

U021-P01

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Lake Nyos gas disaster (Cameroon): Latest situation

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The Lakes Nyos and Monoun (Cameroon) gas disasters of mid-1980s that involved ~1800 casualties have received world-wide attention due to their uniqueness and future preventability. Gradual accumulation of magmatic CO2 in the lakes led to sudden gas releases. Steady input of gas after the catastrophes implied recurrence of a similar event in the future. Artificial degassing of the lakes that started in early 2000s at these lakes using a gas self-lifting technique has worked well. Here we report the latest CO2 profiles in both lakes, and the evolution of CO2 content over 25 years (Fig. 1). The degassing has almost stopped at Lake Monoun because CO2 concentration at the water intake depth has reached a level too low to sustain self-lift. The gas remaining in Lake Monoun poses little hazard, but gas build up will resume unless the gas now entering the bottom water is removed. Lake Nyos still contains more than 70 % of the pre-degassing amount of dissolved CO2. Figure 1 implies that the degassing is slowing and approaching steady state.



Keywords: Cameroon, Lake Nyos, Lake Monoun, gas disaster, degassing, CO2 profile