

# *Feedback on atmospheric pollution in tropical area*



*Retour d'expérience sur les émissions  
des pollutions atmosphériques en  
milieu tropical*

*R.Lagache – V.Defromont*



## A – Context

# Context

- ▶ EGIS has performed many studies in Africa and French DOM-ROM last year
  - > Rio Tinto impact & BAT in Cameroon,
  - > Baseline studies for Total in Congo, for AERIA in Ivory Coast , Vinci in Guadeloupe,
  - > EIS baseline study for Euronimba in Liberia

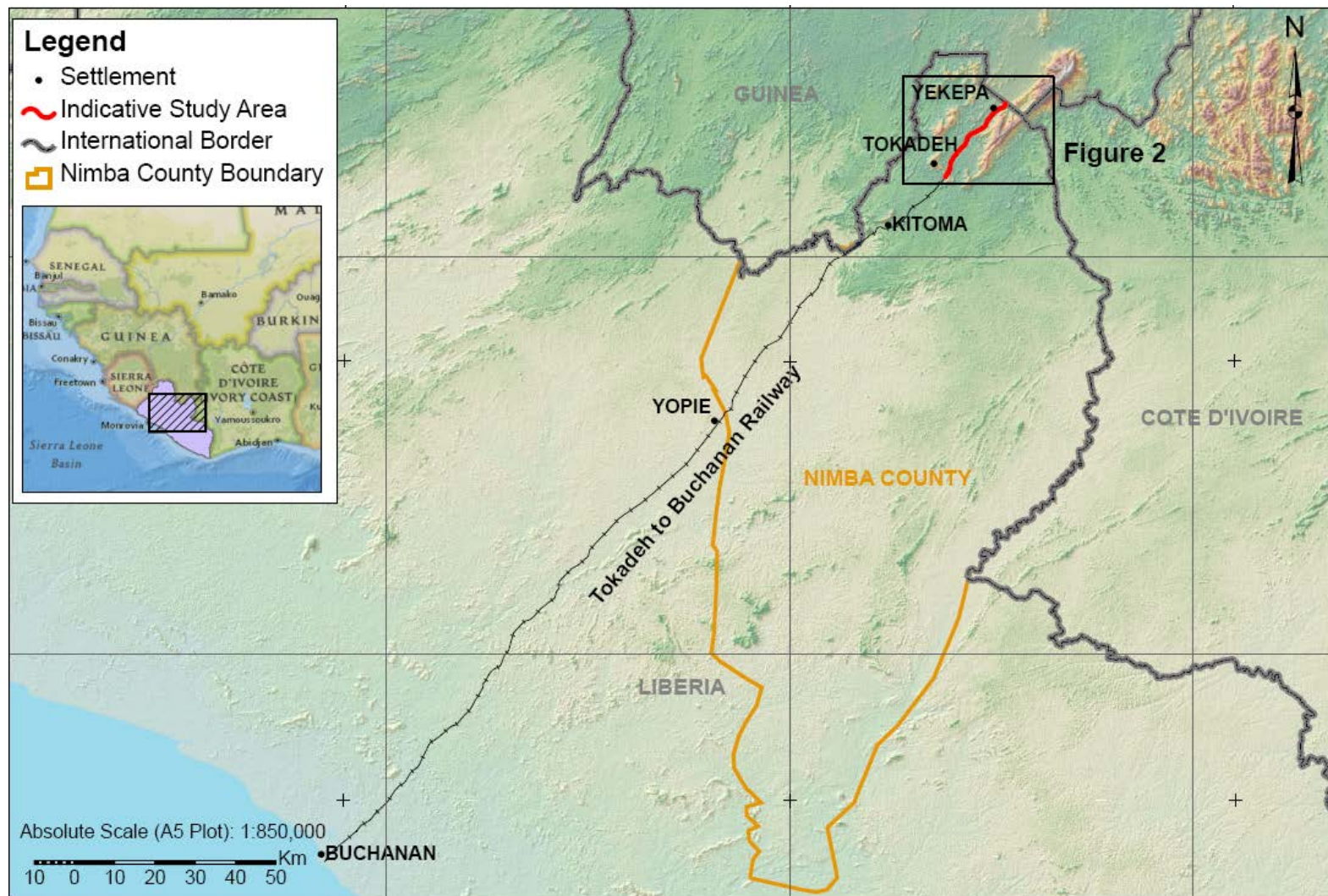
## Context - Liberia

- ▶ Study in Liberia was very specific
  - > Baseline study for mining industry,
  - > A country just recovering from the lingering effects of the civil wars (1980-2003),
  - > A very remote area.

# Context - Liberia

- ▶ The main challenges
  - > Desktop study,
  - > community relationships,
  - > Logistic,
  - > working conditions.

