

Kraehnert, Kati; Groppo, Valeria

## Conference Paper

# Weather shocks and education in Mongolia

Beiträge zur Jahrestagung des Vereins für Socialpolitik 2015: Ökonomische Entwicklung - Theorie und Politik - Session: Development, No. A22-V2

### Provided in Cooperation with:

Verein für Socialpolitik / German Economic Association

*Suggested Citation:* Kraehnert, Kati; Groppo, Valeria (2015) : Weather shocks and education in Mongolia, Beiträge zur Jahrestagung des Vereins für Socialpolitik 2015: Ökonomische Entwicklung - Theorie und Politik - Session: Development, No. A22-V2, ZBW - Deutsche Zentralbibliothek für Wirtschaftswissenschaften, Leibniz-Informationszentrum Wirtschaft

This Version is available at:

<https://hdl.handle.net/10419/113161>

### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

### Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# Weather shocks and education in Mongolia

28 February 2015

## Abstract

This paper analyzes the impact of extreme weather shocks on education outcomes in Mongolia. Our focus is on particularly harsh winters that caused mass livestock mortality (called *dzud* in Mongolian) between 1999 and 2002 and in 2009/2010. The timing of events allows us to analyze both short- and long-term effects of weather shocks on education. Our analysis disentangles the effects by age of exposure. Moreover, we provide new evidence on which households' socio-economic characteristics and coping strategies are associated with worse or milder impacts of the shock. The data basis is an unusually detailed household survey that comprises rich information on households' shock experience and retrospective information on households' pre-shock socio-economic status. Various measures of shock intensity are derived from data on snow depth and livestock mortality. We mainly employ a difference-in-differences econometric approach, which allows to draw causal inference by exploiting exogenous variation in shock exposure across space and age cohorts. Results show that weather shocks negatively affect education both in the short- and in the long-term. Individuals from herding households with poorer socio-economic backgrounds appear to be particularly affected. Individuals exposed during pre-schooling age bear persistent negative human capital effects.

**Key words:** human capital accumulation, weather shocks, Mongolia, coping strategies

**JEL:** I25, Q54, O12