities of each party for CDP maintenance, management and sustainable operation.

17. **Community Procurement Process.** Communities have expressed concerns about instances in which locally available goods and services have not been procured by WAPCo in the construction of CDPs. WAPCo explained that it uses a competitive process in procuring goods and services of acceptable quality, and if the local suppliers or contractors meet the standards, they are included in the competition. WAPCo has been advised to explain to the community its corporate procurement process in general and to make more effort to clarify its procurement and purchasing requirements, particularly when local contractors could be used. This should also include an explanation on local and external hiring processes and practices. To avoid delays in project implementation, WAPCo will facilitate community procurement processes for small civil works and goods to ensure timely deliveries of goods and completion of all projects as specified, while maximizing efficiency and economy in the procurement process, which enhance social accountability. WAPCo has initiated the process of explaining its procurement processes to the communities.

18. **Livelihood Restoration Activities.** While progress has been made on mapping out needs of the communities, the livelihood activities are **still ongoing** and their impacts on affected households are being measured (e.g., outcomes from the baseline in

2004 and the survey update in 2007-08). Some livelihood enhancements are ongoing, although their implementation was delayed. Funds have been made available for promoting income earning activities, skill acquisition, scholarship schemes, vocational training, and micro credit schemes. WAPCo has little previous experience in implementing livelihood restoration programs. Therefore, the Bank team has facilitated training of WAPCo staff on the implementation of such programs and is undertaking close oversight of progress on the ground. The communities have a clear preference for livelihood restoration activities that are based on the results of need assessments recently completed by WAPCo, which is developing these activities on the basis of the feedback provided in the needs assessments (see also box 7, page 4). The communities would also like to have MOUs between the Government, communities and WAPCo that spell out the roles and responsibilities of each party for these activities.

19. **Dissemination of Information and Awareness Raising.** WAPCo organized several information sessions through its CRRs, which have contributed to awareness raising in the areas of pipeline safety, disaster preparedness, emergency response planning, and grievance management. In this regard, four types of activities were undertaken. Through an awareness and management campaign, 28 communities have been sensitized on ROW encroachment, and eight encroachers in Togo, 16 in Benin, two in Ghana and 50 in Nigeria were found and persuaded to move. For offshore and onshore pipeline security, information and education were provided on WAPCo’s Disaster Preparedness Plan (DPP) and Emergency Response Plan (ERP) to eight communities in Nigeria, 13 in Benin, two in Togo and one in Ghana. Fifteen town hall meetings were held to address community concerns, and there has been continuous sharing of information on grievance management procedures and CDP updates. Six traditional authorities have been invited to tour WAPCo facilities in Nigeria and Ghana.

20. **Grievance Mechanism.** The grievance resolution process is **ongoing**. WAPCo continues to manage its complaint, redress and dispute resolution procedures by expanding the use of alternative means of mediation beyond lodging of complaints with WAPCo’s external/community affairs staff. Alternative means of mediation include intervention by local chiefs and use of traditional courts for dispute resolution. The grievance redress process is satisfactory and continues to be part of WAPCo’s normal business practice. Table 3 provides an overview of grievances received and resolved in 2011. There are two pending cases which required additional documentation and verification, and contacts with the complainants. Hence, those could not be redressed within the 14 days, but are being dealt with.

Table 3: Grievances Received and Resolved in 2011

Country	# of Grievances	Resolved	Pending
Ghana	1	1	0
Togo	2	2	0
Benin	1	0	1
Nigeria	3	2	1
Total	7	5	2

Source: WAPCo Corporate Affairs Dept.

21. **Monitoring and Evaluation System.** There is an **ongoing** monitoring and evaluation system, which applies a template for assessing the quality of community infrastructure, as measured in terms of usage, the degree to which the service meets local needs, and the people's perception of the service. Results are then compiled in a centralized database. Observations in the field revealed the need not only to measure the effectiveness of the various CDPs but to engage primary stakeholders in monitoring of community development initiatives as well as taking timely corrective actions to improve performance and outcomes. The Bank team has recommended improving the monitoring and evaluation process to include clear indicators for both CDPs and livelihood programs and involving the PAPs in defining the monitoring and evaluation issues, collecting and analyzing data, and taking result-oriented action. WAPCo is incorporating this advice in refining the monitoring and evaluation system.

