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Session:

**Cumulative Effects and Energy Development: Making it  
Work**

Presentation: **Cumulative impacts assessment in energy sector projects in  
Cameroon: states and lessons from current practices**

By

**Basile TATSABONG**  
Project officer  
CTA-AED

mail: [btatsabong@yahoo.fr](mailto:btatsabong@yahoo.fr)

**Cyrille Valence NGOUANA KENGNE**  
Director  
CTA-AED

mail: [cyrille\\_ngouana@yahoo.com](mailto:cyrille_ngouana@yahoo.com)

# PLAN

- Introduction
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# INTRODUCTION (1)

Energy crisis



commitment of Cameroonian government to accelerate the development of oil, gas, hydraulic and mineral resources.



Large infrastructure projects in the energy sector: dams, thermal plants



Cumulative impact

**EIA** : part of the provision of the law n°. 94/01 of 20 January 1994

**Law n°96/12 of 5th August 1996** : provision of the main legislative foundation for environmental management in Cameroon;

**Article 17 of this law**: prescription of EIA for all projects which had a propensity to degrade the environment

**Law and subsequent decrees** : - no distinction between cumulative and other impacts;  
- expectation of an EIA to consider the totality of direct or indirect impacts on a receiving environment or on other region;  
- requirement of an EIA to consider impacts on the general environment

# INTRODUCTION (2)

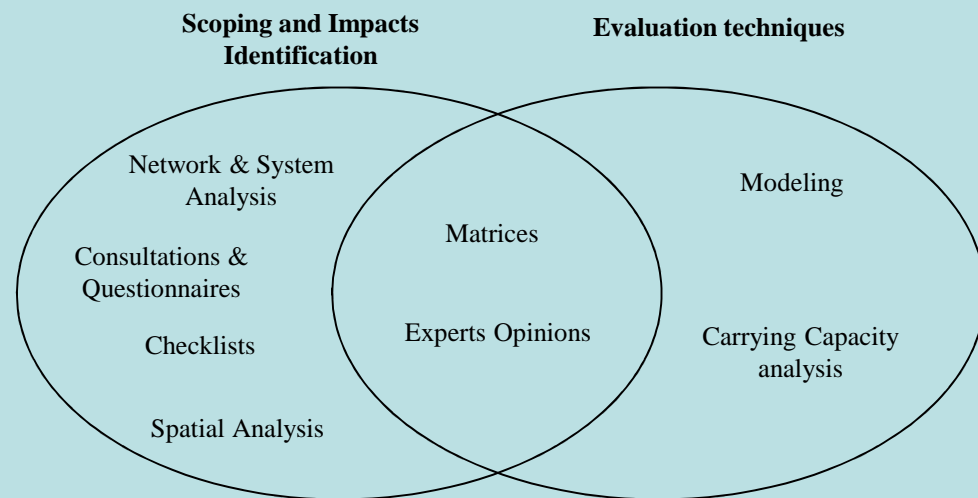
No critical study within the Cameroonian context about the effectiveness of the CIA practices to the best of our knowledge

## Questions attempted to answer in this study:

- which CIA tools and techniques are being used to assess cumulative impacts in energy sector projects in Cameroon?
- At what levels in EIA process are cumulative effects addressed?
- Is there any focus on management and mitigation of cumulative impacts?

## Background of CIA:

- origin;
- definition;
- best practices;
- tools to address them. (figure below)



Source: European Commission, 1999

# Research methodology

Comparative case study: suitable to understand complex, contemporary phenomena in real-world settings as far as CIA is concerned

Collection of data from two principal sources:

● Selection of four recent EIA reports from the energy sector and analysis of their context and contents:

- project purpose and need (1);
- characterization and analysis of cumulative impacts (2);
- tools and techniques used to assess cumulative impacts (3);
- management, mitigation and monitoring of cumulative impacts (4).

