

GHANA

Environmental
Protection Agency



Process and Technical Report

Incorporating Climate Change into Environmental Assessment
Administration in Ghana

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1 INTRODUCTION

1.1 BACKGROUND

Climate change is real and its effects are felt across the country. Its manifestations warrant immediate and decisive action to address the consequences and avoid the irreversible cost to lives and the Ghanaian economy overall. Most of the natural resource-dependent sectors of Ghana's economy (including agriculture, water and energy) are susceptible and already experiencing climate change impacts. For instance, in the energy sector, it will no longer be technically feasible to generate additional hydropower because of the risk associated with an increase of 1°C of average annual temperature over the last 30 years. Studies by the Environmental Protection Agency (EPA) show that the nine districts most vulnerable to climate change are located in the Upper West Region of Ghana. The study further reveals that although Ghana contributes less than 1 percent to global greenhouse gas emissions, national emissions have increased at a 2 percent annual growth rate between 1990-2016. Rapid economic and population growth have led per capita emissions to fall from 1.7 tCO₂e per person in 1990 to 1.5 tCO₂e in 2016.

Climate change and development issues are, thus, intricately interwoven. Many practitioners perceive climate change as interfacing with development in two ways at all levels. On one hand, the impacts of climate change pose a risk to the viability of development projects. For instance, when siting a power plant along the coastline, it is important to evaluate the risk that sea erosion or sea level rise poses to the plant's ongoing operations and incorporate adaptation measures in the business model. Similarly, development projects that produce greenhouse gases can contribute to global warming, but the extent depends on the type of project and its operational profile. The dual nature of the relationship between development and climate change underpins the dual policy objectives of climate actions. Climate change adaptation and mitigation measures have been incorporated effectively into the current national development policy plan (Agenda for Jobs 2018-2021) and some selected sector plans. The Agenda for Jobs document published by the current government supports the adaptation and mitigation measures identified in the nationally determined contributions to the Paris Agreement.

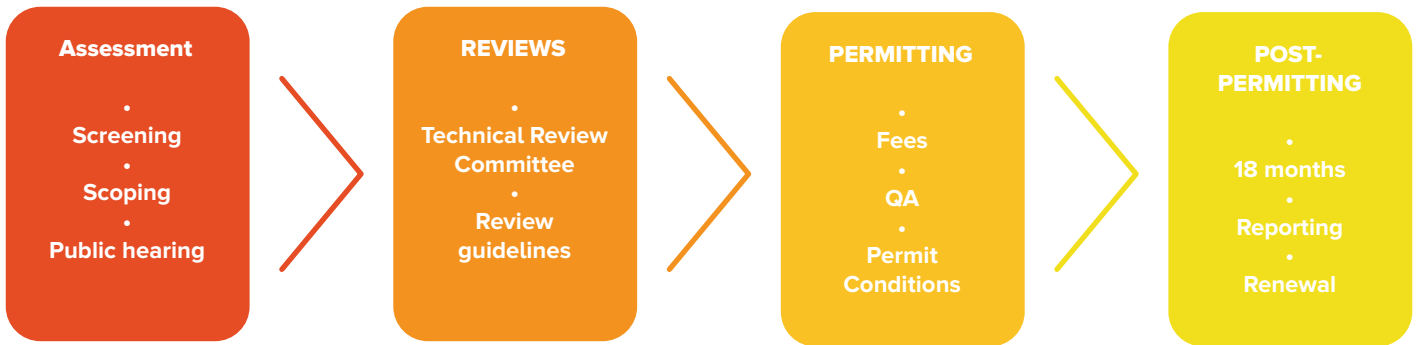
If the priority climate actions are to have meaningful positive impacts on the ground, aligning climate change issues to the national and sectoral plans alone will not be sufficient. This would involve two important financial components and, more importantly, translating the broad policy objectives into bankable projects with strong built-in environmental safeguards. Environmental Assessment (EA) is one of the environmental management tools that ensures that policies, plans, and projects are aligned to environmental standards at all stages of development. The EPA has the legal mandate to administer EA on all development projects, plans and policies in Ghana.

In the last 25 years, the institutional arrangement and its implementation have evolved to meet current development imperatives, based on two main EA processes. Those that apply strictly to projects are referred to as Environmental Impact Assessment (EIA), while Strategic Environmental Assessment (SEA) is designed specifically for policy, programmes and plans (PPPs). The practice, legal processes and institutional arrangements for EIA and SEA also differ slightly. In terms of applicable law, two sets of national laws govern EIA and SEA. Within the EPA, the SEA unit handles PPPs' SEA, while the Environment Assessment and Audit is responsible for the overall EIA process.

1.2 OVERVIEW OF ENVIRONMENTAL ASSESSMENT IN GHANA

The Environmental Protection Agency Act, 1994 Act 490, Environmental Assessment Regulations 1999, LI 1652, and the Fees and Charges (Amendment) Instrument, 2015 (LI 2228) guide administration of EIA in Ghana. The law mandates the Environmental Protection Agency to initiate an EIA process that involves many EIA actors participating in the development projects listed in schedules 1, 2 and 5 of the LI 1652. The EIA processes prescribed are specific to all types of eligible projects, depending on the nature, scope and ecological sensitivity of the location. EIA processes (Figure 1) can be broken down broadly into three stages: assessment, review, and permitting and reporting (the stages do vary based on the scale of the project's impacts and whether it is sited in an environmentally-sensitive area).

Figure 1: Snapshot of EIA stages in Ghana



The EIA law also clearly defines the EPA's role in facilitating the entire process, from registration and permitting to compliance enforcement. Within the EIA process, the project developer, as the investor, is solely responsible to prepare project documentation and submit to EIA for consideration. Developers must also send regular post-permit performance reports to the EPA based on the terms stipulated in the permit conditions.

Many stakeholders are involved in the EIA stages. Inputs from the general public, particularly those directly affected by the proposed undertaking, are solicited during screenings and public hearings, where applicable. Large-scale projects require a 21-day public notice period, during which the public may submit petitions to the EPA before it takes a decision on a project based on its merits. The type of stakeholder the EPA consults depends on the project under consideration. The technical review committee also offers an opportunity to incorporate the technical views of experts from relevant institutions.

The law includes a grievance and redress mechanism, which the proponent may initiate at any point in the process, under which the Minister responsible for the environment steps in to resolve the dispute. Administration of the EIA has evolved since its inception. Reforms have been introduced in an effort to minimize bottlenecks and enhance the quality of the service; implementation of the reforms are at different stages. The on-going EIA system reforms include:

1. automating access to and completion of forms;
2. revising assessments and reviewing guidelines;
3. decentralizing EIA decision-making to regional offices and departments;
4. strengthening quality control checks;
5. strengthening collaboration with relevant stakeholders;
6. stepping-up post-permit inspection (compliance enforcement);
7. registering and conducting continuous training of EIA consultants; and,
8. revising fees and charges.

