



Editorial

It is our great pleasure to issue our journal 'Global Environmental Research' which aims to disseminate the results of studies on global environmental issues, studies conducted not only in Japan but also in other parts of the world. Many scientists monitor research in their own fields, but communications between scientists are not always easy, because the ranges of their fields are so broad, subjects are so diverse, and reports may not be written in an internationally spoken language. This journal is intended to help fill these gaps.

A language gap often exists for Japanese scientists. In recent years, many reports, publications, and other forms of information have been released relating to Japanese studies on global environmental issues, but only a small number of them are published in English. Accordingly, one purpose of 'Global Environmental Research' is to provide information on Japanese research results to scientists, internationally and in a timely manner.

Relatively speaking, exchanges of information among the Asian and Pacific regions on research results relating to global environmental issues are inadequate because of local language barriers and limited opportunities to present results. We hope that 'Global Environmental Research' will help to solve these problems simultaneously.

International Geosphere-Biosphere Programme (IGBP), Human Dimensions Programme of Global Environmental Change (HDP), and other international and interdisciplinary programmes are now producing a lot of important results. Many government ministries and agencies are providing considerable budgets each year for studies on global environmental issues. The results of these studies need to be distributed world wide. We hope this journal will also make a contribution to this end. It was said that title of the third scientific symposium of the HDP 'Global Change, Local Challenge' recognises that global changes are the results of a variety of local activities shaped by particular cultures, histories, political boundaries, and national policies. We are certain that 'Global Environmental Research' will serve as a transmitter of information on local activities about global change.

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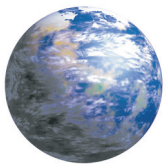
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Studies on the Recent Glacial Fluctuations,
Glacial Lakes and Glacial Lake Outburst
Floods in South Asian Mountains



CONTENTS

Studies on the Recent Glacial Fluctuations, Glacial Lakes and Glacial Lake Outburst Floods in South Asian Mountains

1	Preface	Koji FUJITA and Teiji WATANABE
3	Outline of Research Project on Glacial Lake Outburst Floods in the Bhutan Himalayas.....	Koji FUJITA, Kouichi NISHIMURA, Jiro KOMORI, Shuji IWATA, Jinro UKITA, Takeo TADONO and Toru KOIKE
13	Recent Glacier Shrinkages in the Lunana Region, Bhutan Himalayas	Nozomu NAITO, Ryohei SUZUKI, Jiro KOMORI, Yoshihiro MATSUDA, Satoru YAMAGUCHI, Takanobu SAWAGAKI, Phuntsho TSHERING and Kharka Singh GHALLEY
23	Glacial Lakes in the Himalayas: A Review on Formation and Expansion Processes.....	Akiko SAKAI
31	Development and Validation of New Glacial Lake Inventory in the Bhutan Himalayas Using ALOS 'DAICHI'	Takeo TADONO, Sachi KAWAMOTO, Chiyuki NARAMA, Tsutomu YAMANOKUCHI, Jinro UKITA, Nobuhiro TOMIYAMA and Hironori YABUKI
41	Scenario Analysis on Risks of Glacial Lake Outburst Floods on the Mangde Chhu River, Bhutan.....	Toru KOIKE and Shuhei TAKENAKA
51	Study on Applicability of Electric Sounding for Interpretation of the Internal Structure of Glacial Moraines	Kengo OHASHI, Toru KOIKE, Shuhei TAKENAKA and Jun UMEMURA
59	Glacial Lake Outburst Events in the Bhutan Himalayas	Jiro KOMORI, Toru KOIKE, Tsutomu YAMANOKUCHI and Phuntsho TSHERING
71	Erosion and Sedimentation Caused by Glacial Lake Outburst Floods in the Nepal and Bhutan Himalayas.....	Daisuke HIGAKI and Go SATO
77	A Social Survey for GLOF Disaster Mitigation in Bhutan	Shuhei TAKENAKA, Tadashi SATOH and Sonam LHAMO
83	Changes in Surface Morphology and Glacial Lake Development of Chamlang South Glacier in the Eastern Nepal Himalaya since 1964	Takanobu SAWAGAKI, Damodar LAMSAL, Alton C BYERS and Teiji WATANABE
95	Variation in Suspended Sediment Concentration of Supraglacial Lakes on Debris-covered Area of the Lirung Glacier in the Nepal Himalayas	Nozomu TAKEUCHI, Akiko SAKAI, Shiro KOHSHIMA, Koji FUJITA and Masayoshi NAKAWO



Contributed Paper

105 Recent Forest and Peat Fire Trends in Indonesia

The Latest Decade by MODIS Hotspot Data Nina YULIANTI, Hiroshi HAYASAKA and Aswin USUP



Preface

Recent controversy regarding changes in Himalayan glaciers, triggered by an erroneous statement in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (IPCC, 2007), has highlighted major gaps in knowledge of the present and future behavior of Himalayan glaciers and in understanding of the underlying processes. The description in the IPCC's report referred to poorly substantiated estimates of the rates of recession and dates of disappearance of Himalayan glaciers. Meanwhile, views on changes in Himalayan glaciers by many researchers, including Japanese, have differed (*e.g.*, Asahi, 2001; Waragai, 2010). It is well known that the 'IPCC statement on the melting of Himalayan glaciers' was released on 20 January 2010 (IPCC, 2010), in which IPCC had to correct its previous statement.

In addition, glacier changes not only imply change in water availability but also altered risks due to glacial hazards, not the least of which are glacial lake outburst floods (GLOFs). GLOFs are recognized worldwide, and in fact are considered a major natural hazard in the Himalayas. GLOFs have been studied in the Nepal Himalaya at least since the 1980s (Fushimi *et al.*, 1985; Ives, 1986; Vuichard & Zimmermann, 1987), and the Imja Glacier Lake, one of the most heavily studied glacial lakes in Nepal, was first systematically examined in 1988 (Hammond, 1988). Nevertheless, research and mitigation measures have been limited, even in Nepal, mainly due to the high altitudes involved and difficult accessibility.

Much literature on glacier changes, glacial lakes, GLOFs and resultant phenomena has been published in South Asia, especially in the Nepal Himalaya. Such studies have greatly advanced in the last decade. However, there still exist regional imbalances in terms of the amount of knowledge of these phenomena. This special issue carries state-of-the-knowledge studies led by Japanese scientists, focusing mostly on the state of glaciers in the Bhutan Himalaya, which has been poorly understood.

GLOFs are a great concern not only to researchers but also to local communities. Knowledge of GLOFs is delivered to the local residents mostly through mass media and rumors, often resulting in unnecessary threats. In this regard, conducting research alone with no follow-up may not be appreciated; mitigating actions and dialogues with local residents together with research activities are important components of a well balanced approach. One project in Bhutan by the Japan International Cooperation Agency (JICA) and Japan Science and Technology Agency (JST) is providing a good example of bridging the gap between research and mitigation/dialogues with local residents on GLOF issues. In addition to promoting natural sciences, the GLOF project in Bhutan involves training of local experts, technology transfer, and a proposal for an early warning system.

Ten years have passed since the UN's International Year of Mountains (IYM), and we can find increasing necessity for projects combining research itself with feedback mechanisms to the local communities. We do hope that this special issue, a contribution to the IYM Plus 10 by the Japanese science community, will lead to further development and promotion of research and action projects in mountain areas worldwide.

Koji FUJITA and Teiji WATANABE

Note

Spellings of place names adopted in this issue vary among the papers, because they differ among different maps and information sources.



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