

Conference on safe gas extraction from Lake Kivu  
13-15 May 2009, Copenhagen

# Safety demands to Bilateral Competent Authority (BCA)

Burundi

Rwanda

*Jørgen S. Steenfelt*

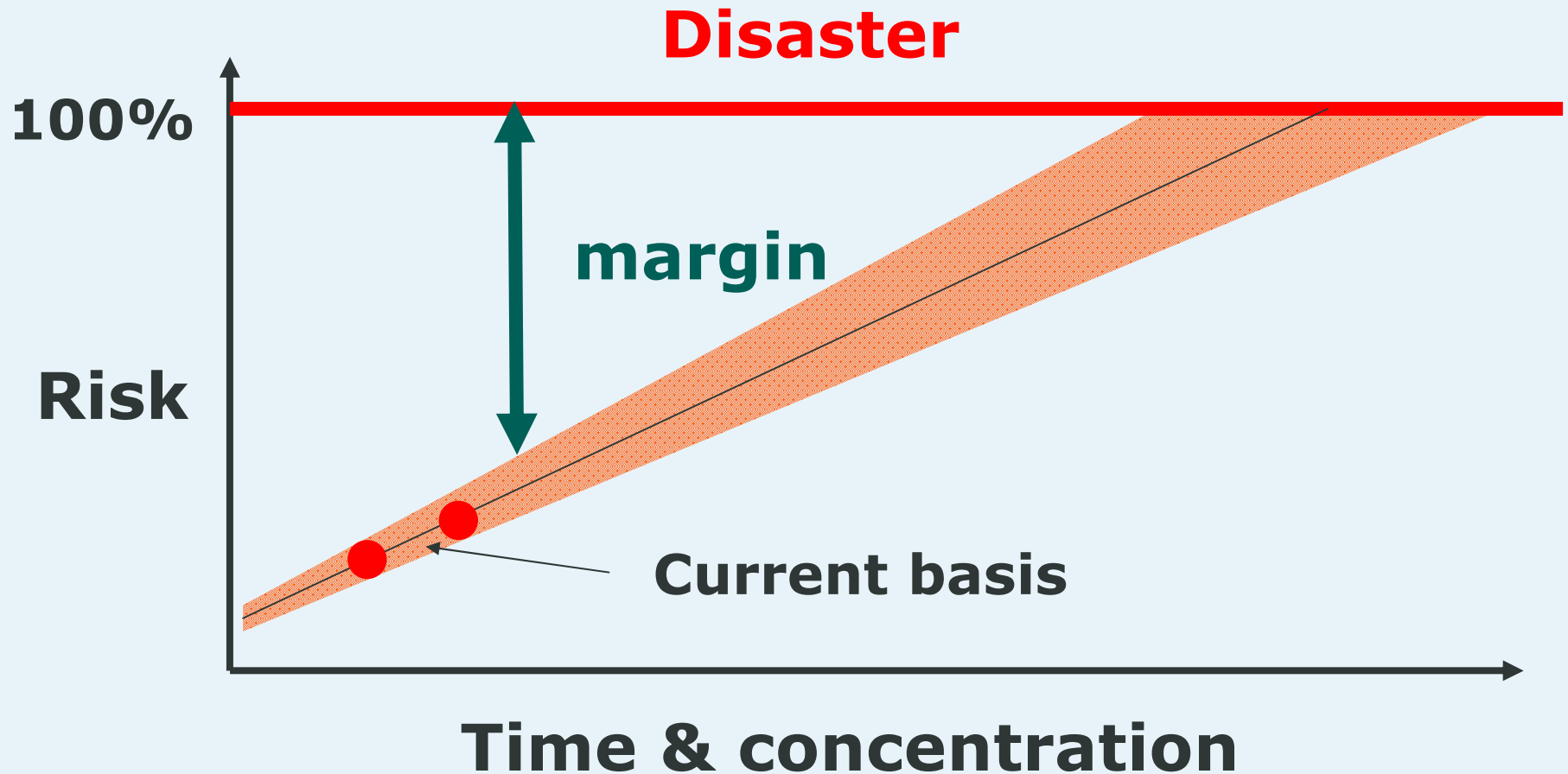
*COWI A/S, Denmark*

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- **Setting the scene**
- **Institutional set-up**
  - dictated by public safety demands
- **Scope, powers and duties**
  - dictated by public safety demands
- **Financing**



