Endowed with many different landscapes rich in diverse socio-economic and socio-cultural attributes, Cameroon is often termed ‘a Geological Catastrophe’. Despite this potential, Cameroon has not taken advantage of the boom in mineral trade, which stood at a global level of over 820 billion Euros in 2006 (National Institute of Statistics as cited in www.eia.doc.gov). According to the NIS (2006), the country's Gross Domestic Product (GDP) for the extractive industries represented 966 billion Euros, 955 billion for the oil sector and 11 billion for the mineral sector.

Today, focus is on the mining sector which is believed to offer a huge potential for augmenting the contribution of the extractive industries to the country’s revenue, evident by the hundreds of mining permits issued by government to national and foreign mining companies.

The majority of mining permits are in areas of primary biodiversity importance (Figure 1). The challenge for the government is in the choice of the best approach in reconciling its economic and environmental objectives. The government in 1996 adopted the Environmental Management Framework Law, which demands the realization of Environmental and Social Impact Assessment (ESIA). In 2013, legislative amendments required compliance and follow-up of projects subject to ESIA (as defined by article 27 of decree no 2013/0171/PM of 14th February 2013 on the modalities for carrying out ESIAs).

ESIA and consequent follow-up thus remain the key tools to reduce and/or address and compensate (Figure 2) for negative impacts of development operations and enhance associated positive impacts. Section 19(2) of the 1996 environmental management framework law in Cameroon provides for environmental compensation. The growing presence of mining projects in zones of primary ecological importance (Fig. 1) has made some companies consider options to better compensate for their impacts. In this context, WWF CCPO commissioned a study with a focus on examining the state of environmental compensation in Cameroon with the overall objective to evaluate the current level of implementation of compensation as a measure to offset impacts in Cameroon.

1.1. Methodology
The methodology used involved literature review and primary data (field visits, interviews and direct field observations) collection and interpretation. Literature review focused on environmental compensation policy frameworks, evaluation of Environmental and Social Management Plans (ESMP) against UNEP’s criteria and evaluation of ESIA Follow-up Reports and stakeholder engagement reports.
Field visits provided on the ground information on the situation of ESIA Compliance and follow-up from all stakeholders involved in the process. Projects examined within this context included: CamIron
Mbalam Iron ore exploration, Geovic cobalt and nickel exploitation, CAMINEX Nkout iron ore exploration and C&K diamond exploitation. Additionally, discussions were carried out with some oil exploration and oil transportation companies in Douala like Kosmos Energy Cameroon, DANA Petroleum and COTCO. Prior to report submission, key findings were presented to stakeholders during a workshop on legal and best environmental and social practices in the extractive sector in Cameroon.

1.1.1. **Origin of Environmental Compensation**

Environmental Compensation originates from the mitigation hierarchy as follows:

- **Avoid the impact**
  - Do not undertake certain actions

- **Minimize the impact**
  - Limit the magnitude of the action

- **Rectify the impact**
  - Repair, rehabilitate, restore

- **Compensate/offset for the impact**
  - Replace or provide substitutes

- **Reduce/eliminate the impact**
  - Monitor and take corrective measures

(Figure 2: Mitigation hierarchy Source: Adopted from Price water house Coopers LLB, 2010)

**CHAPTER 2. Legal Frameworks and Initiatives on Environmental Compensation**

**2.1. International Legal Provisions for Environmental Compensation**

Internationally agreed upon environmental goals ensuing from legally and non-legally binding instruments, principles and guidelines on sustainable development advocate for compensation for adverse effects. Consequently, environmental compensation is included as part of the ESIA process and therefore provided for by law. The Convention on Biodiversity (CBD) an international agreement signed in 1992, inspired the drafting of voluntary guidelines in individual countries on biodiversity-inclusive impact assessment which recommends an analysis of likely success of mitigation measures to include the ‘realistic potential to offset adverse project impacts’.

The Business and Biodiversity Offsets Programme (BBOP) instituted in 2002, is a partnership between companies, governments, private/public institutions and financial institutions, aimed at exploring, discussing and advocating for the concept of ecological compensation.