22. **Way Forward.** WAPCo is committed to a participatory community development approach. The following actions, in particular, will be enhanced during the next 6 to 12 months. First, WAPCo's audit of CDP infrastructure sub-projects, initiation of repairs, and operating and maintenance arrangements with service providers will be expanded and strengthened. This includes a review of how effectively activities have been carried out by responsible parties under the agreed MOUs. Second, WAPCo will initiate the outstanding livelihood restoration programs and focus on skills training. Third, WAPCo will pay special attention to the needs of vulnerable groups and tailor some programs accordingly. Fourth, WAPCo will coordinate with local government agencies in the critical areas of security and protection of facilities and segments of the pipeline.

Environmental Safeguards

23. All actions under the MAP have been **completed**. The EMP for the construction-phase was translated in local languages, and the EMP for operations is being similarly translated. Some activities are by their nature ongoing, like safety training, and are being continued throughout the life of the Project.

24. **Workplace Safety.** Workplace safety continues to be excellent at all locations (Itoki, Badagry, Cotonou, Lomé, Tema and Takoradi). There are no Health, Environment & Safety (HES) issues in need of review at this time and the waste management regime is exemplary. No significant environmental problems were observed, corroborating the monitoring report by WAPCo. The company reports 1,987,776 man-hours worked from April 10, 2010 to August 1, 2011 without a lost-time incident.

25. **Community Safety.** Several rounds of community safety awareness training have already been **conducted**. The VRA continues to conduct joint safety training with WAPCo at Takoradi and Tema and has, in addition, conducted training for its staff and contractors on WAPCo's ERP. The ESAP found the level of safety awareness in communities to be satisfactory.

26. **Offshore Pipeline Security.** Pipeline security arrangements have **progressed well**, with port authorities and navies engaged in all countries in patrolling the route and enforcing the no-anchor zones. The partnership between the Benin Navy and WAPCo is now functional. The Automatic Identification System-Vessel Traffic Management

System (AIS-VTMS) for monitoring and enforcing the no anchor zone of the marine pipeline was observed, and it is functioning somewhat better than previously but there are both hardware and software aspects which should be improved to ensure its effectiveness. Under the aegis of another project, the Government of Benin has banned salt production and wood harvesting along the coastline and in the wetlands, which the WAPCo Project stands to benefit from. WAPCo is currently working with the Maritime Authority and navy of Ghana with a view to replicating the enforcement of the no-anchor zone (exclusion zone), which is in effect at Cotonou.

27. **Environmental Monitoring.** WAPCo **has strengthened** its environmental monitoring and is bringing emerging issues to the attention of the authorities in the four countries in a timely manner. It recently alerted the authorities on the dangers of sand mining (also known as “sand winning”) in the Barrier Island in Badagry, Nigeria, coastline erosion in Gbetsogbe, Togo, and erosion caused by run-off of water adjacent to the pipeline in Tema, Ghana.

28. The beach at Takoradi, Ghana appears to have stabilized, even though some sand mining activities were being conducted on the beach. The phenomenon of erosion in Tema along the pipeline ROW onto the shore landing has been observed and WAPCo has been advised to take immediate stabilization and management measures to avoid the exposure of the pipeline. The Bank team has observed that rubble from construction activities has been deposited by the local government along the Gbetsogbe section of the coastline, but the severe beach erosion has not abated in Togo.⁵ In a meeting with the Minister of Environment, the Bank team was informed that coastal erosion is occurring throughout the Togolese coastline from Lomé as far as the border with Benin. The Government of Togo, with the support of West African Economic and Monetary Union (UEMOA), is implementing a sea defense program that includes planned installation of 72 wave breakers. Nine have been installed in Aneho (at the border with Benin) with encouraging results. The Government of Togo has also promulgated a law banning coastline mining.