Climate change has been newly incorporated into the EIA process as part of the ongoing reforms. The EPA and the National Development Planning Commission (NDPC) jointly coordinate SEA, which was incorporated recently into the NDPC planning statute. Key policies, programmes and plans that have undergone the SEA process include the Transport Policy, Ghana Poverty Reduction Strategy 1&2 and the Bioenergy Strategy. SEA has been a successful tool in terms of its implementation as part of district-level planning. The SEA unit, together with the NDPC, has held a series of capacity-building programmes for district assembly staff on aligning district medium-term plans to environmental principles. As the EIA and SEA processes and structures are well established, this offers a workable and legitimate option for climate-proofing development projects and PPPs. Thus, rather than creating parallel structures to align development with climate changes issues, it is more appropriate to incorporate them in existing processes. Although both the EIA and SEA processes acknowledge the relevance of climate change issues, specific guidance is lacking on how to consider, assess and report them.

Current EIA and SEA approaches thus do not provide for the identification of climate risks and GHG emission profiles of projects or PPPs or of ways to mitigate them. As a result, the Nationally Determined Contribution Support Programme (NDC-SP) sought to support the incorporation of climate change issues into EA administration in Ghana. Due to limited funding, this was implemented in phases. The first phase focused on the process for incorporating climate change issues (risk and greenhouse gas abatement opportunities) at the project scale through the EIA process. The next phase will address aligning climate change issues with the SEA reporting process. The lessons from the first phase will provide examples and experiences that will be useful in integrating climate issues into the SEA process in the future. This report documents the processes for incorporating climate change issues into the EIA and the revised EIA guidelines.

2 OBJECTIVES AND SCOPE OF WORK

The objective of the assignment is to incorporate climate change issues into the full EIA processes as a practical way to ensure that development projects align with climate adaptation and mitigation measures. The following activities are to be implemented to achieve the objectives:

- Initiate discussions with EPA management to obtain approval to incorporate climate change issues in the EIA system and the process for doing so;
- Review the existing EIA system - from assessment and review to reporting - to identify strengths, weaknesses and the best possible entry points for incorporating climate change issues along the spectrum. To the extent possible, the review must use real-life examples of potential climate change issues associated with undertakings in sectors such as industry, mining and natural resources to illustrate key concepts, practices and lessons;
- Organize two internal meetings to discuss and develop concrete ways to incorporate a roadmap with the relevant departments;
- Develop good practice guidelines on climate change and EIA to facilitate how climate change issues will be addressed in the environmental assessment, review and reporting stages;
- Select one company in the manufacturing, natural resources or mining sectors to apply the good practices in the revised EIA guidelines;
- As part of the pilot application, organize two-day workshops for EPA staff in Greater Accra, Eastern and Central Regions and draft a report on lessons learned; and,
- Provide a practical roadmap for possible implementation of the revised EIA guideline.

3 APPROACHES

The team adopted a mix of approaches for this assignment. The activities sought to ensure broad participation of key stakeholders within and outside the EPA. In general, this involved the following steps.

3.1 INITIAL CONSULTATION WITH EPA MANAGEMENT AND TEAM FORMATION

EPA management conducts oversight of implementation of EIA administration because EIA is one of EPA's main revenue sources. Management thus takes a keen interest in the performance of the EIA. Management conducts an annual review of EIA administration to determine the system's strengths and weaknesses and, where possible, provides policy guidance to improve the system's functioning. That said, it was appropriate to have an initial discussion with management to make a case for the need to incorporate climate change into the EIA system and agree on the modalities to do so. In this regard, the EPA climate change unit launched the process, in consultation with the Ministry of Environment, Science, Technology and Innovation (MESTI). The unit held several meetings with the Acting Executive and Deputy Executive Directors on the newly proposed additions to the EIA and roll-out strategies. Following the meetings, it was agreed that an inter-departmental team would be formed, composed of the relevant EIA departments and led by the Environmental Assessment and Audit (EAA) and the Climate Change Unit (CCU), which would also oversee the entire process. After receiving the green light from management, the CCU prepared the draft list of the inter-departmental team members (IDT), together with an accompanying term of reference (Annex 1). Management approved both and issued an official letter to the departments identified, requesting their nominations to the IDT. The IDT team worked under the direction of the Acting Executive Director (Table 1). Its members included:

- Office of the Deputy Executive Director
- Built Environment Department
- Field Operations
- Manufacturing Industry Department
- Natural Resources Department
- Environmental Assessment and Audit Department
- Strategic Environment Assessment Unit
- Client Services
- Climate Change Unit
- Petroleum Department
- Environmental Quality Department
- Public Affairs
- Internal Communication
- Representatives of MESTI

The IDT held its first meeting on 3rd September 2018. To demonstrate how important management considered this undertaking, both the Ag. Executive Director and Deputy Executive Director attended the meeting and remained to the end. A representative of USAID-IRRP also attended, based on its interest in providing technical inputs to the process. The meeting was chaired by the Ag. Executive Director, who officially inaugurated the IDT. Participants discussed the draft TOR for the IDT and offered suggestions for improvement. The key take-home messages included the following: (1) participants decided to establish a Core Work Group (CWG) responsible to incorporate climate change issues into EIA and report back to the IDT; (2) the CWG was formed, with members from the EAA, CCU, SEA, Natural Resources, MID and Petroleum Departments; (3) the CWG was mandated to review the literature to identify best EIA and climate change practices and lessons in other jurisdictions, review and revise the various guidelines, organize trainings for EPA staff and consultants and pilot the new guideline on selected energy sector project; and, (4) executive management also directed that a meeting be held with USAID-IRRP to discuss its role in the process. The EAA Department and CCU

were also tasked with providing regular updates to the entire EPA staff. Participants asked that a presentation be made during the next EPA senior management meeting. As a follow-up, a meeting was held at the office of Ag. Executive Director to define the specific role of the USAID-IRRP. It was agreed that since USAID-IRRP cannot provide financial support for the programme, it will not have substantive representation in CWG but, rather, will serve as an observer. In that capacity, it can provide technical inputs into the revision process where necessary.