# Why rules and regulations?





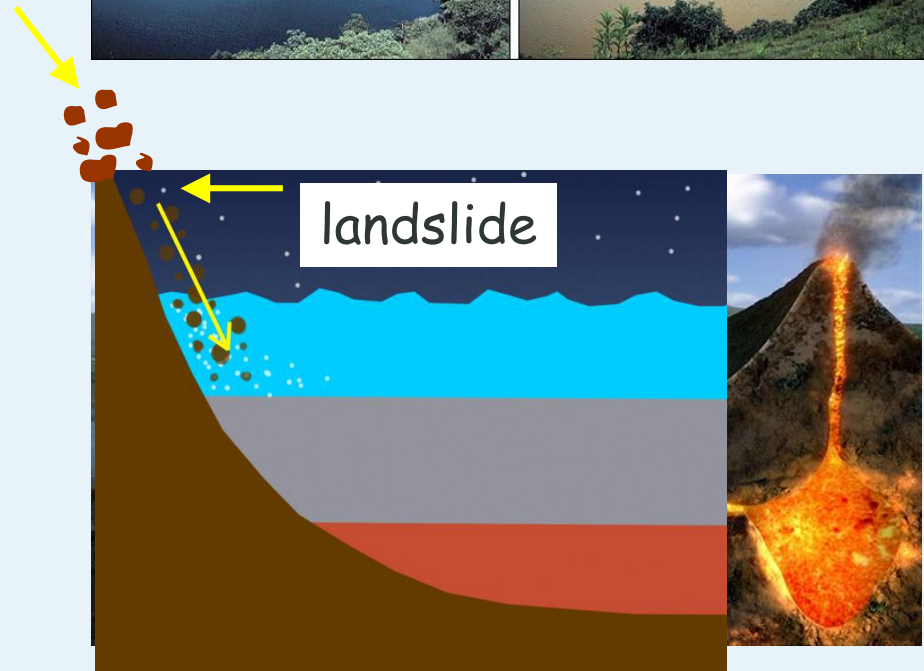
# Rationale for institutional set-up



- **Ensure public safety has top priority**
- **Prevent economic gains from jeopardizing stability & future harvesting**
- **Ensure local bilateral involvement & minimize costs**
- **Overall check and basis for forecasting and intervention**