# Context - Liberia



## Context - Liberia

- ▶ The study area intersects the East Nimba Nature Reserve, an area of outstanding natural, biological and cultural significance,
- ▶ The local climate of the study area is mainly constituted by micro-climates,
- ▶ 85% of the population lives below the international threshold of poverty,
- ▶ Infrastructures, electricity and even basic goods could be scarce.

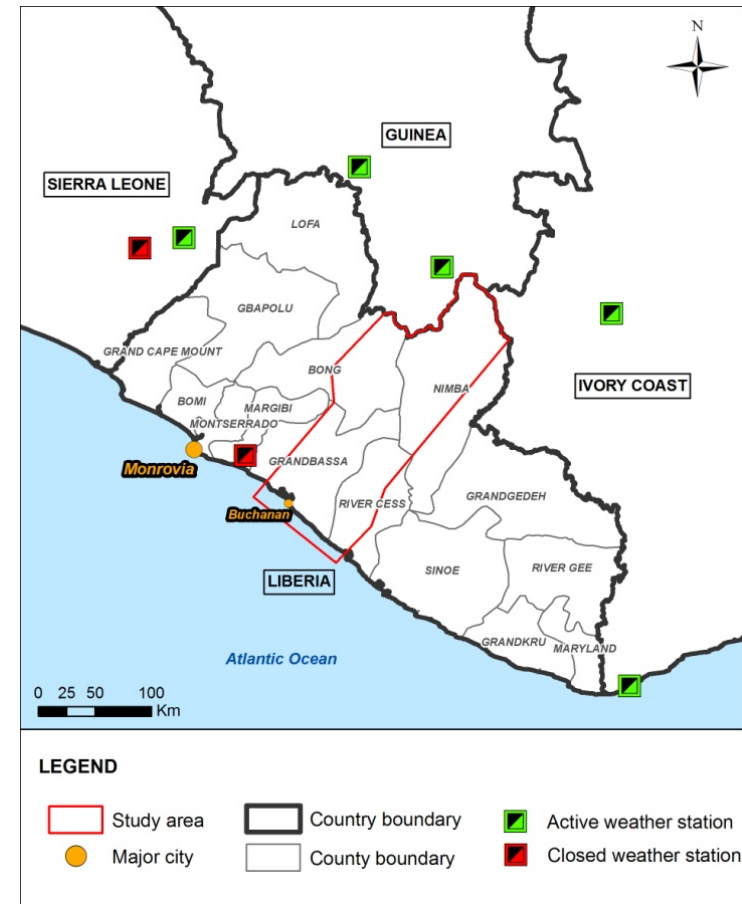


## B – Desktop study



# Data are scarce and not up to date

- ▶ Gap analysis was performed for:
  - > Meteorological data,
  - > Air Quality data,
  - > Topographic data,
  - > Land use cover and buildings,
  - > Ore particle size and composition.
- ▶ Excepted for LUC, every set of data has to be acquired through a field study.



## One specific issue : the lack of academics

- ▶ Due to civil wars, no academic have been really educated to replace the old generation (and to educate the new).



## C – Health, Safety, Security, Environment and Community

## Strict guidelines and policies

Any person involved in air quality study should:

- ▶ Have an appreciation of what he/she is likely to encounter,
- ▶ Understand the pre-travel plans (Personal Health, Safety and Security Plans, Job Safety and Environmental Assessment, Standard Operating Procedures, Positive Attitude Safety System...) and complete them,

## Strict guidelines and policies

Any person involved in air quality study should:

- ▶ Understand the hazards, risks, safety and security requirements,
- ▶ Understand the environmental and cultural requirements,
- ▶ Understand the conduct and anti-corruption requirements.



## D – Logistic & design

# A developing country

With possible logistic issues:

- ▶ No monitoring & technical devices available in the country,
- ▶ Shipping, taxes, broker fees, handling fees (...) could raise the price up from x1.5 to x3
- ▶ Long delivery time, and no real insurance that the delivery would be effective.

## A remote area

With possible logistic issues:

- ▶ No reliable basic devices available in the county,
- ▶ Travel times could be extended greatly by unforeseen circumstances,
- ▶ No help should be waited from the capital.





## Need for basic design

- ▶ Tropical conditions are very demanding for monitoring devices,
- ▶ No good technicians available onsite,
- ▶ Specific issues with thefts.

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- ▶ Tropical conditions are very demanding for monitoring devices,
- ▶ No good technicians available onsite,
- ▶ Specific issues with thefts,
- ▶ **Good subcontractors are key conditions for a successful study.**

# Example of design



# Example of design



# Thank you

Rémy LAGACHE / [remy.lagache@egis.fr](mailto:remy.lagache@egis.fr) / +33 6 29 55 42 82

EGIS STRUCTURES ET ENVIRONNEMENT

Egis Environnement

40, avenue de la Marne

58420 - Wasquehal