**2.2. Cameroon’s General Legal Framework on Environmental Management Pertaining to the Extractive Industry**

Law n°96/12 of 5th of August 1996 is founded on principles reflecting compensation for environmental damage, an example is in the case of surface and/or ground water pollution or other forms of pollution in general. Chapter 4 of this law requires operations to be carried out as stipulated by international conventions duly ratified by Cameroon with a focus on the Rio Convention on Biodiversity (CIME Services & CSIR, 2013). According to excerpts of this law, Compensation measures (Article 19 section 2) should be provided following impact avoidance and reduction. Consideration of losses to ecological values is given little consideration. The only forms of ecological compensation prescribed by the decree (No. 466/PM of 20 January 1995) of implementation of the forest law pertains to clearing or damage to permanent forest estates, subject to declassification and reclassification of an equivalent area.

Furthermore, compensation for damage to the physical environment and property during project implementation is dealt with by other national legislations. Such compensation applies to expropriation of land and the declaration as public utility.
An administrative framework governs the application of ESIA in Cameroon and ensures appropriate application of environmental compensation measures. Key administrative bodies in this regard include:

- The Inter-Ministerial Commission under the tutelage of the Ministry of Environment, Protection of Nature and Sustainable Development (MINEPDED);
- Ministry of Mines, Industry and Technological Development (MINMIDT); and
- National Hydrocarbons Corporation (Société Nationale des Hydrocarbures).

3. EVALUATION OF THE CURRENT ESIA PRACTICE IN CAMEROON

3.1. Evaluation of Extractives Sector ESIA/ESMP

Five (5) out of fourteen (14) ESIA reports, were reviewed against the UNEP criteria for ESIA evaluation. Although there are no specifications on Environmental Compensation, the criterion respects the Environmental Mitigation hierarchy.

Overall, above 80% of the reports omitted pertinent information, for example: the potential volume of waste to be generated, record of potential emissions to air (including Green House Gasses), job creation opportunities, and proof of stakeholders participation. Such omissions constitute omission in the consideration of Environmental compensation in the ESMP.

40% of the projects considered for review did not contain a separate comprehensive ESMP which is indispensable but rather provided specific management plans or sub-plans for various aspects, which are usually developed as an outcome of the ESMP to support its implementation. Such action plans are important but should be complimentary to the ESMP. Details on the implementation of mitigation (Environmental Compensation inclusive) measures, the personnel in charge, the cost of implementation and follow-up measures are very important aspects that are usually lost by merely elaborating sub-plans.

3.2. General Analysis of ESIA Reports in Cameroon

The analyses of ESIA and follow-up reports in Cameroon are based on criteria drawn from both Cameroon and UNEP, 2002 for EIA evaluation. In Cameroon, the ESIA process is regulated and a manual has been produced by the MINEPDED for use during the conduct of the studies. From discussions with administrative personnel concerned with the evaluation of ESIA reports, there has been a great improvement in the quality of reports in the recent years. In the quest for improvement of the quality of reports the ESIA decree of 2005 was amended in 2013. Additionally, there exist other legal acts, orders and guidelines to support the ESIA process. All these legislations are harmonized with the UNEP criteria for quality evaluation. However, it is worth mentioning that there exist no regulatory guidelines in Cameroon for Environmental Compensation, and consequently most of the reviewed ESIA reports sparingly address the concept of Environmental Compensation.

In more than 80% of ESIA reports reviewed, Environmental Compensation is not properly addressed. Majority of the reports contain few measures whereas, a limited number of reports pay attention to details and contain specific Environmental compensation plans (for example ESIA for CAMIRON, COTCO, etc.) currently being implemented. The ESIA and follow-up reports of CAMIRON and COTCO were noted to include environmental compensation measures driven by the scope of both projects and requirements of financial institutions. Environmental Compensation is therefore not given its due place
due to its absence in the National ESIA evaluation criteria and limited regulatory framework and guidelines for its application.