The suggestions and contributions below were made following the CCU presentation:

- Some existing inventory guidelines can be studied to understand how those existing inventories could inform the work;
- UNDP began working with the EPA some time ago on how to incorporate gender into the EIA system, so we could revisit that;
- The entry point must be at the scoping stage; this requires comprehensive work at that stage, so the Terms of Reference must be prepared carefully to address that;
- Capacity must be built among stakeholders, especially the developer/proponent and the consultant; capacity-building should thus be conducted at both levels (developer/proponent and consultant);
- Interventions within the NDCs and incorporating those interventions into EIA can serve as a check during implementation;
- The EMPs' three-year rolling plan can be innovative (another initiative regarding the EMPs should be developed);
- Measures should be developed to address effects of projects that are not incorporated in the EIA projects, but that may have impacts on climate change issues;
- The form must be redesigned to capture all information for both developer and all government institutions responsible for enforcing the provisions and regulations of the EPA Act;
- Members proposed that the energy sector should serve as the pilot; and,
- Annath (IRRP) described how pleased his institution is to support a project like this, working with EPA and Climate Change, and also looks forward to additional collaboration between the parties.

Table 1: Initial consultation meeting attendance meeting

NO.	NAME	EPA DEPARTMENT	NO.	NAME	EPA DEPARTMENT
1.	Helen Asiamah	Internal Communication	13.	Ebenezer Appah-Sampong	Deputy Executive Director (Technical)/EPA
2.	Joseph Baffoe	Climate Change	14.	John Pwamang	Acting Executive Director/ EPA
3.	Andriana Nelson	EAA	15.	Gyimah Mohammed	MESTI
4.	Joy Hesse Ankomah	Built Environment	16.	Larry Kotoe	Petroleum
5.	Florence Agyei-Martey	National Resources	17.	Samuel N. Quaye	Education
6.	Emmanuel Osaе-Quansah	ERCCO	18.	Irene Amankwah	Field Operation
7.	Selina Amoah	Manufacturing Department	19.	Audrey Quarcoo	Client Relations
8.	Selase Sedze	Public Affairs Department	20.	Christine Asare	SEA/Legal
9.	Kwabena Badu-Yeboah	EAA	21.	Dr. Antwi-Boasiako Amoah	Climate Change
10.	Kwame Fredua Boakye	SEA	22.	Boahen Kingsley	ERCCO
11.	Annath Chikkatem	IRRP/ICF	23.	Isaac Kwabena Danso	Climate Change
12.	Abdul Razak Saeed	IRRP/ICF	24.	Rosemary Boateng	Climate Change

In line with the IDT’s recommendations, the CCU made a presentation during the 4th October 2018 senior management meeting at the EPA training school at Amasaman. This meeting gathers all the chief programme officers from across the nation. It is typically held twice a year to take stock of key areas of progress and achievements and to strategize for future work. The presentation laid out a roadmap matrix of the steps the CWG planned to follow and requested input from senior management. The CCU staff presentation at the last senior management meeting was well received and generated suggestions on how to engage the entire EPA in the process by improving communication and providing regular staff training on climate change.

3.2 REVIEW OF THE EXISTING EIA SYSTEM TO IDENTIFY ENTRY POINTS

A wide range of literature was consulted on climate change and EIA integration in Canada, Europe, China and, particularly, Ghana. The CWG read reports, publication and scientific literature, as well as International Association for Impact Assessment documentation on EIA and climate change. The literature consulted is listed in Table 2.

Table 2: Publications reviewed

AUTHOR	TITLE	REGION/AREAS OF FOCUS	DATE
K-NEX Consulting for Ontario Climate Consortium. Toronto Region Conservation Authority (TRCA)	Best Practices for the Integration of Climate Change Adaptation and Mitigation into Environmental Assessments	Canada	April 2015
Nova Scotia’s Climate Change Adaptation Initiative	Practitioner’s Guide to Incorporating Climate Change into the Environmental Impact Assessment Process	Canada	Final draft (undated document)
Xiangbai He	Integrating climate change factors within China’s Environmental impact assessment legislation: new challenges and developments	China	9/1 Law, Environment and Development Journal (2013), p.50, available at http://www.lead-journal.org/content/13050.pdf
Nova Scotia Environment	Guide to Considering Climate Change in Environmental Assessments in Nova Scotia	Canada	April 2011
European Union	Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment	European Union Member countries	2013
Jeonghwa Yi and Theo Hacking	Incorporating climate change into environmental impact assessment: perspectives from urban development projects in South Korea	Korea	2011
Vong Sok, Bryan J. Boruff and Angus Morrison-Saunders	Addressing climate change through environmental impact assessment: international perspectives from a survey of IAIA members	Global	2012
CWG	Ghana EIA Guidelines, including forms	Ghana	Multiple years

Based on the review of literature from Ghana and the rest of the world, the CWG was able to identify realistic entry points for incorporating climate change into environmental impact assessments. The team was guided in this process by the following important considerations: (a) incorporating climate change into the EIA must not slow the EIA process but, rather, increase its effectiveness; (b) the lessons and best practices we adopt from elsewhere must suit Ghana’s circumstances; (c) regardless of the best practices we adopt, they must be implemented in a way that is consistent with the overall EIA system; and, (d) introduction of climate change into EIA must be flexible enough to give the proponent and key actors involved some time to become familiar with the issues before they are expected to comply fully with the reporting requirements. Based on the literature review and initial discussion among CWG members, three broad integration pathways were identified for incorporating climate change into the EIA process. They are: assessment; review and permitting; and, post-permitting.

The EIA spectrum constitutes a continuum from assessment to post-permitting, as defined in the LI 1652. The EIA statute broadly captures the EIA steps under each of the three stages. The project’s scope, nature and location determine whether it will follow the entire process. Nevertheless, irrespective of the progress the eligible project makes in the