## **Choice of EIA reports according to the importance of the project**

● personal interviews will be held with EIA practitioners, administrators, community stakeholders, civil society organizations, etc. **Not achieve at this stage**

# Results (1)

Project purpose and need (1)	Do the terms of reference require CIA? (2)	Are cumulative impacts mentioned in the EIA reports? (2)	Which tools or techniques are used to address cumulative issues (3)	At what levels of the EIA process are cumulative impacts considered? (3)	Is there any focus on management, monitoring and mitigation of cumulative impacts? (4)
<b>The Lom Pangar dam:</b> a 45 m high dam and a reservoir, a hydropower plant with a 30 MW capacity, a transmission line of 90 kV. As a regulating dam, the aim is to improve the guaranteed water flow of the Sanaga River.	Yes	Yes, there is a specific CIA report	<b>Matrices.</b> -Division of the Project area into subareas; - Association of each impact assessed with a time boundaries (5 or 20 years) - Assessment was based on key sectorial development plans or strategies	Scoping, identification, characterization and evaluation of the impacts	Yes, responsibilities for managing and monitoring CI are set in the report
<b>The hydroelectric power station of Mekin:</b> a dam, a central spillway, a powerhouse, an installation power of 15 MW, a high voltage line of 110 HV. This project will reinforce the security of power grid in the southern of the country	Yes	Yes	<b>Matrices.</b> Each impact assessed was associated with a time boundaries (3 years & 10 years)	Identification, characterization and evaluation of the impacts	No

## Results (2)

Project purpose and need (1)	Do the terms of reference require CIA? (2)	Are cumulative impacts mentioned in the EIA reports? (2)	Which tools or techniques are used to address cumulative issues (3)	At what levels of the EIA process are cumulative impacts considered? (3)	Is there any focus on management, monitoring and mitigation of cumulative impacts? (4)
<b>Memve'ele dam project:</b> a dam project to be operated as a run-of-river scheme with the only purpose of producing electricity	Yes	Yes	<b>Matrices.</b> Each impact assessed was associated with a time boundaries (5 years & 10 years)	Identification, characterization and evaluation of the impacts - Past and future projects are listed but they are not thoroughly analyzed	No
<b>The Bini à Warak hydroelectric project:</b> a river dam, a feeder canal, the hydropower plant, a tail water canal of 225 m and the high voltage power lines of 225 Kv. The Bini a Warak Project aim is the production of hydroelectricity.	No	Yes but without any linkage with past, present and reasonable future projects	NA It does not consider cumulative impacts.	NA	No

# Discussion

- **Requirement of CIA** by the terms of reference (ToRs) of three projects reviewed in application of international standards and not of national legislative framework

- + no provision of technical and procedural direction in these ToRs

- **Insufficient treatment of cumulative impacts:**

- + a specific report dedicated to CI of Lom Pangar dam project whereas other Projects set a paragraph to CI.

- + CI are more elaborated in Lom Pangar report with a six steps generic whereas others projects just identified and characterized the CI with less analysis and no management action

- Matrices:** tool used in the four EIA reports to address CI; No justification of the choice of this tool in the report

Even if it is suitable at some levels, should it be use independently of the project (large, small) or of the nature of the VECs (Water, air, Land use, ...) ?

### **- Levels in which CI are addressed:**

- + from the scoping to monitoring and evaluation levels for Lom Pangar project;
- + scoping and impacts identification levels for other three projects;
- + provision of a management framework for cumulative impacts with a set of indicators and responsibilities in the Lom Pangar EIA report
- + failure of other EIA reports to consider management and monitoring of CI.

### **Preliminary suggestions**

- Revision of the EIA law by the Cameroonian government to include a clear proviso on cumulative impacts assessment;
- Description of a clear technical direction for CIA in the ToRs;
- Development of a regional database on past and Reasonable Foreseeable future activities for each region to provide instruments for CIA.
- Justification of the choice of tools use to assess CI according to the project (large, small) and the nature of the VECs (water, air, land use, ...)

## Conclusion and acknowledgement

- Purpose of this ongoing study: expose CIA practices in Cameroon and fundamental constraints that can impede its effectiveness.

- To achieve this aim: review of four EIA reports and the EIA legal framework

- no distinction between cumulative or other impacts in the law and;

- no explicitly requirement of cumulative impact assessment.

- Requirement of CIA in the ToRs without a technical direction

### **Future research activities:**

- Increase the number of the EIA report to be evaluate

- Interviews with key stakeholders to highlight other findings with focus on constraints

- **Acknowledgement:** many thanks to the Environmental and Social capacity building in the Energy Sector Project (PReCESSE), financed by the World Bank, which enable us to attend this conference.