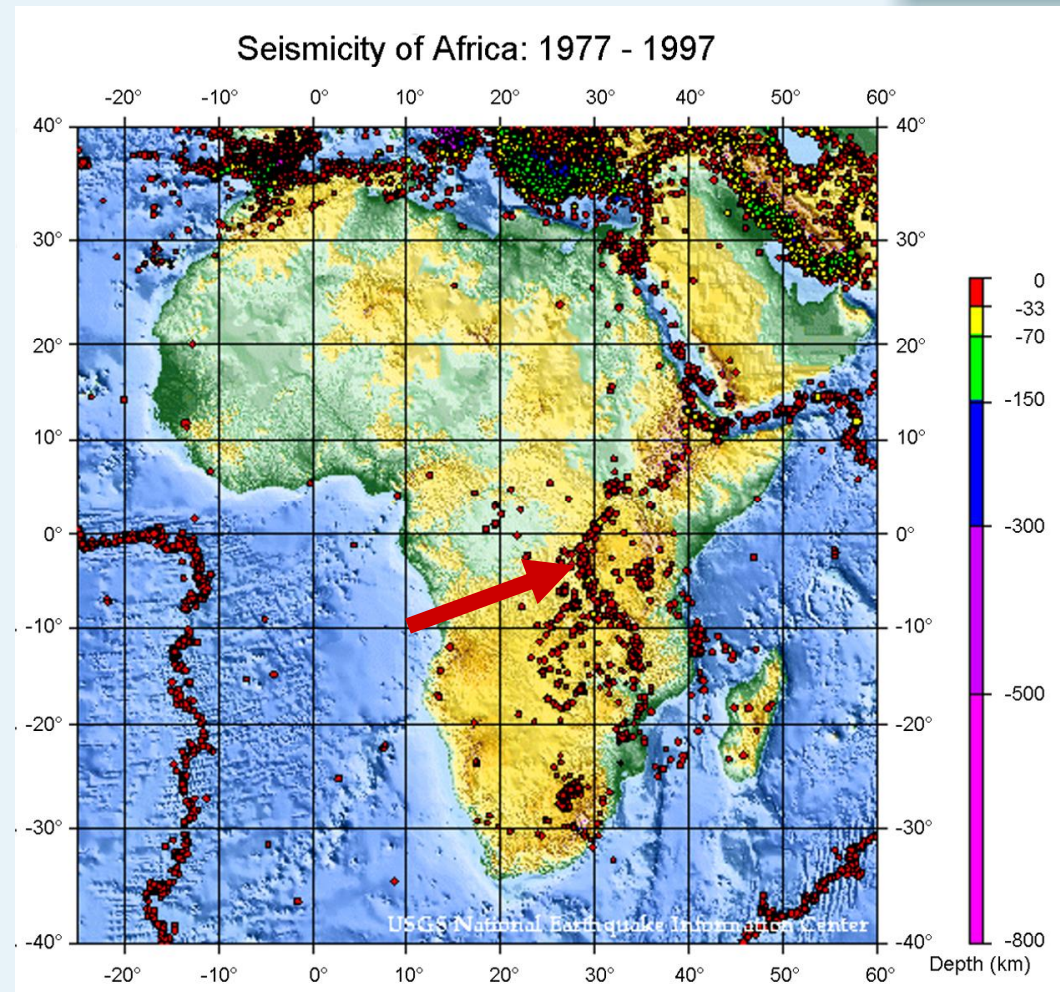
# Eruption risks

- **Gas accumulation in lake**
- **Gas accumulation in sediment**
- **Volcanic activity**
- **Landslides**



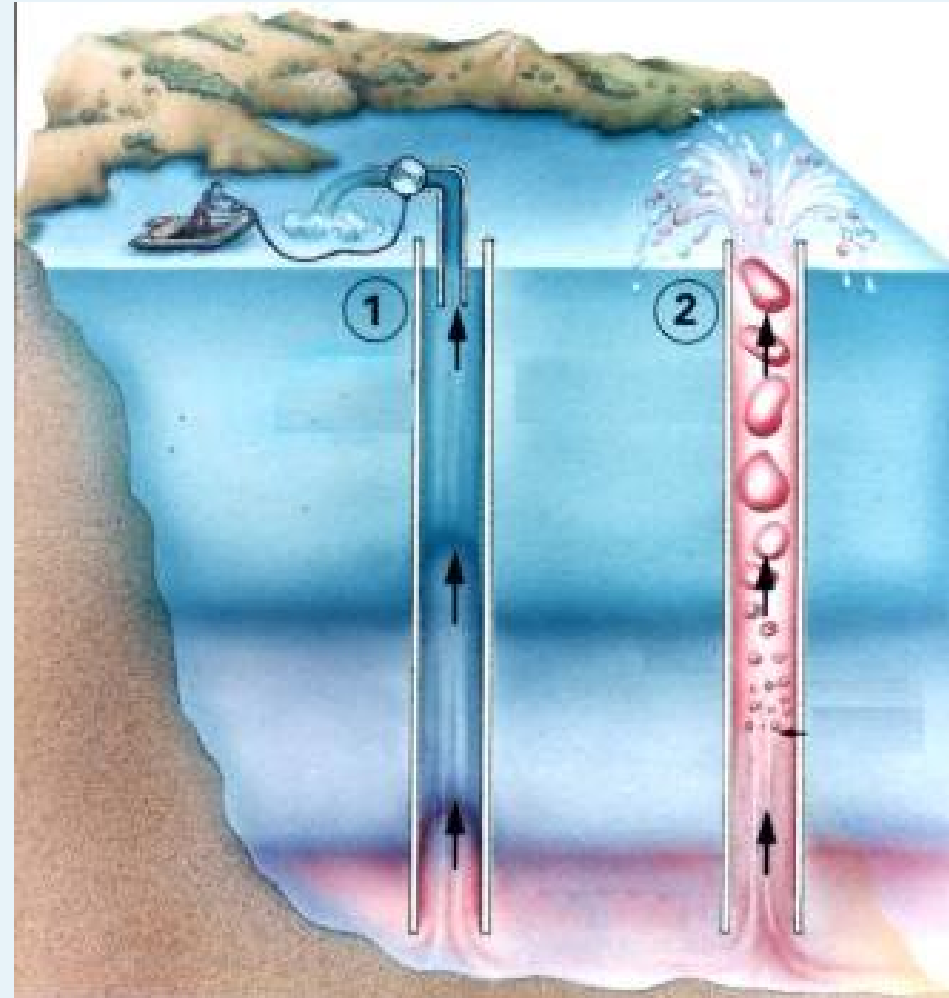
# Eruption risks

- Gas accumulation in lake
- Gas accumulation in sediment
- Volcanic activity
- Landslide
- **Earthquakes**