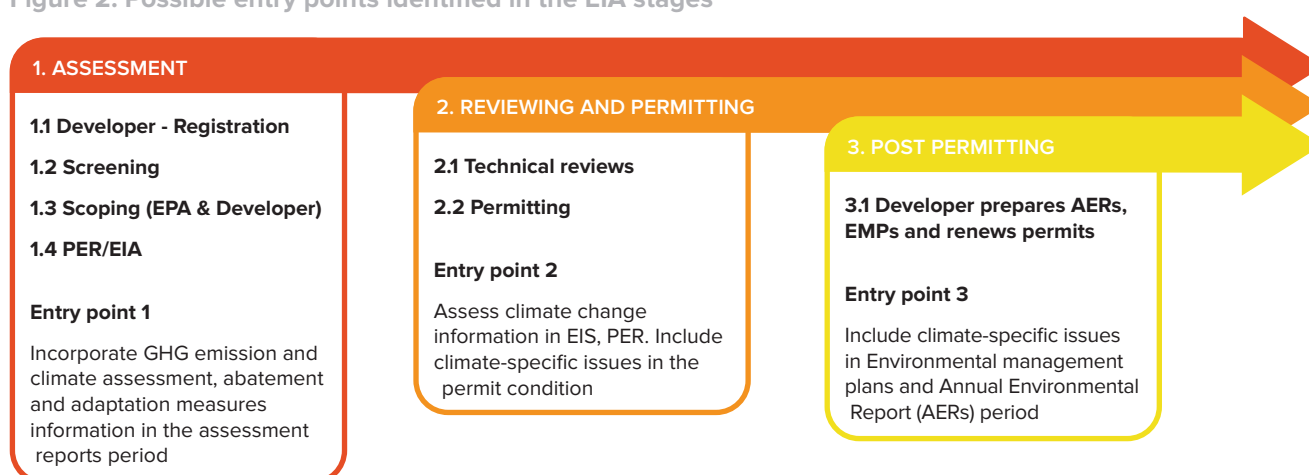
process, it passes through the three stages identified above. The assessment stage is the first phase, during which the EPA assesses the information supplied by the project developer before permit decisions are made on the merits. The review and permitting stage builds on knowledge from the initial project assessment, which helps to determine whether to issue an environmental permit. The key activities include a systematic review of the information the developer presents and preparing the permit (based on the developer's having met certain conditions) once the project is approved. The last phase is the post-permit stage, when the developer is expected to start operations, implement permit conditions and report annually. Climate change issues can be incorporated at every stage. Table 3 summarizes the key activities for each stage:

Table 3: Overview of EIA stages and activities

1. ASSESSMENT	2. REVIEW AND PERMITTING	3. POST-PERMITTING AND REPORTING
Project registration	Technical review/considerations	Environmental Management Plans (EMPs)
Screening	Fees/invoicing	Quarterly/annual environmental reports
Scoping	Permit quality assurance	Compliance enforcement
Preliminary Environmental Assessment (PEA)	Permit issuance with conditions	Permit renewal
Preliminary Environmental Report (PER)		
Environmental Impact Assessment		
Environmental Management Plans (EMPs)		
Public hearing		

The CWG identified possible entry points in each stage of the EIA process. In the assessment stage, the team noted that as part of registration, when the developer is completing the EA1 and EA2, climate-specific information could be included in specific places on the form. When a project falls in the PER and EIA category, the developer may consider climate change mitigation and adaptation issues when completing the form. The EPA has already developed specific instructions on completing the EA1 and EA2 forms for the developer. The specific entry point could be either amendments to relevant parts of the EA1 and EA2 forms or the instructions for completing the forms. The team also discussed the requisite climate change issues for developers to consider. Generally, it was agreed that climate adaptation and mitigation issues must be considered and incorporated, where applicable. Once the registration forms incorporate climate change issues, the officer screening the forms will automatically be required to cross-check the climate change information provided in the form.

Figure 2: Possible entry points identified in the EIA stages



Scoping and defining the terms of reference provide another entry point at the assessment stage. If climate change is to be considered in the PER/EIS stages, it should be raised during the scoping phase because the issues incorporated into the TOR will inform the scope of issues addressed in the EIS.

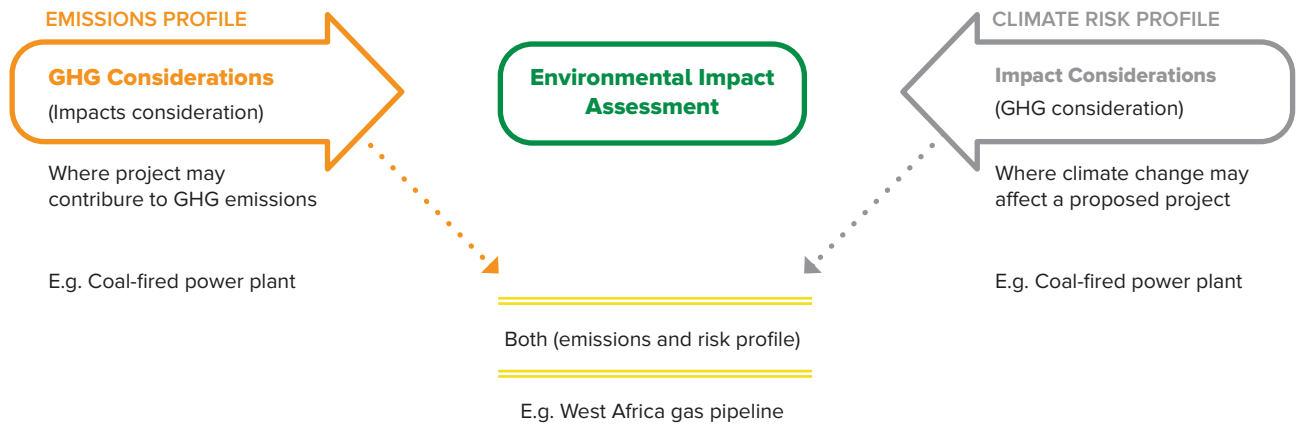
Figure 3: The EIA stages, recognized entry points and broad climate change issues that may be included. (The numbering does not represent a particular order that the EIA steps must follow, but simply shows the process.)

5
TOR



When the EPA and developer jointly develop the TOR, it would be important to capture the wide range of applicable climate changes, with a special focus on evaluating the project's climate risk and GHG emission profile and the strategies to address them. Figure 3 illustrates the EIA steps beyond the scoping/TOR. At the PER and EIS stage, climate change issues must be included in data and information collection, the analysis of environmental impacts, and identification and design of mitigation measures and monitoring. For instance, in the analysis of environmental impacts during the PER/EIS, the developer must consider how to include GHG and climate impact considerations and answer basic questions, such as the project's contributions to GHG emission and the effects of climate change on the proposed project. This will help to build the project's emission and risk profile (Figure 4).

Figure 4: Potential climate change issues that may be included in the analysis of environmental effects during PER/EIS



The team identified additional post-assessment stage entry points during the PER/EIS compilation or, even, as part of scoping. The emphasis here is both on the quality of climate information the developer provides in the PER/EIS or scoping reports and how climate change information presented in the assessment is evaluated in relation to the other information. Anyone who reviews the reports must be able to assess the project’s climate profile and determine whether the information presented is complete.

The reviewer should also be able to assess the feasibility of design mitigation measures and implementation strategies. Review of the EIA reports must thus be objective and systematic. The review stage thus offers another entry point. There are two main reviews. The key one is the meeting of the technical review committee (TRC) to consider whether or not to issue a permit for a proposed project. First, the reviewers must be able to identify the project-related climate change issues and assess whether the developer has correctly collected climate information and incorporated it in the analysis of environmental effects, design of mitigation measures and implementation strategies. If the information presented in the PER/EIS is not satisfactory, the TRC should be able to recommend the project for permitting on the condition that the developer supplies the missing information. Another way to ensure that the proposed project is fully climate proof is to confirm that the climate-specific mitigation measures identified and any additional TRC recommendations are summarized and incorporated into the permit conditions. Thus, when the quality assurance officer reviews the final permit, the checklist should address how climate change issues are incorporated in the permit.