29. The shore landing and lagoon crossing of the Benin lateral spur have been monitored, and the ROW is **properly delineated** and has recovered/regenerated well. In order to ensure the safety of the pipeline, the Agence Beninoise pour l'Environnement (ABE) will not issue permits for sand mining near the ROW of the pipeline. Excavation by sand miners at Paako Beach, Badagry was observed in June 2011 to be approaching the fringe of the pipeline ROW. WAPCo organized a stakeholders’ workshop on this issue at the end of June 2011, inviting community representatives as well as Federal Ministry of Environment (FMEnv) and concerned Lagos State agencies. The results were greater awareness of the risk of sand mining near the pipeline, agreement that finding alternative means of livelihood was a better approach than enforcement action, and recognition of the need for engagement of responsible Government agencies. The Navy has stationed personnel at the site to prevent encroachment on the ROW, and sand mining has stopped.

⁵ This erosion is not caused by WAGP, but is as a result of developments at the Lomé port.

30. **Implementation of Environmental and Social Management Plan (ESMP).** The recently-concluded Bank supervision mission observed no significant environmental problems at any of the locations along the pipeline, and the environmental agencies from all four countries pronounced themselves **satisfied** with WAPCo's performance in implementing environmental and social management plans. Beach erosion has stopped at Takoradi as a result of the partial berm removal, and there has been additional accretion in the previously eroding area immediately down-current from the pipeline shore crossing. The GEPA informed the mission that it no longer considers erosion caused by the structures related to the pipeline to be a matter of concern.

31. **Reporting.** Some of the environmental agencies in the four countries have reported **less satisfactory** communications from WAPCo. Ghana Environmental Protection Agency (GEPA) was generally satisfied with WAPCo's environmental compliance, and it appreciated the quarterly monitoring reports it had received but requested that WAPCo be more consistent in submitting the same. The Ministry of Environment and Forestry in Togo did not report any problems with receipt of monitoring reports. ABE stressed the need for more regularity in the submission of quarterly monitoring reports. FMEnv (Nigeria) complimented WAPCo for its use of an independent environmental consultant for ESMP implementation monitoring. The Ministry of Environment, Lagos State has not been receiving the quarterly reports, and WAPCo is correcting the situation. WAPCo has agreed to provide multiple copies of its reports to various officials in the environment agencies, and also keep track of who has received these reports, and when.

32. **Environmental Management in the Transition from Construction to Operation.** This transition has been **smooth**; the recent supervision mission did not observe lapses in safety practices or environmental management at any location. The ESAP was impressed with the competence and knowledge of the operating staff at all locations.

33. **Way Forward.** The progress in ESMP implementation, environmental monitoring, collaboration with regulatory agencies, reporting and information management has been substantial since December 2008. There are no significant shortcomings requiring attention at present; however, Management has suggested that WAPCo consider the following: (i) ABE, GEPA, FMEnv and Lagos State Ministry of Environment report that they are not receiving quarterly monitoring reports consistently, and it is urgent that WAPCo investigate non-receipt of the monitoring reports and take any remedial actions; and (ii) environmental monitoring and compliance enforcement agencies of the four countries should be brought together in a training workshop on implementation of the operations phase ESMP, and real-time monitoring of environmental and social impacts, the ERPs, and monitoring of the gas pipeline Project.

Supervision (Africa Region and Project)

34. Management in the Africa Region has continued to ensure strong oversight of the Project, and received and reviewed periodic progress reports. The Country Directors in Nigeria and Ghana, and Country Managers in Benin and Togo, have closely monitored progress on the Project. The Bank team has been predominantly located in the field but

has received advice and guidance from the Sector Manager, Sector Director and the Regional Vice President. Following is the progress:

- (a) *Bank supervision missions.* Two full-fledged Bank supervision missions per year, comprised of professionals from headquarters and the field, have been taking place since 2007. The missions have reviewed physical progress, and compliance with the environmental and social safeguards by WAPCo. Particular attention has been paid to the review of progress on the implementation of actions under the agreed MAP.
- (b) *Supplemental field visits.* The Bank team undertook occasional field visits, as the situation warranted, and participated in the stakeholders meeting held in June 2011 to discuss the sand mining issues at the Barrier Island, Badagry.
- (c) *ESAP mission.* The third ESAP mission took place in August 2011 and provided independent advice on safety, and environmental and social mitigation.