# Eruption risks

- Gas accumulation in lake
- Gas accumulation in sediment
- Volcanic activity
- Earth quakes
- **Gas extraction per se or malfunction**
- **Loss of facility or unidentified mech.**





# Eruption risks



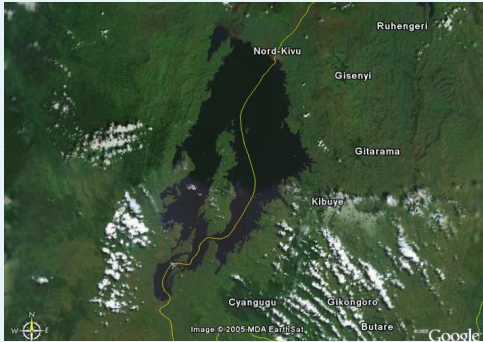


# Eruption risks



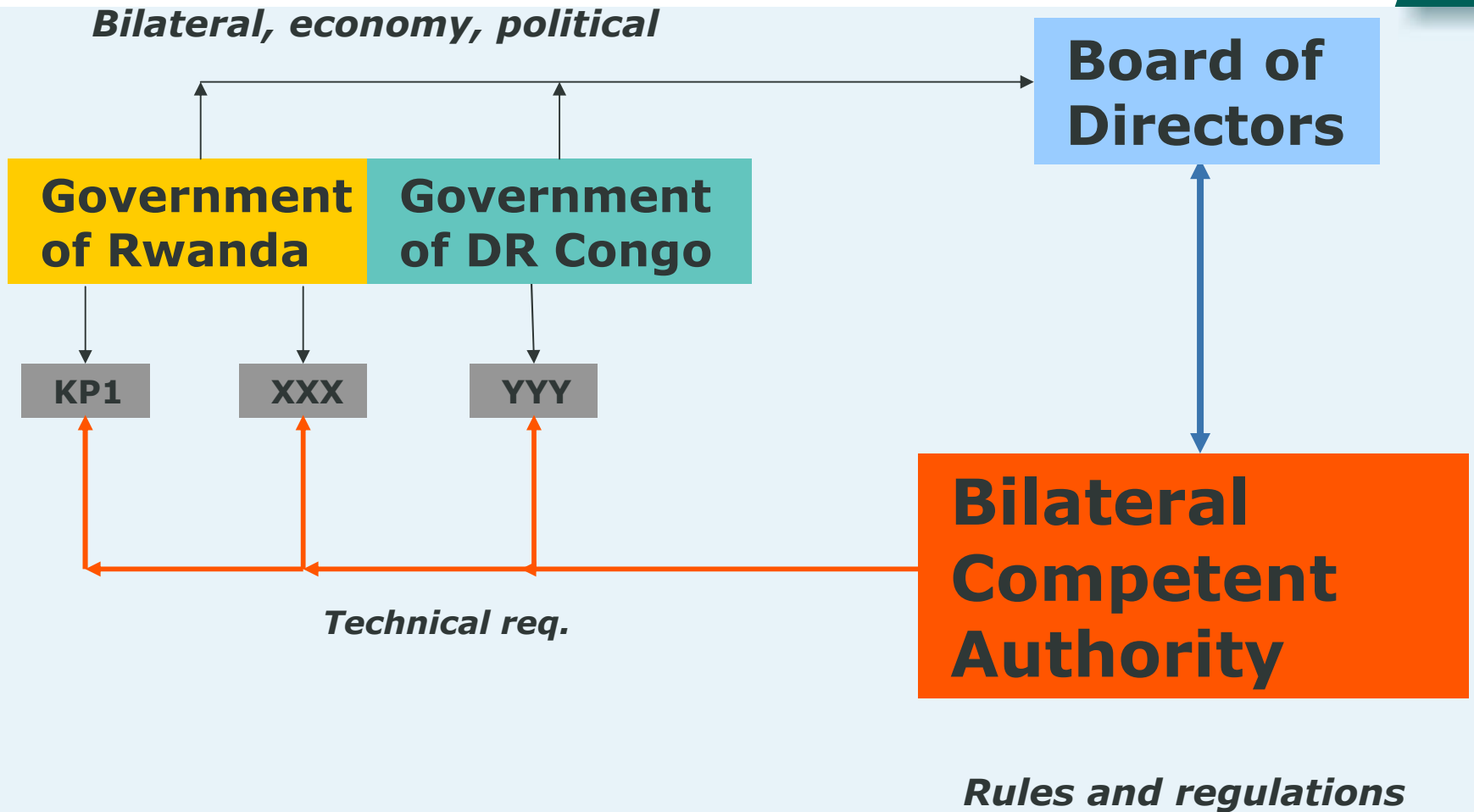
- **Others**  
**loss of facility -**  
**unidentified mech.**