Issuance of an environmental permit does not constitute the end of the EIA process. Rather, it marks the beginning of a long-term relationship to be sustained throughout the project’s operation. Hence, it would also be useful to incorporate climate change into the post-permit reporting and compliance activities enumerated in Figure 2. The CWG also provides support to prepare Annual Environmental Reports (AERs) and Environmental Management Plan (EMPs). At this stage, the most obvious entry point for incorporating climate change issues into AER and EMP is the preparation guidelines for each. Thus, when developers are preparing their mandatory reports, they will be required to give climate change issues the same attention as other matters at the project level.

3.3 CWG MEETINGS INCORPORATE CLIMATE CHANGE INTO EXISTING EIA GUIDELINES

The CWG held back-to-back meetings in October 2018 at the Institute of Environment Studies in Amasaman to study and incorporate the existing EIA guidelines and forms (Figure 5)¹. During the meetings, the CWG modified the existing guidelines and forms. The team identified a range of plausible climate issues pertaining to the project levels and discussed their relevance and practicality before adding on to the form or the guidelines. The team worked on a total of twelve (12) existing forms and guidelines, including:

- Environmental Assessment Registration Form (EA 1)
- Format for Preliminary Environmental (PER) Format
- PER Review Checklist
- Terms of Reference (TOR) outline
- Scoping Report outline
- Guidelines for the preparation of Environmental Impact Statement (EIS)
- EIS Review Checklist
- EIA Guidelines for the Energy Sector
- Environmental Management Plan (EMP) for Forestry Sector Projects
- Environmental Management Plan (EMP) for Aquaculture Sector Projects
- Annual Environmental Report (Form AER1) for Forest and Wood Sector Projects
- Annual Environmental Report (Form AER1) for Manufacturing industries.

Please refer to the attached Annex 2 for the revised guidelines.

The purpose of the meeting to review the EIA process was to identify the system's inherent strengths and weaknesses in terms of incorporating climate change issues. The two-day meeting was organized into three sessions. The first session included opening remarks, the second involved a presentation by the EPA's EA Department on the various EA systems/processes and the third involved discussions, questions and contributions. Mr. Osae Quansah opened the meeting at 09:00. He gave a brief statement, welcoming the technical team to the meeting. He noted that climate change-related issues are part of the EA process, although the focus is very limited and should be broadened. He stated that the purpose of the meeting was to incorporate climate change issues into the EA system as part of efforts to ensure that industries also contribute significantly to the fight against climate change.



Figure 5: CWG working session

¹ The following individuals participated in the CWG meetings: Mr. Ebenezer Appah-Sampong (EPA Deputy Executive Director), Dr. Christine Asare (Director, SEA Unit/Legal), Mr. K.Y. Oppong (UNFCCC Focal Point), Mr. Kwabena Badu-Yeboah (Deputy Director, EAA Department), Mrs. Andriana Nelson (EAA Department), Mr. Emmanuel Osae Quansah (Head of Climate Change and Ozone), Dr. Abdul Razak (USAID IRRP), Dr. Daniel Benefoh (Climate Change Unit), Mohammed Gyimah (MESTI), Dr. Antwi Boasiako-Amoah (Climate Change Unit), Mr. Peter Dery (MESTI), Mr. Joseph Baffoe (Climate Change Unit), and Mrs. Jewel Kudjawa (Natural Resources Department).

Comments from the discussions are summarized below.

- EIA can be applied easily to WB- and UNDP-funded projects, among others, but the process as applied to GOG-funded projects is very problematic;
- The information provided for planning purposes is insufficient, given the high probability of uncertainty involved in climate change issues (climate change projection of 1° C has an uncertainty of 40 percent). As a result, it can be very difficult to convince proponents to make design changes based on climate change projections. Tools must be developed to identify vulnerability in development plans;
- The project's climate risk profile must also be identified;
- When the EA1 form is completed and submitted, it must be able to capture climate change issues and their impacts and opportunities;
- An explanatory note must be attached to the form so that the reviewer can identify climate change-related issues in the report;
- Schedules for the various stages must be updated to capture climate change issues;
- Policies should consider both SDGs and climate change issues; and,
- Tools are available to help proponents assess project climate change profiling (climate change risk and emission footprint) and opportunities to build resilience and reduce emissions.

The team also made the following specific proposals for UNDP consideration:

- Efforts to pilot the guidelines show that all the guidelines require a team and resources if the assignment is to be carried out for the eight sectors; and,
- After the meeting with proponents, they would receive the new guidelines and submit their reports for review. Lessons would be gathered over one year and would provide a basis for refining the way in which climate change is incorporated into the EA system.



Figure 6: Meeting with EIA relevant department

4 TRAINING WORKSHOP

After finalizing the guidelines revision, the IDT held a training workshop for EPA regional/zonal staff and the EIA consultants. The 19th-20th November 2018 meeting took place at the EPA training school at Amasaman. A summary report of the training is attached in Annex 3.



Figure 7: Training session

5 NEXT STEPS

The next steps in this exercise are as follows:

- **Management approval and adoption of the revised guideline** – after revising the EIA guidelines and holding a training for EPA regional/zonal staff and EIA consultants, EPA management must adopt and endorse the final revised EIA guidelines before rolling them out. Management will thus be asked to provide its approval. When that is received, the EIA departments can officially start using the final revised guidelines.
- **Piloting and testing the revised guideline** – the revised guidelines are to be tested in a selected sector. The IDT decided to select a large-scale energy project for this pilot effort. The pilot is crucial because it would afford the team the opportunity to observe and collect feedback on the use of the revised guidelines for EIA administration. The IDT plans to use a checklist to monitor the rate of use of the revised guidelines and the challenges users are likely to face when using them.

6 ANNEX

- IDT Terms of Reference
- Revised EIA guidelines
- EIA Training Report

6.1 ANNEX 1: TERMS OF REFERENCE OF IDT

Ghana's Nationally Determined Contributions (NDC) Support Programme (SP)

Terms of Reference

Incorporate climate into of the Environmental Assessment

1. INTRODUCTION

The UNDP NDC Support Programme builds on the foundation, and extensive results achieved under the Low Emissions Capacity Building Programme (2011-2017) and work to enhance technical and institutional capacities to scale up actions that support NDC implementation in Ghana. Also, the Programme will work to integrate gender in NDC planning and implementation processes within the broader sustainable development context. Ghana's Environment Assessment (EA) tool is one of the primary means of Environmental Management administered by the Environmental Protection Agency (EPA) for more than two decades. EA is applied to projects (referred to Environmental Impact Assessment - EIA) and policy, programmes and plans - PPPs (Strategic Environmental Assessment - SEA). National laws back the implementation of both the EIA and SEA. The Environmental Protection Agency Act governs the administration of EIA 1994, Act 490 and Ghana Environmental Assessment Regulations 1999, LI 1652 and Fees and Charges (Amendment) Instrument, 2015 (LI 2228). The EIA processes can be characterised into three stages; assessment, review and permitting and reporting.