VI. Findings of Environmental & Social Advisory Panel

35. *Independent Review of Social Mitigation Measures.* Aside from actions identified under the MAP, the ESAP undertook a visit to the Project in August 2011 to review progress, and identified a number of additional actions which could further strengthen the social compliance of WAGP (see Table 4).

Table 4: Social Actions identified by the Environmental and Social Advisory Panel

ESAP Recommendation	Status as of August 2011	Status as of December 2011
The ESAP supports WAPCo's determination to complete fully all projects in hand and to rehabilitate where essential. WAPCo needs to make the effort necessary to address fundamental problems of project sustainability, and position itself for better project planning and construction in the future.	WAPCo has completed 18 CDPs, 6 are in different stages of completion, and another 9 are yet to be awarded.	Steps are being taken to accelerate delivery of social infrastructure under the CDPs in a sustainable manner. WAPCo is placing special emphasis on providing training and has conducted CDD training for its community development staff to better plan and oversee the construction of sustainable CDPs in future, and by engaging community-based management of facilities through joint MOUs.
The ESAP believes WAPCo would provide a useful service by re-visiting each borehole with determination to re-launch the failed systems, supports a shift of emphasis from bricks and mortar to livelihood projects, but recommends: (a) WAPCo staff get training in planning a livelihoods program; (b) the livelihoods program be designed to provide a limited set of projects for livelihood improvement widely in demand, be administratively	WAPCo is reviewing the sustainability of all of its completed CDPs, including boreholes. Since sustainability will be determined by community ownership and Government participation in the implementation of the CDPs, a draft project transfer agreement document has been completed and is awaiting stakeholders signature. WAPCo has presented the draft agreement	WAPCo has begun training on livelihood programs. In fact, a two-day training program on livelihood restoration for its community development staff was conducted by WAPCo on Oct 31-Nov 1, 2011, which was facilitated by the Bank Team. In the future, WAPCo intends to undertake relatively simple livelihood program training sessions to be implemented in the coming months. Upon request, the

West African Gas Pipeline Project

ESAP Recommendation	Status as of August 2011	Status as of December 2011
<p>simple to operate and clearly beneficial; and (c) WAPCo identify, in each country, successful ongoing livelihood programs that might be attracted by additional funds to operate in WAPCo affected communities.</p>	<p>to communities and relevant Government authorities in Togo, Benin and Nigeria, with role and responsibilities of each party spelt out for CDP maintenance and management.</p>	<p>Bank has provided to WAPCo community procurement materials/resources for its use.</p>
<p>WAPCo should push out the time frame in which to accomplish its near and medium-term community development objectives by an additional 2-3 years, and the ESAP recommends that: (a) WAPCo, through its External Relations Unit, complete all 'promised' Projects with all components necessary for good service; (b) review closely all non-functioning and deteriorating projects; (c) plan and implement fixes to lengthen the project life of each; (d) consider more bricks and mortar projects if on balance they are the best investment in a given community; and (e) seek training for External Relations staff in planning community projects and maximizing use of local/external contractors, labor and materials.</p>	<p>Work on the incomplete CDPs is continuing, and WAPCo is expediting the early completion of planned CDPs. It is also reviewing the status of some non-functioning CDPs to find sustainable solutions. It is providing the necessary training to its External Relations staff in effectively implementing CDPs.</p>	<p>WAPCo intends to stay engaged with the communities in the coming years, but the engagement would be in accordance with the agreed MOUs. The MOUs contain references to institutional coordination and sustainable financing for operating the CDP social infrastructure, like schools and market centers (in partnership with communities and governments).</p>
<p>WAPCo should plan and implement an adequate vulnerables' management program for any substantial extension of the pipeline over land; and the poorest of the poor households should get special attention in the proposed livelihoods program.</p>		<p>Year 3 projects have been <i>inter alia</i> designed focusing on livelihood and income generating activities, with vulnerable groups given priority attention in the selection of beneficiaries.</p>
<p>WAPCo should continue to monitor output and impact of the community development program through qualitative monitoring by means of focus groups, by checking separately with groups of men and women on priorities for development investment.</p>		<p>WAPCo completed a follow up socio-economic survey and conducted need assessments in the participating countries; and has developed a structured periodic community and project monitoring plan as part of its corporate social responsibility and to better monitor status of the CDPs. The Bank's team also conducts two public consultations yearly during missions, with PAPs to verify WAPCo's report.</p>
<p>WAPCo External Relations field staff should get trained in monitoring with focus groups and the field staff should take on qualitative monitoring tasks in a</p>		<p>This is being planned by WAPCo for 2012, and WAPCo External Relations field staff would receive training on monitoring and</p>

