

the political backdrop against which South Korea has articulated its Arctic interests. This includes the tragic sinking of the MV Sewol in 2014 and its subsequent effects on Korean maritime policy. Singapore's Arctic politics are also covered, followed by a brief final chapter on India, in which rivalry with China's global role seems to have been an important factor shaping domestic policy circles.

While not every chapter has its own summary or conclusion, the threads are brought together in the book's final chapter. Against the backdrop of the numerous and fascinating examples of key country-specific moments/actors/processes shaping Asian states' attention to the Arctic that Tonami has unearthed, she concludes that probably the strongest commonality between all the states studied is their status as 'developmental states' with a

strong element of state-led economic diplomacy when it comes to the Arctic region. (Elana Wilson Rowe, Norwegian Institute of International Affairs, CJ Hambros Plass 2D, 0033 Oslo, Norway (ew@nupi.no))

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Source-to-sink fluxes in undisturbed cold environments. Achim A. Beylich, John C. Dixon and Zbigniew Zwoliński (editors). 2016. Cambridge: Cambridge University Press. 419 p, hardcover. ISBN 978-1-107-06822-3. £112. doi: [10.1017/CBO9781107705791](https://doi.org/10.1017/CBO9781107705791)
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This edited volume summarises and synthesises the achievements of the International Association of Geomorphologists' (I.A.G./A.I.G.) Working Group SEDIBUD (Sediment Budgets in Cold Environments), which has been active for more than 10 years since 2005 (<http://www.geomorph.org/wg/wgsb.html>).

This book is mostly a collection of research and review papers that provides a geographical overview of sediment transfer processes throughout cold environments, which are grouped geographically into Arctic environments (part III), sub-Antarctic and Antarctic environments (part IV) and alpine/mountain environments (part V). Most of the chapters deal with regional sediment and solute budget phenomena. There are few very important issues underlying the conceptual idea of the book, in particular related to the necessity for quantitative studies of all three main components of fluvial transport (solute, suspended and bedload), as well as a coordinated effort to unify the methods and techniques of field-based research.

The individual and independent nature of the chapters results in huge variability in content and scientific value. Some chapters have enormous potential and present considerable research outcomes. In particular, Chapter 9, *Sediment and solute transport from Greenland*, by B. Hashholt includes a huge and unique dataset on sediment load formation in Greenland, and Chapter 10, *Measurements of bedload flux in a high Arctic environment*, by M. Kociuba contains unique measurements of bedload transport in Svalbard. Standing alone from the other chapters is the comparative summary of fluvial transport monitoring results from six case studies in Sweden, Norway, Finland and Iceland (Chapter 27 by A. Beylich, in part VI), which provides the first spatially distributed estimate of total annual fluvial yield (39% for solute yield, 46% for suspended sediment yield and 15% for bedload yield). The reported results are not in line with reported values for Greenland (Chapter 10), which illustrates the complexity of the problem and emphasises the

main achievement of the book as the largest collection of novel datasets.

Some of the papers provide significant contributions to the knowledge of sediment budget and sources of solute and sediment transport. Chapters 7, 21, 23 and 24 provide detailed empirical and numerical data on the role of dominant hillslopes versus in-channel processes in sediment transfer in the valleys of Swedish Lapland, Norway, the Himalaya and the Bavarian Alps.

Nonetheless, the quality of several contributions is low, especially in terms of scientific novelty. Some chapters present a very limited amount of data from field studies using simple methods in local rivers (e.g. Chapter 12), and some do not really address the concept of source-to-sink fluxes (e.g. Chapter 18). Furthermore, some chapters are not in the appropriate sections of the book, which could mislead the reader. For example, Chapter 20, *Chemical denudation in partly glacierized mountain catchments of the fjord landscape in western Norway: contemporary rates, environmental controls and possible effects of climate change*, better fits the structure of part III on the Arctic environment.

Although the editors aimed to integrate the various contributions, the book is still a collection of independent chapters. Attempts to make links between different case studies are evident in the summary chapters 13 (for the Arctic environment, part III) and 26 (for alpine/mountain environments, part V), and also in the final chapter 28, but they do not provide a contextually successful narrative for the book. These summaries contain many vague statements and, based on my professional experience, such summaries should contain more quantitative data.

Nevertheless, the book provides a large amount of novel information. Ultimately, it is worthwhile to bring this information to international audiences, particularly considering that some of the papers report outstanding scientific advances, with the first global synthesis and integrated analysis of sediment and solute transport in Greenland, Antarctica and the Himalaya. This book could provide great supplementary reading for hydrology science course at university level and will certainly be of special interest to experts and professionals (Sergey Chalov, Faculty of Geography, Lomonosov Moscow State University, Leninskie Gory 1, 119991, Moscow, Russia (srchalov@geogr.msu.ru)).