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## Hazardous lake evaluation by the field survey in the Bhutan Himalaya

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In order to assess the possibility of GLOF hazard in the Bhutan Himalaya, we closely observed 15 lakes and roughly checked 12 lakes along the snow man trekking route, northern Bhutan under the JICA/JST project. There is not specific information over the last 10 years. However most of these lakes were observed by Iwata and Ageta (1998). In this presentation we will introduce summary of the field condition and preliminary result of the evaluation based on a modified glacial lake check sheet (Iwata, 2000). The field surveys for the evaluation were carried out in/around the lakes in 2009 and 2010 by the authors and tenth other Japanese and Bhutanese researchers. Especially, bathymetric survey achieved to obtain more reliable information for assessing the stability of the moraine dame and flood analyses. Most of the lakes in the Mangde Chhu basin show relatively stable aspect because gentle relief of the surrounding topography of the lake.

Keywords: GLOF, risk evaluation, check sheet, bathymetric survey, Mangde Chhu