ESAP Recommendation	Status as of August 2011	Status as of December 2011
systematic fashion, using agreed indicators and issues to be addressed.		evaluation.
WAPCo should monitor for evidence of job loss in sand winning in Adjido.	Sand winning activity in Adjido is being continually monitored along with law enforcement agencies.	WAPCo continues to monitor sand winning in Adjido.

36. **Independent Review of Environmental Mitigation Measures.** While all actions under the MAP have been completed, the ESAP has identified a number of measures which could further strengthen the Project’s environmental compliance. WAPCo has taken due note of these actions and is undertaking measures to address them (see Table 5).

Table 5: Environment Actions identified by Environmental & Social Advisory Panel

ESAP Recommendation	Status as of August 2011	Status as of December 2011
WAPCo needs to follow up with the Ghana Environmental Protection Agency (GEPA) to ensure that the <i>Takoradi</i> shoreline monitoring program and results are satisfactory and that no further action is required. It should continue to monitor sand winning on the beach in the vicinity of the ROW and collaborate with the GEPA Western Region to ensure that there is adequate enforcement of the laws which prohibit sand winning.	The beach appears to have stabilized. There were sand mining activities being conducted on the beach, and GEPA and other authorities need to ensure that mining is not conducted near the pipeline and does not cause erosion that could expose the pipeline. GEPA was generally satisfied with WAPCo’s environmental compliance, and appreciates the quarterly monitoring reports.	GEPA has already communicated to WAPCo and the Bank that it is satisfied that beach erosion is “no longer an issue”. WAPCo has to continue monitoring sand winning, and to report any problems to GEPA.
WAPCo needs to follow up with GEPA to ensure that the Tema shoreline monitoring program and results are satisfactory and that no further action is required. It should also continue to monitor sand winning on the beach in the vicinity of the ROW and collaborate with the GEPA-Tema District Office to ensure that there is adequate enforcement of the laws which prohibit sand winning. WAPCo should also work with the GEPA or the Ghana solid waste management authorities to prevent the dumping of solid waste (trash) on the beach in the vicinity of the ROW. It should consider removing	WAPCo has made contacts with GEPA, and has sought its support in ensuring the shoreline monitoring program, sand winning, and management of solid waste.	WAPCo to continue to monitor sand winning and to report any problems to GEPA. WAPCo to continue its work with the authorities to mark the location of the pipeline.

ESAP Recommendation	Status as of August 2011	Status as of December 2011
the steel buoys marking the pipeline seaward of the berm and install "Range Markers" at Tema for locating the pipeline.		
The severe erosion problem at Gbetsogbe (Togo) and potential long-term threat to the pipeline must be closely monitored by WAPCo, and it needs to continue to monitor sand winning on the beach in the vicinity of the ROW.	<p>The Government of Togo, with the support of the West African Economic and Monetary Union (UEMOA), is implementing a sea defense program that includes planned installation of 72 wave breakers. Nine have been installed in Aneho (at the border with Benin) with encouraging results. The Government of Togo has promulgated a law banning coastline mining.</p> <p>It is important to point out that the beach erosion in Togo is not caused by WAGP, but is due to Port development activities. The Bank is not in any way involved with supplemental environmental studies, or the installation of wave breakers, nor are they part of the Management Action Plan.</p>	WAPCo to continue to monitor the situation at the Gbetsogbe (Togo) beach.
WAPCo should consider installing "Range Markers" which would assist the fisherman in locating the pipeline in Benin. WAPCo needs to continue to monitor sand winning on the beach in the vicinity of the ROW		WAPCo to install range markers and monitor sand winning.
WAPCo should continue to monitor the large excavated area in the Barrier Island in Badagry (Nigeria) to the west of the ROW for any new sand mining activity which could encroach on the ROW, and monitor the Barrier Island to the east of the ROW for possible new sand mining activities.		WAPCo to continue monitoring.
The reliability of both hardware and manning of the Vessel Traffic Management System (VTMS) facility in Cotonou should be improved. WAPCo needs to be proactive in Ghana and Togo, as well as in Benin, in improving the VTMS technology, manning, and	The partnership between the Benin Navy and WAPCo is functional. The Automatic Identification System (AIS) for monitoring and enforcing the no anchor zone of the marine pipeline is functioning somewhat better than previously, but there are both hardware and	WAPCo to continue working with the Navy and Port Authority on exclusion zone enforcement.