# Institutional set-up

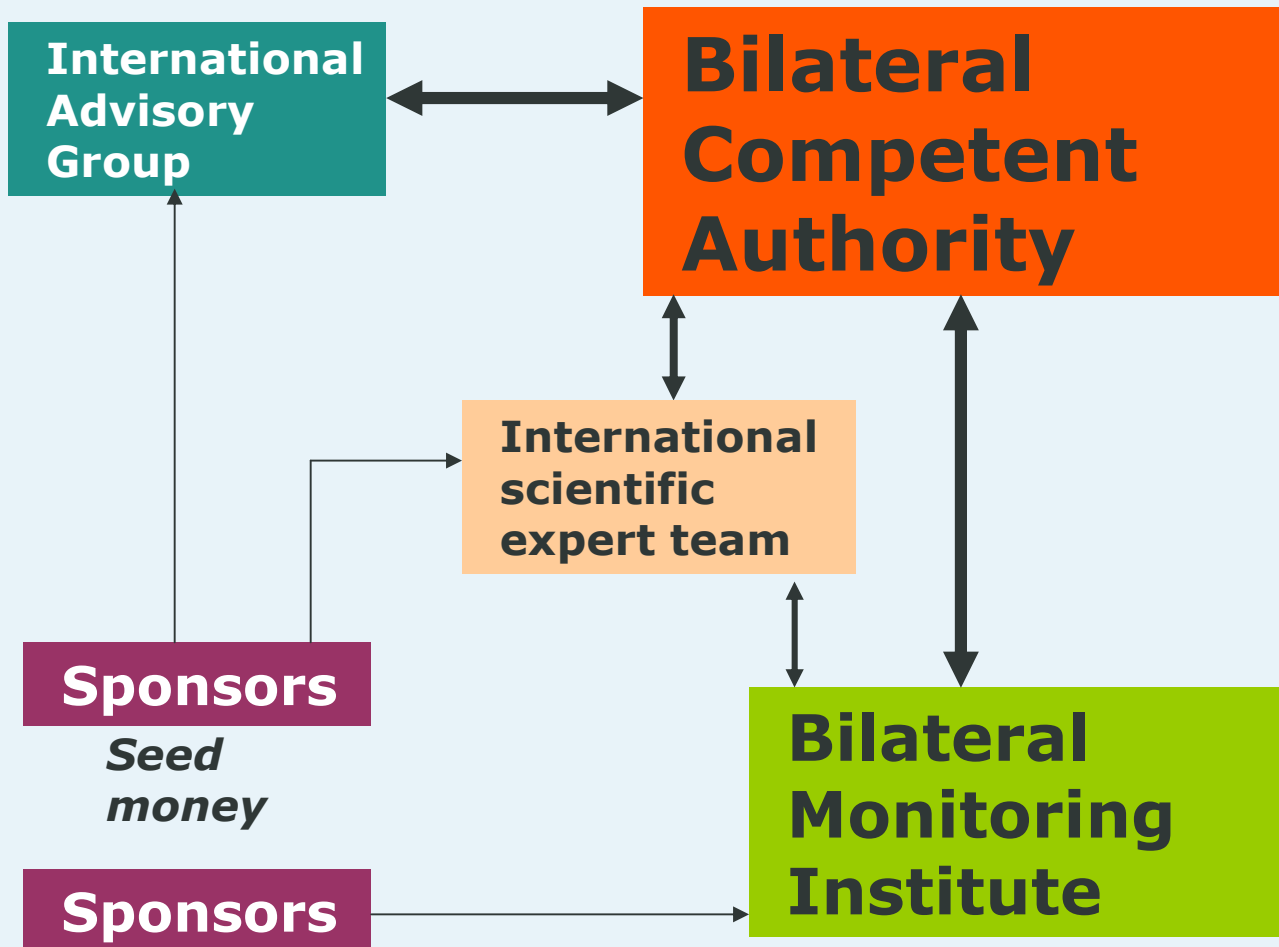


- **Bilateral Competent Authority**  
- *with powers and duties*
- **International Advisory Group**  
- *advice and support to BCA*
- **Bilateral Monitoring Institute**  
- *daily business*  
- *regular and specific monitoring*  
- *admin. By BCA*
- **Int. scientific expert team**  
- *Specialist monitoring, QA*  
- *contracted by BCA*