3.3. Evaluation of the Level of ESMP Follow-up
According to Nguene et al., 2012, successful implementation of mitigation measures requires that policies and institutions be strengthened to facilitate adequate follow-up. According to Global Village, the Lom-Pangar Hydroelectricity Dam Construction project in Cameroon was criticized for the absence of operational mechanisms for follow-up and the lack of precision on the contents of a follow-up report. Equally, the absence of the local population and the civil society input during follow-up was highlighted. The ECOVOX CIPCRE newspaper in the late 2000s reported non-compliances and the lack of transparency in the monitoring of the Chad/Cameroon Pipeline Project. According to their investigations, the reports of contractors indicated a good monitoring of the social impacts and mitigation/optimization measures on the ground, while NGO reports indicated many cases of non-compliance particularly with regards to compensation. Rainbow Environment Consult demonstrated that the inefficiency of ESMP implementation follow-up goes beyond the absence of legal texts organizing the activity. Other reasons associated are the lack of ESMP implementation follow-up on the part of the administration due to the lack of financial resources allocated to monitoring missions for the MINPEPDED and the unavailability of validated environmental monitoring and compliance methodology for the different industry sectors. These views on the issue of environmental monitoring and compliance of certain projects in Cameroon reveal that much remains to be done.

Though it will be unfair to state that extractive industries do not make efforts towards the implementation of ESMP, however it is an exaggeration to say ESMPs are properly implemented in this sector (WWF, 2013). While companies in exploitation take ESMP implementation as a priority, companies in exploration are often reluctant. In terms of environmental performance, an Exploration Company (Kosmos Energy Cameroon HC) displayed the highest standards of diligence during ESMP implementation while maintaining a first, second and third party follow-up scheme. Apart from efforts made by COTCO in the implementation of the different volumes of ESMPs of the Chad-Cameroon Pipeline project; where an External Monitor and an internal team of about 20 people are assigned to the implementation of the volumes of the ESMP, it is rare to find such a dedicated team in charge of ESMP implementation for projects of the extractive sector in Cameroon. In terms of the latter sector, at Kosmos Energy HC Cameroon a dedicated team made up of an International Environmental Expert, 3 national environmental Experts (with one acting as supervisor) and an External Affairs director were all assigned to oversee activities.

3.4. Deficiencies in ESMP follow-up in the Extractive Sector
The main deficiency observed during ESMP follow-up in the extractive industry is related to a lack of awareness and commitment on the part of company Management. Also, the absence of a generalized or sector specific methodology for the monitoring of effects, compliance and performance plays a major role in poor performance. More than 60% of reports reviewed revealed absence of information on Waste volumes, Carbon–foot prints calculations, general incident records and trends…
4. CONCLUSION AND RECOMMENDATIONS

In order to ensure effective ESIA follow-up and compliance much needs to be done; firstly, assurance of IA to actually address the issues of compensation; secondly, assurance that stakeholders are knowledgeable on the mitigation hierarchy and thirdly, that environmental compensation measures are put in place and followed up to see they effectively enhance environmental benefits. Initiatives put in place must also therefore address the lapses in the ESIA evaluation criteria, ESIA outcomes and ESMP follow-up. Furthermore, the capacities of various stakeholders involved in the process must be equally enhanced to guarantee effectiveness of the process.

The national criteria for the evaluation of impact assessment are very elaborate, however, they do not provide a rating to determine the degree of accuracy of the information required. It neither emphasizes the respect of the mitigation hierarchy nor makes provisions for Environmental Compensation. There have been recent improvements in the quality of EIA reports, but emphasis need to be laid on active public participation, publication of research work and the availability of climate data. Also, there is need for peer review to be considered in the ESIA process to guarantee the quality of the report. Such review should be sponsored by Government and not by proponents.

In terms of ESIA/IA follow-up methodologies, companies are not properly guided on reporting standards, hence reports on the implementation of ESMP in most cases failed to address the key environmental issues in their respective sectors.

However, companies operating within the same geographical or ecological regions could collectively come together and join resources to compensate for residual and/or cumulative impacts, which impose the need for Cumulative Effects Assessment to be highlighted by the Cameroon IA regulations.

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