



ENVIRONMENTAL PROTECTION AGENCY AND THE COMMUNICATIONS INDUSTRY IN GHANA

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SCOPE OF PRESENTATION

- Introduction
- Environmental Impacts
- Environmental Permit Requirements
- Issues of Concern
- Public Participation
- Way Forward
- EPA and VODAFONE Collaboration



Institutional Framework

- **Mandate is discharged in collaboration with relevant Ministries, Depts. and Agencies at all levels. The collaborating institutions are engaged in:**
 - **serving as critical consultees in the Environmental Assessment process**
 - **participating in the review of Environmental Assessment Reports**
 - **participating in Environmental Assessment capacity building activities**
 - **undertaking joint monitoring activities**
 - **making Environmental Impact Assessment (EIA) a condition for granting other permits**



Con't

- Coordination among the different agencies is achieved through:
- Networks established for effective environmental management in Ghana. (e.g. built environment, mining and natural resources networks)
- extensive consultations with all relevant stakeholders at all stages of the EIA process.
- Notification of all relevant stakeholders of all EA decisions as an input into their regulatory and monitoring activities
- Joint monitoring exercises periodically carried out by EPA
- Cross-sectoral review teams



Legislative Framework

- The enactment of the Environmental Protection Agency Act 1994 (Act 490) provided the initial legal backing for the establishment of an EIA system in Ghana.
- Environmental Assessment Regulations, 1999, LI 1652 provided the necessary specific and complete legal backing for EIA system in Ghana.

Specific provisions are made for:

- registration of proposed and existing undertakings
- screening with schedules of undertakings requiring EA registration and mandatory EIA



Con't

- Submission of various levels of Environmental Reports for review and approval, e.g. Preliminary Environmental Reports, Scoping Reports, Environmental Impact Statements, Environmental Management Plans, Annual Environmental Reports.
- Environmental Assessment Reports Review system
- Issuance of environmental permits and certificates prior to commencement of developments and during implementation respectively



Con't

- Suspension and cancellation of permits and certificates
- Offences and Penalties
- Appeals Provision
- Fees
- Public participation and notification

Environmental Permit Requirements

No	Requirement	
1,	Form EA1	Description of project and proposed site, impacts, mitigation measure
2.	Site & Block Plan	Location and distribution of facilities on site
3.	Lease Agreement	Landowners consent
4.	Radiation Protection Board (RPB) and General Civil Aviation Authority (GCAA) Clearance	Aviation risks and radiation effects of equipment
5	Neighborhood Consultations	Evidence of consultation with immediate neighbors

Environmental IMPACTS

- Definition of Environmental Impacts
- **“includes any direct or indirect, positive or negative change in the environment caused by man-made works or activity when such change affects life in general, biodiversity, the quality or a significant quantity of natural or environmental resources and their use, well being, health, personal safety, habits and customs, the cultural heritage or legitimate means of livelihood;**
- Comprehensive definition covering :
Bio-physical, health, socio-economic and cultural issues



Environmental Impacts of Mast

No	Potential Environmental Impacts	Potential Sources
1.	Health Risks	Antennas on a mast receive and transmit radio frequencies (RF) radiation
2.	Noise and Emissions	base stations can produce significant noise levels from equipment such as generators and air conditioners. Emissions from Generators
3	Public Risks and Occupational Safety Concerns	Risks of tower falling on adjoining land users as a result of structural inadequacies and natural causes Occupation risk to workers who install and carry out maintenance works on masts.
4	Landscape Scars and Visual Nuisance	Over concentration of towers in particular areas without regard to existing landscape.

Environmental Impacts of Mast

No	Potential Environmental Impacts	Potential Sources
5.	Aviation Risks	Poor location of masts close to aeronautical installations and within flight paths
6.	Land-use Conflicts & Social Conflicts	Prominent visual appearance of a mast within sensitive locations, such as a predominantly residential area, Community disagreement with mast location Inequitable distribution of benefits
7.	Fire Risks	Towers may be potential sources of fire especially from lightening, electrical faults and nearby activities. Electrical switchgear at tower sites may also ignite fires

Issues of Concern

- Unbridled Competition for space
- Noise nuisance
- Neighborhood complaints
- Radiation Monitoring
- Annual Environmental Reporting
- Delays in Permitting Process



Guidelines for the Installation and Operation of Communication Mast in Ghana

- Ghana has experienced phenomenal growth in communication and information technology sectors.
- increased use of wireless technologies which utilize frequencies within the electromagnetic spectrum which require the use of different antennas.
- Proliferation of antennas and their related support structures all over the country
- Creation of Environmental Impacts/Concerns