Over the period, new reforms have been introduced with the view to increase the efficiency as a public service. Here are some changes made in the EIA processes: (a) automation of access and completion of forms; (b) revision of assessment and review guidelines; (c) increases decentralisation to allow regional office and thematic department to undertake EIA decision-making; (d) strengthen quality control checks; (e) deepen collaboration with relevant stakeholders; (f) stepped-up inspection and compliance and (h) revised fees and changes. The practice of SEA is coordinated jointly by EPA and the National Development Planning Commission (NDPC). It is until recently that the SEA was incorporated into the NDPC planning statute. Key policies, programmes and plans have been subjected to SEA such as the transport policy, Ghana Poverty Reduction Strategy 1&2, Bioenergy Strategy, etc. Even though both the EIA and SEA processes recognise climate change issues as necessary, there is no specific guidance on how it should be considered, assessed and reported. So, the current versions of EIA and SEA do not allow identification of climate risk and carbon footprint issues attributed to project or PPP and to find ways to mitigate them.

Due to limited funding, this exercise would be implemented in phases. First one will focus on the processing for incorporating climate change issues (risk and Greenhouse Gas (GHG) abatement opportunities) at the project scale through the EIA process. The next phase will be on aligning climate change issues into the SEA reporting process. It is expected that the lessons from the phase one will provide useful examples and experiences on how to integrate climate issues into the SEA process in the future. The NDC-SP has four main outputs that focus on different aspects of Ghana's NDC and part of the NDC-SP project funds is allocated to initiate the incorporation of climate indicators into Environmental Impact Assessment reporting. The MESTI is coordinating the implementation of Ghana's NDC support programme with technical support from EPA.

2. SCOPE OF WORK

This activity has been designed to be participatory and allow for wide consultation within and outside the Agency. In this regard, an Agency inter-departmental team is to be put in place to lead this work. The team members will be selected from relevant departments within EPA that are involved in the EIA process. The departments will include: Manufacturing Industries (MID), Environmental Assessment (EA), Environmental Quality (EQ), Built Environment (BE), Petroleum, Natural Resources, Field Operations, Mining, offices of the Deputy Executive Director and the Executive Director. The EPA team will first review the EIA process to find out inherent strength and weaknesses of the system so far as climate change issues are concern and identify the best possible entry points for incorporating the issues in the EIA process and adopt strategies for implantation without overburdening proponents.

The following activities will be undertaken:

- Initiate discussions with EPA management to seek approval on incorporating climate change issues into the EIA system and how to go about it.
- Undertake the review of the existing EIA system from the assessment, review to reporting stages with the aim to identify strength, weakness and best possible entry points for the incorporation of climate change issues along the spectrum.
- Organise two internal meetings to discuss and come out with concrete ways of incorporating a roadmap with the relevant departments.
- Develop good practice guideline on Climate change and EIA to facilitate (a) how climate change issues will be addressed in the Environmental Assessment, Review and Reporting Stages.
- Select one undertaken (manufacturing, energy, natural resources and mining sector to apply the good practice EIA guidelines with Climate change issues incorporated.
- As part of the pilot application, organise two-day workshops for EPA staff in Greater Accra, set up the process and draft lessons learned report.
- Provide practical roadmap for possible implantation of the revised EIA guideline

Responsibility for coordination of activities and timely delivery:

NO	ACTIVITY	ELABORATION
1	Initiate discussions with EPA management	Meeting with EPA management
2	Undertake review of the existing EIA system	This will not be a consultancy work. Team of experts from specialised departments within EPA will be put together, in consultation with the heads of department, to review the EIA system and make recommendations on ways to incorporate climate change issues into EIA.
3	Organise two meetings for the internal team	The team will be composed of the following and work under the direction of the Executive Director. <ol style="list-style-type: none"> 1. Office of the Executive Director 2. Office of the Deputy ED. 3. Built Environment, 4. Mining 5. Field Operations 6. Manufacturing Industry 7. Natural Resources 8. Environmental Assessment 9. SEA 10. Client Services 11. Climate Change Unit, 12. Petroleum Department 13. Environmental Quality 14. Public Affairs 15. Internal Communication
4	Develop good practice guideline Climate change and EIA guidelines	A team of experts from specialised department of EPA to undertake this task.
5	Prepare a road-map to guide the introduction of climate change issues into EIA administration	A team of experts from selected departments in EPA to review the EIA system and make recommendations for incorporation of climate change issues.
6	Set up and implement a pilot in one select industrial sector (one each in manufacturing and energy)	A team of experts from selected departments of EPA who will review and develop the guidelines for the CC & EIA will undertake this assignment.
7	Organise a 2-day workshop for regional EPA staff and other stakeholders.	EPA regional and zonal staff and other stakeholders involved in EIA
8	Organise 2-day workshop for EPA Staff in Greater Accra	EPA Staff in Head Office, Amasaman and Tema
9	Prepare report of the entire process	This will involve a 3-day write shop to compile and put together a comprehensive report of the entire process for submission to UNDP/MESTI

EXPECTED OUTCOME

- Initiate discussions with EPA management to seek policy approval to conduct review of the EIA system and come out with different models for introducing climate change into them. Report of the assessment and review of the EIA system for the incorporation of climate change issues along the spectrum.
- Report of two meetings on incorporating road map within the relevant departments.
- Guidelines on Climate change and EIA developed
- Report of Pilot training on climate change in EIA guidelines in one manufacturing, energy and mining sector
- Report of Training for proponents and consultant in Greater Accra
- Report of Training for EPA Staff in Greater Accra
- Final report of Entire process.

6.2 REVISED EIA GUIDELINES

All the revised EIA guidelines attached constitute stand-alone reports.