ESAP Recommendation	Status as of August 2011	Status as of December 2011
procedures to prevent anchoring and similar incursions in the offshore exclusion zones. WAPCo should install VTMS repeaters in the WAPCo Accra Control Center and develop procedures for operators to assist in monitoring ship traffic.	software aspects which should be improved to ensure its effectiveness. The Government of Benin has banned salt production and wood harvesting along the coastline and in the wetlands.	
At Tema, WAPCo should implement a permanent solution to the erosion caused by run-off of water adjacent to the pipeline on the slope between the Station and the Beach.	The phenomenon of erosion along the pipeline ROW onto the shore landing has been observed, and immediate stabilization and management measures have been recommended.	WAPCo to complete the stabilization measures and monitor results.
xWAPCo operations should institute a methodology for examining any informal road crossings, which provides assurance that the pipeline is not subject to excessive loads resulting from the use of such roadways. Remediation should be based on the findings of this approach.		WAPCo to include emphasis on road crossings in its routine ROW inspections and work with local authorities where loads are excessive.
Hazards of the pipeline running through communities should not be overstressed to those communities in view of the minimal risk they cause.		WAPCo to take the ESAP's observations into account in its awareness programs.

V. Outstanding Issues and Way Forward

37. **Effectiveness of Commercial Contracts.** The supply of gas from Nigeria, upon completion of the WAGP Project, is under the commercial framework which became effective from November 1, 2011. However, the gas supply is expected to be ramped up to the target volume of 133 mmcf/d by May 1, 2012. The adequacy of domestic gas infrastructure in Nigeria, which delivers gas to WAGP at the tie-in point, is key to the realization of the full benefit of the Project. Management plans to take up this issue with the Nigerian Petroleum Minister to assure gas supplies for WAGP in accordance with the commercial framework.

38. **Additional Gas Supplies and Stakeholders Forum.** The power utilities and independent power producers in Benin, Togo and Ghana are expecting gas in excess of the foundation volume (133 mmcf/d) to meet their increased fuel needs. In order to facilitate increased supplies, commercial, financial, technical and contractual arrangements need to be put in place. WAPCo requested support from the Bank in this

regard, and a West African Stakeholders Engagement Forum is being jointly organized in March 2012 to discuss the relevant issues.

39. ***Social Mitigation Measures.*** WAPCo is committed to a participatory community development approach and measures to ensure the sustainability of CDPs, initiate livelihood restoration programs and focus on skills training. It will pay special attention to the needs of vulnerable groups, and enhance coordination with local government agencies. The Bank team will continue to work closely with WAPCo to ensure complete implementation of the social mitigation measures under MAP.

40. ***Environmental Management.*** The progress in implementing the environmental measures has been substantial. There are certain shortcomings relating to reporting to the environmental agencies which are being corrected. The officials of these agencies have requested training on real-time monitoring of environmental and social impacts and the ERPs, and this is being planned by WAPCo.

Conclusion

41. The Project has become fully operational and the vast majority of the activities in MAP are completed. Management expects to be able to provide the final progress report to the Board by the end of CY 2013 upon completion of all outstanding Action Plan items. Management intends to continue to oversee the ongoing implementation of social mitigation measures by WAPCo in a diligent manner in the course of Project supervision over the next eighteen months, till the CDPs for the third year are completed by June 2013. The IDA Guarantee closes in January 2028.