

## **Himalayan Mobilities: An Exploration of the Impacts of Expanding Rural Road Networks on Social and Ecological Systems in the Nepalese Himalaya**

Author: Schickhoff, Udo

Source: Mountain Research and Development, 39(1)

Published By: International Mountain Society

URL: <https://doi.org/10.1659/mrd.mm229>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](https://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

## Himalayan Mobilities: An Exploration of the Impacts of Expanding Rural Road Networks on Social and Ecological Systems in the Nepalese Himalaya

By Robert E. Beazley and James P. Lassoie. Springer Briefs in Environmental Science. Cham, Switzerland: Springer International, 2017. v + 166 pp. Softcover: US\$ 69.99, ISBN 978-3-319-55755-7. E-book: US\$ 54.99, ISBN 978-3-319-55757-1.

Within the recent flood of new book series and publication formats in environmental sciences, some noteworthy scholarly research publications can occasionally be found. This small book on expanding road networks in Nepal and related impacts belongs to this category. It deserves the attention of mountain scholars, as it addresses development issues of mountain regions that are often rather neglected and are rarely treated from an interdisciplinary perspective. The booklet evolved from the master's thesis of the first author, which was updated, extended, and upgraded by recent empirical research conducted by both authors.

The first chapter presents a global review of road development, with a strong focus on the history of road development in Nepal, illustrated by impressive photographs of the first motorized vehicles transported by legions of porters over mountain ridges into the Kathmandu Valley in the early 20th century. This introductory chapter also contains a brief overview of road impacts, and it suggests that roads should be viewed as coupled social and ecological systems—a perspective that the authors advocate and adopt throughout the book. The respective literature review on coupled-systems research in the context of road-building impacts on humans and the

environment has, however, significant omissions. For instance, the results of the Culture Area Karakoram Project (CAK), a comprehensive research endeavor that focused on the change that has occurred in the interrelationships among humans, culture, and the environment as a direct consequence of the building of the Karakoram Highway in Gilgit-Baltistan (eg Stellrecht and Winiger 1997; Stellrecht 1998; Stellrecht and Bohle 1998; Dittmann 2000) are not considered (with the exception of Kreutzmann 1991, cited later in the book). The Karakoram Highway has opened up a formerly secluded region to the outside world. The CAK analyzed the subsequent processes of change in the environmental, socioeconomic, and sociocultural spheres, following a coupled-systems approach comparable to that advocated in this volume.

The chapter on mobility as a social and ecological system provides some background information on the “mobilities turn” in the social sciences and on gendered mobility, and then describes mobility patterns in the Nepal Himalaya in greater detail. The importance of mobility as an adaptive livelihood strategy in mountainous regions is highlighted, using examples of transhumance and other seasonal migrations for the purpose of trade or seizing job opportunities. However, in this and the previous chapter, insufficient attention is paid to the issue that the building of many roads in the inaccessible regions of High Asia was initiated due to geostrategic considerations, in particular, in the northwest and the east parts of the Himalayan mountain system.

The next 3 chapters address environmental, socioeconomic, and sociocultural impacts of road building, each starting with a general overview, followed by a closer look on impacts in the Nepal Himalaya and by case studies (Kali Ghandaki Highway, Marsyangdi Highway) that exemplify certain aspects. Reading the chapter on environmental impacts, one gets

the impression that higher erosion rates and the occurrence of landslides have to be almost exclusively attributed to road building. Without a doubt, road construction in Nepal is associated with significantly reinforced mass wasting processes; however, natural erosion rates and landslide losses also merit consideration given the steepness of slopes, tectonic activity, and the erosivity of monsoonal precipitation. The case studies illustrate that the impacts of road building can differ and are sometimes contrasting, suggesting that one should refrain from hasty generalizations. Extending the perspective to the entire Himalayan mountain system, one could easily add examples of contrasting environmental impacts. For instance, the impacts of rural road construction on local forest exploitation span a gradient from very severe (Schickhoff 2009) to negligibly small (Charlery et al 2016). Socioeconomic and sociocultural impacts also vary and are particularly complex, so that each road should be viewed as a unique coupled social and ecological system. In terms of socioeconomic and sociocultural changes, this book must necessarily remain superficial. Nevertheless, it provides an overview of far-ranging influences, and this can be used as a starting point for in-depth studies.

The final chapter discusses emerging trends in Nepal Himalayan mobilities, focusing on ongoing efforts to achieve a better north-south connectivity to enhance regional trade among India, Nepal, and China. It becomes obvious how vulnerable the few important road links are, especially through discussion of the impacts of recent events and changes such as the 2015 Gorkha earthquake or the southern blockade (September 2015 to February 2016). The authors conclude that realization of the potentials and benefits from improved future mobilities will largely depend on the further performance of Nepal's endemic

political stability or instability and on supraregional economic and geopolitical developments.

In summary, this short book gives a concise overview of the development of road networks in the Nepal Himalaya and its environmental, socioeconomic, and sociocultural implications. It highlights both the economic significance and negative influences that roads can have for mountain communities, and it discusses challenges and obstacles on the way to realizing benefits from expanding road connections. It is not only a welcome addition to the library of scholars committed to mountain research, but it is also appropriate for

undergraduate and graduate students as well as for planning professionals.

#### REFERENCES

- Charlery L, Nielsen MR, Meilby H, Smith-Hall C.** 2016. Effects of new roads on environmental resource use in the Central Himalaya. *Sustainability* 8(4):363. <https://dx.doi.org/10.3390/su8040363>.
- Dittmann A, editor.** 2000. *Mountain Societies in Transition: Contributions to the Cultural Geography of the Karakorum*. Cologne, Germany: Rüdiger Köppe Verlag.
- Kreutzmann H.** 1991. The Karakoram Highway: The impact of road construction on mountain societies. *Modern Asian Studies* 25(4):711–736.
- Schickhoff U.** 2009. Human impact on high altitude forests in northern Pakistan: Degradation processes and root causes. In: Singh RB, editor. *Biogeography and Biodiversity*. Jaipur, India: Rawat, pp 76–90.
- Stellrecht I, editor.** 1998. *Karakorum–Hindukush–Himalaya: Dynamics of Change*. Parts I and II. Cologne, Germany: Rüdiger Köppe Verlag.

**Stellrecht I, Bohle HG, editors.** 1998. *Transformation of Social and Economic Relationships in Northern Pakistan*. Cologne, Germany: Rüdiger Köppe Verlag.

**Stellrecht I, Winiger M, editors.** 1997. *Perspectives on History and Change in the Karakorum, Hindukush, and Himalaya*. Cologne, Germany: Rüdiger Köppe Verlag.

#### AUTHOR

##### Udo Schickhoff

[udo.schickhoff@uni-hamburg.de](mailto:udo.schickhoff@uni-hamburg.de)  
CEN Center for Earth System Research and Sustainability, Institute of Geography, University of Hamburg, 20146 Hamburg, Germany

© 2019 Schickhoff. This open access article is licensed under a Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>). Please credit the authors and the full source.