

## APPENDICES

With the Advice on Harvesting the Methane  
Resource and Monitoring the Stratification of Lake  
Kivu  
-Rwanda-

(Appendices 1 to 2)

## APPENDIX 1

**By e-mail dated 10 January 2007 the Honourable Minister of State in charge of Energy and Communications, Mr Eng. Albert Butare requested the NCEA for assistance regarding the Lake Kivu Monitoring Program**

**Van:** abutare@gov.rw  
**Verzonden:** woensdag 10 januari 2007 6:50  
**Aan:** Reinoud Post  
**CC:** upegaz@rwanda1.com; anthevrijlandt@gmail.com  
**Onderwerp:** OS25 066-063 / OS25 072-001 Lake Kivu Monitoring

Dear Mr. Post,

I have been informed about the possibilities of your institution to assist us in preparing a coherent and adequate monitoring system for Lake Kivu Stability. For effective planning purposes, it is of paramount importance to involve in this process all stakeholders such as relevant institutions in Rwanda and DR Congo, scientists, project developers, lenders etc. In this connection, a consultative workshop on Lake Kivu Monitoring will be organised in February/March 2007 by the Government of Rwanda as a platform to set up an Action Plan, right institutional framework and to identify sources of finances for Lake Kivu Monitoring.

We would, therefore, be very pleased if your institution could assist us with the organisation of the above mentioned workshop. We would suggest that you arrive a few days before the start of the workshop, in order to prepare the agenda together. We also solicit your institution to moderate and facilitate the discussions during the workshop. The exact dates of the workshop will be communicated as soon as they are known.

Looking forward to a positive consideration.

Please accept, Mr. Post, the assurance of my highest consideration.

Yours sincerely,

Eng. Albert Butare  
Minister of State In charge of Energy and Communications  
MINISTRY OF INFRASTRUCTURE  
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## APPENDIX 2

### Project Information

**Proposed Activity:** Reduction of the methane and carbon dioxide content of the waters of Lake Kivu is necessary to reduce the risk of sudden eruption of these gases and the related risk of casualties that such an eruption would imply. The governments of Rwanda and the DRC have chosen to reduce gas saturation of Lake Kivu's waters in a profitable and environmentally sustainable way. Both countries have long been contemplating beneficial ways of exploiting the methane resource. A lot of research has been going on over time. Aware of the permanent risk of sudden gas eruption, there has always been broad agreement that monitoring is necessary on:

- the overall stratification of the lake at large, and
- the influence of methane harvesting and methane use on lake stratification and on the environment

However, there was as yet no full agreement on how this should be done and who should do it.

The ministry of Infrastructure (through the state minister of Energy), desiring to break the deadlock on these issues, proposed a workshop and invited all stakeholders in Lake Kivu methane gas exploitation. In addition, the ministry asked NCEA to facilitate the workshop, act as the workshop secretariat and formulate advice on methane harvesting and lake stratification monitoring.

After a successful workshop, in which a general agreement was reached on both scientific and organisational aspects, the working group provided input for the "Mandatory Requirements and Guidelines - Rules and Regulations for the Design and Operation of Gas Extraction" document of UPEGAZ and for the WB-prepared Carbon Credits request.

More detailed information of the Workshop can be found on NCEA's website at: <http://www.commissiemer.nl/ncea/reportworkshoplakekivu/> .

This advice is a further refinement to support the Governments of Rwanda and DRC to embed harvesting of the methane resource and monitoring of the stratification of Lake Kivu in a legal, regulatory and institutional setting.

**Category:** DAC/CRS code 23010 Energy policy and administrative management, 14010 Water resources policy and administrative management, 32262 Oil and gas

**Projectnumber:** 072

**Composition of the working group:**

Mr A.J. Wüest  
Mr F. Darchambeau  
Mr J.B.M. Gashagaza

**Chairman:**

Mr D. de Zeeuw

**Technical secretary:**

Mr R.A.M. Post