Guideline Preparation

- Prepared within a framework of collaboration between the Regulators and Operators:

- Environmental Protection Agency
- Town and Country Planning Department,
- National Communication Authority,
- Ghana Civil Aviation Authority,
- Radiation Protection Board
- Ghana National Fire Service,
- National Security Council

- Telecommunication Operators



Purpose of the Guidelines

- provide a nationally coordinated guideline for the installation and operation of communication masts and related infrastructure
- provide a framework for the permitting process for mast construction
- develop guidelines for regulating the installation, operation and decommissioning of all communication masts
- encourage co-location opportunities among operators



PUBLIC PARTICIPATION

- Legal Provisions for public participation in environmental decision-making found in the LI 1652
- Public Participation is embedded in the environmental permitting process from screening to the final decision of an application.



Way Forward

- **New Guidelines with greater industry participation and leadership by NCA with**
 - One stop shop permitting process
 - Co-location requirements and enforcement
 - Definition of separating distances
 - Noise Level Monitoring
 - Comprehensive Public Education
 - Legal Backing for guidelines
 - Integration of guidelines in licensing processes
 - Green Issues can be pre-require for ICT companies to adhere to before the issuance of permit.
- **Enforcement of Environmental Permit Conditions:**
 - Periodic Radiation test
 - Structural Stability Test
 - Comprehensive Insurance



Expected Outcomes

- More Tower Co-sharing
- Improved siting
- Reduced Noise levels from Generators
- Controlled RF Emissions
- Structural Integrity
- Community acceptance
- Reduced Permitting timelines



EPA-VODAFONE PROJECT

This project is sponsored by Vodafone (Ghana) to integrate climate change into telecommunications industry is being implemented six months after the Conference of Parties that is COP-15 Climate Change Conference held in Copenhagen in December 2009.

As a private sector, Vodafone (Ghana) is responding to global plea for financing climate change activities. This project when completed will strengthen the capacity of stakeholders in coping with climate shocks. Ghanaians should to be equipped with necessary information, the skills and the technology to respond to climate change.



Telecommunications companies can be victims or heroes of climate change:

victims - like all other industries, telecoms networks, are subject to climate change.

heroes - unlike other industries, telecoms can be part of the solution. Telecoms can change the way we work, live and play, and help to dematerialize and decarbonize other sectors of the economy.



Implementing Institutions: With the support of:

- VODAFONE GHANA
- Environmental Protection Agency - the leading implementing Institution
- International Telecommunication Union (ITU) that is being represented by the Ministry of Communications of Ghana and provides the technical assistance
- Ghana Meteorological Agency (GMA); and
- National Disaster Management Organization (NADMO)

Implementing Period: The implementation period is two (2) years

Project Cost: The project cost One Hundred and fifty thousand Ghana Cedis (GH¢150,000) equivalent to US \$100,000



Indicative Activities

- **Review and collate data on climate change and the ICT industry**
- **Determine telecommunication activities that can contribute to or be impact upon by climate change**
- **Conduct a Country Assessment on how ICTs can be used to tackle climate change with technical support of ITU.**
- **Training of Telecommunication, Government Experts and media personel by ITU**



Outputs

The expected outputs of the project will include:

- Using ICTs for mitigating and adapting to climate change
- Establishing links with telecommunication sectors on climate change issues
- Awareness-raising of Climate Change and telecommunication in Ghana
- A website created i.e. www.epa.gov.gh/epavodafone



Risk and Assumptions

One basic assumption regarding the implementation of this project is that some elements of the activities may already be in place. On this basis the implementation strategy assumes that some data exists in some form, somewhere. The focus of activities therefore is to collaborate with ITU :

- to test this assumption
- mainstream the activities whiles implementing the various activities with respect to networking
- establishment of mechanisms for harmonising information
- development of core data sets
- prototyping products and information services
- developing appropriate tools and methodologies to support these activities



Project Management Structure

The project is coordinated by a team of experts and comprise:

- The Steering Committee who oversee to the overall coordination and supervision of the project. The members are EPA, VODAFONE GHANA, Ministry of Communication, Ghana Meteorological Agency and National Disaster Management Organisation
- Four (4) experts' team will comprise the technical officers 2 EPA, and 2 VODAFONE GHANA, who will implement the project and report progress to the steering committee.
- Technical support from ITU



CONCLUSION

EPA and Vodafone project is to build capacity and create awareness in climate change issues for Ghana Vodafone staff and Ghanaians to mitigate and adapt to climate change issues.

The project is being built on international standards with the support of ITU and UNFCCC.



THANK YOU