6.3 EIA TRAINING REPORT

Report of Two-Day Training Workshop Organized for EPA Staff, Proponents and Consultants on The Revised EIA System Containing Climate Change and Gender Issues

From 19th – 20th November, 2018 at the EPA training school Amasaman

INTRODUCTION

Ghana's Environment Assessment (EA) is Environmental Management tool administered by the Environmental Protection Agency (EPA). It is applied to projects (referred to Environmental Impact Assessment - EIA) and policy, programmes and plans - PPPs (Strategic Environmental Assessment - SEA) and backed by National laws such as the Environmental Protection Agency Act 1994, Act 490 and Ghana Environmental Assessment Regulations 1999, LI 1652 and Fees and Charges (Amendment) Instrument, 2013 (LI 2206). The EIA processes are characterised into three stages; assessment, review and permitting and reporting. Over the period of EIA implementation, new reforms have been introduced with the view to increase the efficiency as a public service. Some of the reforms include but not limited to: (a) automation of access and completion of forms; (b) revision of assessment and review guidelines. Even though both the Environmental Assessment processes recognised climate change issues as important there was no specific guidance on how it should be considered, assessed and report.

As one of its main outputs, the UNDP NDC Support Programme that builds on the foundation and achievement of the Low Emissions Capacity Building Programme (2011-2017) with the aim to enhance technical and institutional capacities to scale up actions that support NDC implementation in Ghana allocated some funds to initiate the incorporation of climate indicators into industrial sector environmental reporting as part of the Environmental Impact Assessment as one of its four main outputs. MESTI and EPA with support from the programmes undertook the review of the various EA systems, identified entry points for climate change and made input into guidelines used for the various EA system. As a follow up, it became necessary to train staff of EPA, consultants and Proponents on the new reforms introduced into the EA system for better reference and implementation. Therefore, a two-day training was organized accordingly at EPA training school Amasaman.

PURPOSE OF THE TRAINING

The purpose of the training was to introduce the new EA reforms to the staff of EPA, consultants and Proponents and to also provide an opportunity for the participants to discuss some issues and point of disagreement in the implementation of the EA process.

SUMMARY OF PROCEEDINGS OF INCEPTION MEETING

The training workshop was held over a two days period. The first day was in 3 sessions. Session 1 covered opening of the meeting, introduction of participant and an overview of the workshop objectives, statement from EPA Ag. Executive Director, and an overview of the Environmental Assessment Regulations LI 1652. Session 2, involved a presentation on climate change and Environmental Impact Assessment as well as Completion of the Forms EA1 and EA2 with the inclusion of climate change issues. Session 3 covered the Screening Process and an exercise on how to calculate the GHG emissions from industrial Activities. The second day also had 3 sessions. Session 1 looked at the previous day's work and delve into the Scoping process and Development of the EA TOR. Session two covered the guidelines for the preparation and review of PERs and the guidelines for the preparation and review of EIs. In Session 3, guidelines for the preparation and review of EMPs was discussed.

DAY 1

Session 1 – (A) opening of the meeting, introduction of participant and (B) an overview of the workshop objectives, (C) statement from MESTI/EPA, and (D) an overview of the Environmental Assessment Regulations LI 1652

(a) Opening of the meeting, introduction of participant

The training was opened by Mr Badu Yeboah Director in charge of EIA. He welcomed the EPA staff, Proponents and Consultants and thanked them for making it to the training. He informed the team, the meeting would be over a two-day period and so all must be prepared to ensure that, the training workshop is a success. He then introduced himself and called on participants to introduce themselves as well.

(b) Statement from MESTI/EPA

Opening statement was made by Mr. Peter Dery of MESTI. He indicated that, EPA has done a lot of work to ensure that the EA system is reviewed to include climate change issues. And so, the training is to offer first-hand information the all on the reviews and addition made to the EA system. He urged all to make the training which is for a two-day period a success.

(c) Overview of the Environmental Assessment Regulations LI 1652

This presentation was made by Mr Badu Yeboah Director in charge of EIA at EPA. From his presentation, he indicated that, the purpose for the environmental regulations was as a result of a couple of reasons and these include but not limited to:

- Rapid evolution of the dealings in the environment
- Traditional environmental decision-making
- unsustainable development paths and the need to develop tools that would facilitate the consideration of environmental, social and economic issues at par in the development policies, plans and programmes

By so doing, environmental regulations ensure that **environmental protection** and **economic development** can progress hand in hand. The regulation he indicated provides a set of information on how various stages of development within the environment must be addressed.

Session 2 - involved a presentation on (A) climate change and Environmental Impact Assessment as well as (B) Completion of the Forms EA1 and EA2 with the inclusion of climate change issues Session 2 (A) Climate change and Environmental Impact Assessment

This is a two in one presentation was made by Dr Daniel Tutu Benefoh of EPA.

First presentation

In his first presentation titled, Ghana's Climate Change Actions; he first stated that, there is enough scientific and physical evidence for countries including Ghana to take decisive action on climate change. He indicated that with climate change, there will be a lot of issues that would confront the world and this include; decline in available fresh water, reduction in marine fish catch, loss of forest and vertebrate species among other. To move away from unsustainable pathways to sustainable pathways there is the need to promote the use of solar PVs, Electric Cars, and Climate Smart Agriculture. However, some measure would be required to make that a success. These include coherent policies, technology development and deployment, capable and accountable institutions and finally adequate and predictable funding for the actions identified towards addressing climate change in Ghana.

In his presentation he again stated that natural resources are key for the countries developmental growth but their exploitation for economic development leads to environmental degradation that is estimated at approximately 9.4% of GDP. He also presented a set of maps, graphs and charts which shows determinants of Ghana’s climate, extreme climate events (droughts and floods) in Ghana and locations that are most susceptible, depletion of resources across the various ecological zones in Ghana and the drivers causing the deforestation (agriculture, mining among other), Ghana’s emission profile and emission reduction commitment to the UNFCCC. Efforts by Ghana to address climate change is not being done in vacuum but in resonance with a number of national policies. This he presented included the flagship Agenda for Jobs Policy, the National Climate change Policy, the RE Act, GH_NDCs among others. He also presented Ghana’s NDCs and the implementation and demonstrating progress through the use of the Annual Climate Change progress reporting, the NDPC Sector APRs, the climate change data Hub, the climate finance tracking tool and the National MRV system

Second Presentation

In his second presentation of the day titled incorporating climate change into environmental assessment of Ghana, he stated that the purpose of the EA process is to align development to environmental sustainability and as a result two streams of EA process are available. (a) SEA for Policies, Plans and Programmes and (b) EIA for project which are listed in a schedule. The two streams of EA are backed by legal instruments such as the Act 490 (1994), LI 1652 (1999) and LI 2228 (2015). The EA process in Ghana is administered by the Environmental Protection Agency at the Head Office, Regional Offices and zonal offices. Further, in the administration of the EA system, there are a number of stakeholders involved and each has specific roles they play to making the process a success. There are:

- EPA (Permitting and Monitoring, Compliance)
- Developers – Prepares EIA documentation, Investment, Reporting
- Stakeholder - depend on type of project - spatial planners, fire service etc,
- Public engagement - public consultation (screening, public hearing)
- “Minister” – grievance and redress

According to him, a number of reforms have been introducing to the EA system over time and these include but not limited to strengthening of quality control checks, incorporation of climate change issues, automation of access and



completion of forms. In his presentation as indicated in the diagram below, there are stages – differentiated for projects of varying impact scales and those sited in environmental sensitive areas in an EA process;

In the EA process, there are various stages for the assessment of potential impacts and provision of remedies to those impacts. This includes the screening or scoping, TOR, EIA guidelines, EISA reporting, development of EMPs, Reviews, Annual Environmental reports etc. moving on from there the pathways to include climate change issues into the EA process is at the Assessment Stage, Review and Permitting stage and also at the post permitting stage. He stated that climate change issues must be considered in all endeavours irrespective of the type and scale of the project. And that there are numerous entries pointed in the EA system that climate change can be incorporated. This is from the Registration stage, through screening, PER, Scoping, TOR, EIA, permitting, EMPs, AERs. Also, it can be incorporated through data and information collection, analysis of Environment effects, Identification and design of mitigation measures

and finally during the monitoring stages. In his final statement, he said that, it's very important to evaluate the GHG emission and risk profiles of a project before applying the EA process.

Session 2 (B) Screening/ Scoping and completion of the Forms EA1 and EA2 with the inclusion of climate change issues

This was presented by Mr Badu Yeboah Director in charge of EIA at EPA. In his presentation he indicated that, he is aware all the participants present are conversant with the screening/scoping process as well as the completion of forms EA1 and EA2. However, with the reform made and the inclusion of climate change issues, there are a new addition that must be elaborated on and discussed with the participants. Some of the reviews in the EA1 are outlines below are presented:

Form EA1

On the Form EA1, a new heading was introduced "Environmental, Climate and other Related Impacts. This included but not limited to issues on:

- Climate zone (refer to the GMet Climate Zones classification) within which the project is located
- The potential impacts of the proposal (including environment, socio-cultural, economic and institutional issues etc)



Session 3: Exercise on how to calculate the GHG emissions from industrial Activities.

Session 3 of day one was led by Dr Daniel Tutu Benefor. He took the participants through how to calculate GHG emissions from the various activities of the industries. According to him, the most important part of calculating the emissions from an activity is to know the activity data for the action and then multiply it with its emission factor.

Emission = Activity data * Emission Factor

For instance, if you wish to know the emission from a car. All you need is the quantity of fuel the car consumes in a day they you can multiple it with the emission factor for that fuel which is always a known value, to obtain the emissions from the car for that day. He took participants through a number of exercises using examples from various sector.

DAY 2

Session 1 looked at (A) Recap of Day 1 and delve into the (B) Scoping process and Development of the EA TOR. (C) Impact of Climate Change and Resilience for Hydro-thermal plants. Session 1 (A) Recap of Day 1. Day 2 began with a recap of the previous day's activities with special focus on the emissions calculation exercise for the various activities.

Session 1 (B) Scoping report and Development of the EA TOR

This was presented by Ms Adriana of EPA. In her presentation, she indicated that, the preparation of the scoping report has a special format followed and as such due to the inclusion of climate issues, some update has been made. These are:

Policy, Legal, Regulatory and Institutional Framework (relevant ones)

- Relevant policies (including Climate Change and Gender related policies, the GH-NDCs, the SDGs, AU Agenda 2063 etc),

Point 3 has also included under description of project: Describe the possible implication of the project on climate change and vice-versa. This point she said should also capture other innovative technologies that address climate change such as the use of biogas technology, rain water harvesting.

Presenting the ToR she used the same approach as was done for the scoping report. She indicated the changes and how they are to be addressed. In the ToR some of the addition included are;

3.0 Policy, Legal and Regulatory Requirements

- Relevant Policies (including Climate Change and Gender related policies, the GH-NDCs, the SDGs, AU Agenda 2063 etc),
- Company's Corporate Environmental Policy should include sustainability issues particularly Climate Change and Gender related issues

5.0 Alternatives to be considered

All the alternatives should consider Climate Change Mitigation and Adaptation issues and must be environmentally sustainable. Where alternatives are not considered explain why

The scoping report and TOR are attached as annex.... and Respectively.

(C) Impact of Climate Change and Resilience for Hydro-thermal plants

Presented by Dr Ananth Chikkatur of USAID IRRP programme. This presentation was related to a research conducted by the programme on the impact of climate change on power generation systems and measure that can be put in place to make them resilience to the impact of climate change.

Session 2 covered, the guidelines for the preparation and review of PERs, the guidelines for the preparation and review of EIS and guidelines for the preparation and review of EMPs. The three presentation also followed the same format as that for the Scoping report and TOR. The PER, EIA and EMPs are attached as annex..., and respectively.

Closing Remarks

The meeting was closed by Mr. Peter Dery of MESTI. He thanked all the participants and informed them to work have and ensure that progress being made and the ones to be made in the near future are well captures in our reports so

Remarks, Questions and Answers

Consultants face a lot of challenges in trying to complete some of the forms because they are not clear enough

Communication between EPA, proponents and consultants is very poor. This is because sometimes when documents are submitted to EPA, it takes months for EPA to respond to them

There is always delay in screening of proposals by EPA

EPA must update its site.

that, Ghana obligations under the PA and the SGDs can be achieved and well documented

Programme

Mainstreaming Climate Change into EIA - Institute of Environmental Studies, Amasaman-
November, 19-20, 2018,

NOVEMBER, 19	
TIME	ACTIVITY
9:00am-9:30am	Registration of participants
9:30am-9:45am	Self-Introduction/Workshop Objectives and Expectations
9:45am-10:00am	Statements: Executive Director, EPA, etc.
10:00am-11:00am	Environmental Assessment Regulations LI1652
11:00am-11:30am	Snack
11:30am-12:30pm	Climate Change and Environmental Impact Assessment
12:30pm-1:00pm	Form EA1 and EA2
1:00pm-2:00pm	LUNCH
2:00pm-3:00pm	Screening
3:00-4:00pm	Exercises
4:05pm	Closing.
NOVEMBER 20, 2018	
TIME	ACTIVITY
9:00am-9:30am	Recap
9.30am-10.30am	Scoping & ToR
10.30-10.45am	SNACK
10:45am-11:45am	Guidelines for the Preparation and Review of PERs
11:45am-1:00pm	Guidelines for the Preparation and Review of EIS
1:00-2:00pm	LUNCH
2.00-3.00pm	Guidelines for the preparation review of EMPs
3:00-4:30 pm	Exercises
4.30-4.40pm	Closing

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