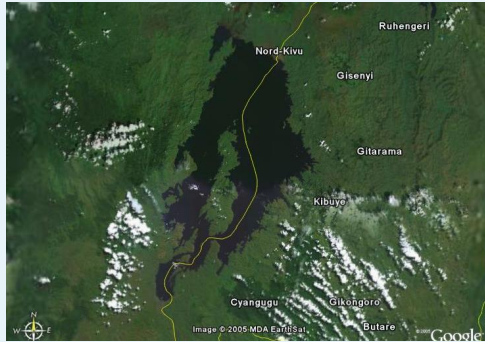
# Institutional set-up





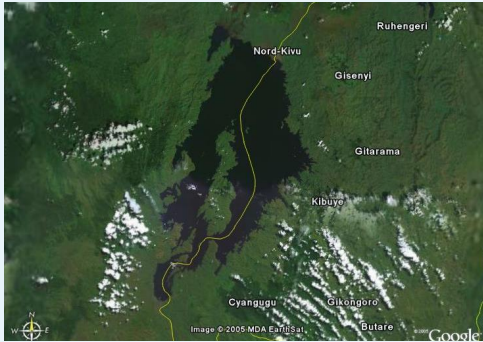


# Scope for Bilateral Competent Authority



- **Initiate Baseline study**  
*International Advisory Group: tender, bid evaluation, award of contract evaluate outcome*
- **Set up Bilateral Monitoring Institute & define scope**
  - Approval from GoR and GoDRC
  - Manning - equipment training - reporting
  - Evaluate annual reports
- **Re-evaluate production conditions**
- **Data to public domain**

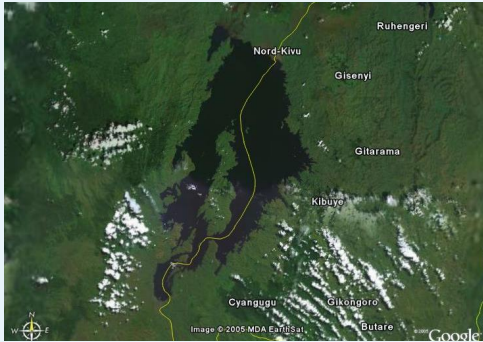
# Scope of activities for BCA



- **Public safety and data inventory**
  - Gas inventory for management, planning and concession
  - Keep tab on Lake parameters
  - Proactive reactions on unsafe/unwanted developments
  - Consultant on techn. admin. Matters
- **Concessioning**
  - Participate in technical negotiations using International Advisory Group
  - Advice politicians



# Scope of activities for BCA



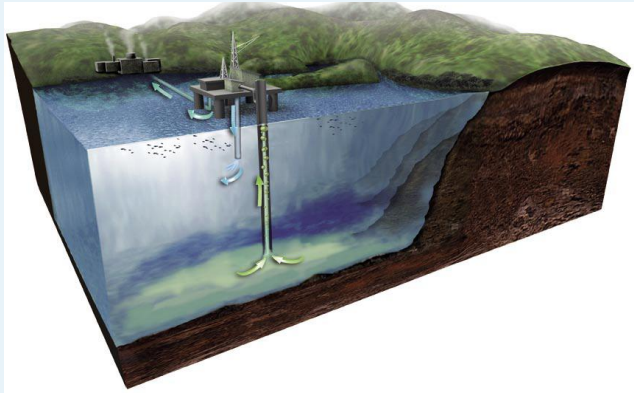
- **Check of concessionaires**
  - Review design and verify HAZOP for compliance with rules and regulations
  - Coordinate with REMA on EIA
  - Supervise critical installation steps
  - Issue permit to start operation
  - Inspect, review and liaise with concessionaires (safety, modifications)
- **Monitoring**
  - Maintain master monitoring list
  - Sub-contract monitoring
  - Evaluate results and take action

# Duties and powers of BCA



- **Independent status**
  - Reporting only to Board of Directors
- **Power and duty to**
  - stop noncompliant facility or noncompliant concession
  - implement monitoring & decide on monitoring principles/priorities
  - issue instructions based on safety
  - review management prescriptions
  - require insight in technical aspects
  - keep governments informed on all relevant matters

# Financing of institutional set-up



- ***GoR, GoDRC***

- ***Investors***

**Contribution must be transparent and part of concession agreement**

- ***Governments***

**Investment in scientific institution and profilation of countries**

- ***Sponsors***

**EAA, IFC, WB, UN, EU etc.**